

## Results of Directional Survey

|             |                     |           |                                     |
|-------------|---------------------|-----------|-------------------------------------|
| API number: | <b>30-025-41776</b> |           |                                     |
| OGRID:      |                     | Operator: | <b>COG PRODUCTION, LLC</b>          |
|             |                     | Property: | <b>TREASURE ISLAND FEDERAL</b> # 1H |

|         |        |          |           |                |                |
|---------|--------|----------|-----------|----------------|----------------|
| surface | ULSTR: | <b>P</b> | <b>23</b> | <b>T 24S</b>   | <b>R 32E</b>   |
|         |        |          |           | <b>190 FSL</b> | <b>380 FEL</b> |

|                 |           |                |            |                |                |
|-----------------|-----------|----------------|------------|----------------|----------------|
| BH Loc          | ULSTR:    | <b>A</b>       | <b>23</b>  | <b>T 24S</b>   | <b>R 32E</b>   |
| <b>15310</b>    | <b>MD</b> | <b>10721.8</b> | <b>TVD</b> | <b>362 FNL</b> | <b>422 FEL</b> |
| <b>4918 FSL</b> |           |                |            |                |                |

|              |           |                |            |                |                |
|--------------|-----------|----------------|------------|----------------|----------------|
| Top Perf/OH  | ULSTR:    | <b>P</b>       | <b>23</b>  | <b>T 24S</b>   | <b>R 32E</b>   |
| <b>10855</b> | <b>MD</b> | <b>10711.3</b> | <b>TVD</b> | <b>467 FSL</b> | <b>409 FEL</b> |

|                 |           |                |            |                |                |
|-----------------|-----------|----------------|------------|----------------|----------------|
| Bot Perf/OH     | ULSTR:    | <b>A</b>       | <b>23</b>  | <b>T 24S</b>   | <b>R 32E</b>   |
| <b>15260</b>    | <b>MD</b> | <b>10723.0</b> | <b>TVD</b> | <b>412 FNL</b> | <b>421 FEL</b> |
| <b>4868 FSL</b> |           |                |            |                |                |

|              | MD              | N/S     | E/W    | VD       |
|--------------|-----------------|---------|--------|----------|
|              | 10831.00        | 254.12  | -28.63 | 10704.71 |
| TOP PERFS/OH | <b>10855.00</b> | 277.18  | -28.77 | 10711.32 |
|              | 10862.00        | 283.91  | -28.81 | 10713.25 |
|              | 15210.00        | 4627.77 | -40.43 | 10724.19 |
| BOT PERFS/OH | <b>15260.00</b> | 4677.74 | -41.21 | 10722.96 |
|              | 15261.00        | 4678.74 | -41.23 | 10722.94 |

|              |                 |         |        |          |
|--------------|-----------------|---------|--------|----------|
| NEXT TO LAST | 15261.00        | 4678.74 | -41.23 | 10722.94 |
| LAST READING | 15310.00        | 4727.72 | -42.08 | 10721.83 |
| TD           | <b>15310.00</b> | 4727.72 | -42.08 | 10721.83 |

|                  |      |    |     |    |
|------------------|------|----|-----|----|
| Surface Location | 190  | FS | 380 | FE |
| Projected BHL    | 4918 | FS | 422 | FE |
| Location of      |      |    |     |    |
| Top Perfs/OH     | 467  | FS | 409 | FE |
| Bottom Perfs/OH  | 4868 | FS | 421 | FE |

### SUMMARY of Subsurface Locations

| Surface Location | P-23-24S-32E | 190  | FS | 380 | FE | Vert. Depth |
|------------------|--------------|------|----|-----|----|-------------|
|                  |              |      |    |     |    |             |
| Top Perfs/OH     | P-23-24S-32E | 467  | FS | 409 | FE | 10711.32    |
| Bottom Perfs/OH  | A-23-24S-32E | 4868 | FS | 421 | FE | 10722.96    |
|                  |              |      |    |     |    |             |
| Projected TD     | A-23-24S-32E | 4918 | FS | 422 | FE | 10721.83    |

DEC 10 2014

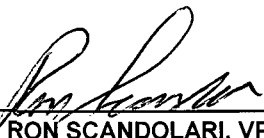
OPERATOR COG Operating  
WELL/LEASE Treasure Island Federal # 1-H  
COUNTY Lea Co., NM

STATE OF NEW MEXICO  
DEVIATION REPORT

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|       |      |
|-------|------|
| 301   | 0.75 |
| 577   | 0.54 |
| 881   | 0.57 |
| 1171  | 0.40 |
| 1446  | 0.90 |
| 1727  | 0.70 |
| 2010  | 0.70 |
| 2293  | 0.60 |
| 2861  | 0.10 |
| 3144  | 0.60 |
| 3427  | 1.30 |
| 4278  | 1.50 |
| 4561  | 2.60 |
| 4865  | 0.70 |
| 5067  | 0.55 |
| 5512  | 0.72 |
| 5968  | 0.14 |
| 6472  | 0.16 |
| 6788  | 0.10 |
| 7271  | 0.60 |
| 7773  | 1.60 |
| 8406  | 1.20 |
| 8722  | 0.80 |
| 9221  | 1.00 |
| 9691  | 1.20 |
| 10063 | 0.90 |
| 10159 | 0.80 |

SIGNED BY:

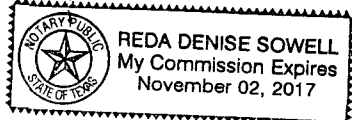


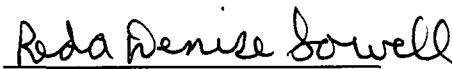
RON SCANDOLARI, VP-CONTRACT DRILLING

STATE OF TEXAS  
COUNTY OF MIDLAND

ON THIS 8 DAY OF September, 2014, BEFORE ME, R SOWELL, A NOTARY  
PUBLIC, PERSONALLY APPEARED RON SCANDOLARI, WHO ACKNOWLEDGED AND EXECUTED  
THIS DOCUMENT. WITNESS MY HAND AND OFFICIAL SEAL.

