

## 1 General

### 1.1 Customer Information

|                |              |
|----------------|--------------|
| Company        | PICEANCE VLY |
| Representative |              |
| Address        |              |

### 1.2 Well Information

|                          |                                      |                 |              |
|--------------------------|--------------------------------------|-----------------|--------------|
| Well                     | KP 443-18                            | Wellbore No.    |              |
| Well Name                | KP 443-18                            | Common Name     | KP 443-18    |
| Project                  | KP 17-06S-091W                       | Site            | KP 13-17 Pad |
| Vertical Section Azimuth | 258.19 (°)                           | North Reference | True         |
| Origin N/S               |                                      | Origin E/W      |              |
| Spud Date                | 7/31/2011                            | UWI             | KP 443-18    |
| Active Datum             | KB @6,224.0ft (above Mean Sea Level) |                 |              |

## 2 Survey Name

### 2.1 Survey Name: Survey #1

|             |           |          |  |
|-------------|-----------|----------|--|
| Survey Name | Survey #1 | Company  |  |
| Started     | 7/31/2011 | Ended    |  |
| Tool Name   | MWD       | Engineer |  |

#### 2.1.1 Tie On Point

| MD<br>(ft) | Inc<br>(°) | Azi<br>(°) | TVD<br>(ft) | N/S<br>(ft) | E/W<br>(ft) |
|------------|------------|------------|-------------|-------------|-------------|
| 0.0        | 0.00       | 0.00       | 0.00        | 0.00        | 0.00        |

#### 2.1.2 Survey Stations

| Date      | Type   | MD<br>(ft) | Inc<br>(°) | Azi<br>(°) | TVD<br>(ft) | N/S<br>(ft) | E/W<br>(ft) | V. Sec<br>(ft) | DLeg<br>(°/100ft) | Build<br>(°/100ft) | Turn<br>(°/100ft) | TFace<br>(°) |
|-----------|--------|------------|------------|------------|-------------|-------------|-------------|----------------|-------------------|--------------------|-------------------|--------------|
| 7/31/2011 | Tie On | 0.0        | 0.00       | 0.00       | 0.00        | 0.00        | 0.00        | 0.00           | 0.00              | 0.00               | 0.00              | 0.00         |
| 7/31/2011 | NORMAL | 159.0      | 1.25       | 255.81     | 158.99      | -0.43       | -1.68       | 1.73           | 0.79              | 0.79               | 0.00              | 255.81       |
|           | NORMAL | 252.0      | 2.76       | 259.10     | 251.93      | -1.10       | -4.86       | 4.99           | 1.63              | 1.62               | 3.54              | 6.00         |
|           | NORMAL | 342.0      | 6.47       | 261.22     | 341.62      | -2.28       | -12.01      | 12.22          | 4.13              | 4.12               | 2.36              | 3.69         |
|           | NORMAL | 434.0      | 9.06       | 254.84     | 432.77      | -4.97       | -24.12      | 24.63          | 2.96              | 2.82               | -6.93             | 338.41       |
|           | NORMAL | 525.0      | 11.43      | 261.08     | 522.32      | -8.24       | -39.95      | 40.79          | 2.87              | 2.60               | 6.86              | 28.19        |
|           | NORMAL | 616.0      | 14.77      | 262.13     | 610.94      | -11.23      | -60.35      | 61.37          | 3.68              | 3.67               | 1.15              | 4.59         |
|           | NORMAL | 707.0      | 15.74      | 259.41     | 698.73      | -15.08      | -83.98      | 85.29          | 1.32              | 1.07               | -2.99             | 322.26       |
|           | NORMAL | 798.0      |            |            | 788.59      | -17.37      | -96.19      | 97.70          | 17.30             | -17.30             | 0.00              | 180.00       |
| 8/1/2011  | NORMAL | 884.0      | 16.80      | 261.25     | 868.64      | -23.39      | -132.86     | 134.83         | 0.67              | 0.60               | 1.04              | 26.82        |
|           | NORMAL | 978.0      | 17.50      | 258.35     | 958.46      | -28.31      | -160.13     | 162.53         | 1.18              | 0.74               | -3.09             | 307.91       |
|           | NORMAL | 1,069.0    | 16.00      | 255.54     | 1,045.60    | -34.20      | -185.67     | 188.74         | 1.87              | -1.65              | -3.09             | 207.02       |
|           | NORMAL | 1,163.0    | 15.65      | 255.01     | 1,136.04    | -40.72      | -210.47     | 214.34         | 0.40              | -0.37              | -0.56             | 202.18       |
|           | NORMAL | 1,257.0    |            |            | 1,228.87    | -44.02      | -222.79     | 227.08         | 16.65             | -16.65             | 0.00              | 180.00       |
| 8/2/2011  | NORMAL | 1,257.0    | 15.56      | 256.51     | 1,226.57    | -46.94      | -234.97     | 239.61         | 0.44              | -0.10              | 1.60              | 103.30       |
|           | NORMAL | 1,351.0    | 15.74      | 257.39     | 1,317.09    | -52.66      | -259.67     | 264.96         | 0.32              | 0.19               | 0.94              | 53.25        |
|           | NORMAL | 1,445.0    | 15.65      | 259.85     | 1,407.58    | -57.68      | -284.60     | 290.38         | 0.71              | -0.10              | 2.62              | 98.89        |
|           | NORMAL | 1,539.0    | 15.92      | 260.81     | 1,498.04    | -61.97      | -309.80     | 315.93         | 0.40              | 0.29               | 1.02              | 44.51        |
|           | NORMAL | 1,631.0    | 16.09      | 255.72     | 1,586.48    | -67.13      | -334.62     | 341.27         | 1.54              | 0.18               | -5.53             | 274.46       |
|           | NORMAL | 1,726.0    | 16.53      | 254.40     | 1,677.65    | -74.02      | -360.39     | 367.91         | 0.61              | 0.46               | -1.39             | 319.25       |
|           | NORMAL | 1,820.0    | 17.23      | 251.67     | 1,767.60    | -81.99      | -386.49     | 395.09         | 1.12              | 0.74               | -2.90             | 310.13       |

