

# **EnQuest UK**

**Quad 002**

**2/05 Heather Platform**

**2/05-H60 (37) - Slot 37**

**2/05-H60 (37)**

**2/05-H04**

**Design: 2/05-H04**

## **Survey Report - Geographic**

**17 March, 2014**

# Enquest

## Survey Report - Geographic

|                  |                       |                                     |  |
|------------------|-----------------------|-------------------------------------|--|
| <b>Company:</b>  | EnQuest UK            | <b>Local Co-ordinate Reference:</b> | Site 2/05 Heather Platform                         |
| <b>Project:</b>  | Quad 002              | <b>TVD Reference:</b>               | Heather DFE 157.0 ft @ 157.00ft (Heather Platform) |
| <b>Site:</b>     | 2/05 Heather Platform | <b>MD Reference:</b>                | Heather DFE 157.0 ft @ 157.00ft (Heather Platform) |
| <b>Well:</b>     | 2/05-H60 (37)         | <b>North Reference:</b>             | Grid   |
| <b>Wellbore:</b> | 2/05-H04              | <b>Survey Calculation Method:</b>   | Minimum Curvature                                  |
| <b>Design:</b>   | 2/05-H04              | <b>Database:</b>                    | EDM_PROD_AD  |

|                    |                               |                      |                |
|--------------------|-------------------------------|----------------------|----------------|
| <b>Project</b>     | Quad 002                      |                      |                |
| <b>Map System:</b> | Universal Transverse Mercator | <b>System Datum:</b> | Mean Sea Level |
| <b>Geo Datum:</b>  | European 1950 - Mean          |                      |                |
| <b>Map Zone:</b>   | Zone 31N (0 E to 6 E)         |                      |                |

|                              |                          |                     |                |                                   |
|------------------------------|--------------------------|---------------------|----------------|-----------------------------------|
| <b>Site</b>                  | 2/05 Heather Platform, 5 |                     |                |                                   |
| <b>Site Position:</b>        |                          | <b>Northing:</b>    | 6,759,541.91 m | <b>Latitude:</b> 60° 57' 13.228 N |
| <b>From:</b> Map             |                          | <b>Easting:</b>     | 388,406.59 m   | <b>Longitude:</b> 0° 56' 22.573 E |
| <b>Position Uncertainty:</b> | 0.00 ft                  | <b>Slot Radius:</b> | 0.000 in       | <b>Grid Convergence:</b> -1.80 °  |

|                             |  |           |                            |                |
|-----------------------------|--|-----------|----------------------------|----------------|
| <b>Well</b>                 | 2/05-H60 (37) - Slot 37, GAS LIFT PRODUCER |           |                            |                |
| <b>Well Position</b>        | <b>+N/-S</b>                               | -12.58 ft | <b>Northing:</b>           | 6,759,538.08 m |
|                             | <b>+E/-W</b>                               | -19.19 ft | <b>Easting:</b>            | 388,400.74 m   |
| <b>Position Uncertainty</b> |  | 0.00 ft   | <b>Wellhead Elevation:</b> | ft             |
|                             |  |           | <b>Water Depth:</b>        | 470.00 ft      |

|                  |                   |                    |                        |                      |                            |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| <b>Wellbore</b>  | 2/05-H04          |                    |                        |                      |                            |
| <b>Magnetics</b> | <b>Model Name</b> | <b>Sample Date</b> | <b>Declination (°)</b> | <b>Dip Angle (°)</b> | <b>Field Strength (nT)</b> |
|                  | BGGM2007          | 20/04/2004         |                        |                      |                            |

|                          |                              |                   |                   |                      |      |
|--------------------------|------------------------------|-------------------|-------------------|----------------------|------|
| <b>Design</b>            | 2/05-H04                     |                   |                   |                      |      |
| <b>Audit Notes:</b>      |                              |                   |                   |                      |      |
| <b>Version:</b>          | 2                            | <b>Phase:</b>     | ACTUAL            | <b>Tie On Depth:</b> | 0.00 |
| <b>Vertical Section:</b> | <b>Depth From (TVD) (ft)</b> | <b>+N/-S (ft)</b> | <b>+E/-W (ft)</b> | <b>Direction (°)</b> |      |
|                          | 0.00                         | -12.58            | -19.19            | 282.739              |      |

|                       |                |                            |                  |                                       |  |
|-----------------------|----------------|----------------------------|------------------|---------------------------------------|--|
| <b>Survey Program</b> | <b>Date</b>    | 19/03/2012                 |                  |                                       |  |
| <b>From (ft)</b>      | <b>To (ft)</b> | <b>Survey (Wellbore)</b>   | <b>Tool Name</b> | <b>Description</b>                    |  |
| 627.00                | 1,300.00       | 20" SDC Gyro (2/05-H04)    | CB-Gyro-MS       | Fixed:v2:camera based gyro multishot  |  |
| 1,574.03              | 5,709.11       | 17 1/2" SDC MMS (2/05-H04) | CB-Magnetic      | Fixed:v2:camera based magnetic survey |  |
| 5,748.48              | 12,325.00      | 12 1/4" SDC MMS (2/05-H04) | CB-Magnetic      | Fixed:v2:camera based magnetic survey |  |