(SEAL)



  
NOTARY PUBLIC



September 4, 2014

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

Attn: Kanicia Castillo

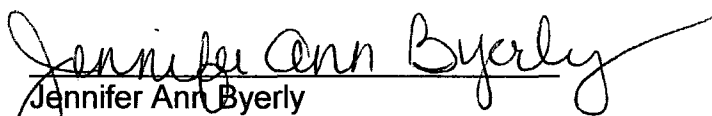
RE: **Treasure Island Federal No. 001H**

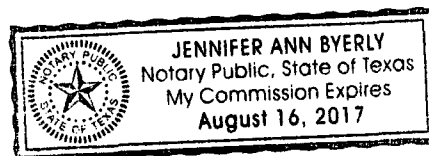
Please find enclosed a copy of the survey from 0.00' to 9827.00' ran on the above referenced well.

Sincerely,  
  
Keith Havelka  
Operations

STATE OF TEXAS       §  
                                  §  
COUNTY OF NUECES   §

This instrument was acknowledged before me on the 4 day of September A.D., 2014, by Keith Havelka.

  
Jennifer Ann Byerly  
Notary Public, State of Texas





Company: COG Operating, LLC (Concho)  
 Lease/Well: Treasure Island Federal/No. 001H  
 Location: 24 Mile from Magala  
 Rig Name: Basic 46  
 State/County: New Mexico/Lea  
 Latitude: 32.20, Longitude: -103.64  
 GRID North is 0.37 Degrees East of True North  
 VS-Azi: 0.00 Degrees

Depth Reference : RKB =22 Foot

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: ...and federal 1h\_gyro survey.ut

Minimum Curvature Method

Report Date/Time: 9/4/2014 / 10:53

VES Survey International

West Texas

(432) 563-5444

Surveyor: Gene Heiss

Treasure Island Federal No. 001H / API 30-025-41776

| 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                  | 0.45                 | 179.92                    | 100.00    | -0.39       | 0.00        | -0.39                     | 0.39                      | 179.92                      | 0.45                          |
| 200.00                  | 0.05                 | 252.11                    | 200.00    | -0.79       | -0.04       | -0.79                     | 0.79                      | 183.04                      | 0.43                          |
| 300.00                  | 0.26                 | 157.49                    | 300.00    | -1.02       | 0.00        | -1.02                     | 1.02                      | 179.84                      | 0.27                          |
| 400.00                  | 0.40                 | 184.42                    | 400.00    | -1.58       | 0.06        | -1.58                     | 1.58                      | 177.66                      | 0.20                          |
| 500.00                  | 0.36                 | 166.90                    | 499.99    | -2.23       | 0.11        | -2.23                     | 2.23                      | 177.20                      | 0.12                          |
| 600.00                  | 0.32                 | 145.62                    | 599.99    | -2.77       | 0.34        | -2.77                     | 2.79                      | 172.99                      | 0.13                          |
| 700.00                  | 0.32                 | 126.21                    | 699.99    | -3.17       | 0.72        | -3.17                     | 3.25                      | 167.14                      | 0.11                          |
| 800.00                  | 0.10                 | 156.91                    | 799.99    | -3.41       | 0.98        | -3.41                     | 3.55                      | 163.96                      | 0.24                          |
| 900.00                  | 0.24                 | 200.62                    | 899.99    | -3.69       | 0.94        | -3.69                     | 3.81                      | 165.72                      | 0.19                          |
| 1000.00                 | 0.22                 | 215.09                    | 999.99    | -4.05       | 0.75        | -4.05                     | 4.12                      | 169.44                      | 0.06                          |
| 1100.00                 | 0.55                 | 259.69                    | 1099.99   | -4.29       | 0.17        | -4.29                     | 4.29                      | 177.68                      | 0.42                          |
| 1200.00                 | 0.69                 | 329.45                    | 1199.98   | -3.85       | -0.60       | -3.85                     | 3.90                      | 188.92                      | 0.72                          |
| 1300.00                 | 0.73                 | 310.23                    | 1299.97   | -2.92       | -1.40       | -2.92                     | 3.24                      | 205.60                      | 0.24                          |
| 1400.00                 | 0.68                 | 315.18                    | 1399.97   | -2.09       | -2.30       | -2.09                     | 3.11                      | 227.78                      | 0.08                          |
| 1500.00                 | 0.81                 | 339.59                    | 1499.96   | -1.01       | -2.97       | -1.01                     | 3.13                      | 251.24                      | 0.34                          |
| 1600.00                 | 0.72                 | 342.18                    | 1599.95   | 0.25        | -3.40       | 0.25                      | 3.41                      | 274.23                      | 0.10                          |
| 1700.00                 | 0.51                 | 325.01                    | 1699.94   | 1.21        | -3.85       | 1.21                      | 4.03                      | 287.44                      | 0.28                          |
| 1800.00                 | 0.87                 | 318.88                    | 1799.94   | 2.14        | -4.60       | 2.14                      | 5.07                      | 294.96                      | 0.37                          |

