

# PETROLEUM DEVELOPMENT CORP Weld County CO

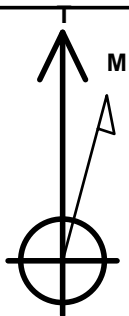
Well Name: **Ochsner 5G-421**

Surface Location: Ochsner L5-HZ Pad Sec.5-T6N-R67W  
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone  
Ground Elevation: 4882.0

| +N/-S   | +E/-W | Northing   | Easting    | Latitude  | Longitude   | Slot |
|---|-------|------------|------------|-----------|-------------|------|
| 0.0   | 0.0   | 1431394.72 | 3160232.17 | 40.516150 | -104.923690 |      |
| RKB Ensign 32 - 15' WELL @ 4897.0ft (RKB Ensign 32 - 15') |       |            |            |           |             |      |

## WELLBORE TARGET DETAILS

| Name                          | TVD    | +N/-S  | +E/-W  | Shape   |
|-------------------------------|--------|--------|--------|---------|
| 460' HALF SECTIONLINE         | 1.0    | 364.4  | 1765.4 | Polygon |
| SHL 2493'FNL, 862'FWL, SEC.5  | 1.0    | 0.0    | 0.0    | Point   |
| BHL 500'FNL & 640'FWL, SEC.32 | 7097.0 | 7486.8 | -294.6 | Point   |



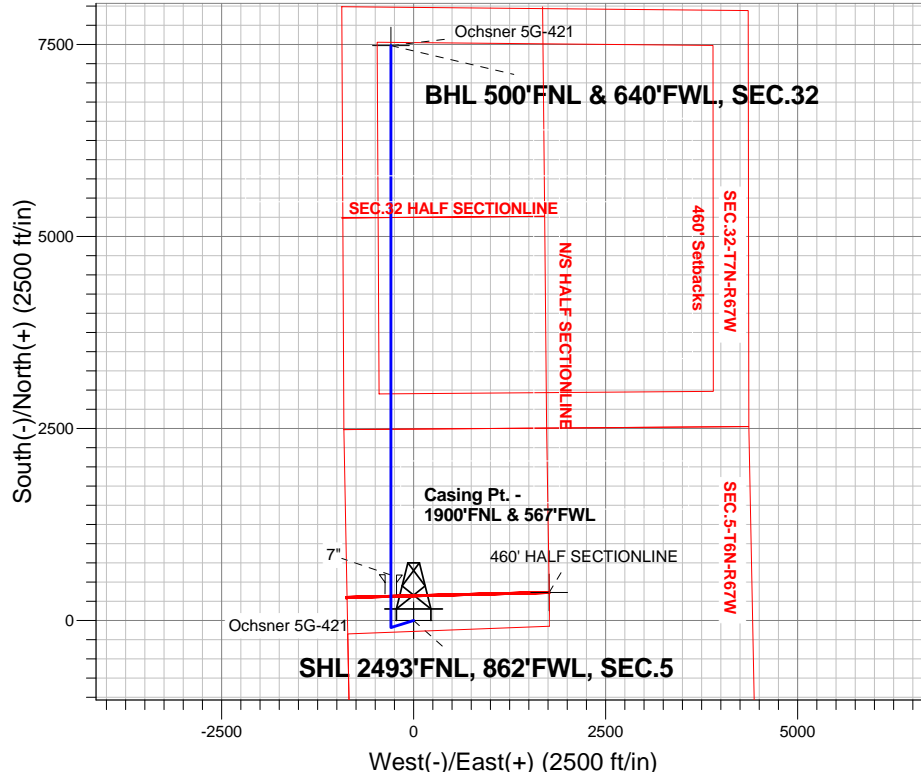
Azimuths to True North  
Magnetic North: 8.60°

Magnetic Field  
Strength: 52891.9snT  
Dip Angle: 67.03°  
Date: 2/20/2014  
Model: IGRF2010

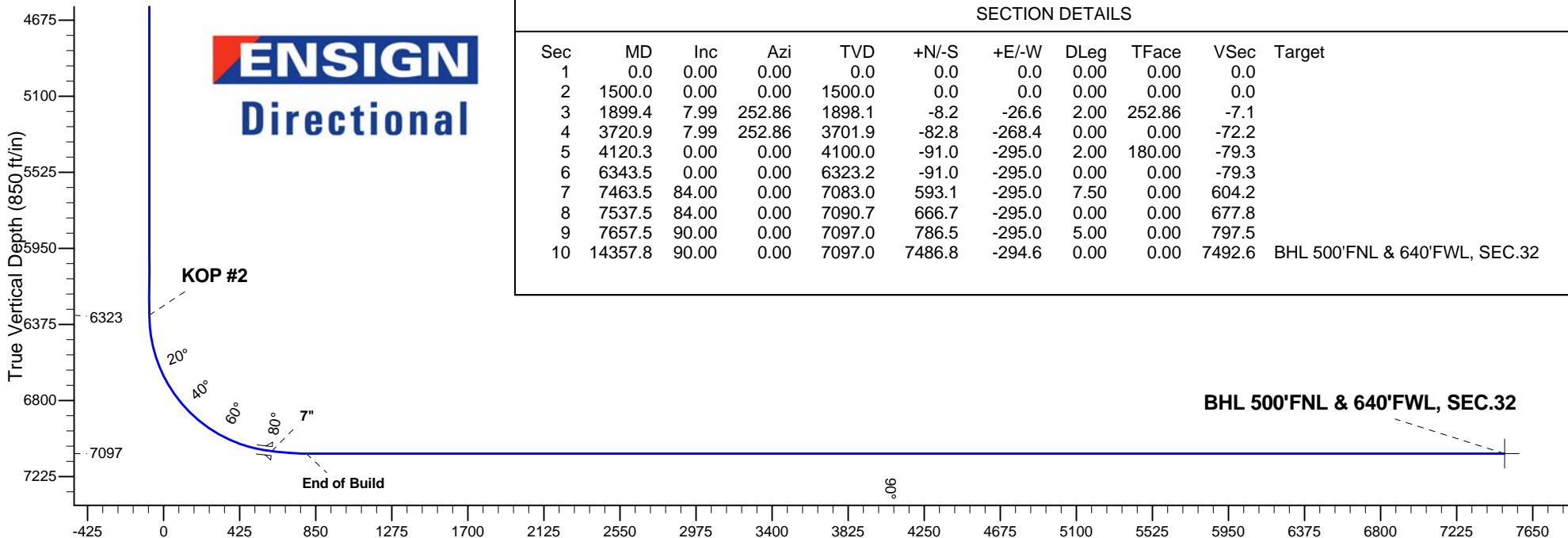
## ANNOTATIONS

| TVD    | MD     | Annotation   |
|--------|--------|--------------|
| 1500.0 | 1500.0 | KOP #1       |
| 6323.2 | 6343.5 | KOP #2       |
| 7097.0 | 7657.5 | End of Build |

Ochsner L5-HZ Pad Sec.5-T6N-R67W  
Ochsner 5G-421  
Plan #2 (2-20-14)  
13:18, February 20 2014



**ENSIGN**  
Directional



## SECTION DETAILS

| Sec | MD      | Inc   | Azi    | TVD    | +N/-S  | +E/-W  | DLeg | TFace  | VSec   | Target                        |
|-----|---------|-------|--------|--------|--------|--------|------|--------|--------|-------------------------------|
| 1   | 0.0     | 0.00  | 0.00   | 0.0    | 0.0    | 0.0    | 0.00 | 0.00   | 0.0    |                               |
| 2   | 1500.0  | 0.00  | 0.00   | 1500.0 | 0.0    | 0.0    | 0.00 | 0.00   | 0.0    |                               |
| 3   | 1899.4  | 7.99  | 252.86 | 1898.1 | -8.2   | -26.6  | 2.00 | 252.86 | -7.1   |                               |
| 4   | 3720.9  | 7.99  | 252.86 | 3701.9 | -82.8  | -268.4 | 0.00 | 0.00   | -72.2  |                               |
| 5   | 4120.3  | 0.00  | 0.00   | 4100.0 | -91.0  | -295.0 | 2.00 | 180.00 | -79.3  |                               |
| 6   | 6343.5  | 0.00  | 0.00   | 6323.2 | -91.0  | -295.0 | 0.00 | 0.00   | -79.3  |                               |
| 7   | 7463.5  | 84.00 | 0.00   | 7083.0 | 593.1  | -295.0 | 7.50 | 0.00   | 604.2  |                               |
| 8   | 7537.5  | 84.00 | 0.00   | 7090.7 | 666.7  | -295.0 | 0.00 | 0.00   | 677.8  |                               |
| 9   | 7657.5  | 90.00 | 0.00   | 7097.0 | 786.5  | -295.0 | 5.00 | 0.00   | 797.5  |                               |
| 10  | 14357.8 | 90.00 | 0.00   | 7097.0 | 7486.8 | -294.6 | 0.00 | 0.00   | 7492.6 | BHL 500'FNL & 640'FWL, SEC.32 |

Vertical Section at 357.75° (850 ft/in)



## **Directional**

# **PETROLEUM DEVELOPMENT CORP Weld County CO**

**SEC.5-T6N-R67W**

**Ochsner L5-HZ Pad Sec.5-T6N-R67W**

**Ochsner 5G-421**

**Wellbore #1**

**Plan: Plan #2 (2-20-14)**

## **Standard Planning Report**

**20 February, 2014**

|                  |   |                                     |                                       |
|------------------|---|-------------------------------------|---------------------------------------|
| <b>Database:</b> | Landmark                                  | <b>Local Co-ordinate Reference:</b> | Well Ochsner 5G-421                   |
| <b>Company:</b>  | PETROLEUM DEVELOPMENT CORP Weld County CO | <b>TVD Reference:</b>               | WELL @ 4897.0ft (RKB Ensign 32 - 15') |
| <b>Project:</b>  | SEC.5-T6N-R67W                            | <b>MD Reference:</b>                | WELL @ 4897.0ft (RKB Ensign 32 - 15') |
| <b>Site:</b>     | Ochsner L5-HZ Pad Sec.5-T6N-R67W          | <b>North Reference:</b>             | True                                  |
| <b>Well:</b>     | Ochsner 5G-421                            | <b>Survey Calculation Method:</b>   | Minimum Curvature                     |
| <b>Wellbore:</b> | Wellbore #1                               |                                     |                                       |
| <b>Design:</b>   | Plan #2 (2-20-14)                         |                                     |                                       |

|                    |                                 |                      |                             |
|--------------------|---------------------------------|----------------------|-----------------------------|
| <b>Project</b>     | SEC.5-T6N-R67W, Weld County, CO |                      |                             |
| <b>Map System:</b> | US State Plane 1983             | <b>System Datum:</b> | Mean Sea Level              |
| <b>Geo Datum:</b>  | North American Datum 1983       |                      | Using Well Reference Point  |
| <b>Map Zone:</b>   | Colorado Northern Zone          |                      | Using geodetic scale factor |

|                              |                                  |                          |                 |
|------------------------------|----------------------------------|--------------------------|-----------------|
| <b>Site</b>                  | Ochsner L5-HZ Pad Sec.5-T6N-R67W |                          |                 |
| <b>Site Position:</b>        |                                  | <b>Northing:</b>         | 1,431,361.74 ft |
| <b>From:</b>                 | Lat/Long                         | <b>Easting:</b>          | 3,160,201.80 ft |
| <b>Position Uncertainty:</b> | 0.0 ft                           | <b>Slot Radius:</b>      | "               |
|                              |                                  | <b>Latitude:</b>         | 40.516060       |
|                              |                                  | <b>Longitude:</b>        | -104.923800     |
|                              |                                  | <b>Grid Convergence:</b> | 0.37 °          |

|                             |                |         |                            |
|-----------------------------|----------------|---------|----------------------------|
| <b>Well</b>                 | Ochsner 5G-421 |         |                            |
| <b>Well Position</b>        | <b>+N/-S</b>   | 32.8 ft | <b>Northing:</b>           |
|                             | <b>+E/-W</b>   | 30.6 ft | <b>Easting:</b>            |
| <b>Position Uncertainty</b> |                | 0.0 ft  | <b>Wellhead Elevation:</b> |
|                             |                |         | <b>Latitude:</b>           |
|                             |                |         | <b>Longitude:</b>          |
|                             |                |         | <b>Ground Level:</b>       |

|                  |                   |                    |                        |                      |                            |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| <b>Wellbore</b>  | Wellbore #1       |                    |                        |                      |                            |
| <b>Magnetics</b> | <b>Model Name</b> | <b>Sample Date</b> | <b>Declination (°)</b> | <b>Dip Angle (°)</b> | <b>Field Strength (nT)</b> |
|                  | IGRF2010          | 2/20/2014          | 8.60                   | 67.03                | 52,892                     |

|                          |                              |                   |                      |                      |
|--------------------------|------------------------------|-------------------|----------------------|----------------------|
| <b>Design</b>            | Plan #2 (2-20-14)            |                   |                      |                      |
| <b>Audit Notes:</b>      |                              |                   |                      |                      |
| <b>Version:</b>          | <b>Phase:</b>                | PROTOTYPE         | <b>Tie On Depth:</b> | 0.0                  |
| <b>Vertical Section:</b> | <b>Depth From (TVD) (ft)</b> | <b>+N/-S (ft)</b> | <b>+E/-W (ft)</b>    | <b>Direction (°)</b> |
|                          | 0.0                          | 0.0               | 0.0                  | 357.75               |