|                            |                        |                    |                            |                   |                   |                         |                        |                  |                  |  |
|----------------------------|------------------------|--------------------|----------------------------|-------------------|-------------------|-------------------------|------------------------|------------------|------------------|--|
| <b>Survey</b>              |                        |                    |                            |                   |                   |                         |                        |                  |                  |  |
| <b>Measured Depth (ft)</b> | <b>Inclination (°)</b> | <b>Azimuth (°)</b> | <b>Vertical Depth (ft)</b> | <b>+N/-S (ft)</b> | <b>+E/-W (ft)</b> | <b>Map Northing (m)</b> | <b>Map Easting (m)</b> | <b>Latitude</b>  | <b>Longitude</b> |  |
| 0.00                       | 0.000                  | 0.000              | 0.00                       | -12.58            | -19.19            | 6,759,538.08            | 388,400.74             | 60° 57' 13.098 N | 0° 56' 22.193 E  |  |
| 627.00                     | 0.000                  | 0.005              | 627.00                     | -12.58            | -19.19            | 6,759,538.08            | 388,400.74             | 60° 57' 13.098 N | 0° 56' 22.193 E  |  |
| 650.00                     | 0.420                  | 314.580            | 650.00                     | -12.53            | -19.25            | 6,759,538.09            | 388,400.72             | 60° 57' 13.098 N | 0° 56' 22.191 E  |  |
| 700.00                     | 0.750                  | 328.650            | 700.00                     | -12.12            | -19.55            | 6,759,538.22            | 388,400.63             | 60° 57' 13.102 N | 0° 56' 22.185 E  |  |
| 750.00                     | 1.000                  | 332.800            | 749.99                     | -11.45            | -19.92            | 6,759,538.42            | 388,400.52             | 60° 57' 13.109 N | 0° 56' 22.177 E  |  |
| 800.00                     | 1.250                  | 330.850            | 799.98                     | -10.59            | -20.38            | 6,759,538.68            | 388,400.38             | 60° 57' 13.117 N | 0° 56' 22.167 E  |  |
| 850.00                     | 2.080                  | 299.880            | 849.96                     | -9.66             | -21.44            | 6,759,538.97            | 388,400.05             | 60° 57' 13.126 N | 0° 56' 22.145 E  |  |
| 900.00                     | 3.000                  | 285.920            | 899.91                     | -8.85             | -23.48            | 6,759,539.21            | 388,399.43             | 60° 57' 13.133 N | 0° 56' 22.103 E  |  |

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## Survey Report - Geographic

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|------------------|-----------------------|-------------------------------------|--|
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| <b>Project:</b>  | Quad 002              | <b>TVD Reference:</b>               | Heather DFE 157.0 ft @ 157.00ft (Heather Platform) |
| <b>Site:</b>     | 2/05 Heather Platform | <b>MD Reference:</b>                | Heather DFE 157.0 ft @ 157.00ft (Heather Platform) |
| <b>Well:</b>     | 2/05-H60 (37)         | <b>North Reference:</b>             | Grid   |
| <b>Wellbore:</b> | 2/05-H04              | <b>Survey Calculation Method:</b>   | Minimum Curvature                                  |
| <b>Design:</b>   | 2/05-H04              | <b>Database:</b>                    | EDM_PROD_AD  |