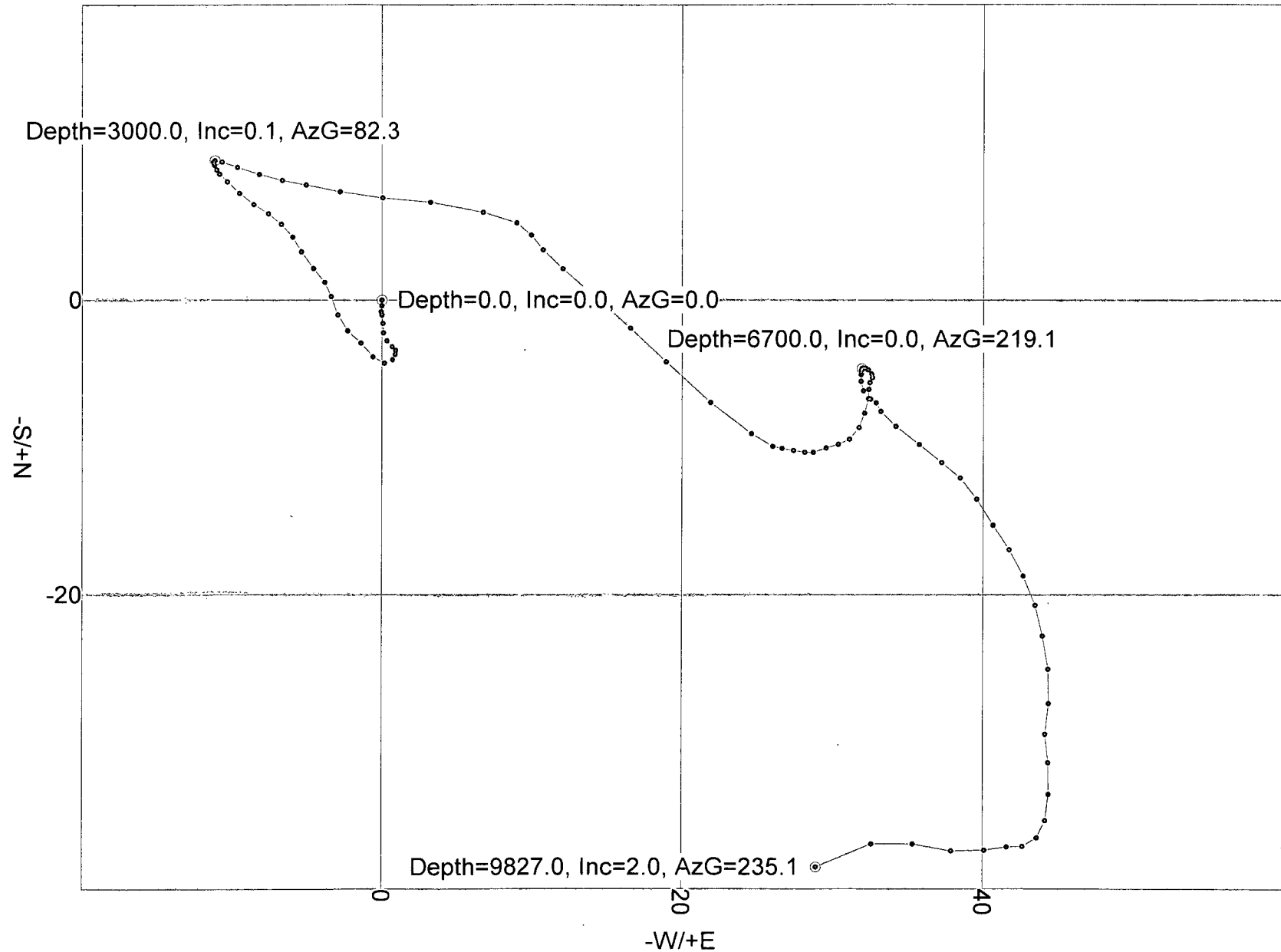
| Measured<br>Depth<br>FT | Incl<br>Angle<br>Deg | Drift<br>Direction<br>Deg | TVD<br>FT | +N/-S<br>FT | +E/-W<br>FT | Vertical<br>Section<br>FT | Closure<br>Distance<br>FT | Closure<br>Direction<br>Deg | Dogleg<br>Severity<br>Deg/100 |
|-------------------------|----------------------|---------------------------|-----------|-------------|-------------|---------------------------|---------------------------|-----------------------------|-------------------------------|
| 1900.00                 | 0.73                 | 332.12                    | 1899.93   | 3.27        | -5.39       | 3.27                      | 6.31                      | 301.25                      | 0.23                          |
| 2000.00                 | 0.59                 | 326.06                    | 1999.92   | 4.26        | -5.98       | 4.26                      | 7.34                      | 305.48                      | 0.15                          |
| 2100.00                 | 0.74                 | 312.79                    | 2099.91   | 5.13        | -6.74       | 5.13                      | 8.47                      | 307.27                      | 0.21                          |
| 2200.00                 | 0.56                 | 304.87                    | 2199.91   | 5.85        | -7.62       | 5.85                      | 9.60                      | 307.51                      | 0.20                          |
| 2300.00                 | 0.77                 | 300.51                    | 2299.90   | 6.47        | -8.60       | 6.47                      | 10.76                     | 306.96                      | 0.21                          |
| 2400.00                 | 0.66                 | 316.26                    | 2399.89   | 7.22        | -9.57       | 7.22                      | 11.99                     | 307.04                      | 0.22                          |
| 2500.00                 | 0.65                 | 311.21                    | 2499.89   | 8.01        | -10.39      | 8.01                      | 13.12                     | 307.62                      | 0.06                          |
| 2600.00                 | 0.19                 | 325.91                    | 2599.88   | 8.52        | -10.91      | 8.52                      | 13.84                     | 307.98                      | 0.46                          |
| 2700.00                 | 0.22                 | 328.03                    | 2699.88   | 8.81        | -11.10      | 8.81                      | 14.17                     | 308.45                      | 0.03                          |
| 2800.00                 | 0.19                 | 341.14                    | 2799.88   | 9.13        | -11.25      | 9.13                      | 14.49                     | 309.05                      | 0.05                          |
| 2900.00                 | 0.08                 | 356.88                    | 2899.88   | 9.35        | -11.31      | 9.35                      | 14.68                     | 309.60                      | 0.11                          |
| 3000.00                 | 0.11                 | 82.29                     | 2999.88   | 9.44        | -11.22      | 9.44                      | 14.66                     | 310.07                      | 0.13                          |
| 3100.00                 | 0.46                 | 105.01                    | 3099.88   | 9.35        | -10.74      | 9.35                      | 14.24                     | 311.03                      | 0.36                          |
| 3200.00                 | 0.81                 | 111.66                    | 3199.87   | 8.99        | -9.70       | 8.99                      | 13.22                     | 312.80                      | 0.36                          |
| 3300.00                 | 0.96                 | 104.58                    | 3299.86   | 8.51        | -8.24       | 8.51                      | 11.84                     | 315.95                      | 0.19                          |
| 3400.00                 | 0.88                 | 105.08                    | 3399.85   | 8.10        | -6.68       | 8.10                      | 10.50                     | 320.49                      | 0.08                          |
| 3500.00                 | 0.99                 | 96.86                     | 3499.84   | 7.80        | -5.09       | 7.80                      | 9.31                      | 326.89                      | 0.17                          |
| 3600.00                 | 1.67                 | 104.11                    | 3599.81   | 7.34        | -2.82       | 7.34                      | 7.87                      | 338.99                      | 0.70                          |