## 2.1.2 Survey Stations (Continued)

| Date     | Type   | MD<br>(ft) | Inc<br>(°) | Azi<br>(°) | TVD<br>(ft) | N/S<br>(ft) | E/W<br>(ft) | V. Sec<br>(ft) | DLeg<br>(°/100ft) | Build<br>(°/100ft) | Turn<br>(°/100ft) | TFace<br>(°) |
|----------|--------|------------|------------|------------|-------------|-------------|-------------|----------------|-------------------|--------------------|-------------------|--------------|
| 8/2/2011 | NORMAL | 1,914.0    | 15.56      | 252.82     | 1,857.78    | -90.09      | -411.75     | 421.47         | 1.81              | -1.78              | 1.22              | 169.55       |
|          | NORMAL | 2,008.0    | 15.65      | 254.49     | 1,948.31    | -97.21      | -436.01     | 446.68         | 0.49              | 0.10               | 1.78              | 79.48        |
|          | NORMAL | 2,102.0    | 15.48      | 255.80     | 2,038.87    | -103.67     | -460.39     | 471.86         | 0.42              | -0.18              | 1.39              | 116.44       |
|          | NORMAL | 2,196.0    | 16.09      | 260.02     | 2,129.33    | -109.01     | -485.38     | 497.42         | 1.38              | 0.65               | 4.49              | 64.06        |
|          | NORMAL | 2,290.0    | 16.09      | 260.29     | 2,219.64    | -113.46     | -511.05     | 523.45         | 0.08              | 0.00               | 0.29              | 90.13        |
|          | NORMAL | 2,384.0    | 15.74      | 258.27     | 2,310.04    | -118.25     | -536.37     | 549.22         | 0.70              | -0.37              | -2.15             | 236.74       |
|          | NORMAL | 2,476.0    | 16.00      | 255.80     | 2,398.54    | -123.90     | -560.88     | 574.37         | 0.79              | 0.28               | -2.68             | 289.86       |
|          | NORMAL | 2,571.0    | 15.12      | 260.29     | 2,490.06    | -129.20     | -585.79     | 599.83         | 1.57              | -0.93              | 4.73              | 128.30       |
|          | NORMAL | 2,665.0    | 13.98      | 261.96     | 2,581.04    | -132.86     | -609.12     | 623.41         | 1.29              | -1.21              | 1.78              | 160.60       |
|          | NORMAL | 2,759.0    | 13.98      | 261.78     | 2,672.26    | -136.07     | -631.60     | 646.08         | 0.05              | 0.00               | -0.19             | 269.91       |
|          | NORMAL | 2,852.0    | 14.77      | 259.76     | 2,762.34    | -139.78     | -654.38     | 669.14         | 1.01              | 0.85               | -2.17             | 326.61       |
|          | NORMAL | 2,946.0    | 14.60      | 259.85     | 2,853.27    | -144.00     | -677.83     | 692.96         | 0.18              | -0.18              | 0.10              | 172.40       |
|          | NORMAL | 3,040.0    | 14.68      | 261.08     | 2,944.22    | -147.94     | -701.26     | 716.70         | 0.34              | 0.09               | 1.31              | 76.16        |
|          | NORMAL | 3,133.0    | 14.07      | 258.62     | 3,034.31    | -151.99     | -723.99     | 739.77         | 0.93              | -0.66              | -2.65             | 223.85       |
|          | NORMAL | 3,226.0    | 12.93      | 260.55     | 3,124.74    | -155.93     | -745.33     | 761.47         | 1.32              | -1.23              | 2.08              | 159.37       |
|          | NORMAL | 3,320.0    | 12.31      | 251.59     | 3,216.48    | -160.82     | -765.22     | 781.93         | 2.18              | -0.66              | -9.53             | 248.09       |
|          | NORMAL | 3,413.0    | 10.55      | 250.62     | 3,307.63    | -166.78     | -782.66     | 800.22         | 1.90              | -1.89              | -1.04             | 185.76       |
|          | NORMAL | 3,506.0    | 10.38      | 249.39     | 3,399.08    | -172.55     | -798.53     | 816.94         | 0.30              | -0.18              | -1.32             | 232.13       |