| Survey              |                 |             |                     |            |            |                  |                 |                  |                 |
|---------------------|-----------------|-------------|---------------------|------------|------------|------------------|-----------------|------------------|-----------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Map Northing (m) | Map Easting (m) | Latitude         | Longitude       |
| 950.00              | 2.330           | 289.020     | 949.86              | -8.16      | -25.70     | 6,759,539.43     | 388,398.75      | 60° 57' 13.139 N | 0° 56' 22.058 E |
| 1,000.00            | 2.330           | 291.540     | 999.82              | -7.45      | -27.61     | 6,759,539.64     | 388,398.17      | 60° 57' 13.146 N | 0° 56' 22.019 E |
| 1,050.00            | 3.000           | 288.070     | 1,049.76            | -6.67      | -29.80     | 6,759,539.88     | 388,397.51      | 60° 57' 13.153 N | 0° 56' 21.974 E |
| 1,100.00            | 3.080           | 295.090     | 1,099.69            | -5.70      | -32.26     | 6,759,540.17     | 388,396.76      | 60° 57' 13.162 N | 0° 56' 21.924 E |
| 1,150.00            | 3.000           | 304.100     | 1,149.62            | -4.39      | -34.56     | 6,759,540.57     | 388,396.06      | 60° 57' 13.174 N | 0° 56' 21.876 E |
| 1,200.00            | 2.920           | 305.130     | 1,199.55            | -2.93      | -36.68     | 6,759,541.02     | 388,395.41      | 60° 57' 13.187 N | 0° 56' 21.832 E |
| 1,250.00            | 3.170           | 307.200     | 1,249.48            | -1.36      | -38.82     | 6,759,541.50     | 388,394.75      | 60° 57' 13.202 N | 0° 56' 21.788 E |
| 1,300.00            | 3.250           | 303.280     | 1,299.41            | 0.26       | -41.11     | 6,759,541.99     | 388,394.06      | 60° 57' 13.217 N | 0° 56' 21.741 E |
| 1,574.03            | 4.300           | 284.980     | 1,572.85            | 7.17       | -57.53     | 6,759,544.10     | 388,389.05      | 60° 57' 13.280 N | 0° 56' 21.404 E |
| 1,668.59            | 4.000           | 277.980     | 1,667.16            | 8.55       | -64.22     | 6,759,544.52     | 388,387.01      | 60° 57' 13.292 N | 0° 56' 21.267 E |
| 1,760.26            | 4.000           | 276.980     | 1,758.61            | 9.38       | -70.56     | 6,759,544.77     | 388,385.08      | 60° 57' 13.298 N | 0° 56' 21.139 E |
| 1,854.02            | 3.750           | 275.980     | 1,852.15            | 10.10      | -76.86     | 6,759,544.99     | 388,383.16      | 60° 57' 13.303 N | 0° 56' 21.011 E |
| 1,948.13            | 4.000           | 278.980     | 1,946.05            | 10.93      | -83.16     | 6,759,545.24     | 388,381.24      | 60° 57' 13.309 N | 0° 56' 20.883 E |
| 2,041.21            | 4.000           | 279.980     | 2,038.90            | 12.00      | -89.56     | 6,759,545.57     | 388,379.29      | 60° 57' 13.318 N | 0° 56' 20.752 E |
| 2,135.55            | 5.500           | 272.980     | 2,132.91            | 12.80      | -97.32     | 6,759,545.81     | 388,376.93      | 60° 57' 13.324 N | 0° 56' 20.595 E |
| 2,229.76            | 7.000           | 272.980     | 2,226.56            | 13.34      | -107.56    | 6,759,545.98     | 388,373.80      | 60° 57' 13.326 N | 0° 56' 20.387 E |
| 2,324.02            | 8.500           | 273.980     | 2,319.96            | 14.12      | -120.25    | 6,759,546.21     | 388,369.94      | 60° 57' 13.329 N | 0° 56' 20.130 E |
| 2,418.45            | 9.750           | 272.230     | 2,413.19            | 14.92      | -135.20    | 6,759,546.46     | 388,365.38      | 60° 57' 13.333 N | 0° 56' 19.826 E |
| 2,512.64            | 12.250          | 272.230     | 2,505.64            | 15.61      | -153.16    | 6,759,546.67     | 388,359.91      | 60° 57' 13.334 N | 0° 56' 19.462 E |
| 2,606.86            | 14.250          | 273.480     | 2,597.35            | 16.71      | -174.72    | 6,759,547.00     | 388,353.33      | 60° 57' 13.338 N | 0° 56' 19.025 E |
| 2,701.28            | 16.500          | 273.980     | 2,688.39            | 18.34      | -199.70    | 6,759,547.50     | 388,345.72      | 60° 57' 13.346 N | 0° 56' 18.519 E |
| 2,795.39            | 18.250          | 273.980     | 2,778.20            | 20.29      | -227.74    | 6,759,548.10     | 388,337.17      | 60° 57' 13.357 N | 0° 56' 17.950 E |
| 2,889.28            | 21.000          | 272.980     | 2,866.63            | 22.19      | -259.21    | 6,759,548.67     | 388,327.58      | 60° 57' 13.366 N | 0° 56' 17.311 E |
| 2,983.67            | 24.000          | 276.980     | 2,953.83            | 25.40      | -295.16    | 6,759,549.65     | 388,316.62      | 60° 57' 13.386 N | 0° 56' 16.581 E |
| 3,077.82            | 27.250          | 277.730     | 3,038.70            | 30.63      | -335.54    | 6,759,551.25     | 388,304.32      | 60° 57' 13.425 N | 0° 56' 15.761 E |