| 3700.00                 | 1.68                 | 92.67                     | 3699.77   | 6.92        | 0.05        | 6.92                      | 6.92                      | 0.42                        | 0.33                          |
| 3800.00                 | 2.04                 | 97.94                     | 3799.71   | 6.61        | 3.27        | 6.61                      | 7.37                      | 26.34                       | 0.40                          |
| 3900.00                 | 2.06                 | 103.66                    | 3899.65   | 5.94        | 6.77        | 5.94                      | 9.01                      | 48.76                       | 0.21                          |
| 4000.00                 | 0.68                 | 119.04                    | 3999.62   | 5.23        | 9.03        | 5.23                      | 10.44                     | 59.95                       | 1.41                          |
| 4100.00                 | 0.82                 | 139.67                    | 4099.61   | 4.39        | 10.01       | 4.39                      | 10.94                     | 66.31                       | 0.30                          |
| 4200.00                 | 0.63                 | 144.51                    | 4199.60   | 3.40        | 10.80       | 3.40                      | 11.32                     | 72.51                       | 0.20                          |
| 4300.00                 | 1.49                 | 130.13                    | 4299.59   | 2.11        | 12.11       | 2.11                      | 12.29                     | 80.10                       | 0.89                          |
| 4400.00                 | 1.91                 | 133.08                    | 4399.54   | 0.14        | 14.32       | 0.14                      | 14.33                     | 89.46                       | 0.43                          |
| 4500.00                 | 1.58                 | 131.24                    | 4499.49   | -1.91       | 16.58       | -1.91                     | 16.69                     | 96.58                       | 0.34                          |
| 4600.00                 | 2.20                 | 135.67                    | 4599.44   | -4.19       | 18.96       | -4.19                     | 19.42                     | 102.48                      | 0.64                          |
| 4700.00                 | 2.43                 | 130.81                    | 4699.36   | -6.95       | 21.91       | -6.95                     | 22.98                     | 107.61                      | 0.30                          |
| 4800.00                 | 1.53                 | 123.77                    | 4799.30   | -9.08       | 24.62       | -9.08                     | 26.24                     | 110.25                      | 0.93                          |
| 4900.00                 | 0.38                 | 110.23                    | 4899.28   | -9.94       | 26.04       | -9.94                     | 27.88                     | 110.89                      | 1.17                          |
| 5000.00                 | 0.35                 | 94.21                     | 4999.28   | -10.08      | 26.66       | -10.08                    | 28.50                     | 110.71                      | 0.11                          |
| 5100.00                 | 0.55                 | 103.85                    | 5099.28   | -10.21      | 27.42       | -10.21                    | 29.26                     | 110.43                      | 0.21                          |
| 5200.00                 | 0.33                 | 91.98                     | 5199.27   | -10.34      | 28.17       | -10.34                    | 30.01                     | 110.15                      | 0.24                          |
| 5300.00                 | 0.33                 | 86.23                     | 5299.27   | -10.33      | 28.75       | -10.33                    | 30.55                     | 109.76                      | 0.03                          |
| 5400.00                 | 0.70                 | 64.46                     | 5399.27   | -10.05      | 29.59       | -10.05                    | 31.25                     | 108.75                      | 0.41                          |
| 5500.00                 | 0.31                 | 92.76                     | 5499.26   | -9.80       | 30.41       | -9.80                     | 31.95                     | 107.86                      | 0.45                          |
| 5600.00                 | 0.65                 | 52.17                     | 5599.26   | -9.46       | 31.13       | -9.46                     | 32.53                     | 106.90                      | 0.47                          |
| 5700.00                 | 0.55                 | 23.15                     | 5699.26   | -8.66       | 31.77       | -8.66                     | 32.93                     | 105.25                      | 0.32                          |