| <b>Plan Sections</b> |                 |             |                     |            |            |                       |                      |                     |         |                   |
|----------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|----------------------|---------------------|---------|-------------------|
| Measured Depth (ft)  | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) | TFO (°) | Target            |
| 0.0                  | 0.00            | 0.00        | 0.0                 | 0.0        | 0.0        | 0.00                  | 0.00                 | 0.00                | 0.00    |                   |
| 1,500.0              | 0.00            | 0.00        | 1,500.0             | 0.0        | 0.0        | 0.00                  | 0.00                 | 0.00                | 0.00    |                   |
| 1,899.4              | 7.99            | 252.86      | 1,898.1             | -8.2       | -26.6      | 2.00                  | 2.00                 | 0.00                | 252.86  |                   |
| 3,720.9              | 7.99            | 252.86      | 3,701.9             | -82.8      | -268.4     | 0.00                  | 0.00                 | 0.00                | 0.00    |                   |
| 4,120.3              | 0.00            | 0.00        | 4,100.0             | -91.0      | -295.0     | 2.00                  | -2.00                | 0.00                | 180.00  |                   |
| 6,343.5              | 0.00            | 0.00        | 6,323.2             | -91.0      | -295.0     | 0.00                  | 0.00                 | 0.00                | 0.00    |                   |
| 7,463.5              | 84.00           | 0.00        | 7,083.0             | 593.1      | -295.0     | 7.50                  | 7.50                 | 0.00                | 0.00    |                   |
| 7,537.5              | 84.00           | 0.00        | 7,090.7             | 666.7      | -295.0     | 0.00                  | 0.00                 | 0.00                | 0.00    |                   |
| 7,657.5              | 90.00           | 0.00        | 7,097.0             | 786.5      | -295.0     | 5.00                  | 5.00                 | 0.00                | 0.00    |                   |
| 14,357.8             | 90.00           | 0.00        | 7,097.0             | 7,486.8    | -294.6     | 0.00                  | 0.00                 | 0.00                | 0.00    | BHL 500'FNL & 64C |

|                  |   |                                     |                                       |
|------------------|---|-------------------------------------|---------------------------------------|
| <b>Database:</b> | Landmark                                  | <b>Local Co-ordinate Reference:</b> | Well Ochsner 5G-421                   |
| <b>Company:</b>  | PETROLEUM DEVELOPMENT CORP Weld County CO | <b>TVD Reference:</b>               | WELL @ 4897.0ft (RKB Ensign 32 - 15') |
| <b>Project:</b>  | SEC.5-T6N-R67W                            | <b>MD Reference:</b>                | WELL @ 4897.0ft (RKB Ensign 32 - 15') |
| <b>Site:</b>     | Ochsner L5-HZ Pad Sec.5-T6N-R67W          | <b>North Reference:</b>             | True                                  |
| <b>Well:</b>     | Ochsner 5G-421                            | <b>Survey Calculation Method:</b>   | Minimum Curvature                     |
| <b>Wellbore:</b> | Wellbore #1                               |                                     |                                       |
| <b>Design:</b>   | Plan #2 (2-20-14)                         |                                     |                                       |

Planned Survey

| Measured Depth (ft)   | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
|---|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|
| 0.0   | 0.00            | 0.00        | 0.0                 | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 1.0   | 0.00            | 0.00        | 1.0                 | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| <b>460' HALF SECTIONLINE - SHL 2493'FNL, 862'FWL, SEC.5</b> |                 |             |                     |            |            |                       |                       |                      |                     |
| 100.0   | 0.00            | 0.00        | 100.0               | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 200.0   | 0.00            | 0.00        | 200.0               | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 300.0   | 0.00            | 0.00        | 300.0               | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 400.0   | 0.00            | 0.00        | 400.0               | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 500.0   | 0.00            | 0.00        | 500.0               | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 600.0   | 0.00            | 0.00        | 600.0               | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 700.0   | 0.00            | 0.00        | 700.0               | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 800.0   | 0.00            | 0.00        | 800.0               | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 900.0   | 0.00            | 0.00        | 900.0               | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 1,000.0   | 0.00            | 0.00        | 1,000.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 1,100.0   | 0.00            | 0.00        | 1,100.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 1,200.0   | 0.00            | 0.00        | 1,200.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 1,300.0   | 0.00            | 0.00        | 1,300.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 1,400.0   | 0.00            | 0.00        | 1,400.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 1,500.0   | 0.00            | 0.00        | 1,500.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| <b>KOP #1</b>   |                 |             |                     |            |            |                       |                       |                      |                     |
| 1,600.0   | 2.00            | 252.86      | 1,600.0             | -0.5       | -1.7       | -0.4                  | 2.00                  | 2.00                 | 0.00                |
| 1,700.0   | 4.00            | 252.86      | 1,699.8             | -2.1       | -6.7       | -1.8                  | 2.00                  | 2.00                 | 0.00                |
| 1,800.0   | 6.00            | 252.86      | 1,799.5             | -4.6       | -15.0      | -4.0                  | 2.00                  | 2.00                 | 0.00                |
| 1,899.4   | 7.99            | 252.86      | 1,898.1             | -8.2       | -26.6      | -7.1                  | 2.00                  | 2.00                 | 0.00                |
| 1,900.0   | 7.99            | 252.86      | 1,898.7             | -8.2       | -26.6      | -7.2                  | 0.00                  | 0.00                 | 0.00                |
| 2,000.0   | 7.99            | 252.86      | 1,997.7             | -12.3      | -39.9      | -10.7                 | 0.00                  | 0.00                 | 0.00                |
| 2,100.0   | 7.99            | 252.86      | 2,096.8             | -16.4      | -53.2      | -14.3                 | 0.00                  | 0.00                 | 0.00                |
| 2,200.0   | 7.99            | 252.86      | 2,195.8             | -20.5      | -66.5      | -17.9                 | 0.00                  | 0.00                 | 0.00                |
| 2,300.0   | 7.99            | 252.86      | 2,294.8             | -24.6      | -79.8      | -21.4                 | 0.00                  | 0.00                 | 0.00                |
| 2,400.0   | 7.99            | 252.86      | 2,393.9             | -28.7      | -93.0      | -25.0                 | 0.00                  | 0.00                 | 0.00                |
| 2,500.0   | 7.99            | 252.86      | 2,492.9             | -32.8      | -106.3     | -28.6                 | 0.00                  | 0.00                 | 0.00                |
| 2,600.0   | 7.99            | 252.86      | 2,591.9             | -36.9      | -119.6     | -32.2                 | 0.00                  | 0.00                 | 0.00                |
| 2,700.0   | 7.99            | 252.86      | 2,690.9             | -41.0      | -132.9     | -35.7                 | 0.00                  | 0.00                 | 0.00                |
| 2,800.0   | 7.99            | 252.86      | 2,790.0             | -45.1      | -146.2     | -39.3                 | 0.00                  | 0.00                 | 0.00                |
| 2,900.0   | 7.99            | 252.86      | 2,889.0             | -49.2      | -159.4     | -42.9                 | 0.00                  | 0.00                 | 0.00                |
| 3,000.0   | 7.99            | 252.86      | 2,988.0             | -53.3      | -172.7     | -46.4                 | 0.00                  | 0.00                 | 0.00                |
| 3,100.0   | 7.99            | 252.86      | 3,087.1             | -57.4      | -186.0     | -50.0                 | 0.00                  | 0.00                 | 0.00                |
| 3,200.0   | 7.99            | 252.86      | 3,186.1             | -61.5      | -199.3     | -53.6                 | 0.00                  | 0.00                 | 0.00                |
| 3,300.0   | 7.99            | 252.86      | 3,285.1             | -65.6      | -212.6     | -57.2                 | 0.00                  | 0.00                 | 0.00                |
| 3,400.0   | 7.99            | 252.86      | 3,384.1             | -69.7      | -225.8     | -60.7                 | 0.00                  | 0.00                 | 0.00                |
| 3,500.0   | 7.99            | 252.86      | 3,483.2             | -73.8      | -239.1     | -64.3                 | 0.00                  | 0.00                 | 0.00                |
| 3,600.0   | 7.99            | 252.86      | 3,582.2             | -77.9      | -252.4     | -67.9                 | 0.00                  | 0.00                 | 0.00                |
| 3,700.0   | 7.99            | 252.86      | 3,681.2             | -82.0      | -265.7     | -71.4                 | 0.00                  | 0.00                 | 0.00                |
| 3,720.9   | 7.99            | 252.86      | 3,701.9             | -82.8      | -268.4     | -72.2                 | 0.00                  | 0.00                 | 0.00                |
| 3,800.0   | 6.41            | 252.86      | 3,780.4             | -85.7      | -277.9     | -74.7                 | 2.00                  | -2.00                | 0.00                |
| 3,900.0   | 4.41            | 252.86      | 3,880.0             | -88.5      | -286.9     | -77.2                 | 2.00                  | -2.00                | 0.00                |
| 4,000.0   | 2.41            | 252.86      | 3,979.8             | -90.3      | -292.6     | -78.7                 | 2.00                  | -2.00                | 0.00                |
| 4,100.0   | 0.41            | 252.86      | 4,079.7             | -91.0      | -294.9     | -79.3                 | 2.00                  | -2.00                | 0.00                |
| 4,120.3   | 0.00            | 0.00        | 4,100.0             | -91.0      | -295.0     | -79.3                 | 2.00                  | -2.00                | 0.00                |
| 4,200.0   | 0.00            | 0.00        | 4,179.7             | -91.0      | -295.0     | -79.3                 | 0.00                  | 0.00                 | 0.00                |
| 4,300.0   | 0.00            | 0.00        | 4,279.7             | -91.0      | -295.0     | -79.3                 | 0.00                  | 0.00                 | 0.00                |
| 4,400.0   | 0.00            | 0.00        | 4,379.7             | -91.0      | -295.0     | -79.3                 | 0.00                  | 0.00                 | 0.00                |
| 4,500.0   | 0.00            | 0.00        | 4,479.7             | -91.0      | -295.0     | -79.3                 | 0.00                  | 0.00                 | 0.00                |
| 4,600.0   | 0.00            | 0.00        | 4,579.7             | -91.0      | -295.0     | -79.3                 | 0.00                  | 0.00                 | 0.00                |

|                  |   |                                     |                                       |
|------------------|---|-------------------------------------|---------------------------------------|
| <b>Database:</b> | Landmark                                  | <b>Local Co-ordinate Reference:</b> | Well Ochsner 5G-421                   |
| <b>Company:</b>  | PETROLEUM DEVELOPMENT CORP Weld County CO | <b>TVD Reference:</b>               | WELL @ 4897.0ft (RKB Ensign 32 - 15') |
| <b>Project:</b>  | SEC.5-T6N-R67W                            | <b>MD Reference:</b>                | WELL @ 4897.0ft (RKB Ensign 32 - 15') |
| <b>Site:</b>     | Ochsner L5-HZ Pad Sec.5-T6N-R67W          | <b>North Reference:</b>             | True                                  |
| <b>Well:</b>     | Ochsner 5G-421                            | <b>Survey Calculation Method:</b>   | Minimum Curvature                     |
| <b>Wellbore:</b> | Wellbore #1                               |                                     |                                       |
| <b>Design:</b>   | Plan #2 (2-20-14)                         |                                     |                                       |