| 3,172.29            | 28.750          | 278.980     | 3,122.12            | 37.09      | -379.41    | 6,759,553.21     | 388,290.94      | 60° 57' 13.475 N | 0° 56' 14.868 E |
| 3,266.60            | 28.750          | 276.480     | 3,204.80            | 43.19      | -424.35    | 6,759,555.07     | 388,277.25      | 60° 57' 13.521 N | 0° 56' 13.955 E |
| 3,360.38            | 28.250          | 277.730     | 3,287.22            | 48.72      | -468.76    | 6,759,556.76     | 388,263.71      | 60° 57' 13.562 N | 0° 56' 13.052 E |
| 3,454.69            | 28.250          | 277.980     | 3,370.30            | 54.82      | -512.98    | 6,759,558.62     | 388,250.23      | 60° 57' 13.608 N | 0° 56' 12.153 E |
| 3,549.46            | 27.750          | 277.230     | 3,453.97            | 60.71      | -557.07    | 6,759,560.41     | 388,236.79      | 60° 57' 13.653 N | 0° 56' 11.257 E |
| 3,643.84            | 28.000          | 276.480     | 3,537.40            | 65.97      | -600.89    | 6,759,562.02     | 388,223.44      | 60° 57' 13.691 N | 0° 56' 10.367 E |
| 3,737.77            | 27.750          | 275.980     | 3,620.43            | 70.74      | -644.54    | 6,759,563.47     | 388,210.13      | 60° 57' 13.724 N | 0° 56' 9.480 E  |
| 3,831.29            | 27.750          | 278.480     | 3,703.20            | 76.22      | -687.73    | 6,759,565.14     | 388,196.97      | 60° 57' 13.765 N | 0° 56' 8.602 E  |
| 3,925.54            | 27.750          | 278.980     | 3,786.61            | 82.88      | -731.11    | 6,759,567.17     | 388,183.75      | 60° 57' 13.817 N | 0° 56' 7.720 E  |
| 4,020.01            | 27.500          | 277.980     | 3,870.31            | 89.34      | -774.43    | 6,759,569.14     | 388,170.54      | 60° 57' 13.867 N | 0° 56' 6.838 E  |
| 4,114.13            | 27.250          | 277.480     | 3,953.89            | 95.16      | -817.31    | 6,759,570.92     | 388,157.47      | 60° 57' 13.911 N | 0° 56' 5.966 E  |
| 4,208.21            | 27.000          | 274.980     | 4,037.63            | 99.82      | -859.95    | 6,759,572.34     | 388,144.48      | 60° 57' 13.944 N | 0° 56' 5.100 E  |
| 4,302.20            | 27.000          | 276.480     | 4,121.37            | 104.08     | -902.40    | 6,759,573.63     | 388,131.54      | 60° 57' 13.972 N | 0° 56' 4.238 E  |
| 4,396.63            | 26.750          | 277.980     | 4,205.60            | 109.45     | -944.74    | 6,759,575.27     | 388,118.63      | 60° 57' 14.012 N | 0° 56' 3.378 E  |
| 4,491.11            | 26.750          | 276.480     | 4,289.97            | 114.80     | -986.93    | 6,759,576.90     | 388,105.77      | 60° 57' 14.052 N | 0° 56' 2.520 E  |
| 4,585.44            | 26.500          | 275.480     | 4,374.30            | 119.21     | -1,028.97  | 6,759,578.25     | 388,092.96      | 60° 57' 14.082 N | 0° 56' 1.666 E  |
| 4,679.83            | 26.250          | 277.980     | 4,458.87            | 124.12     | -1,070.61  | 6,759,579.74     | 388,080.27      | 60° 57' 14.117 N | 0° 56' 0.820 E  |
| 4,774.22            | 26.250          | 275.980     | 4,543.53            | 129.19     | -1,112.04  | 6,759,581.29     | 388,067.64      | 60° 57' 14.155 N | 0° 55' 59.978 E |
| 4,868.63            | 26.500          | 277.480     | 4,628.11            | 134.11     | -1,153.69  | 6,759,582.79     | 388,054.94      | 60° 57' 14.190 N | 0° 55' 59.132 E |
| 4,960.50            | 26.250          | 275.980     | 4,710.42            | 138.89     | -1,194.22  | 6,759,584.24     | 388,042.59      | 60° 57' 14.225 N | 0° 55' 58.308 E |
| 5,051.95            | 26.250          | 274.980     | 4,792.44            | 142.75     | -1,234.48  | 6,759,585.42     | 388,030.32      | 60° 57' 14.250 N | 0° 55' 57.491 E |
| 5,145.38            | 27.750          | 275.480     | 4,875.68            | 146.62     | -1,276.71  | 6,759,586.60     | 388,017.45      | 60° 57' 14.275 N | 0° 55' 56.633 E |
| 5,239.14            | 28.000          | 276.480     | 4,958.56            | 151.19     | -1,320.31  | 6,759,587.99     | 388,004.16      | 60° 57' 14.306 N | 0° 55' 55.748 E |
| 5,333.12            | 28.750          | 278.980     | 5,041.25            | 157.21     | -1,364.56  | 6,759,589.83     | 387,990.67      | 60° 57' 14.352 N | 0° 55' 54.848 E |
| 5,427.56            | 29.000          | 279.230     | 5,123.95            | 164.43     | -1,409.59  | 6,759,592.03     | 387,976.95      | 60° 57' 14.409 N | 0° 55' 53.932 E |
| 5,521.79            | 29.750          | 276.980     | 5,206.07            | 170.93     | -1,455.34  | 6,759,594.01     | 387,963.00      | 60° 57' 14.459 N | 0° 55' 53.002 E |
| 5,615.88            | 30.500          | 278.980     | 5,287.45            | 177.50     | -1,502.10  | 6,759,596.01     | 387,948.75      | 60° 57' 14.509 N | 0° 55' 52.051 E |
| 5,709.11            | 30.750          | 280.480     | 5,367.68            | 185.52     | -1,548.91  | 6,759,598.46     | 387,934.48      | 60° 57' 14.573 N | 0° 55' 51.098 E |