|          | NORMAL | 3,600.0    | 9.76       | 249.12     | 3,491.63    | -178.38     | -813.90     | 833.18         | 0.66              | -0.66              | -0.29             | 184.22       |
|          | NORMAL | 3,694.0    | 8.71       | 246.22     | 3,584.41    | -184.09     | -827.86     | 848.01         | 1.22              | -1.12              | -3.09             | 202.48       |
|          | NORMAL | 3,787.0    | 8.27       | 255.72     | 3,676.40    | -188.57     | -840.79     | 861.58         | 1.58              | -0.47              | 10.22             | 112.08       |
| 8/3/2011 | NORMAL | 3,883.0    | 8.35       | 262.31     | 3,771.39    | -191.21     | -854.38     | 875.43         | 1.00              | 0.08               | 6.86              | 88.46        |
|          | NORMAL | 3,979.0    |            |            | 3,867.05    | -192.15     | -861.30     | 882.40         | 8.70              | -8.70              | 0.00              | 180.00       |
|          | NORMAL | 3,976.0    | 7.65       | 261.08     | 3,863.49    | -193.07     | -867.19     | 888.35         | 0.77              | -0.75              | -1.32             | 193.13       |
|          | NORMAL | 4,070.0    | 7.12       | 257.91     | 3,956.71    | -195.26     | -879.07     | 900.42         | 0.71              | -0.56              | -3.37             | 215.99       |
|          | NORMAL | 4,165.0    | 6.16       | 258.53     | 4,051.07    | -197.51     | -889.82     | 911.41         | 1.01              | -1.01              | 0.65              | 176.04       |
|          | NORMAL | 4,257.0    | 5.19       | 253.52     | 4,142.62    | -199.67     | -898.65     | 920.49         | 1.18              | -1.05              | -5.45             | 204.58       |
|          | NORMAL | 4,351.0    | 4.13       | 253.69     | 4,236.31    | -201.83     | -905.98     | 928.11         | 1.13              | -1.13              | 0.18              | 179.34       |
|          | NORMAL | 4,445.0    | 3.87       | 256.77     | 4,330.08    | -203.51     | -912.31     | 934.65         | 0.36              | -0.28              | 3.28              | 141.96       |
|          | NORMAL | 4,540.0    | 2.90       | 264.68     | 4,424.91    | -204.46     | -917.83     | 940.24         | 1.13              | -1.02              | 8.33              | 158.20       |
|          | NORMAL | 4,634.0    | 2.29       | 263.98     | 4,518.82    | -204.88     | -922.06     | 944.47         | 0.65              | -0.65              | -0.74             | 182.62       |
|          | NORMAL | 4,728.0    | 1.85       | 265.12     | 4,612.75    | -205.21     | -925.44     | 947.85         | 0.47              | -0.47              | 1.21              | 175.22       |
|          | NORMAL | 4,821.0    | 1.58       | 279.89     | 4,705.71    | -205.11     | -928.20     | 950.53         | 0.55              | -0.29              | 15.88             | 128.66       |
|          | NORMAL | 4,915.0    | 1.49       | 266.26     | 4,799.68    | -204.97     | -930.70     | 952.95         | 0.40              | -0.10              | -14.50            | 249.40       |
|          | NORMAL | 5,009.0    | 1.23       | 280.50     | 4,893.65    | -204.87     | -932.91     | 955.09         | 0.45              | -0.28              | 15.15             | 134.55       |
|          | NORMAL | 5,103.0    | 1.23       | 292.10     | 4,987.63    | -204.30     | -934.83     | 956.86         | 0.26              | 0.00               | 12.34             | 95.80        |
|          | NORMAL | 5,197.0    | 0.97       | 315.75     | 5,081.61    | -203.35     | -936.32     | 958.12         | 0.55              | -0.28              | 25.16             | 131.27       |