| Planned Survey      |                 |             |                     |            |            |                       |                       |                      |                     |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
| 4,700.0             | 0.00            | 0.00        | 4,679.7             | -91.0      | -295.0     | -79.3                 | 0.00                  | 0.00                 | 0.00                |
| 4,800.0             | 0.00            | 0.00        | 4,779.7             | -91.0      | -295.0     | -79.3                 | 0.00                  | 0.00                 | 0.00                |
| 4,900.0             | 0.00            | 0.00        | 4,879.7             | -91.0      | -295.0     | -79.3                 | 0.00                  | 0.00                 | 0.00                |
| 5,000.0             | 0.00            | 0.00        | 4,979.7             | -91.0      | -295.0     | -79.3                 | 0.00                  | 0.00                 | 0.00                |
| 5,100.0             | 0.00            | 0.00        | 5,079.7             | -91.0      | -295.0     | -79.3                 | 0.00                  | 0.00                 | 0.00                |
| 5,200.0             | 0.00            | 0.00        | 5,179.7             | -91.0      | -295.0     | -79.3                 | 0.00                  | 0.00                 | 0.00                |
| 5,300.0             | 0.00            | 0.00        | 5,279.7             | -91.0      | -295.0     | -79.3                 | 0.00                  | 0.00                 | 0.00                |
| 5,400.0             | 0.00            | 0.00        | 5,379.7             | -91.0      | -295.0     | -79.3                 | 0.00                  | 0.00                 | 0.00                |
| 5,500.0             | 0.00            | 0.00        | 5,479.7             | -91.0      | -295.0     | -79.3                 | 0.00                  | 0.00                 | 0.00                |
| 5,600.0             | 0.00            | 0.00        | 5,579.7             | -91.0      | -295.0     | -79.3                 | 0.00                  | 0.00                 | 0.00                |
| 5,700.0             | 0.00            | 0.00        | 5,679.7             | -91.0      | -295.0     | -79.3                 | 0.00                  | 0.00                 | 0.00                |
| 5,800.0             | 0.00            | 0.00        | 5,779.7             | -91.0      | -295.0     | -79.3                 | 0.00                  | 0.00                 | 0.00                |
| 5,900.0             | 0.00            | 0.00        | 5,879.7             | -91.0      | -295.0     | -79.3                 | 0.00                  | 0.00                 | 0.00                |
| 6,000.0             | 0.00            | 0.00        | 5,979.7             | -91.0      | -295.0     | -79.3                 | 0.00                  | 0.00                 | 0.00                |
| 6,100.0             | 0.00            | 0.00        | 6,079.7             | -91.0      | -295.0     | -79.3                 | 0.00                  | 0.00                 | 0.00                |
| 6,200.0             | 0.00            | 0.00        | 6,179.7             | -91.0      | -295.0     | -79.3                 | 0.00                  | 0.00                 | 0.00                |
| 6,300.0             | 0.00            | 0.00        | 6,279.7             | -91.0      | -295.0     | -79.3                 | 0.00                  | 0.00                 | 0.00                |
| 6,343.5             | 0.00            | 0.00        | 6,323.2             | -91.0      | -295.0     | -79.3                 | 0.00                  | 0.00                 | 0.00                |
| <b>KOP #2</b>       |                 |             |                     |            |            |                       |                       |                      |                     |
| 6,400.0             | 4.24            | 0.00        | 6,379.7             | -88.9      | -295.0     | -77.2                 | 7.50                  | 7.50                 | 0.00                |
| 6,500.0             | 11.74           | 0.00        | 6,478.6             | -75.0      | -295.0     | -63.4                 | 7.50                  | 7.50                 | 0.00                |
| 6,600.0             | 19.24           | 0.00        | 6,574.9             | -48.3      | -295.0     | -36.7                 | 7.50                  | 7.50                 | 0.00                |
| 6,700.0             | 26.74           | 0.00        | 6,666.9             | -9.3       | -295.0     | 2.3                   | 7.50                  | 7.50                 | 0.00                |
| 6,800.0             | 34.24           | 0.00        | 6,753.1             | 41.4       | -295.0     | 53.0                  | 7.50                  | 7.50                 | 0.00                |
| 6,900.0             | 41.74           | 0.00        | 6,831.8             | 102.9      | -295.0     | 114.4                 | 7.50                  | 7.50                 | 0.00                |
| 7,000.0             | 49.24           | 0.00        | 6,901.9             | 174.2      | -295.0     | 185.6                 | 7.50                  | 7.50                 | 0.00                |
| 7,100.0             | 56.74           | 0.00        | 6,962.0             | 254.0      | -295.0     | 265.4                 | 7.50                  | 7.50                 | 0.00                |
| 7,200.0             | 64.24           | 0.00        | 7,011.2             | 340.9      | -295.0     | 352.2                 | 7.50                  | 7.50                 | 0.00                |
| 7,300.0             | 71.74           | 0.00        | 7,048.7             | 433.6      | -295.0     | 444.8                 | 7.50                  | 7.50                 | 0.00                |
| 7,400.0             | 79.24           | 0.00        | 7,073.7             | 530.3      | -295.0     | 541.5                 | 7.50                  | 7.50                 | 0.00                |
| 7,463.5             | 84.00           | 0.00        | 7,083.0             | 593.1      | -295.0     | 604.2                 | 7.50                  | 7.50                 | 0.00                |
| <b>7"</b>           |                 |             |                     |            |            |                       |                       |                      |                     |
| 7,500.0             | 84.00           | 0.00        | 7,086.8             | 629.4      | -295.0     | 640.5                 | 0.00                  | 0.00                 | 0.00                |
| 7,537.5             | 84.00           | 0.00        | 7,090.7             | 666.7      | -295.0     | 677.8                 | 0.00                  | 0.00                 | 0.00                |
| 7,600.0             | 87.13           | 0.00        | 7,095.6             | 729.0      | -295.0     | 740.0                 | 5.00                  | 5.00                 | 0.00                |
| 7,657.5             | 90.00           | 0.00        | 7,097.0             | 786.5      | -295.0     | 797.5                 | 5.00                  | 5.00                 | 0.00                |
| <b>End of Build</b> |                 |             |                     |            |            |                       |                       |                      |                     |
| 7,700.0             | 90.00           | 0.00        | 7,097.0             | 829.0      | -295.0     | 839.9                 | 0.00                  | 0.00                 | 0.00                |
| 7,800.0             | 90.00           | 0.00        | 7,097.0             | 929.0      | -295.0     | 939.9                 | 0.00                  | 0.00                 | 0.00                |
| 7,900.0             | 90.00           | 0.00        | 7,097.0             | 1,029.0    | -294.9     | 1,039.8               | 0.00                  | 0.00                 | 0.00                |
| 8,000.0             | 90.00           | 0.00        | 7,097.0             | 1,129.0    | -294.9     | 1,139.7               | 0.00                  | 0.00                 | 0.00                |
| 8,100.0             | 90.00           | 0.00        | 7,097.0             | 1,229.0    | -294.9     | 1,239.6               | 0.00                  | 0.00                 | 0.00                |
| 8,200.0             | 90.00           | 0.00        | 7,097.0             | 1,329.0    | -294.9     | 1,339.5               | 0.00                  | 0.00                 | 0.00                |
| 8,300.0             | 90.00           | 0.00        | 7,097.0             | 1,429.0    | -294.9     | 1,439.5               | 0.00                  | 0.00                 | 0.00                |
| 8,400.0             | 90.00           | 0.00        | 7,097.0             | 1,529.0    | -294.9     | 1,539.4               | 0.00                  | 0.00                 | 0.00                |
| 8,500.0             | 90.00           | 0.00        | 7,097.0             | 1,629.0    | -294.9     | 1,639.3               | 0.00                  | 0.00                 | 0.00                |
| 8,600.0             | 90.00           | 0.00        | 7,097.0             | 1,729.0    | -294.9     | 1,739.2               | 0.00                  | 0.00                 | 0.00                |
| 8,700.0             | 90.00           | 0.00        | 7,097.0             | 1,829.0    | -294.9     | 1,839.2               | 0.00                  | 0.00                 | 0.00                |
| 8,800.0             | 90.00           | 0.00        | 7,097.0             | 1,929.0    | -294.9     | 1,939.1               | 0.00                  | 0.00                 | 0.00                |
| 8,900.0             | 90.00           | 0.00        | 7,097.0             | 2,029.0    | -294.9     | 2,039.0               | 0.00                  | 0.00                 | 0.00                |
| 9,000.0             | 90.00           | 0.00        | 7,097.0             | 2,129.0    | -294.9     | 2,138.9               | 0.00                  | 0.00                 | 0.00                |
| 9,100.0             | 90.00           | 0.00        | 7,097.0             | 2,229.0    | -294.9     | 2,238.9               | 0.00                  | 0.00                 | 0.00                |
| 9,200.0             | 90.00           | 0.00        | 7,097.0             | 2,329.0    | -294.9     | 2,338.8               | 0.00                  | 0.00                 | 0.00                |

|                  |   |                                     |                                       |
|------------------|---|-------------------------------------|---------------------------------------|
| <b>Database:</b> | Landmark                                  | <b>Local Co-ordinate Reference:</b> | Well Ochsner 5G-421                   |
| <b>Company:</b>  | PETROLEUM DEVELOPMENT CORP Weld County CO | <b>TVD Reference:</b>               | WELL @ 4897.0ft (RKB Ensign 32 - 15') |
| <b>Project:</b>  | SEC.5-T6N-R67W                            | <b>MD Reference:</b>                | WELL @ 4897.0ft (RKB Ensign 32 - 15') |
| <b>Site:</b>     | Ochsner L5-HZ Pad Sec.5-T6N-R67W          | <b>North Reference:</b>             | True                                  |
| <b>Well:</b>     | Ochsner 5G-421                            | <b>Survey Calculation Method:</b>   | Minimum Curvature                     |
| <b>Wellbore:</b> | Wellbore #1                               |                                     |                                       |
| <b>Design:</b>   | Plan #2 (2-20-14)                         |                                     |                                       |

| Planned Survey                |                 |             |                     |            |            |                       |                       |                      |                     |
|-------------------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|
| Measured Depth (ft)           | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
| 9,300.0                       | 90.00           | 0.00        | 7,097.0             | 2,429.0    | -294.9     | 2,438.7               | 0.00                  | 0.00                 | 0.00                |
| 9,400.0                       | 90.00           | 0.00        | 7,097.0             | 2,529.0    | -294.9     | 2,538.6               | 0.00                  | 0.00                 | 0.00                |
| 9,500.0                       | 90.00           | 0.00        | 7,097.0             | 2,629.0    | -294.9     | 2,638.5               | 0.00                  | 0.00                 | 0.00                |
| 9,600.0                       | 90.00           | 0.00        | 7,097.0             | 2,729.0    | -294.9     | 2,738.5               | 0.00                  | 0.00                 | 0.00                |
| 9,700.0                       | 90.00           | 0.00        | 7,097.0             | 2,829.0    | -294.9     | 2,838.4               | 0.00                  | 0.00                 | 0.00                |
| 9,800.0                       | 90.00           | 0.00        | 7,097.0             | 2,929.0    | -294.9     | 2,938.3               | 0.00                  | 0.00                 | 0.00                |
| 9,900.0                       | 90.00           | 0.00        | 7,097.0             | 3,029.0    | -294.9     | 3,038.2               | 0.00                  | 0.00                 | 0.00                |
| 10,000.0                      | 90.00           | 0.00        | 7,097.0             | 3,129.0    | -294.8     | 3,138.2               | 0.00                  | 0.00                 | 0.00                |
| 10,100.0                      | 90.00           | 0.00        | 7,097.0             | 3,229.0    | -294.8     | 3,238.1               | 0.00                  | 0.00                 | 0.00                |
| 10,200.0                      | 90.00           | 0.00        | 7,097.0             | 3,329.0    | -294.8     | 3,338.0               | 0.00                  | 0.00                 | 0.00                |
| 10,300.0                      | 90.00           | 0.00        | 7,097.0             | 3,429.0    | -294.8     | 3,437.9               | 0.00                  | 0.00                 | 0.00                |
| 10,400.0                      | 90.00           | 0.00        | 7,097.0             | 3,529.0    | -294.8     | 3,537.8               | 0.00                  | 0.00                 | 0.00                |
| 10,500.0                      | 90.00           | 0.00        | 7,097.0             | 3,629.0    | -294.8     | 3,637.8               | 0.00                  | 0.00                 | 0.00                |
| 10,600.0                      | 90.00           | 0.00        | 7,097.0             | 3,729.0    | -294.8     | 3,737.7               | 0.00                  | 0.00                 | 0.00                |
| 10,700.0                      | 90.00           | 0.00        | 7,097.0             | 3,829.0    | -294.8     | 3,837.6               | 0.00                  | 0.00                 | 0.00                |
| 10,800.0                      | 90.00           | 0.00        | 7,097.0             | 3,929.0    | -294.8     | 3,937.5               | 0.00                  | 0.00                 | 0.00                |
| 10,900.0                      | 90.00           | 0.00        | 7,097.0             | 4,029.0    | -294.8     | 4,037.5               | 0.00                  | 0.00                 | 0.00                |
| 11,000.0                      | 90.00           | 0.00        | 7,097.0             | 4,129.0    | -294.8     | 4,137.4               | 0.00                  | 0.00                 | 0.00                |
| 11,100.0                      | 90.00           | 0.00        | 7,097.0             | 4,229.0    | -294.8     | 4,237.3               | 0.00                  | 0.00                 | 0.00                |
| 11,200.0                      | 90.00           | 0.00        | 7,097.0             | 4,329.0    | -294.8     | 4,337.2               | 0.00                  | 0.00                 | 0.00                |
| 11,300.0                      | 90.00           | 0.00        | 7,097.0             | 4,429.0    | -294.8     | 4,437.1               | 0.00                  | 0.00                 | 0.00                |
| 11,400.0                      | 90.00           | 0.00        | 7,097.0             | 4,529.0    | -294.8     | 4,537.1               | 0.00                  | 0.00                 | 0.00                |
| 11,500.0                      | 90.00           | 0.00        | 7,097.0             | 4,629.0    | -294.8     | 4,637.0               | 0.00                  | 0.00                 | 0.00                |
| 11,600.0                      | 90.00           | 0.00        | 7,097.0             | 4,729.0    | -294.8     | 4,736.9               | 0.00                  | 0.00                 | 0.00                |
| 11,700.0                      | 90.00           | 0.00        | 7,097.0             | 4,829.0    | -294.8     | 4,836.8               | 0.00                  | 0.00                 | 0.00                |
| 11,800.0                      | 90.00           | 0.00        | 7,097.0             | 4,929.0    | -294.8     | 4,936.8               | 0.00                  | 0.00                 | 0.00                |
| 11,900.0                      | 90.00           | 0.00        | 7,097.0             | 5,029.0    | -294.8     | 5,036.7               | 0.00                  | 0.00                 | 0.00                |
| 12,000.0                      | 90.00           | 0.00        | 7,097.0             | 5,129.0    | -294.7     | 5,136.6               | 0.00                  | 0.00                 | 0.00                |
| 12,100.0                      | 90.00           | 0.00        | 7,097.0             | 5,229.0    | -294.7     | 5,236.5               | 0.00                  | 0.00                 | 0.00                |
| 12,200.0                      | 90.00           | 0.00        | 7,097.0             | 5,329.0    | -294.7     | 5,336.4               | 0.00                  | 0.00                 | 0.00                |
| 12,300.0                      | 90.00           | 0.00        | 7,097.0             | 5,429.0    | -294.7     | 5,436.4               | 0.00                  | 0.00                 | 0.00                |
| 12,400.0                      | 90.00           | 0.00        | 7,097.0             | 5,529.0    | -294.7     | 5,536.3               | 0.00                  | 0.00                 | 0.00                |
| 12,500.0                      | 90.00           | 0.00        | 7,097.0             | 5,629.0    | -294.7     | 5,636.2               | 0.00                  | 0.00                 | 0.00                |
| 12,600.0                      | 90.00           | 0.00        | 7,097.0             | 5,729.0    | -294.7     | 5,736.1               | 0.00                  | 0.00                 | 0.00                |
| 12,700.0                      | 90.00           | 0.00        | 7,097.0             | 5,829.0    | -294.7     | 5,836.1               | 0.00                  | 0.00                 | 0.00                |
| 12,800.0                      | 90.00           | 0.00        | 7,097.0             | 5,929.0    | -294.7     | 5,936.0               | 0.00                  | 0.00                 | 0.00                |
| 12,900.0                      | 90.00           | 0.00        | 7,097.0             | 6,029.0    | -294.7     | 6,035.9               | 0.00                  | 0.00                 | 0.00                |
| 13,000.0                      | 90.00           | 0.00        | 7,097.0             | 6,129.0    | -294.7     | 6,135.8               | 0.00                  | 0.00                 | 0.00                |
| 13,100.0                      | 90.00           | 0.00        | 7,097.0             | 6,229.0    | -294.7     | 6,235.7               | 0.00                  | 0.00                 | 0.00                |
| 13,200.0                      | 90.00           | 0.00        | 7,097.0             | 6,329.0    | -294.7     | 6,335.7               | 0.00                  | 0.00                 | 0.00                |
| 13,300.0                      | 90.00           | 0.00        | 7,097.0             | 6,429.0    | -294.7     | 6,435.6               | 0.00                  | 0.00                 | 0.00                |
| 13,400.0                      | 90.00           | 0.00        | 7,097.0             | 6,529.0    | -294.7     | 6,535.5               | 0.00                  | 0.00                 | 0.00                |
| 13,500.0                      | 90.00           | 0.00        | 7,097.0             | 6,629.0    | -294.7     | 6,635.4               | 0.00                  | 0.00                 | 0.00                |
| 13,600.0                      | 90.00           | 0.00        | 7,097.0             | 6,729.0    | -294.7     | 6,735.4               | 0.00                  | 0.00                 | 0.00                |
| 13,700.0                      | 90.00           | 0.00        | 7,097.0             | 6,829.0    | -294.7     | 6,835.3               | 0.00                  | 0.00                 | 0.00                |
| 13,800.0                      | 90.00           | 0.00        | 7,097.0             | 6,929.0    | -294.7     | 6,935.2               | 0.00                  | 0.00                 | 0.00                |
| 13,900.0                      | 90.00           | 0.00        | 7,097.0             | 7,029.0    | -294.7     | 7,035.1               | 0.00                  | 0.00                 | 0.00                |
| 14,000.0                      | 90.00           | 0.00        | 7,097.0             | 7,129.0    | -294.7     | 7,135.1               | 0.00                  | 0.00                 | 0.00                |
| 14,100.0                      | 90.00           | 0.00        | 7,097.0             | 7,229.0    | -294.6     | 7,235.0               | 0.00                  | 0.00                 | 0.00                |
| 14,200.0                      | 90.00           | 0.00        | 7,097.0             | 7,329.0    | -294.6     | 7,334.9               | 0.00                  | 0.00                 | 0.00                |
| 14,300.0                      | 90.00           | 0.00        | 7,097.0             | 7,429.0    | -294.6     | 7,434.8               | 0.00                  | 0.00                 | 0.00                |
| 14,357.8                      | 90.00           | 0.00        | 7,097.0             | 7,486.8    | -294.6     | 7,492.6               | 0.00                  | 0.00                 | 0.00                |
| BHL 500'FNL & 640'FWL, SEC.32 |                 |             |                     |            |            |                       |                       |                      |                     |