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## Survey Report - Geographic

|                  |                       |                                     |  |
|------------------|-----------------------|-------------------------------------|--|
| <b>Company:</b>  | EnQuest UK            | <b>Local Co-ordinate Reference:</b> | Site 2/05 Heather Platform                         |
| <b>Project:</b>  | Quad 002              | <b>TVD Reference:</b>               | Heather DFE 157.0 ft @ 157.00ft (Heather Platform) |
| <b>Site:</b>     | 2/05 Heather Platform | <b>MD Reference:</b>                | Heather DFE 157.0 ft @ 157.00ft (Heather Platform) |
| <b>Well:</b>     | 2/05-H60 (37)         | <b>North Reference:</b>             | Grid   |
| <b>Wellbore:</b> | 2/05-H04              | <b>Survey Calculation Method:</b>   | Minimum Curvature                                  |
| <b>Design:</b>   | 2/05-H04              | <b>Database:</b>                    | EDM_PROD_AD  |

| Survey              |                 |             |                     |            |            |                  |                 |                  |                 |  |
|---------------------|-----------------|-------------|---------------------|------------|------------|------------------|-----------------|------------------|-----------------|--|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Map Northing (m) | Map Easting (m) | Latitude         | Longitude       |  |
| 5,748.48            | 31.500          | 279.980     | 5,401.38            | 189.14     | -1,568.93  | 6,759,599.56     | 387,928.38      | 60° 57' 14.603 N | 0° 55' 50.690 E |  |
| 5,842.31            | 31.500          | 281.230     | 5,481.39            | 198.16     | -1,617.12  | 6,759,602.31     | 387,913.69      | 60° 57' 14.677 N | 0° 55' 49.709 E |  |
| 5,934.53            | 33.000          | 280.230     | 5,559.38            | 207.31     | -1,665.47  | 6,759,605.10     | 387,898.95      | 60° 57' 14.752 N | 0° 55' 48.725 E |  |
| 6,028.50            | 32.750          | 281.480     | 5,638.30            | 216.92     | -1,715.56  | 6,759,608.03     | 387,883.69      | 60° 57' 14.831 N | 0° 55' 47.704 E |  |
| 6,122.46            | 33.500          | 279.980     | 5,716.99            | 226.47     | -1,766.01  | 6,759,610.94     | 387,868.31      | 60° 57' 14.909 N | 0° 55' 46.677 E |  |
| 6,216.43            | 33.250          | 279.480     | 5,795.46            | 235.21     | -1,816.96  | 6,759,613.60     | 387,852.78      | 60° 57' 14.979 N | 0° 55' 45.640 E |  |
| 6,311.00            | 32.500          | 280.980     | 5,874.89            | 244.32     | -1,867.47  | 6,759,616.38     | 387,837.38      | 60° 57' 15.053 N | 0° 55' 44.611 E |  |
| 6,405.21            | 31.750          | 281.230     | 5,954.67            | 253.96     | -1,916.63  | 6,759,619.32     | 387,822.40      | 60° 57' 15.133 N | 0° 55' 43.610 E |  |
| 6,498.57            | 31.750          | 280.480     | 6,034.06            | 263.22     | -1,964.88  | 6,759,622.14     | 387,807.69      | 60° 57' 15.209 N | 0° 55' 42.627 E |  |
| 6,593.07            | 31.500          | 281.480     | 6,114.53            | 272.65     | -2,013.52  | 6,759,625.02     | 387,792.87      | 60° 57' 15.287 N | 0° 55' 41.637 E |  |
| 6,686.93            | 32.000          | 282.230     | 6,194.34            | 282.80     | -2,061.86  | 6,759,628.11     | 387,778.13      | 60° 57' 15.371 N | 0° 55' 40.652 E |  |
| 6,781.36            | 31.250          | 281.480     | 6,274.75            | 292.98     | -2,110.31  | 6,759,631.21     | 387,763.37      | 60° 57' 15.456 N | 0° 55' 39.664 E |  |