| 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 |
|-------------------------|----------------------|---------------------------|-----------|-------------|-------------|---------------------------|---------------------------|-----------------------------|-------------------------------|
| 5800.00                 | 0.64                 | 18.80                     | 5799.25   | -7.69       | 32.14       | -7.69                     | 33.05                     | 103.45                      | 0.10                          |
| 5900.00                 | 0.51                 | 9.14                      | 5899.24   | -6.71       | 32.39       | -6.71                     | 33.08                     | 101.71                      | 0.16                          |
| 6000.00                 | 0.22                 | 346.06                    | 5999.24   | -6.08       | 32.42       | -6.08                     | 32.98                     | 100.63                      | 0.32                          |
| 6100.00                 | 0.35                 | 22.44                     | 6099.24   | -5.62       | 32.49       | -5.62                     | 32.97                     | 99.81                       | 0.21                          |
| 6200.00                 | 0.09                 | 53.01                     | 6199.24   | -5.29       | 32.66       | -5.29                     | 33.09                     | 99.20                       | 0.28                          |
| 6300.00                 | 0.28                 | 329.67                    | 6299.24   | -5.04       | 32.60       | -5.04                     | 32.99                     | 98.78                       | 0.28                          |
| 6400.00                 | 0.15                 | 310.10                    | 6399.24   | -4.74       | 32.38       | -4.74                     | 32.73                     | 98.33                       | 0.15                          |
| 6500.00                 | 0.10                 | 292.91                    | 6499.24   | -4.63       | 32.20       | -4.63                     | 32.53                     | 98.18                       | 0.06                          |
| 6600.00                 | 0.08                 | 251.99                    | 6599.24   | -4.62       | 32.05       | -4.62                     | 32.38                     | 98.19                       | 0.07                          |
| 6700.00                 | 0.04                 | 219.14                    | 6699.24   | -4.67       | 31.96       | -4.67                     | 32.30                     | 98.31                       | 0.06                          |
| 6800.00                 | 0.13                 | 191.22                    | 6799.24   | -4.80       | 31.92       | -4.80                     | 32.27                     | 98.56                       | 0.09                          |
| 6900.00                 | 0.20                 | 176.30                    | 6899.24   | -5.08       | 31.90       | -5.08                     | 32.31                     | 99.05                       | 0.08                          |
| 7000.00                 | 0.31                 | 181.17                    | 6999.24   | -5.52       | 31.91       | -5.52                     | 32.38                     | 99.82                       | 0.12                          |
| 7100.00                 | 0.47                 | 156.19                    | 7099.24   | -6.17       | 32.07       | -6.17                     | 32.66                     | 100.89                      | 0.23                          |
| 7200.00                 | 0.40                 | 121.55                    | 7199.23   | -6.73       | 32.54       | -6.73                     | 33.23                     | 101.69                      | 0.27                          |
| 7300.00                 | 0.12                 | 139.22                    | 7299.23   | -6.99       | 32.90       | -6.99                     | 33.64                     | 102.00                      | 0.30                          |
| 7400.00                 | 0.64                 | 152.12                    | 7399.23   | -7.56       | 33.23       | -7.56                     | 34.08                     | 102.83                      | 0.53                          |
| 7500.00                 | 1.03                 | 124.85                    | 7499.22   | -8.58       | 34.23       | -8.58                     | 35.29                     | 104.06                      | 0.55                          |
| 7600.00                 | 1.22                 | 132.07                    | 7599.20   | -9.81       | 35.77       | -9.81                     | 37.09                     | 105.33                      | 0.24                          |
| 7700.00                 | 0.98                 | 126.47                    | 7699.18   | -11.03      | 37.24       | -11.03                    | 38.84                     | 106.49                      | 0.27                          |
| 7800.00                 | 0.89                 | 134.92                    | 7799.17   | -12.08      | 38.47       | -12.08                    | 40.33                     | 107.43                      | 0.16                          |
| 7900.00                 | 1.19                 | 148.57                    | 7899.15   | -13.51      | 39.56       | -13.51                    | 41.81                     | 108.86                      | 0.39                          |
| 8000.00                 | 1.18                 | 148.30                    | 7999.13   | -15.27      | 40.64       | -15.27                    | 43.42                     | 110.59                      | 0.01                          |
| 8100.00                 | 1.09                 | 145.26                    | 8099.11   | -16.93      | 41.73       | -16.93                    | 45.03                     | 112.09                      | 0.10                          |
| 8200.00                 | 1.23                 | 158.51                    | 8199.09   | -18.72      | 42.67       | -18.72                    | 46.59                     | 113.69                      | 0.30                          |
| 8300.00                 | 1.24                 | 156.44                    | 8299.07   | -20.70      | 43.49       | -20.70                    | 48.17                     | 115.46                      | 0.04                          |
| 8400.00                 | 1.26                 | 177.16                    | 8399.04   | -22.79      | 43.98       | -22.79                    | 49.53                     | 117.40                      | 0.45                          |
| 8500.00                 | 1.37                 | 163.94                    | 8499.02   | -25.04      | 44.36       | -25.04                    | 50.94                     | 119.44                      | 0.32                          |
| 8600.00                 | 1.41                 | 193.93                    | 8598.99   | -27.38      | 44.40       | -27.38                    | 52.16                     | 121.66                      | 0.72                          |
| 8700.00                 | 1.01                 | 175.88                    | 8698.97   | -29.45      | 44.16       | -29.45                    | 53.08                     | 123.70                      | 0.55                          |
| 8800.00                 | 1.22                 | 172.28                    | 8798.95   | -31.39      | 44.37       | -31.39                    | 54.35                     | 125.28                      | 0.22                          |
| 8900.00                 | 1.27                 | 185.76                    | 8898.92   | -33.55      | 44.40       | -33.55                    | 55.65                     | 127.07                      | 0.30                          |
| 9000.00                 | 0.79                 | 189.40                    | 8998.91   | -35.33      | 44.18       | -35.33                    | 56.57                     | 128.65                      | 0.48                          |
| 9100.00                 | 0.76                 | 221.36                    | 9098.90   | -36.51      | 43.63       | -36.51                    | 56.89                     | 129.92                      | 0.43                          |
| 9200.00                 | 0.63                 | 260.83                    | 9198.89   | -37.10      | 42.64       | -37.10                    | 56.52                     | 131.02                      | 0.49                          |
| 9300.00                 | 0.59                 | 277.17                    | 9298.89   | -37.12      | 41.59       | -37.12                    | 55.74                     | 131.75                      | 0.18                          |
| 9400.00                 | 1.16                 | 252.96                    | 9398.87   | -37.35      | 40.11       | -37.35                    | 54.81                     | 132.97                      | 0.67                          |
| 9500.00                 | 1.43                 | 281.32                    | 9498.85   | -37.41      | 37.91       | -37.41                    | 53.26                     | 134.62                      | 0.69                          |
| 9600.00                 | 1.52                 | 280.43                    | 9598.82   | -36.92      | 35.39       | -36.92                    | 51.14                     | 136.22                      | 0.09                          |