|                  |   |                                     |                                       |
|------------------|---|-------------------------------------|---------------------------------------|
| <b>Database:</b> | Landmark                                  | <b>Local Co-ordinate Reference:</b> | Well Ochsner 5G-421                   |
| <b>Company:</b>  | PETROLEUM DEVELOPMENT CORP Weld County CO | <b>TVD Reference:</b>               | WELL @ 4897.0ft (RKB Ensign 32 - 15') |
| <b>Project:</b>  | SEC.5-T6N-R67W                            | <b>MD Reference:</b>                | WELL @ 4897.0ft (RKB Ensign 32 - 15') |
| <b>Site:</b>     | Ochsner L5-HZ Pad Sec.5-T6N-R67W          | <b>North Reference:</b>             | True                                  |
| <b>Well:</b>     | Ochsner 5G-421                            | <b>Survey Calculation Method:</b>   | Minimum Curvature                     |
| <b>Wellbore:</b> | Wellbore #1                               |                                     |                                       |
| <b>Design:</b>   | Plan #2 (2-20-14)                         |                                     |                                       |

#### Planned Survey

| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|

#### Targets

| Target Name<br>- hit/miss target<br>- Shape   | Dip Angle (°) | Dip Dir. (°) | TVD (ft) | +N/-S (ft) | +E/-W (ft) | Northing (ft) | Easting (ft) | Latitude  | Longitude   |
|---|---------------|--------------|----------|------------|------------|---------------|--------------|-----------|-------------|
| BHL 500'FNL & 640'F<br>- plan hits target center<br>- Point   | 0.00          | 0.00         | 7,097.0  | 7,486.8    | -294.6     | 1,438,879.18  | 3,159,888.90 | 40.536700 | -104.924750 |
| 460' HALF SECTION I<br>- plan misses target center by 1802.6ft at 1.0ft MD (1.0 TVD, 0.0 N, 0.0 E)<br>- Polygon | 0.00          | 0.00         | 1.0      | 364.4      | 1,765.4    | 1,431,770.61  | 3,161,995.11 | 40.517150 | -104.917341 |
| Point 1   |               |              | 1.0      | 0.0        | 0.0        | 1,431,770.61  | 3,161,995.11 |           |             |
| Point 2   |               |              | 1.0      | -64.0      | -2,638.0   | 1,431,689.47  | 3,159,357.67 |           |             |
| SHL 2493'FNL, 862'F<br>- plan hits target center<br>- Point   | 0.00          | 0.00         | 1.0      | 0.0        | 0.0        | 1,431,394.73  | 3,160,232.17 | 40.516150 | -104.923690 |

#### Casing Points

| Measured Depth (ft) | Vertical Depth (ft) | Name | Casing Diameter (") | Hole Diameter (") |
|---------------------|---------------------|------|---------------------|-------------------|
| 7,463.5             | 7,083.0             | 7"   | 7                   | 7-1/2             |

#### Plan Annotations

| Measured Depth (ft) | Vertical Depth (ft) | Local Coordinates<br>+N/-S (ft) | +E/-W (ft) | Comment      |
|---------------------|---------------------|---------------------------------|------------|--------------|
| 1,500.0             | 1,500.0             | 0.0                             | 0.0        | KOP #1       |
| 6,343.5             | 6,323.2             | -91.0                           | -295.0     | KOP #2       |
| 7,657.5             | 7,097.0             | 786.5                           | -295.0     | End of Build |



## **Directional**

# **PETROLEUM DEVELOPMENT CORP Weld County CO**

**SEC.5-T6N-R67W**

**Ochsner L5-HZ Pad Sec.5-T6N-R67W**

**Ochsner 5G-421**

**Wellbore #1**

**Plan #2 (2-20-14)**

## **Anticollision Report**

**20 February, 2014**





|                           |   |                                     |                                       |
|---------------------------|---|-------------------------------------|---------------------------------------|
| <b>Company:</b>           | PETROLEUM DEVELOPMENT CORP Weld County CO | <b>Local Co-ordinate Reference:</b> | Well Ochsner 5G-421                   |
| <b>Project:</b>           | SEC.5-T6N-R67W                            | <b>TVD Reference:</b>               | WELL @ 4897.0ft (RKB Ensign 32 - 15') |
| <b>Reference Site:</b>    | Ochsner L5-HZ Pad Sec.5-T6N-R67W          | <b>MD Reference:</b>                | WELL @ 4897.0ft (RKB Ensign 32 - 15') |
| <b>Site Error:</b>        | 0.0ft                                     | <b>North Reference:</b>             | True                                  |
| <b>Reference Well:</b>    | Ochsner 5G-421                            | <b>Survey Calculation Method:</b>   | Minimum Curvature                     |
| <b>Well Error:</b>        | 0.0ft                                     | <b>Output errors are at</b>         | 2.00 sigma                            |
| <b>Reference Wellbore</b> | Wellbore #1                               | <b>Database:</b>                    | Landmark                              |
| <b>Reference Design:</b>  | Plan #2 (2-20-14)                         | <b>Offset TVD Reference:</b>        | Offset Datum                          |

|                                     |   |
|-------------------------------------|---|
| <b>Reference</b>                    | Plan #2 (2-20-14)   |
| <b>Filter type:</b>                 | NO GLOBAL FILTER: Using user defined selection & filtering criteria |
| <b>Interpolation Method:</b>        | Stations  |
| <b>Depth Range:</b>                 | Unlimited   |
| <b>Results Limited by:</b>          | Maximum center-center distance of 1,000.0ft                         |
| <b>Warning Levels Evaluated at:</b> | 2.00 Sigma  |
| <b>Error Model:</b>                 | ISCWSA  |
| <b>Scan Method:</b>                 | Closest Approach 3D   |
| <b>Error Surface:</b>               | Elliptical Conic  |

| Survey Tool Program |          | Date                            | 2/20/2014 |                |  |
|---------------------|----------|---------------------------------|-----------|----------------|--|
| From (ft)           | To (ft)  | Survey (Wellbore)               | Tool Name | Description    |  |
| 0.0                 | 14,357.8 | Plan #2 (2-20-14) (Wellbore #1) | MWD       | MWD - Standard |  |

| Summary  |                               |                            |                               |                                |                   |         |
|--|-------------------------------|----------------------------|-------------------------------|--------------------------------|-------------------|---------|
| Site Name  | Reference Measured Depth (ft) | Offset Measured Depth (ft) | Distance Between Centres (ft) | Distance Between Ellipses (ft) | Separation Factor | Warning |
| Offset Well - Wellbore - Design                  |                               |                            |                               |                                |                   |         |
| Ochsner L5-HZ Pad Sec.5-T6N-R67W                 |                               |                            |                               |                                |                   |         |
| Ochsner 5G-201 - Wellbore #1 - Plan #1 (6-28-12) | 400.0                         | 400.0                      | 44.8                          | 43.3                           | 28.501            | CC, ES  |
| Ochsner 5G-201 - Wellbore #1 - Plan #1 (6-28-12) | 14,357.8                      | 14,237.0                   | 482.6                         | 213.3                          | 1.792             | SF      |
| Ochsner 5K-241 - Wellbore #1 - Plan #1 (6-28-12) | 1,500.0                       | 1,501.0                    | 40.3                          | 33.8                           | 6.178             | CC, ES  |
| Ochsner 5K-241 - Wellbore #1 - Plan #1 (6-28-12) | 14,357.8                      | 14,182.5                   | 485.5                         | 217.8                          | 1.814             | SF      |