| 6,875.83            | 32.250          | 281.480     | 6,355.08            | 302.87     | -2,159.03  | 6,759,634.23     | 387,748.52      | 60° 57' 15.539 N | 0° 55' 38.672 E |  |
| 6,970.31            | 31.750          | 281.480     | 6,435.21            | 312.83     | -2,208.09  | 6,759,637.26     | 387,733.56      | 60° 57' 15.622 N | 0° 55' 37.672 E |  |
| 7,064.71            | 31.000          | 281.480     | 6,515.80            | 322.62     | -2,256.26  | 6,759,640.24     | 387,718.88      | 60° 57' 15.703 N | 0° 55' 36.691 E |  |
| 7,158.87            | 32.000          | 280.980     | 6,596.09            | 332.19     | -2,304.52  | 6,759,643.16     | 387,704.17      | 60° 57' 15.782 N | 0° 55' 35.708 E |  |
| 7,252.50            | 31.750          | 279.980     | 6,675.60            | 341.19     | -2,353.13  | 6,759,645.91     | 387,689.35      | 60° 57' 15.855 N | 0° 55' 34.718 E |  |
| 7,346.81            | 31.250          | 279.480     | 6,756.01            | 349.52     | -2,401.70  | 6,759,648.44     | 387,674.55      | 60° 57' 15.922 N | 0° 55' 33.729 E |  |
| 7,441.28            | 30.500          | 279.980     | 6,837.09            | 357.71     | -2,449.48  | 6,759,650.94     | 387,659.99      | 60° 57' 15.988 N | 0° 55' 32.756 E |  |
| 7,535.61            | 30.750          | 279.480     | 6,918.27            | 365.83     | -2,496.84  | 6,759,653.42     | 387,645.55      | 60° 57' 16.053 N | 0° 55' 31.792 E |  |
| 7,629.19            | 31.000          | 279.480     | 6,998.58            | 373.74     | -2,544.21  | 6,759,655.83     | 387,631.11      | 60° 57' 16.116 N | 0° 55' 30.828 E |  |
| 7,723.26            | 31.250          | 279.480     | 7,079.11            | 381.75     | -2,592.17  | 6,759,658.27     | 387,616.50      | 60° 57' 16.180 N | 0° 55' 29.852 E |  |
| 7,817.95            | 32.250          | 279.230     | 7,159.63            | 389.84     | -2,641.33  | 6,759,660.74     | 387,601.51      | 60° 57' 16.245 N | 0° 55' 28.852 E |  |
| 7,912.27            | 31.750          | 279.480     | 7,239.62            | 397.97     | -2,690.65  | 6,759,663.21     | 387,586.48      | 60° 57' 16.309 N | 0° 55' 27.848 E |  |
| 8,006.30            | 31.750          | 279.480     | 7,319.58            | 406.12     | -2,739.45  | 6,759,665.70     | 387,571.60      | 60° 57' 16.374 N | 0° 55' 26.855 E |  |
| 8,100.77            | 31.750          | 279.480     | 7,399.91            | 414.31     | -2,788.49  | 6,759,668.19     | 387,556.66      | 60° 57' 16.440 N | 0° 55' 25.857 E |  |
| 8,195.04            | 31.750          | 279.980     | 7,480.07            | 422.69     | -2,837.38  | 6,759,670.75     | 387,541.76      | 60° 57' 16.507 N | 0° 55' 24.862 E |  |
| 8,286.54            | 33.000          | 280.230     | 7,557.35            | 431.29     | -2,885.61  | 6,759,673.37     | 387,527.05      | 60° 57' 16.576 N | 0° 55' 23.880 E |  |
| 8,382.51            | 32.750          | 280.230     | 7,637.95            | 440.54     | -2,936.88  | 6,759,676.19     | 387,511.43      | 60° 57' 16.651 N | 0° 55' 22.836 E |  |
| 8,476.91            | 32.750          | 280.230     | 7,717.34            | 449.61     | -2,987.13  | 6,759,678.95     | 387,496.11      | 60° 57' 16.725 N | 0° 55' 21.813 E |  |
| 8,571.26            | 32.750          | 281.230     | 7,796.70            | 459.11     | -3,037.28  | 6,759,681.85     | 387,480.83      | 60° 57' 16.803 N | 0° 55' 20.792 E |  |
| 8,665.60            | 33.000          | 280.980     | 7,875.93            | 468.97     | -3,087.53  | 6,759,684.85     | 387,465.51      | 60° 57' 16.884 N | 0° 55' 19.768 E |  |
| 8,760.01            | 32.750          | 282.480     | 7,955.22            | 479.39     | -3,137.70  | 6,759,688.03     | 387,450.22      | 60° 57' 16.971 N | 0° 55' 18.746 E |  |