|          | NORMAL | 5,291.0    |            |            | 5,175.61    | -202.78     | -936.88     | 958.55         | 1.03              | -1.03              | 0.00              | 180.00       |
|          | NORMAL | 5,290.0    | 0.97       | 352.48     | 5,174.60    | -202.01     | -936.98     | 958.49         | 0.66              | 0.00               | 39.49             | 108.36       |
|          | NORMAL | 5,384.0    | 1.14       | 18.50      | 5,268.59    | -200.33     | -936.78     | 957.96         | 0.54              | 0.18               | 27.68             | 83.78        |
|          | NORMAL | 5,477.0    | 1.85       | 22.10      | 5,361.55    | -198.07     | -935.93     | 956.65         | 0.77              | 0.76               | 3.87              | 9.34         |
| 8/4/2011 | NORMAL | 5,571.0    | 0.53       | 16.13      | 5,455.53    | -196.24     | -935.23     | 955.60         | 1.41              | -1.40              | -6.35             | 182.39       |
|          | NORMAL | 5,665.0    | 0.26       | 111.05     | 5,549.53    | -195.90     | -934.91     | 955.22         | 0.65              | -0.29              | 100.98            | 154.87       |
|          | NORMAL | 5,759.0    | 0.88       | 79.94      | 5,643.53    | -195.85     | -934.00     | 954.32         | 0.71              | 0.66               | -33.10            | 317.34       |
|          | NORMAL | 5,853.0    | 0.09       | 271.89     | 5,737.52    | -195.72     | -933.37     | 953.67         | 1.03              | -0.84              | -178.78           | 181.10       |
|          | NORMAL | 5,947.0    | 0.79       | 218.63     | 5,831.52    | -196.23     | -933.85     | 954.24         | 0.79              | 0.74               | -56.66            | 301.14       |
|          | NORMAL | 6,041.0    |            |            | 5,925.52    | -196.73     | -934.25     | 954.74         | 0.84              | -0.84              | 0.00              | 180.00       |
|          | NORMAL | 6,042.0    | 0.62       | 223.28     | 5,926.51    | -197.11     | -934.61     | 955.16         | 0.19              | -0.18              | 4.89              | 163.71       |
|          | NORMAL | 6,135.0    | 0.35       | 126.08     | 6,019.51    | -197.65     | -934.72     | 955.39         | 0.81              | -0.29              | -104.52           | 207.61       |
|          | NORMAL | 6,229.0    | 0.35       | 210.72     | 6,113.51    | -198.06     | -934.64     | 955.39         | 0.50              | 0.00               | 90.04             | 132.32       |
|          | NORMAL | 6,323.0    | 0.79       | 260.81     | 6,207.50    | -198.41     | -935.42     | 956.23         | 0.67              | 0.47               | 53.29             | 75.49        |
| 8/5/2011 | NORMAL | 6,417.0    | 0.18       | 31.33      | 6,301.50    | -198.39     | -935.99     | 956.78         | 0.98              | -0.65              | 138.85            | 171.42       |
|          | NORMAL | 6,510.0    | 0.70       | 66.49      | 6,394.50    | -198.04     | -935.39     | 956.12         | 0.60              | 0.56               | 37.81             | 45.78        |
|          | NORMAL | 6,604.0    | 0.84       | 65.21      | 6,488.49    | -197.52     | -934.24     | 954.89         | 0.15              | 0.15               | -1.36             | 352.36       |
|          | NORMAL | 6,698.0    | 1.22       | 75.16      | 6,582.47    | -196.98     | -932.64     | 953.22         | 0.45              | 0.40               | 10.59             | 30.24        |
|          | NORMAL | 6,792.0    | 1.49       | 73.43      | 6,676.45    | -196.37     | -930.51     | 951.00         | 0.29              | 0.29               | -1.84             | 350.52       |
|          | NORMAL | 6,888.0    | 1.76       | 61.21      | 6,772.41    | -195.30     | -928.02     | 948.34         | 0.46              | 0.28               | -12.73            | 301.71       |