| Offset Design          |                     | Ochsner L5-HZ Pad Sec.5-T6N-R67W - Ochsner 5G-201 - Wellbore #1 - Plan #1 (6-28-12) |                     |                 |             |                       |                                   |            |                      |                       |                         |                   | Offset Site Error: |  | 0.0 ft |
|------------------------|---------------------|---|---------------------|-----------------|-------------|-----------------------|-----------------------------------|------------|----------------------|-----------------------|-------------------------|-------------------|--------------------|--|--------|
| Survey Program: 0-MWVD |                     |   |                     |                 |             |                       |                                   |            |                      |                       |                         |                   | Offset Well Error: |  | 0.0 ft |
| Reference              |                     | Offset  |                     | Semi Major Axis |             |                       | Distance                          |            |                      |                       |                         |                   |                    |  |        |
| Measured Depth (ft)    | Vertical Depth (ft) | Measured Depth (ft)   | Vertical Depth (ft) | Reference (ft)  | Offset (ft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (ft) | +E/-W (ft) | Between Centres (ft) | Between Ellipses (ft) | Minimum Separation (ft) | Separation Factor | Warning            |  |        |
| 0.0                    | 0.0                 | 0.0   | 0.0                 | 0.0             | 0.0         | -137.00               | -32.8                             | -30.6      | 44.8                 |                       |                         |                   |                    |  |        |
| 100.0                  | 100.0               | 100.0   | 100.0               | 0.1             | 0.1         | -137.00               | -32.8                             | -30.6      | 44.8                 | 44.6                  | 0.22                    | 199.505           |                    |  |        |
| 200.0                  | 200.0               | 200.0   | 200.0               | 0.3             | 0.3         | -137.00               | -32.8                             | -30.6      | 44.8                 | 44.2                  | 0.67                    | 66.502            |                    |  |        |
| 300.0                  | 300.0               | 300.0   | 300.0               | 0.6             | 0.6         | -137.00               | -32.8                             | -30.6      | 44.8                 | 43.7                  | 1.12                    | 39.901            |                    |  |        |
| 400.0                  | 400.0               | 400.0   | 400.0               | 0.8             | 0.8         | -137.00               | -32.8                             | -30.6      | 44.8                 | 43.3                  | 1.57                    | 28.501            | CC, ES             |  |        |
| 500.0                  | 500.0               | 498.8   | 498.8               | 1.0             | 1.0         | -135.65               | -33.0                             | -32.3      | 46.2                 | 44.2                  | 2.01                    | 23.013            |                    |  |        |
| 600.0                  | 600.0               | 597.3   | 597.2               | 1.2             | 1.2         | -132.04               | -33.7                             | -37.3      | 50.3                 | 47.9                  | 2.44                    | 20.627            |                    |  |        |
| 700.0                  | 700.0               | 695.4   | 694.9               | 1.5             | 1.4         | -127.24               | -34.7                             | -45.7      | 57.6                 | 54.7                  | 2.90                    | 19.892            |                    |  |        |
| 800.0                  | 800.0               | 792.8   | 791.5               | 1.7             | 1.7         | -122.31               | -36.2                             | -57.2      | 68.3                 | 64.9                  | 3.38                    | 20.181            |                    |  |        |
| 900.0                  | 900.0               | 889.3   | 886.9               | 1.9             | 2.0         | -117.90               | -38.1                             | -71.9      | 82.4                 | 78.5                  | 3.91                    | 21.107            |                    |  |        |
| 1,000.0                | 1,000.0             | 987.8   | 984.0               | 2.1             | 2.3         | -114.43               | -40.2                             | -88.5      | 98.5                 | 94.1                  | 4.47                    | 22.046            |                    |  |        |
| 1,100.0                | 1,100.0             | 1,086.3   | 1,081.1             | 2.4             | 2.7         | -111.93               | -42.3                             | -105.1     | 114.9                | 109.9                 | 5.05                    | 22.770            |                    |  |        |
| 1,200.0                | 1,200.0             | 1,184.9   | 1,178.2             | 2.6             | 3.1         | -110.06               | -44.5                             | -121.8     | 131.4                | 125.8                 | 5.63                    | 23.339            |                    |  |        |
| 1,300.0                | 1,300.0             | 1,283.4   | 1,275.3             | 2.8             | 3.4         | -108.61               | -46.6                             | -138.4     | 148.1                | 141.9                 | 6.22                    | 23.797            |                    |  |        |
| 1,400.0                | 1,400.0             | 1,382.0   | 1,372.4             | 3.0             | 3.8         | -107.45               | -48.7                             | -155.0     | 164.8                | 158.0                 | 6.82                    | 24.175            |                    |  |        |
| 1,500.0                | 1,500.0             | 1,480.5   | 1,469.5             | 3.3             | 4.2         | -106.51               | -50.8                             | -171.6     | 181.5                | 174.1                 | 7.41                    | 24.491            |                    |  |        |
| 1,600.0                | 1,600.0             | 1,579.3   | 1,566.9             | 3.5             | 4.6         | 1.43                  | -53.0                             | -188.3     | 196.6                | 189.6                 | 6.99                    | 28.112            |                    |  |        |
| 1,700.0                | 1,699.8             | 1,678.6   | 1,664.7             | 3.7             | 4.9         | 2.14                  | -55.1                             | -205.0     | 208.3                | 200.8                 | 7.42                    | 28.051            |                    |  |        |
| 1,800.0                | 1,799.5             | 1,778.2   | 1,762.9             | 3.9             | 5.3         | 2.83                  | -57.3                             | -221.8     | 216.5                | 208.6                 | 7.86                    | 27.556            |                    |  |        |
| 1,899.4                | 1,898.1             | 1,877.5   | 1,860.7             | 4.1             | 5.7         | 3.51                  | -59.4                             | -238.5     | 221.2                | 213.0                 | 8.28                    | 26.704            |                    |  |        |
| 2,000.0                | 1,997.7             | 1,978.0   | 1,959.8             | 4.3             | 6.1         | 4.21                  | -61.6                             | -255.5     | 224.3                | 215.6                 | 8.74                    | 25.666            |                    |  |        |
| 2,100.0                | 2,096.8             | 2,077.9   | 2,058.2             | 4.6             | 6.5         | 4.89                  | -63.7                             | -272.3     | 227.4                | 218.2                 | 9.20                    | 24.727            |                    |  |        |

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

|                           |   |                                     |                                       |
|---------------------------|---|-------------------------------------|---------------------------------------|
| <b>Company:</b>           | PETROLEUM DEVELOPMENT CORP Weld County CO | <b>Local Co-ordinate Reference:</b> | Well Ochsner 5G-421                   |
| <b>Project:</b>           | SEC.5-T6N-R67W                            | <b>TVD Reference:</b>               | WELL @ 4897.0ft (RKB Ensign 32 - 15') |
| <b>Reference Site:</b>    | Ochsner L5-HZ Pad Sec.5-T6N-R67W          | <b>MD Reference:</b>                | WELL @ 4897.0ft (RKB Ensign 32 - 15') |
| <b>Site Error:</b>        | 0.0ft                                     | <b>North Reference:</b>             | True                                  |
| <b>Reference Well:</b>    | Ochsner 5G-421                            | <b>Survey Calculation Method:</b>   | Minimum Curvature                     |
| <b>Well Error:</b>        | 0.0ft                                     | <b>Output errors are at</b>         | 2.00 sigma                            |
| <b>Reference Wellbore</b> | Wellbore #1                               | <b>Database:</b>                    | Landmark                              |
| <b>Reference Design:</b>  | Plan #2 (2-20-14)                         | <b>Offset TVD Reference:</b>        | Offset Datum                          |

| Offset Design Ochsner L5-HZ Pad Sec.5-T6N-R67W - Ochsner 5G-201 - Wellbore #1 - Plan #1 (6-28-12) |                     |                     |                     |           |        |                 |                       |                                   |                                   |                      |                       |                         | Offset Site Error: | 0.0 ft  |
|---|---------------------|---------------------|---------------------|-----------|--------|-----------------|-----------------------|-----------------------------------|-----------------------------------|----------------------|-----------------------|-------------------------|--------------------|---------|
| Survey Program: 0-MWD   |                     |                     |                     |           |        |                 |                       |                                   |                                   |                      |                       |                         | Offset Well Error: | 0.0 ft  |
| Measured Depth (ft)   | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference | Offset | Semi Major Axis | Highside Toolface (°) | Offset Wellbore Centre +N/-S (ft) | Offset Wellbore Centre +E/-W (ft) | Between Centres (ft) | Between Ellipses (ft) | Minimum Separation (ft) | Separation Factor  | Warning |
| 2,200.0   | 2,195.8             | 2,177.8             | 2,156.7             | 4.9       | 6.9    | 5.54            | 5.54                  | -65.9                             | -289.1                            | 230.6                | 220.9                 | 9.66                    | 23.868             |         |
| 2,300.0   | 2,294.8             | 2,277.7             | 2,255.2             | 5.1       | 7.3    | 6.18            | 6.18                  | -68.1                             | -306.0                            | 233.8                | 223.6                 | 10.13                   | 23.082             |         |
| 2,400.0   | 2,393.9             | 2,377.7             | 2,353.6             | 5.4       | 7.7    | 6.81            | 6.81                  | -70.2                             | -322.8                            | 237.0                | 226.4                 | 10.60                   | 22.358             |         |
| 2,500.0   | 2,492.9             | 2,477.6             | 2,452.1             | 5.7       | 8.1    | 7.41            | 7.41                  | -72.4                             | -339.7                            | 240.2                | 229.1                 | 11.07                   | 21.692             |         |
| 2,600.0   | 2,591.9             | 2,577.5             | 2,550.6             | 6.0       | 8.5    | 8.00            | 8.00                  | -74.5                             | -356.5                            | 243.4                | 231.9                 | 11.55                   | 21.076             |         |
| 2,700.0   | 2,690.9             | 2,677.4             | 2,649.0             | 6.3       | 8.9    | 8.58            | 8.58                  | -76.7                             | -373.4                            | 246.7                | 234.7                 | 12.03                   | 20.505             |         |
| 2,800.0   | 2,790.0             | 2,777.3             | 2,747.5             | 6.6       | 9.3    | 9.14            | 9.14                  | -78.8                             | -390.2                            | 250.0                | 237.5                 | 12.52                   | 19.975             |         |
| 2,900.0   | 2,889.0             | 2,877.2             | 2,845.9             | 7.0       | 9.7    | 9.68            | 9.68                  | -81.0                             | -407.1                            | 253.3                | 240.3                 | 13.00                   | 19.481             |         |
| 3,000.0   | 2,988.0             | 2,977.2             | 2,944.4             | 7.3       | 10.1   | 10.22           | 10.22                 | -83.1                             | -423.9                            | 256.7                | 243.2                 | 13.50                   | 19.020             |         |
| 3,100.0   | 3,087.1             | 3,077.1             | 3,042.9             | 7.6       | 10.5   | 10.73           | 10.73                 | -85.3                             | -440.7                            | 260.1                | 246.1                 | 13.99                   | 18.589             |         |
| 3,200.0   | 3,186.1             | 3,177.0             | 3,141.3             | 7.9       | 10.9   | 11.24           | 11.24                 | -87.5                             | -457.6                            | 263.4                | 249.0                 | 14.49                   | 18.186             |         |
| 3,300.0   | 3,285.1             | 3,276.9             | 3,239.8             | 8.3       | 11.3   | 11.73           | 11.73                 | -89.6                             | -474.4                            | 266.9                | 251.9                 | 14.99                   | 17.807             |         |
| 3,400.0   | 3,384.1             | 3,376.8             | 3,338.3             | 8.6       | 11.7   | 12.21           | 12.21                 | -91.8                             | -491.3                            | 270.3                | 254.8                 | 15.49                   | 17.450             |         |
| 3,500.0   | 3,483.2             | 3,476.7             | 3,436.7             | 8.9       | 12.1   | 12.67           | 12.67                 | -93.9                             | -508.1                            | 273.7                | 257.7                 | 15.99                   | 17.114             |         |
| 3,600.0   | 3,582.2             | 3,576.7             | 3,535.2             | 9.2       | 12.5   | 13.13           | 13.13                 | -96.1                             | -525.0                            | 277.2                | 260.7                 | 16.50                   | 16.798             |         |
| 3,700.0   | 3,681.2             | 3,676.6             | 3,633.6             | 9.6       | 12.9   | 13.57           | 13.57                 | -98.2                             | -541.8                            | 280.7                | 263.7                 | 17.01                   | 16.498             |         |
| 3,720.9   | 3,701.9             | 3,697.4             | 3,654.2             | 9.6       | 12.9   | 13.66           | 13.66                 | -98.7                             | -545.3                            | 281.4                | 264.3                 | 17.12                   | 16.438             |         |
| 3,800.0   | 3,780.4             | 3,776.4             | 3,732.1             | 9.9       | 13.2   | 13.97           | 13.97                 | -100.4                            | -558.6                            | 285.2                | 267.7                 | 17.51                   | 16.289             |         |
| 3,900.0   | 3,880.0             | 3,876.1             | 3,830.3             | 10.1      | 13.6   | 14.21           | 14.21                 | -102.5                            | -575.4                            | 293.1                | 275.1                 | 17.96                   | 16.317             |         |
| 4,000.0   | 3,979.8             | 3,975.5             | 3,928.2             | 10.3      | 14.0   | 14.30           | 14.30                 | -104.7                            | -592.2                            | 304.3                | 286.0                 | 18.38                   | 16.555             |         |
| 4,100.0   | 4,079.7             | 4,074.4             | 4,025.7             | 10.5      | 14.4   | 14.24           | 14.24                 | -106.8                            | -608.9                            | 318.9                | 300.2                 | 18.77                   | 16.989             |         |
| 4,120.3   | 4,100.0             | 4,094.4             | 4,045.4             | 10.5      | 14.5   | -92.93          | -92.93                | -107.3                            | -612.2                            | 322.3                | 303.5                 | 18.85                   | 17.099             |         |
| 4,200.0   | 4,179.7             | 4,173.0             | 4,122.8             | 10.6      | 14.8   | -93.11          | -93.11                | -109.0                            | -625.5                            | 335.8                | 316.6                 | 19.20                   | 17.492             |         |
| 4,300.0   | 4,279.7             | 4,271.5             | 4,219.9             | 10.8      | 15.2   | -93.31          | -93.31                | -111.1                            | -642.1                            | 352.8                | 333.1                 | 19.64                   | 17.958             |         |
| 4,400.0   | 4,379.7             | 4,370.1             | 4,317.0             | 11.0      | 15.6   | -93.49          | -93.49                | -113.2                            | -658.7                            | 369.7                | 349.6                 | 20.09                   | 18.402             |         |
| 4,500.0   | 4,479.7             | 4,468.6             | 4,414.1             | 11.2      | 16.0   | -93.66          | -93.66                | -115.3                            | -675.3                            | 386.7                | 366.2                 | 20.54                   | 18.826             |         |
| 4,600.0   | 4,579.7             | 4,567.1             | 4,511.3             | 11.4      | 16.4   | -93.81          | -93.81                | -117.5                            | -691.9                            | 403.7                | 382.7                 | 20.99                   | 19.230             |         |
| 4,700.0   | 4,679.7             | 4,662.2             | 4,625.0             | 11.6      | 16.7   | -93.96          | -93.96                | -119.7                            | -709.1                            | 418.7                | 397.3                 | 21.43                   | 19.540             |         |
| 4,800.0   | 4,779.7             | 4,798.9             | 4,740.9             | 11.7      | 17.0   | -94.06          | -94.06                | -121.3                            | -721.9                            | 429.8                | 407.9                 | 21.85                   | 19.666             |         |
| 4,900.0   | 4,879.7             | 4,916.4             | 4,858.1             | 11.9      | 17.2   | -94.12          | -94.12                | -122.3                            | -730.1                            | 436.8                | 414.5                 | 22.27                   | 19.613             |         |
| 5,000.0   | 4,979.7             | 5,034.4             | 4,976.1             | 12.1      | 17.4   | -94.15          | -94.15                | -122.8                            | -733.5                            | 439.7                | 417.0                 | 22.68                   | 19.385             |         |
| 5,100.0   | 5,079.7             | 5,138.0             | 5,079.7             | 12.3      | 17.5   | -94.15          | -94.15                | -122.8                            | -733.6                            | 439.7                | 416.7                 | 23.07                   | 19.057             |         |
| 5,200.0   | 5,179.7             | 5,238.0             | 5,179.7             | 12.5      | 17.6   | -94.15          | -94.15                | -122.8                            | -733.6                            | 439.7                | 416.3                 | 23.47                   | 18.739             |         |
| 5,300.0   | 5,279.7             | 5,338.0             | 5,279.7             | 12.7      | 17.8   | -94.15          | -94.15                | -122.8                            | -733.6                            | 439.7                | 415.9                 | 23.86                   | 18.430             |         |
| 5,400.0   | 5,379.7             | 5,438.0             | 5,379.7             | 12.9      | 17.9   | -94.15          | -94.15                | -122.8                            | -733.6                            | 439.7                | 415.5                 | 24.26                   | 18.129             |         |
| 5,500.0   | 5,479.7             | 5,538.0             | 5,479.7             | 13.1      | 18.0   | -94.15          | -94.15                | -122.8                            | -733.6                            | 439.7                | 415.1                 | 24.65                   | 17.837             |         |
| 5,600.0   | 5,579.7             | 5,638.0             | 5,579.7             | 13.3      | 18.2   | -94.15          | -94.15                | -122.8                            | -733.6                            | 439.7                | 414.7                 | 25.05                   | 17.553             |         |
| 5,700.0   | 5,679.7             | 5,738.0             | 5,679.7             | 13.5      | 18.3   | -94.15          | -94.15                | -122.8                            | -733.6                            | 439.7                | 414.3                 | 25.45                   | 17.277             |         |
| 5,800.0   | 5,779.7             | 5,838.0             | 5,779.7             | 13.7      | 18.5   | -94.15          | -94.15                | -122.8                            | -733.6                            | 439.7                | 413.9                 | 25.86                   | 17.008             |         |
| 5,900.0   | 5,879.7             | 5,938.0             | 5,879.7             | 13.9      | 18.6   | -94.15          | -94.15                | -122.8                            | -733.6                            | 439.7                | 413.5                 | 26.26                   | 16.746             |         |
| 6,000.0   | 5,979.7             | 6,038.0             | 5,979.7             | 14.1      | 18.8   | -94.15          | -94.15                | -122.8                            | -733.6                            | 439.7                | 413.1                 | 26.66                   | 16.492             |         |
| 6,100.0   | 6,079.7             | 6,138.0             | 6,079.7             | 14.3      | 18.9   | -94.15          | -94.15                | -122.8                            | -733.6                            | 439.7                | 412.7                 | 27.07                   | 16.244             |         |
| 6,200.0   | 6,179.7             | 6,240.0             | 6,179.7             | 14.5      | 19.1   | -93.94          | -93.94                | -121.2                            | -733.6                            | 439.6                | 412.1                 | 27.48                   | 15.996             |         |
| 6,300.0   | 6,279.7             | 6,342.4             | 6,283.1             | 14.7      | 19.2   | -92.21          | -92.21                | -107.9                            | -733.6                            | 438.9                | 411.0                 | 27.93                   | 15.718             |         |
| 6,343.5   | 6,323.2             | 6,385.5             | 6,325.1             | 14.8      | 19.2   | -90.95          | -90.95                | -98.3                             | -733.6                            | 438.6                | 410.5                 | 28.13                   | 15.596             |         |
| 6,350.0   | 6,329.7             | 6,391.8             | 6,331.3             | 14.8      | 19.3   | -90.74          | -90.74                | -96.6                             | -733.6                            | 438.6                | 410.5                 | 28.16                   | 15.578             |         |
| 6,373.3   | 6,353.0             | 6,414.5             | 6,353.0             | 14.8      | 19.3   | -90.01          | -90.01                | -90.4                             | -733.6                            | 438.6                | 410.3                 | 28.26                   | 15.518             |         |
| 6,400.0   | 6,379.7             | 6,440.2             | 6,377.6             | 14.9      | 19.3   | -89.16          | -89.16                | -82.6                             | -733.6                            | 438.6                | 410.3                 | 28.39                   | 15.453             |         |
| 6,450.0   | 6,429.4             | 6,487.9             | 6,422.2             | 15.0      | 19.4   | -87.59          | -87.59                | -66.0                             | -733.6                            | 439.0                | 410.4                 | 28.61                   | 15.344             |         |
| 6,500.0   | 6,478.6             | 6,534.8             | 6,465.1             | 15.1      | 19.4   | -86.05          | -86.05                | -46.9                             | -733.6                            | 439.7                | 410.9                 | 28.83                   | 15.252             |         |
| 6,550.0   | 6,527.2             | 6,581.1             | 6,506.1             | 15.1      | 19.5   | -84.53          | -84.53                | -25.5                             | -733.6                            | 440.7                | 411.7                 | 29.04                   | 15.177             |         |