| 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 |
|-------------------------|----------------------|---------------------------|-----------|-------------|-------------|---------------------------|---------------------------|-----------------------------|-------------------------------|
| 9700.00                 | 1.68                 | 260.65                    | 9698.78   | -36.92      | 32.64       | -36.92                    | 49.28                     | 138.52                      | 0.57                          |
| 9827.00                 | 2.03                 | 235.14                    | 9825.71   | -38.51      | 28.96       | -38.51                    | 48.18                     | 143.06                      | 0.70                          |



VES Survey International  
West Texas  
(432) 563-5444  
Surveyor: Gene Heiss  
Treasure Island Federal No. 001H / API 30-025-41776



VES Survey Date: 08/22/2014



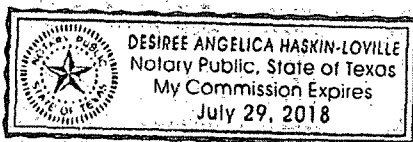
State of New Mexico  
County of Lea

I, Michael K. Baber, certify that: I am employed by Terra Directional Services LLC; that I did on the day(s) of 8/11/14 through 9/1/14 conduct or supervise the taking of a MWD survey from a depth of 9876 feet to a depth 15310 feet; that the data is true, correct, complete and within the limitations of the tool as set forth by Terra Directional Services, LLC; that I am authorized and qualified to make this report; that this survey was conducted at the request of Concho Oil & Gas for the Treasure Island #1H Well API 30-025-41667 in Lea County, New Mexico; and that I have reviewed this report and find that it conforms to the principles and procedures as set forth by Terra Directional Services LLC.

Michael K. Baber  
MWD Operations Manager

State of Texas  
County of Montgomery

Before me, a notary public, on this day personally appeared Michael K. Baber, known to me to be the person whose name is subscribed to the foregoing document and, being by me first duly sworn, declared that the statements therein contained are true and correct.

  
Notary Public's Signature



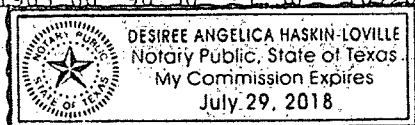
Customer Name: COG Operating, LLC.  
Well Name: Treasure Island Feder.  
API Number: 30-025-41776  
County / Parish: 32.196282° N / 103.6°

M.W.D. Operator: Stacy Ogle  
Directional Driller: Chad Moore  
Total Magnetic Correction: 6.95  
Job #: NM-461

Vertical Section: 359.74

Tie In Survey(s) Provided By:

|          | Meas. Depth | Inc.  | Azm.   | T.V.D.   | Ver. Sect. | +N / -S | +E / -W | Dist.   | Angle  | DLS   |
|----------|-------------|-------|--------|----------|------------|---------|---------|---------|--------|-------|
| Tie - In |             |       |        |          |            |         |         |         |        |       |
| 0        | 9827.00     | 2.03  | 235.14 | 9825.70  | -38.60     | -38.50  | 29.00   | 0.00    | 0.00   | 0.00  |
| 1        | 9876.00     | 2.10  | 208.60 | 9874.67  | -39.91     | -39.78  | 27.86   | 48.57   | 145.00 | 1.94  |
| 2        | 9970.00     | 2.60  | 204.20 | 9968.59  | -43.36     | -43.24  | 26.16   | 50.54   | 148.83 | 0.57  |
| 3        | 10065.00    | 0.90  | 264.90 | 10063.55 | -45.38     | -45.27  | 24.53   | 51.49   | 151.55 | 2.42  |
| 4        | 10159.00    | 0.80  | 281.80 | 10157.54 | -45.31     | -45.20  | 23.16   | 50.79   | 152.88 | 0.29  |
| 5        | 10222.00    | 1.40  | 337.40 | 10220.53 | -44.51     | -44.40  | 22.43   | 49.75   | 153.20 | 1.83  |
| 6        | 10254.00    | 3.60  | 8.30   | 10252.50 | -43.15     | -43.05  | 22.42   | 48.54   | 152.49 | 7.83  |
| 7        | 10286.00    | 5.80  | 7.40   | 10284.39 | -40.55     | -40.45  | 22.78   | 46.42   | 150.62 | 6.88  |
| 8        | 10317.00    | 8.50  | 356.50 | 10315.14 | -36.71     | -36.61  | 22.84   | 43.15   | 148.04 | 9.71  |
| 9        | 10348.00    | 11.70 | 349.70 | 10345.66 | -31.33     | -31.23  | 22.14   | 38.28   | 144.67 | 11.00 |
| 10       | 10380.00    | 15.80 | 345.20 | 10376.74 | -23.91     | -23.82  | 20.44   | 31.39   | 139.36 | 13.23 |
| 11       | 10411.00    | 20.00 | 344.00 | 10406.23 | -14.72     | -14.64  | 17.90   | 23.13   | 129.28 | 13.60 |
| 12       | 10443.00    | 23.10 | 344.10 | 10435.99 | -3.41      | -3.34   | 14.67   | 15.05   | 102.83 | 9.69  |
| 13       | 10474.00    | 25.70 | 344.00 | 10464.22 | 8.92       | 8.97    | 11.15   | 14.31   | 51.19  | 8.39  |
| 14       | 10506.00    | 27.90 | 344.30 | 10492.78 | 22.82      | 22.85   | 7.22    | 23.96   | 17.52  | 6.89  |
| 15       | 10537.00    | 30.40 | 344.30 | 10519.85 | 37.37      | 37.39   | 3.13    | 37.52   | 4.79   | 8.06  |
| 16       | 10568.00    | 33.50 | 343.70 | 10546.15 | 53.16      | 53.15   | -1.39   | 53.17   | 358.50 | 10.05 |
| 17       | 10600.00    | 37.70 | 344.50 | 10572.17 | 71.09      | 71.06   | -6.49   | 71.36   | 354.78 | 13.21 |
| 18       | 10631.00    | 41.70 | 347.20 | 10596.01 | 90.31      | 90.26   | -11.31  | 90.97   | 352.86 | 14.05 |
| 19       | 10663.00    | 46.00 | 349.20 | 10619.09 | 112.03     | 111.96  | -15.83  | 113.07  | 351.95 | 14.12 |
| 20       | 10694.00    | 51.20 | 350.30 | 10639.58 | 134.92     | 134.83  | -19.95  | 136.30  | 351.58 | 16.98 |
| 21       | 10726.00    | 56.30 | 353.10 | 10658.50 | 160.47     | 160.36  | -23.66  | 162.10  | 351.61 | 17.43 |
| 22       | 10757.00    | 60.80 | 355.60 | 10674.67 | 186.79     | 186.67  | -26.25  | 188.51  | 352.00 | 16.06 |
| 23       | 10789.00    | 65.10 | 358.00 | 10689.22 | 215.24     | 215.12  | -27.83  | 216.91  | 352.63 | 15.00 |
| 24       | 10831.00    | 71.60 | 359.60 | 10704.71 | 254.25     | 254.12  | -28.63  | 255.73  | 353.57 | 15.88 |
| 25       | 10862.00    | 76.40 | 359.70 | 10713.25 | 284.04     | 283.91  | -28.81  | 285.37  | 354.21 | 15.49 |
| 26       | 10894.00    | 79.20 | 359.60 | 10720.01 | 315.31     | 315.18  | -29.00  | 316.52  | 354.74 | 8.76  |
| 27       | 10925.00    | 81.70 | 359.40 | 10725.16 | 345.88     | 345.75  | -29.27  | 346.99  | 355.16 | 8.09  |
| 28       | 10957.00    | 85.10 | 359.50 | 10728.83 | 377.66     | 377.53  | -29.58  | 378.69  | 355.52 | 10.63 |
| 29       | 10988.00    | 86.00 | 0.40   | 10731.24 | 408.57     | 408.44  | -29.60  | 409.51  | 355.85 | 4.10  |
| 30       | 11020.00    | 86.20 | 0.50   | 10733.42 | 440.49     | 440.36  | -29.35  | 441.34  | 356.19 | 0.70  |
| 31       | 11051.00    | 87.70 | 0.80   | 10735.07 | 471.44     | 471.32  | -29.00  | 472.21  | 356.48 | 4.93  |
| 32       | 11083.00    | 89.80 | 1.30   | 10735.76 | 503.43     | 503.30  | -28.41  | 504.10  | 356.77 | 6.75  |
| 33       | 11114.00    | 90.30 | 1.70   | 10735.74 | 534.41     | 534.29  | -27.60  | 535.00  | 357.04 | 2.07  |
| 34       | 11145.00    | 91.00 | 1.40   | 10735.38 | 565.39     | 565.28  | -26.76  | 565.91  | 357.29 | 2.46  |
| 35       | 11177.00    | 90.50 | 1.80   | 10734.97 | 597.37     | 597.26  | -25.87  | 597.82  | 357.52 | 2.00  |
| 36       | 11209.00    | 90.50 | 2.00   | 10734.69 | 629.35     | 629.24  | -24.81  | 629.73  | 357.74 | 0.62  |
| 37       | 11240.00    | 90.80 | 2.50   | 10734.33 | 660.32     | 660.22  | -23.59  | 660.64  | 357.95 | 1.88  |
| 38       | 11335.00    | 90.40 | 2.60   | 10733.34 | 755.20     | 755.12  | -19.37  | 755.37  | 358.53 | 0.43  |
| 39       | 11430.00    | 92.20 | 2.30   | 10731.18 | 850.06     | 850.00  | -15.31  | 850.14  | 358.97 | 1.92  |
| 40       | 11524.00    | 91.50 | 3.10   | 10728.15 | 943.89     | 943.85  | -10.88  | 943.91  | 359.34 | 1.13  |
| 41       | 11619.00    | 91.80 | 3.50   | 10725.41 | 1038.67    | 1038.65 | -5.41   | 1038.67 | 359.70 | 0.53  |
| 42       | 11713.00    | 92.10 | 2.40   | 10722.22 | 1132.46    | 1132.47 | -0.58   | 1132.47 | 359.97 | 1.21  |
| 43       | 11808.00    | 89.80 | 1.60   | 10720.64 | 1227.37    | 1227.39 | 2.74    | 1227.40 | 0.13   | 2.56  |
| 44       | 11903.00    | 90.50 | 1.30   | 10720.39 | 1322.32    | 1322.36 | 5.14    | 1322.37 | 0.22   | 0.80  |