| 8,854.62            | 33.250          | 283.230     | 8,034.57            | 490.86     | -3,187.94  | 6,759,691.52     | 387,434.90      | 60° 57' 17.068 N | 0° 55' 17.721 E |  |
| 8,949.12            | 33.000          | 283.730     | 8,113.71            | 502.89     | -3,238.16  | 6,759,695.19     | 387,419.60      | 60° 57' 17.171 N | 0° 55' 16.697 E |  |
| 9,041.55            | 32.750          | 283.730     | 8,191.34            | 514.80     | -3,286.90  | 6,759,698.82     | 387,404.74      | 60° 57' 17.273 N | 0° 55' 15.703 E |  |
| 9,133.43            | 31.750          | 282.980     | 8,269.04            | 526.13     | -3,334.60  | 6,759,702.28     | 387,390.20      | 60° 57' 17.370 N | 0° 55' 14.730 E |  |
| 9,225.11            | 30.000          | 281.480     | 8,347.73            | 536.11     | -3,380.57  | 6,759,705.32     | 387,376.19      | 60° 57' 17.454 N | 0° 55' 13.793 E |  |
| 9,316.94            | 30.000          | 281.480     | 8,427.25            | 545.25     | -3,425.56  | 6,759,708.10     | 387,362.48      | 60° 57' 17.530 N | 0° 55' 12.876 E |  |
| 9,408.03            | 29.250          | 281.980     | 8,506.44            | 554.40     | -3,469.65  | 6,759,710.89     | 387,349.04      | 60° 57' 17.606 N | 0° 55' 11.977 E |  |
| 9,499.56            | 28.250          | 281.480     | 8,586.68            | 563.35     | -3,512.75  | 6,759,713.62     | 387,335.90      | 60° 57' 17.681 N | 0° 55' 11.099 E |  |
| 9,591.36            | 27.250          | 281.480     | 8,667.92            | 571.86     | -3,554.64  | 6,759,716.21     | 387,323.13      | 60° 57' 17.751 N | 0° 55' 10.245 E |  |
| 9,683.41            | 26.250          | 281.980     | 8,750.12            | 580.28     | -3,595.21  | 6,759,718.78     | 387,310.77      | 60° 57' 17.821 N | 0° 55' 9.419 E  |  |
| 9,775.85            | 26.250          | 283.230     | 8,833.03            | 589.20     | -3,635.11  | 6,759,721.50     | 387,298.61      | 60° 57' 17.897 N | 0° 55' 8.605 E  |  |
| 9,868.42            | 26.000          | 282.980     | 8,916.14            | 598.44     | -3,674.81  | 6,759,724.32     | 387,286.51      | 60° 57' 17.975 N | 0° 55' 7.796 E  |  |
| 9,958.65            | 24.250          | 281.980     | 8,997.83            | 606.73     | -3,712.21  | 6,759,726.84     | 387,275.11      | 60° 57' 18.045 N | 0° 55' 7.033 E  |  |
| 10,051.73           | 23.750          | 282.730     | 9,082.86            | 614.83     | -3,749.19  | 6,759,729.31     | 387,263.84      | 60° 57' 18.113 N | 0° 55' 6.279 E  |  |
| 10,143.56           | 24.750          | 283.980     | 9,166.59            | 623.55     | -3,785.88  | 6,759,731.97     | 387,252.65      | 60° 57' 18.188 N | 0° 55' 5.531 E  |  |
| 10,235.92           | 23.750          | 284.980     | 9,250.80            | 633.03     | -3,822.61  | 6,759,734.86     | 387,241.46      | 60° 57' 18.270 N | 0° 55' 4.781 E  |  |
| 10,328.35           | 22.750          | 287.980     | 9,335.73            | 643.36     | -3,857.59  | 6,759,738.01     | 387,230.79      | 60° 57' 18.360 N | 0° 55' 4.066 E  |  |
| 10,419.31           | 22.750          | 288.980     | 9,419.61            | 654.51     | -3,890.95  | 6,759,741.40     | 387,220.63      | 60° 57' 18.460 N | 0° 55' 3.384 E  |  |
| 10,511.16           | 22.500          | 289.980     | 9,504.39            | 666.29     | -3,924.26  | 6,759,745.00     | 387,210.47      | 60° 57' 18.565 N | 0° 55' 2.702 E  |  |
| 10,603.69           | 22.500          | 291.980     | 9,589.88            | 678.96     | -3,957.32  | 6,759,748.86     | 387,200.40      | 60° 57' 18.680 N | 0° 55' 2.024 E  |  |