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

|                           |   |                                     |                                       |
|---------------------------|---|-------------------------------------|---------------------------------------|
| <b>Company:</b>           | PETROLEUM DEVELOPMENT CORP Weld County CO | <b>Local Co-ordinate Reference:</b> | Well Ochsner 5G-421                   |
| <b>Project:</b>           | SEC.5-T6N-R67W                            | <b>TVD Reference:</b>               | WELL @ 4897.0ft (RKB Ensign 32 - 15') |
| <b>Reference Site:</b>    | Ochsner L5-HZ Pad Sec.5-T6N-R67W          | <b>MD Reference:</b>                | WELL @ 4897.0ft (RKB Ensign 32 - 15') |
| <b>Site Error:</b>        | 0.0ft                                     | <b>North Reference:</b>             | True                                  |
| <b>Reference Well:</b>    | Ochsner 5G-421                            | <b>Survey Calculation Method:</b>   | Minimum Curvature                     |
| <b>Well Error:</b>        | 0.0ft                                     | <b>Output errors are at</b>         | 2.00 sigma                            |
| <b>Reference Wellbore</b> | Wellbore #1                               | <b>Database:</b>                    | Landmark                              |
| <b>Reference Design:</b>  | Plan #2 (2-20-14)                         | <b>Offset TVD Reference:</b>        | Offset Datum                          |

| Offset Design Ochsner L5-HZ Pad Sec.5-T6N-R67W - Ochsner 5G-201 - Wellbore #1 - Plan #1 (6-28-12) |                     |                     |                     |           |        |                 |                       |                                   |            |                      |                       |                         | Offset Site Error: | 0.0 ft  |
|---|---------------------|---------------------|---------------------|-----------|--------|-----------------|-----------------------|-----------------------------------|------------|----------------------|-----------------------|-------------------------|--------------------|---------|
| Survey Program: 0-MWD   |                     |                     |                     |           |        |                 |                       |                                   |            |                      |                       |                         | Offset Well Error: | 0.0 ft  |
| Measured Depth (ft)   | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference | Offset | Semi Major Axis | Highside Toolface (°) | Offset Wellbore Centre +N/-S (ft) | +E/-W (ft) | Between Centres (ft) | Between Ellipses (ft) | Minimum Separation (ft) | Separation Factor  | Warning |
| 6,600.0   | 6,574.9             | 6,626.7             | 6,545.3             | 15.2      | 19.5   | -83.05          | -83.05                | -2.0                              | -733.6     | 442.0                | 412.8                 | 29.24                   | 15.120             |         |
| 6,650.0   | 6,621.6             | 6,671.8             | 6,582.5             | 15.3      | 19.6   | -81.61          | -81.61                | 23.4                              | -733.6     | 443.6                | 414.1                 | 29.45                   | 15.063             |         |
| 6,700.0   | 6,666.9             | 6,716.4             | 6,617.7             | 15.4      | 19.6   | -80.21          | -80.21                | 50.6                              | -733.6     | 445.4                | 415.8                 | 29.63                   | 15.034             |         |
| 6,750.0   | 6,710.8             | 6,760.4             | 6,650.9             | 15.5      | 19.7   | -78.87          | -78.87                | 79.5                              | -733.6     | 447.4                | 417.6                 | 29.81                   | 15.008             |         |
| 6,800.0   | 6,753.1             | 6,804.0             | 6,682.1             | 15.6      | 19.8   | -77.58          | -77.58                | 110.0                             | -733.6     | 449.6                | 419.6                 | 30.00                   | 14.986             |         |
| 6,850.0   | 6,793.4             | 6,850.0             | 6,713.1             | 15.6      | 19.9   | -76.28          | -76.28                | 144.0                             | -733.6     | 451.9                | 421.7                 | 30.21                   | 14.959             |         |
| 6,900.0   | 6,831.8             | 6,889.9             | 6,738.3             | 15.7      | 20.0   | -75.18          | -75.18                | 174.9                             | -733.6     | 454.2                | 423.8                 | 30.42                   | 14.930             |         |
| 6,950.0   | 6,868.0             | 6,932.3             | 6,763.2             | 15.9      | 20.1   | -74.08          | -74.08                | 209.2                             | -733.6     | 456.6                | 426.0                 | 30.67                   | 14.887             |         |
| 7,000.0   | 6,901.9             | 6,974.3             | 6,786.0             | 16.0      | 20.2   | -73.05          | -73.05                | 244.5                             | -733.6     | 459.1                | 428.1                 | 30.96                   | 14.826             |         |
| 7,050.0   | 6,933.2             | 7,016.1             | 6,806.7             | 16.2      | 20.4   | -72.08          | -72.08                | 280.8                             | -733.6     | 461.5                | 430.2                 | 31.31                   | 14.742             |         |
| 7,100.0   | 6,962.0             | 7,057.5             | 6,825.2             | 16.4      | 20.6   | -71.19          | -71.19                | 317.8                             | -733.6     | 463.9                | 432.2                 | 31.71                   | 14.630             |         |
| 7,150.0   | 6,988.1             | 7,100.0             | 6,842.1             | 16.7      | 20.8   | -70.35          | -70.35                | 356.8                             | -733.6     | 466.2                | 434.0                 | 32.19                   | 14.484             |         |
| 7,200.0   | 7,011.2             | 7,139.7             | 6,855.9             | 17.0      | 21.0   | -69.62          | -69.62                | 394.0                             | -733.6     | 468.3                | 435.6                 | 32.74                   | 14.305             |         |
| 7,250.0   | 7,031.5             | 7,180.4             | 6,868.1             | 17.4      | 21.3   | -68.95          | -68.95                | 432.9                             | -733.6     | 470.4                | 437.0                 | 33.38                   | 14.089             |         |
| 7,300.0   | 7,048.7             | 7,221.0             | 6,878.1             | 17.8      | 21.5   | -68.35          | -68.35                | 472.2                             | -733.6     | 472.2                | 438.1                 | 34.12                   | 13.839             |         |
| 7,350.0   | 7,062.8             | 7,261.4             | 6,886.0             | 18.2      | 21.9   | -67.83          | -67.83                | 511.9                             | -733.6     | 473.9                | 438.9                 | 34.95                   | 13.558             |         |
| 7,400.0   | 7,073.7             | 7,300.0             | 6,891.5             | 18.7      | 22.2   | -67.39          | -67.39                | 550.0                             | -733.6     | 475.4                | 439.5                 | 35.87                   | 13.254             |         |
| 7,450.0   | 7,081.5             | 7,341.9             | 6,895.4             | 19.3      | 22.6   | -67.01          | -67.01                | 591.7                             | -733.6     | 476.6                | 439.7                 | 36.91                   | 12.914             |         |
| 7,463.5   | 7,083.0             | 7,350.0             | 6,895.9             | 19.4      | 22.6   | -66.93          | -66.93                | 599.8                             | -733.6     | 476.9                | 439.8                 | 37.17                   | 12.831             |         |
| 7,500.0   | 7,086.8             | 7,381.9             | 6,896.9             | 19.9      | 22.9   | -66.68          | -66.68                | 631.7                             | -733.6     | 478.0                | 440.1                 | 37.88                   | 12.618             |         |
| 7,537.5   | 7,090.7             | 7,416.9             | 6,897.0             | 20.3      | 23.3   | -66.29          | -66.29                | 666.7                             | -733.6     | 479.5                | 440.9                 | 38.64                   | 12.411             |         |
| 7,600.0   | 7,095.6             | 7,479.2             | 6,897.0             | 21.1      | 24.0   | -65.67          | -65.67                | 729.0                             | -733.6     | 481.5                | 441.3                 | 40.16                   | 11.989             |         |
| 7,657.5   | 7,097.0             | 7,536.6             | 6,897.0             | 21.8      | 24.7   | -65.49          | -65.49                | 786.5                             | -733.6     | 482.1                | 440.4                 | 41.72                   | 11.556             |         |
| 7,700.0   | 7,097.0             | 7,579.2             | 6,897.0             | 22.4      | 25.2   | -65.49          | -65.49                | 829.0                             | -733.6     | 482.1                | 439.3                 | 42.80                   | 11.264             |         |
| 7,800.0   | 7,097.0             | 7,679.2             | 6,897.0             | 23.8      | 26.5   | -65.49          | -65.49                | 929.0                             | -733.6     | 482.1                | 436.7                 | 45.45                   | 10.608             |         |
| 7,900.0   | 7,097.0             | 7,779.2             | 6,897.0             | 25.3      | 27.8   | -65.49          | -65.49                | 1,029.0                           | -733.6     | 482.1                | 433.9                 | 48.21                   | 10.000             |         |
| 8,000.0   | 7,097.0             | 7,879.2             | 6,897.0             | 26.8      | 29.3   | -65.49          | -65.49                | 1,129.0                           | -733.6     | 482.1                | 431.0                 | 51.07                   | 9.440              |         |
| 8,100.0   | 7,097.0             | 7,979.2             | 6,897.0             | 28.4      | 30.8   | -65.49          | -65.49                | 1,229.0                           | -733.6     | 482.1                | 428.1                 | 54.02                   | 8.926              |         |
| 8,200.0   | 7,097.0             | 8,079.2             | 6,897.0             | 30.0      | 32.3   | -65.49          | -65.49                | 1,329.0                           | -733.6     | 482.1                | 425.1                 | 57.03                   | 8.454              |         |
| 8,300.0   | 7,097.0             | 8,179.2             | 6,897.0             | 31.7      | 33.9   | -65.49          | -65.49                | 1,429.0                           | -733.6     | 482.1                | 422.0                 | 60.10                   | 8.022              |         |
| 8,400.0   | 7,097.0             | 8,279.2             | 6,897.0             | 33.3      | 35.5   | -65.49          | -65.49                | 1,529.0                           | -733.6     | 482.2                | 418.9                 | 63.22                   | 7.626              |         |
| 8,500.0   | 7,097.0             | 8,379.2             | 6,897.0             | 35.0      | 37.1   | -65.49          | -65.49                | 1,629.0                           | -733.6     | 482.2                | 415.8                 | 66.39                   | 7.262              |         |
| 8,600.0   | 7,097.0             | 8,479.2             | 6,897.0             | 36.8      | 38.8   | -65.49          | -65.49                | 1,729.0                           | -733.6     | 482.2                | 412.6                 | 69.59                   | 6.928              |         |
| 8,700.0   | 7,097.0             | 8,579.2             | 6,897.0             | 38.5      | 40.5   | -65.49          | -65.49                | 1,829.0                           | -733.6     | 482.2                | 409.3                 | 72.83                   | 6.621              |         |
| 8,800.0   | 7,097.0             | 8,679.2             | 6,897.0             | 40.3      | 42.2   | -65.49          | -65.49                | 1,929.0                           | -733.6     | 482.2                | 406.1                 | 76.09                   | 6.337              |         |
| 8,900.0   | 7,097.0             | 8,779.2             | 6,897.0             | 42.0      | 43.9   | -65.49          | -65.49                | 2,029.0                           | -733.7     | 482.2                | 402.8                 | 79.38                   | 6.074              |         |
| 9,000.0   | 7,097.0             | 8,879.2             | 6,897.0             | 43.8      | 45.7   | -65.50          | -65.50                | 2,129.0                           | -733.7     | 482.2                | 399.5                 | 82.69                   | 5.831              |         |
| 9,100.0   | 7,097.0             | 8,979.2             | 6,897.0             | 45.6      | 47.5   | -65.50          | -65.50                | 2,229.0                           | -733.7     | 482.2                | 396.2                 | 86.02                   | 5.606              |         |
| 9,200.0   | 7,097.0             | 9,079.2             | 6,897.0             | 47.4      | 49.2   | -65.50          | -65.50                | 2,329.0                           | -733.7     | 482.2                | 392.8                 | 89.37                   | 5.396              |         |
| 9,300.0   | 7,097.0             | 9,179.2             | 6,897.0             | 49.3      | 51.0   | -65.50          | -65.50                | 2,429.0                           | -733.7     | 482.2                | 389.5                 | 92.73                   | 5.200              |         |
| 9,400.0   | 7,097.0             | 9,279.2             | 6,897.0             | 51.1      | 52.8   | -65.50          | -65.50                | 2,529.0                           | -733.7     | 482.2                | 386.1                 | 96.11                   | 5.017              |         |
| 9,500.0   | 7,097.0             | 9,379.2             | 6,897.0             | 52.9      | 54.6   | -65.50          | -65.50                | 2,629.0                           | -733.7     | 482.2                | 382.7                 | 99.50                   | 4.847              |         |
| 9,600.0   | 7,097.0             | 9,479.2             | 6,897.0             | 54.8      | 56.4   | -65.50          | -65.50                | 2,729.0                           | -733.7     | 482.2                | 379.3                 | 102.90                  | 4.687              |         |
| 9,700.0   | 7,097.0             | 9,579.2             | 6,897.0             | 56.6      | 58.2   | -65.50          | -65.50                | 2,829.0                           | -733.7     | 482.2                | 375.9                 | 106.31                  | 4.536              |         |
| 9,800.0   | 7,097.0             | 9,679.2             | 6,897.0             | 58.4      | 60.1   | -65.50          | -65.50                | 2,929.0                           | -733.7     | 482.3                | 372.5                 | 109.72                  | 4.395              |         |
| 9,900.0   | 7,097.0             | 9,779.2             | 6,897.0             | 60.3      | 61.9   | -65.50          | -65.50                | 3,029.0                           | -733.7     | 482.3                | 369.1                 | 113.15                  | 4.262              |         |
| 10,000.0  | 7,097.0             | 9,879.2             | 6,897.0             | 62.2      | 63.7   | -65.50          | -65.50                | 3,129.0                           | -733.7     | 482.3                | 365.7                 | 116.59                  | 4.137              |         |
| 10,100.0  | 7,097.0             | 9,979.2             | 6,897.0             | 64.0      | 65.6   | -65.50          | -65.50                | 3,229.0                           | -733.7     | 482.3                | 362.2                 | 120.03                  | 4.018              |         |
| 10,200.0  | 7,097.0             | 10,079.2            | 6,897.0             | 65.9      | 67.4   | -65.50          | -65.50                | 3,329.0                           | -733.7     | 482.3                | 358.8                 | 123.47                  | 3.906              |         |
| 10,300.0  | 7,097.0             | 10,179.2            | 6,897.0             | 67.8      | 69.3   | -65.50          | -65.50                | 3,429.0                           | -733.7     | 482.3                | 355.4                 | 126.93                  | 3.800              |         |
| 10,400.0  | 7,097.0             | 10,279.2            | 6,897.0             | 69.6      | 71.1   | -65.50          | -65.50                | 3,529.0                           | -733.7     | 482.3                | 351.9                 | 130.39                  | 3.699              |         |