## 2.1.2 Survey Stations (Continued)

| Date     | Type   | MD<br>(ft) | Inc<br>(°) | Azi<br>(°) | TVD<br>(ft) | N/S<br>(ft) | E/W<br>(ft) | V. Sec<br>(ft) | DLeg<br>(°/100ft) | Build<br>(°/100ft) | Turn<br>(°/100ft) | TFace<br>(°) |
|----------|--------|------------|------------|------------|-------------|-------------|-------------|----------------|-------------------|--------------------|-------------------|--------------|
| 8/5/2011 | NORMAL | 6,984.0    |            |            | 6,868.39    | -194.59     | -926.72     | 946.93         | 1.83              | -1.83              | 0.00              | 180.00       |
| 8/6/2011 | NORMAL | 6,982.0    | 2.11       | 70.79      | 6,866.36    | -194.04     | -925.12     | 945.25         | 0.51              | 0.37               | 10.19             | 47.60        |
|          | NORMAL | 7,076.0    | 1.67       | 66.66      | 6,960.30    | -192.93     | -922.23     | 942.19         | 0.49              | -0.47              | -4.39             | 195.14       |
|          | NORMAL | 7,171.0    | 2.02       | 45.66      | 7,055.26    | -191.21     | -919.76     | 939.42         | 0.80              | 0.37               | -22.11            | 286.61       |
|          | NORMAL | 7,265.0    | 1.93       | 42.67      | 7,149.20    | -188.89     | -917.50     | 936.74         | 0.15              | -0.10              | -3.18             | 227.38       |
|          | NORMAL | 7,352.0    | 2.11       | 49.09      | 7,236.15    | -186.76     | -915.30     | 934.15         | 0.33              | 0.21               | 7.38              | 54.74        |
|          | NORMAL | 7,406.0    | 2.11       | 49.09      | 7,290.11    | -185.46     | -913.79     | 932.41         | 0.00              | 0.00               | 0.00              | 0.00         |