# Enquest

## Survey Report - Geographic

|                  |                       |                                     |  |
|------------------|-----------------------|-------------------------------------|--|
| <b>Company:</b>  | EnQuest UK            | <b>Local Co-ordinate Reference:</b> | Site 2/05 Heather Platform                         |
| <b>Project:</b>  | Quad 002              | <b>TVD Reference:</b>               | Heather DFE 157.0 ft @ 157.00ft (Heather Platform) |
| <b>Site:</b>     | 2/05 Heather Platform | <b>MD Reference:</b>                | Heather DFE 157.0 ft @ 157.00ft (Heather Platform) |
| <b>Well:</b>     | 2/05-H60 (37)         | <b>North Reference:</b>             | Grid   |
| <b>Wellbore:</b> | 2/05-H04              | <b>Survey Calculation Method:</b>   | Minimum Curvature                                  |
| <b>Design:</b>   | 2/05-H04              | <b>Database:</b>                    | EDM_PROD_AD  |

| Survey              |                 |             |                     |            |            |                  |                 |                  |                 |
|---------------------|-----------------|-------------|---------------------|------------|------------|------------------|-----------------|------------------|-----------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Map Northing (m) | Map Easting (m) | Latitude         | Longitude       |
| 10,695.18           | 21.250          | 292.230     | 9,674.78            | 691.79     | -3,988.90  | 6,759,752.77     | 387,190.77      | 60° 57' 18.796 N | 0° 55' 1.377 E  |
| 10,787.15           | 22.000          | 294.230     | 9,760.28            | 705.16     | -4,020.04  | 6,759,756.85     | 387,181.28      | 60° 57' 18.918 N | 0° 55' 0.738 E  |
| 10,877.67           | 22.250          | 296.230     | 9,844.13            | 719.70     | -4,050.87  | 6,759,761.27     | 387,171.88      | 60° 57' 19.051 N | 0° 55' 0.104 E  |
| 10,969.25           | 22.250          | 297.230     | 9,928.89            | 735.29     | -4,081.84  | 6,759,766.03     | 387,162.44      | 60° 57' 19.195 N | 0° 54' 59.467 E |
| 11,060.20           | 22.000          | 298.730     | 10,013.15           | 751.36     | -4,112.09  | 6,759,770.93     | 387,153.22      | 60° 57' 19.344 N | 0° 54' 58.844 E |
| 11,151.25           | 21.250          | 298.980     | 10,097.79           | 767.55     | -4,141.48  | 6,759,775.86     | 387,144.26      | 60° 57' 19.494 N | 0° 54' 58.239 E |
| 11,243.50           | 21.000          | 299.480     | 10,183.84           | 783.79     | -4,170.50  | 6,759,780.81     | 387,135.42      | 60° 57' 19.645 N | 0° 54' 57.641 E |
| 11,336.09           | 21.500          | 300.230     | 10,270.13           | 800.50     | -4,199.60  | 6,759,785.90     | 387,126.55      | 60° 57' 19.800 N | 0° 54' 57.041 E |
| 11,427.08           | 21.000          | 303.480     | 10,354.94           | 817.88     | -4,227.61  | 6,759,791.20     | 387,118.01      | 60° 57' 19.963 N | 0° 54' 56.463 E |
| 11,519.01           | 21.000          | 301.730     | 10,440.77           | 835.63     | -4,255.36  | 6,759,796.61     | 387,109.56      | 60° 57' 20.129 N | 0° 54' 55.890 E |
| 11,611.08           | 21.000          | 302.730     | 10,526.72           | 853.23     | -4,283.27  | 6,759,801.98     | 387,101.05      | 60° 57' 20.293 N | 0° 54' 55.313 E |
| 11,703.40           | 20.750          | 303.480     | 10,612.98           | 871.20     | -4,310.82  | 6,759,807.45     | 387,092.65      | 60° 57' 20.461 N | 0° 54' 54.744 E |
| 11,796.14           | 21.000          | 304.480     | 10,699.63           | 889.67     | -4,338.22  | 6,759,813.08     | 387,084.30      | 60° 57' 20.635 N | 0° 54' 54.177 E |
| 11,887.33           | 21.000          | 304.230     | 10,784.77           | 908.11     | -4,365.20  | 6,759,818.70     | 387,076.08      | 60° 57' 20.808 N | 0° 54' 53.619 E |
| 11,980.53           | 21.000          | 304.230     | 10,871.78           | 926.90     | -4,392.82  | 6,759,824.43     | 387,067.66      | 60° 57' 20.984 N | 0° 54' 53.048 E |
| 12,071.33           | 21.750          | 304.980     | 10,956.33           | 945.69     | -4,420.05  | 6,759,830.16     | 387,059.36      | 60° 57' 21.161 N | 0° 54' 52.485 E |
| 12,162.58           | 22.000          | 306.230     | 11,041.01           | 965.49     | -4,447.69  | 6,759,836.19     | 387,050.93      | 60° 57' 21.347 N | 0° 54' 51.912 E |
| 12,193.00           | 21.750          | 305.730     | 11,069.24           | 972.15     | -4,456.86  | 6,759,838.22     | 387,048.14      | 60° 57' 21.409 N | 0° 54' 51.722 E |
| 12,220.00           | 21.750          | 304.230     | 11,094.32           | 977.88     | -4,465.06  | 6,759,839.97     | 387,045.64      | 60° 57' 21.463 N | 0° 54' 51.553 E |
| 12,325.00           | 21.750          | 304.230     | 11,191.84           | 999.77     | -4,497.23  | 6,759,846.64     | 387,035.83      | 60° 57' 21.669 N | 0° 54' 50.887 E |

| Casing Points       |                     |                        |                      |                    |  |
|---------------------|---------------------|------------------------|----------------------|--------------------|--|
| Measured Depth (ft) | Vertical Depth (ft) | Name                   | Casing Diameter (in) | Hole Diameter (in) |  |
| 902.77              | 902.68              | Conductor              | 26.000               | 32.000             |  |
| 904.00              | 903.91              | 26"                    | 26.000               | 30.000             |  |
| 1,503.53            | 1,502.53            | Intermediate casing #1 | 20.000               | 32.000             |  |
| 1,515.00            | 1,513.97            | 20"                    | 20.000               | 26.000             |  |
| 5,730.00            | 5,385.60            | 13 3/8"                | 13.375               | 17.500             |  |
| 5,730.36            | 5,385.90            | Intermediate casing #2 | 13.375               | 32.000             |  |
| 12,291.00           | 11,160.26           | 9 5/8"                 | 9.625                | 12.250             |  |
| 12,291.56           | 11,160.78           | Production casing #1   | 9.625                | 32.000             |  |

| Formations          |                     |                       |           |         |                   |
|---------------------|---------------------|-----------------------|-----------|---------|-------------------|
| Measured Depth (ft) | Vertical Depth (ft) | Name                  | Lithology | Dip (°) | Dip Direction (°) |
| 6,254.00            | 5,669.94            | Base Tertiary         |           | 0.00    |                   |
| 10,447.00           | 9,288.15            | Top Heather Formation |           | 0.00    |                   |
| 11,866.00           | 10,607.85           | Top Brent             | Sandstone | 0.00    |                   |
| 11,914.00           | 10,652.67           | Base Upper Brent      | Sandstone | 0.00    |                   |
| 11,954.00           | 10,690.01           | Top Lower Brent       | Sandstone | 0.00    |                   |
| 12,102.00           | 10,827.81           | Base Brent            | Sandstone | 0.00    |                   |

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