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

|                           |   |                                     |                                       |
|---------------------------|---|-------------------------------------|---------------------------------------|
| <b>Company:</b>           | PETROLEUM DEVELOPMENT CORP Weld County CO | <b>Local Co-ordinate Reference:</b> | Well Ochsner 5G-421                   |
| <b>Project:</b>           | SEC.5-T6N-R67W                            | <b>TVD Reference:</b>               | WELL @ 4897.0ft (RKB Ensign 32 - 15') |
| <b>Reference Site:</b>    | Ochsner L5-HZ Pad Sec.5-T6N-R67W          | <b>MD Reference:</b>                | WELL @ 4897.0ft (RKB Ensign 32 - 15') |
| <b>Site Error:</b>        | 0.0ft                                     | <b>North Reference:</b>             | True                                  |
| <b>Reference Well:</b>    | Ochsner 5G-421                            | <b>Survey Calculation Method:</b>   | Minimum Curvature                     |
| <b>Well Error:</b>        | 0.0ft                                     | <b>Output errors are at</b>         | 2.00 sigma                            |
| <b>Reference Wellbore</b> | Wellbore #1                               | <b>Database:</b>                    | Landmark                              |
| <b>Reference Design:</b>  | Plan #2 (2-20-14)                         | <b>Offset TVD Reference:</b>        | Offset Datum                          |

| Offset Design Ochsner L5-HZ Pad Sec.5-T6N-R67W - Ochsner 5G-201 - Wellbore #1 - Plan #1 (6-28-12) |                     |                     |                     |           |        |                 |                       |                                   |            |                      |                       |                         | Offset Site Error: | 0.0 ft  |
|---|---------------------|---------------------|---------------------|-----------|--------|-----------------|-----------------------|-----------------------------------|------------|----------------------|-----------------------|-------------------------|--------------------|---------|
| Survey Program: 0-MWD   |                     |                     |                     |           |        |                 |                       |                                   |            |                      |                       |                         | Offset Well Error: | 0.0 ft  |
| Measured Depth (ft)   | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference | Offset | Semi Major Axis | Highside Toolface (°) | Offset Wellbore Centre +N/-S (ft) | +E/-W (ft) | Between Centres (ft) | Between Ellipses (ft) | Minimum Separation (ft) | Separation Factor  | Warning |
| 10,500.0  | 7,097.0             | 10,379.2            | 6,897.0             | 71.5      | 73.0   | -65.50          | -65.50                | 3,629.0                           | -733.7     | 482.3                | 348.5                 | 133.85                  | 3.603              |         |
| 10,600.0  | 7,097.0             | 10,479.2            | 6,897.0             | 73.4      | 74.8   | -65.50          | -65.50                | 3,729.0                           | -733.7     | 482.3                | 345.0                 | 137.32                  | 3.512              |         |
| 10,700.0  | 7,097.0             | 10,579.2            | 6,897.0             | 75.3      | 76.7   | -65.50          | -65.50                | 3,829.0                           | -733.7     | 482.3                | 341.5                 | 140.79                  | 3.426              |         |
| 10,800.0  | 7,097.0             | 10,679.2            | 6,897.0             | 77.1      | 78.6   | -65.50          | -65.50                | 3,929.0                           | -733.7     | 482.3                | 338.1                 | 144.27                  | 3.343              |         |
| 10,900.0  | 7,097.0             | 10,779.2            | 6,897.0             | 79.0      | 80.4   | -65.50          | -65.50                | 4,029.0                           | -733.7     | 482.3                | 334.6                 | 147.75                  | 3.265              |         |
| 11,000.0  | 7,097.0             | 10,879.2            | 6,897.0             | 80.9      | 82.3   | -65.50          | -65.50                | 4,129.0                           | -733.7     | 482.3                | 331.1                 | 151.23                  | 3.189              |         |
| 11,100.0  | 7,097.0             | 10,979.2            | 6,897.0             | 82.8      | 84.2   | -65.50          | -65.50                | 4,229.0                           | -733.7     | 482.3                | 327.6                 | 154.72                  | 3.118              |         |
| 11,200.0  | 7,097.0             | 11,079.2            | 6,897.0             | 84.7      | 86.1   | -65.50          | -65.50                | 4,329.0                           | -733.7     | 482.4                | 324.1                 | 158.21                  | 3.049              |         |
| 11,300.0  | 7,097.0             | 11,179.2            | 6,897.0             | 86.6      | 87.9   | -65.50          | -65.50                | 4,429.0                           | -733.7     | 482.4                | 320.7                 | 161.70                  | 2.983              |         |
| 11,400.0  | 7,097.0             | 11,279.2            | 6,897.0             | 88.5      | 89.8   | -65.50          | -65.50                | 4,529.0                           | -733.7     | 482.4                | 317.2                 | 165.19                  | 2.920              |         |
| 11,500.0  | 7,097.0             | 11,379.2            | 6,897.0             | 90.4      | 91.7   | -65.50          | -65.50                | 4,629.0                           | -733.7     | 482.4                | 313.7                 | 168.69                  | 2.859              |         |
| 11,600.0  | 7,097.0             | 11,479.2            | 6,897.0             | 92.2      | 93.6   | -65.51          | -65.51                | 4,729.0                           | -733.7     | 482.4                | 310.2                 | 172.19                  | 2.801              |         |
| 11,700.0  | 7,097.0             | 11,579.2            | 6,897.0             | 94.1      | 95.5   | -65.51          | -65.51                | 4,829.0                           | -733.7     | 482.4                | 306.7                 | 175.69                  | 2.746              |         |
| 11,800.0  | 7,097.0             | 11,679.2            | 6,897.0             | 96.0      | 97.4   | -65.51          | -65.51                | 4,929.0                           | -733.7     | 482.4                | 303.2                 | 179.20                  | 2.692              |         |
| 11,900.0  | 7,097.0             | 11,779.2            | 6,897.0             | 97.9      | 99.2   | -65.51          | -65.51                | 5,029.0                           | -733.7     | 482.4                | 299.7                 | 182.70                  | 2.640              |         |
| 12,000.0  | 7,097.0             | 11,879.2            | 6,897.0             | 99.8      | 101.1  | -65.51          | -65.51                | 5,129.0                           | -733.7     | 482.4                | 296.2                 | 186.21                  | 2.591              |         |
| 12,100.0  | 7,097.0             | 11,979.2            | 6,897.0             | 101.7     | 103.0  | -65.51          | -65.51                | 5,229.0                           | -733.7     | 482.4                | 292.7                 | 189.72                  | 2.543              |         |
| 12,200.0  | 7,097.0             | 12,079.2            | 6,897.0             | 103.6     | 104.9  | -65.51          | -65.51                | 5,329.0                           | -733.8     | 482.4                | 289.2                 | 193.23                  | 2.497              |         |
| 12,300.0  | 7,097.0             | 12,179.2            | 6,897.0             | 105.5     | 106.8  | -65.51          | -65.51                | 5,429.0                           | -733.8     | 482.4                | 285.7                 | 196.74                  | 2.452              |         |
| 12,400.0  | 7,097.0             | 12,279.2            | 6,897.0             | 107.4     | 108.7  | -65.51          | -65.51                | 5,529.0                           | -733.8     | 482.4                | 282.2                 | 200.26                  | 2.409              |         |
| 12,500.0  | 7,097.0             | 12,379.2            | 6,897.0             | 109.3     | 110.6  | -65.51          | -65.51                | 5,629.0                           | -733.8     | 482.4                | 278.7                 | 203.77                  | 2.368              |         |
| 12,600.0  | 7,097.0             | 12,479.2            | 6,897.0             | 111.2     | 112.5  | -65.51          | -65.51                | 5,729.0                           | -733.8     | 482.5                | 275.2                 | 207.29                  | 2.327              |         |
| 12,700.0  | 7,097.0             | 12,579.2            | 6,897.0             | 113.1     | 114.4  | -65.51          | -65.51                | 5,829.0                           | -733.8     | 482.5                | 271.7                 | 210.81                  | 2.289              |         |
| 12,800.0  | 7,097.0             | 12,679.2            | 6,897.0             | 115.0     | 116.3  | -65.51          | -65.51                | 5,929.0                           | -733.8     | 482.5                | 268.1                 | 214.33                  | 2.251              |         |
| 12,900.0  | 7,097.0             | 12,779.2            | 6,897.0             | 117.0     | 118.2  | -65.51          | -65.51                | 6,029.0                           | -733.8     | 482.5                | 264.6                 | 217.85                  | 2.215              |         |
| 13,000.0  | 7,097.0             | 12,879.2            | 6,897.0             | 118.9     | 120.1  | -65.51          | -65.51                | 6,129.0                           | -733.8     | 482.5                | 261.1                 | 221.37                  | 2.180              |         |
| 13,100.0  | 7,097.0             | 12,979.2            | 6,897.0             | 120.8     | 122.0  | -65.51          | -65.51                | 6,229.0                           | -733.8     | 482.5                | 257.6                 | 224.89                  | 2.145              |         |
| 13,200.0  | 7,097.0             | 13,079.2            | 6,897.0             | 122.7     | 123.9  | -65.51          | -65.51                | 6,329.0                           | -733.8     | 482.5                | 254.1                 | 228.41                  | 2.112              |         |
| 13,300.0  | 7,097.0             | 13,179.2            | 6,897.0             | 124.6     | 125.8  | -65.51          | -65.51                | 6,429.0                           | -733.8     | 482.5                | 250.6                 | 231.94                  | 2.080              |         |
| 13,400.0  | 7,097.0             | 13,279.2            | 6,897.0             | 126.5     | 127.7  | -65.51          | -65.51                | 6,529.0                           | -733.8     | 482.5                | 247.0                 | 235.46                  | 2.049              |         |
| 13,500.0  | 7,097.0             | 13,379.2            | 6,897.0             | 128.4     | 129.6  | -65.51          | -65.51                | 6,629.0                           | -733.8     | 482.5                | 243.5                 | 238.99                  | 2.019              |         |
| 13,600.0  | 7,097.0             | 13,479.2            | 6,897.0             | 130.3     | 131.5  | -65.51          | -65.51                | 6,729.0                           | -733.8     | 482.5                | 240.0                 | 242.51                  | 1.990              |         |
| 13,700.0  | 7,097.0             | 13,579.2            | 6,897.0             | 132.2     | 133.4  | -65.51          | -65.51                | 6,829.0                           | -733.8     | 482.5                | 236.5                 | 246.04                  | 1.961              |         |
| 13,800.0  | 7,097.0             | 13,679.2            | 6,897.0             | 134.1     | 135.3  | -65.51          | -65.51                | 6,929.0                           | -733.8     | 482.5                | 233.0                 | 249.57                  | 1.933              |         |
| 13,900.0  | 7,097.0             | 13,779.2            | 6,897.0             | 136.0     | 137.2  | -65.51          | -65.51                | 7,029.0                           | -733.8     | 482.5                | 229.4                 | 253.10                  | 1.907              |         |
| 14,000.0  | 7,097.0             | 13,879.2            | 6,897.0             | 137.9     | 139.1  | -65.51          | -65.51                | 7,129.0                           | -733.8     | 482.6                | 225.9                 | 256.63                  | 1.880              |         |
| 14,100.0  | 7,097.0             | 13,979.2            | 6,897.0             | 139.9     | 141.0  | -65.51          | -65.51                | 7,229.0                           | -733.8     | 482.6                | 222.4                 | 260.16                  | 1.855              |         |
| 14,200.0  | 7,097.0             | 14,079.2            | 6,897.0             | 141.8     | 142.9  | -65.52          | -65.52                | 7,329.0                           | -733.8     | 482.6                | 218.9                 | 263.69                  | 1.830              |         |
| 14,300.0  | 7,097.0             | 14,179.2            | 6,897.0             | 143.7     | 144.8  | -65.52          | -65.52                | 7,429.0                           | -733.8     | 482.6                | 215.4                 | 267.22                  | 1.806              |         |
| 14,357.8  | 7,097.0             | 14,237.0            | 6,897.0             | 144.8     | 146.0  | -65.52          | -65.52                | 7,486.8                           | -733.8     | 482.6                | 213.3                 | 269.26                  | 1.792 SF           |         |