|     |          |       |        |          |         |         |        |         |        |      |
|-----|----------|-------|--------|----------|---------|---------|--------|---------|--------|------|
| 45  | 11998.00 | 91.80 | 1.30   | 10718.49 | 1417.27 | 1417.32 | 7.29   | 1417.33 | 0.29   | 1.37 |
| 46  | 12092.00 | 91.40 | 0.90   | 10715.86 | 1511.20 | 1511.26 | 9.10   | 1511.29 | 0.34   | 0.60 |
| 47  | 12187.00 | 89.60 | 0.00   | 10715.03 | 1606.19 | 1606.25 | 9.84   | 1606.28 | 0.35   | 2.12 |
| 48  | 12281.00 | 90.30 | 359.50 | 10715.11 | 1700.19 | 1700.25 | 9.43   | 1700.27 | 0.32   | 0.92 |
| 49  | 12376.00 | 89.90 | 358.40 | 10714.95 | 1795.18 | 1795.23 | 7.69   | 1795.25 | 0.25   | 1.23 |
| 50  | 12470.00 | 91.30 | 358.80 | 10713.96 | 1889.15 | 1889.19 | 5.40   | 1889.20 | 0.16   | 1.55 |
| 51  | 12564.00 | 91.30 | 358.20 | 10711.83 | 1983.10 | 1983.14 | 2.94   | 1983.14 | 0.08   | 0.64 |
| 52  | 12659.00 | 89.50 | 358.20 | 10711.17 | 2078.06 | 2078.08 | -0.05  | 2078.08 | 360.00 | 1.89 |
| 53  | 12753.00 | 90.50 | 358.20 | 10711.17 | 2172.03 | 2172.04 | -3.00  | 2172.04 | 359.92 | 1.06 |
| 54  | 12848.00 | 90.50 | 357.70 | 10710.34 | 2266.98 | 2266.97 | -6.40  | 2266.98 | 359.84 | 0.53 |
| 55  | 12942.00 | 89.80 | 358.40 | 10710.09 | 2360.94 | 2360.92 | -9.60  | 2360.94 | 359.77 | 1.05 |
| 56  | 13037.00 | 90.50 | 358.00 | 10709.84 | 2455.90 | 2455.87 | -12.58 | 2455.90 | 359.71 | 0.85 |
| 57  | 13131.00 | 88.70 | 358.60 | 10710.50 | 2549.86 | 2549.82 | -15.37 | 2549.87 | 359.65 | 2.02 |
| 58  | 13226.00 | 88.60 | 359.70 | 10712.74 | 2644.83 | 2644.78 | -16.78 | 2644.84 | 359.64 | 1.16 |
| 59  | 13320.00 | 88.60 | 0.30   | 10715.04 | 2738.80 | 2738.75 | -16.78 | 2738.81 | 359.65 | 0.64 |
| 60  | 13415.00 | 89.40 | 359.50 | 10716.69 | 2833.79 | 2833.74 | -16.94 | 2833.79 | 359.66 | 1.19 |
| 61  | 13509.00 | 90.20 | 359.80 | 10717.02 | 2927.78 | 2927.73 | -17.52 | 2927.79 | 359.66 | 0.91 |
| 62  | 13604.00 | 90.90 | 1.20   | 10716.11 | 3022.77 | 3022.72 | -16.69 | 3022.77 | 359.68 | 1.65 |
| 63  | 13698.00 | 90.40 | 1.80   | 10715.04 | 3116.72 | 3116.68 | -14.23 | 3116.72 | 359.74 | 0.83 |
| 64  | 13792.00 | 88.80 | 0.50   | 10715.70 | 3210.68 | 3210.66 | -12.34 | 3210.68 | 359.78 | 2.19 |
| 65  | 13887.00 | 88.40 | 1.30   | 10718.02 | 3305.63 | 3305.62 | -10.85 | 3305.63 | 359.81 | 0.94 |
| 66  | 13982.00 | 89.10 | 358.40 | 10720.09 | 3400.60 | 3400.58 | -11.10 | 3400.60 | 359.81 | 3.14 |
| 67  | 14077.00 | 88.00 | 357.90 | 10722.50 | 3495.53 | 3495.50 | -14.17 | 3495.53 | 359.77 | 1.27 |
| 68  | 14171.00 | 90.30 | 358.20 | 10723.89 | 3589.47 | 3589.43 | -17.36 | 3589.47 | 359.72 | 2.47 |
| 69  | 14265.00 | 93.10 | 359.00 | 10721.10 | 3683.40 | 3683.35 | -19.66 | 3683.40 | 359.69 | 3.10 |
| 70  | 14360.00 | 91.90 | 359.00 | 10716.96 | 3778.30 | 3778.24 | -21.32 | 3778.30 | 359.68 | 1.26 |
| 71  | 14454.00 | 90.90 | 358.70 | 10714.66 | 3872.26 | 3872.20 | -23.20 | 3872.27 | 359.66 | 1.11 |
| 72  | 14549.00 | 90.80 | 359.10 | 10713.25 | 3967.24 | 3967.17 | -25.03 | 3967.25 | 359.64 | 0.43 |
| 73  | 14643.00 | 88.00 | 358.20 | 10714.24 | 4061.21 | 4061.13 | -27.24 | 4061.22 | 359.62 | 3.13 |
| 74  | 14738.00 | 89.10 | 358.90 | 10716.64 | 4156.16 | 4156.06 | -29.64 | 4156.17 | 359.59 | 1.37 |
| 75  | 14832.00 | 86.90 | 358.80 | 10719.92 | 4250.08 | 4249.98 | -31.53 | 4250.10 | 359.57 | 2.34 |
| 76  | 14926.00 | 88.50 | 358.30 | 10723.69 | 4343.98 | 4343.87 | -33.90 | 4344.00 | 359.55 | 1.78 |
| 77  | 15021.00 | 89.50 | 358.50 | 10725.35 | 4438.94 | 4438.82 | -36.56 | 4438.97 | 359.53 | 1.07 |
| 78  | 15115.00 | 90.20 | 358.80 | 10725.60 | 4532.92 | 4532.79 | -38.77 | 4532.96 | 359.51 | 0.81 |
| 79  | 15210.00 | 91.50 | 359.20 | 10724.19 | 4627.90 | 4627.77 | -40.43 | 4627.94 | 359.50 | 1.43 |
| 80  | 15261.00 | 91.30 | 359.00 | 10722.94 | 4678.88 | 4678.74 | -41.23 | 4678.93 | 359.50 | 0.55 |
| PTB | 15310.00 | 91.30 | 359.00 | 10721.83 | 4727.87 | 4727.72 | -42.08 | 4727.91 | 359.49 | 0.00 |