|                           |   |                                     |                                       |
|---------------------------|---|-------------------------------------|---------------------------------------|
| <b>Company:</b>           | PETROLEUM DEVELOPMENT CORP Weld County CO | <b>Local Co-ordinate Reference:</b> | Well Ochsner 5G-421                   |
| <b>Project:</b>           | SEC.5-T6N-R67W                            | <b>TVD Reference:</b>               | WELL @ 4897.0ft (RKB Ensign 32 - 15') |
| <b>Reference Site:</b>    | Ochsner L5-HZ Pad Sec.5-T6N-R67W          | <b>MD Reference:</b>                | WELL @ 4897.0ft (RKB Ensign 32 - 15') |
| <b>Site Error:</b>        | 0.0ft                                     | <b>North Reference:</b>             | True                                  |
| <b>Reference Well:</b>    | Ochsner 5G-421                            | <b>Survey Calculation Method:</b>   | Minimum Curvature                     |
| <b>Well Error:</b>        | 0.0ft                                     | <b>Output errors are at</b>         | 2.00 sigma                            |
| <b>Reference Wellbore</b> | Wellbore #1                               | <b>Database:</b>                    | Landmark                              |
| <b>Reference Design:</b>  | Plan #2 (2-20-14)                         | <b>Offset TVD Reference:</b>        | Offset Datum                          |

| Offset Design Ochsner L5-HZ Pad Sec.5-T6N-R67W - Ochsner 5K-241 - Wellbore #1 - Plan #1 (6-28-12) |                     |                     |                     |           |        |                 |                       |                                   |            |                      |                       |                         | Offset Site Error: | 0.0 ft  |
|---|---------------------|---------------------|---------------------|-----------|--------|-----------------|-----------------------|-----------------------------------|------------|----------------------|-----------------------|-------------------------|--------------------|---------|
| Survey Program: 0-MWD   |                     |                     |                     |           |        |                 |                       |                                   |            |                      |                       |                         | Offset Well Error: | 0.0 ft  |
| Measured Depth (ft)   | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference | Offset | Semi Major Axis | Highside Toolface (°) | Offset Wellbore Centre +N/-S (ft) | +E/-W (ft) | Between Centres (ft) | Between Ellipses (ft) | Minimum Separation (ft) | Separation Factor  | Warning |
| 0.0   | 0.0                 | 1.0                 | 1.0                 | 0.0       | 0.0    | 136.36          | 136.36                | -29.2                             | 27.8       | 40.3                 | 40.3                  | 0.00                    | N/A                |         |
| 100.0   | 100.0               | 101.0               | 101.0               | 0.1       | 0.1    | 136.36          | 136.36                | -29.2                             | 27.8       | 40.3                 | 40.1                  | 0.23                    | 177.464            |         |
| 200.0   | 200.0               | 201.0               | 201.0               | 0.3       | 0.3    | 136.36          | 136.36                | -29.2                             | 27.8       | 40.3                 | 39.6                  | 0.68                    | 59.548             |         |
| 300.0   | 300.0               | 301.0               | 301.0               | 0.6       | 0.6    | 136.36          | 136.36                | -29.2                             | 27.8       | 40.3                 | 39.2                  | 1.13                    | 35.776             |         |
| 400.0   | 400.0               | 401.0               | 401.0               | 0.8       | 0.8    | 136.36          | 136.36                | -29.2                             | 27.8       | 40.3                 | 38.7                  | 1.58                    | 25.569             |         |
| 500.0   | 500.0               | 501.0               | 501.0               | 1.0       | 1.0    | 136.36          | 136.36                | -29.2                             | 27.8       | 40.3                 | 38.3                  | 2.03                    | 19.893             |         |
| 600.0   | 600.0               | 601.0               | 601.0               | 1.2       | 1.2    | 136.36          | 136.36                | -29.2                             | 27.8       | 40.3                 | 37.8                  | 2.47                    | 16.280             |         |
| 700.0   | 700.0               | 701.0               | 701.0               | 1.5       | 1.5    | 136.36          | 136.36                | -29.2                             | 27.8       | 40.3                 | 37.4                  | 2.92                    | 13.777             |         |
| 800.0   | 800.0               | 801.0               | 801.0               | 1.7       | 1.7    | 136.36          | 136.36                | -29.2                             | 27.8       | 40.3                 | 36.9                  | 3.37                    | 11.941             |         |
| 900.0   | 900.0               | 901.0               | 901.0               | 1.9       | 1.9    | 136.36          | 136.36                | -29.2                             | 27.8       | 40.3                 | 36.5                  | 3.82                    | 10.537             |         |
| 1,000.0   | 1,000.0             | 1,001.0             | 1,001.0             | 2.1       | 2.1    | 136.36          | 136.36                | -29.2                             | 27.8       | 40.3                 | 36.0                  | 4.27                    | 9.429              |         |
| 1,100.0   | 1,100.0             | 1,101.0             | 1,101.0             | 2.4       | 2.4    | 136.36          | 136.36                | -29.2                             | 27.8       | 40.3                 | 35.6                  | 4.72                    | 8.531              |         |
| 1,200.0   | 1,200.0             | 1,201.0             | 1,201.0             | 2.6       | 2.6    | 136.36          | 136.36                | -29.2                             | 27.8       | 40.3                 | 35.1                  | 5.17                    | 7.790              |         |
| 1,300.0   | 1,300.0             | 1,301.0             | 1,301.0             | 2.8       | 2.8    | 136.36          | 136.36                | -29.2                             | 27.8       | 40.3                 | 34.7                  | 5.62                    | 7.167              |         |
| 1,400.0   | 1,400.0             | 1,401.0             | 1,401.0             | 3.0       | 3.0    | 136.36          | 136.36                | -29.2                             | 27.8       | 40.3                 | 34.2                  | 6.07                    | 6.636              |         |
| 1,500.0   | 1,500.0             | 1,501.0             | 1,501.0             | 3.3       | 3.3    | 136.36          | 136.36                | -29.2                             | 27.8       | 40.3                 | 33.8                  | 6.52                    | 6.178 CC, ES       |         |
| 1,600.0   | 1,600.0             | 1,601.0             | 1,601.0             | 3.5       | 3.5    | -118.66         | -118.66               | -29.2                             | 27.8       | 41.1                 | 34.1                  | 6.95                    | 5.912              |         |
| 1,700.0   | 1,699.8             | 1,700.8             | 1,700.8             | 3.7       | 3.7    | -124.62         | -124.62               | -29.2                             | 27.8       | 43.8                 | 36.5                  | 7.37                    | 5.953              |         |
| 1,800.0   | 1,799.5             | 1,800.5             | 1,800.5             | 3.9       | 3.9    | -132.88         | -132.88               | -29.2                             | 27.8       | 49.3                 | 41.6                  | 7.78                    | 6.341              |         |
| 1,899.4   | 1,898.1             | 1,899.1             | 1,899.1             | 4.1       | 4.2    | -141.50         | -141.50               | -29.2                             | 27.8       | 58.3                 | 50.1                  | 8.19                    | 7.118              |         |
| 2,000.0   | 1,997.7             | 1,998.7             | 1,998.7             | 4.3       | 4.4    | -148.65         | -148.65               | -29.2                             | 27.8       | 69.8                 | 61.2                  | 8.61                    | 8.103              |         |
| 2,100.0   | 2,096.8             | 2,097.8             | 2,097.8             | 4.6       | 4.6    | -153.70         | -153.70               | -29.2                             | 27.8       | 82.0                 | 73.0                  | 9.04                    | 9.070              |         |
| 2,200.0   | 2,195.8             | 2,196.8             | 2,196.8             | 4.9       | 4.8    | -157.42         | -157.42               | -29.2                             | 27.8       | 94.7                 | 85.2                  | 9.47                    | 9.994              |         |
| 2,300.0   | 2,294.8             | 2,295.8             | 2,295.8             | 5.1       | 5.0    | -160.26         | -160.26               | -29.2                             | 27.8       | 107.7                | 97.8                  | 9.91                    | 10.865             |         |
| 2,400.0   | 2,393.9             | 2,394.9             | 2,394.9             | 5.4       | 5.3    | -162.48         | -162.48               | -29.2                             | 27.8       | 120.8                | 110.5                 | 10.35                   | 11.679             |         |
| 2,500.0   | 2,492.9             | 2,493.9             | 2,493.9             | 5.7       | 5.5    | -164.27         | -164.27               | -29.2                             | 27.8       | 134.2                | 123.4                 | 10.79                   | 12.437             |         |
| 2,600.0   | 2,591.9             | 2,589.4             | 2,589.4             | 6.0       | 5.7    | -165.33         | -165.33               | -30.0                             | 28.9       | 148.7                | 137.5                 | 11.20                   | 13.272             |         |
| 2,700.0   | 2,690.9             | 2,683.9             | 2,683.8             | 6.3       | 5.9    | -165.48         | -165.48               | -32.7                             | 32.5       | 165.8                | 154.2                 | 11.61                   | 14.280             |         |
| 2,800.0   | 2,790.0             | 2,777.6             | 2,777.2             | 6.6       | 6.0    | -164.97         | -164.97               | -37.3                             | 38.5       | 185.3                | 173.3                 | 12.02                   | 15.419             |         |
| 2,900.0   | 2,889.0             | 2,870.2             | 2,869.2             | 7.0       | 6.2    | -164.01         | -164.01               | -43.7                             | 46.8       | 207.3                | 194.9                 | 12.44                   | 16.672             |         |
| 3,000.0   | 2,988.0             | 2,966.3             | 2,964.4             | 7.3       | 6.4    | -162.88         | -162.88               | -51.5                             | 57.0       | 231.0                | 218.2                 | 12.87                   | 17.953             |         |
| 3,100.0   | 3,087.1             | 3,063.3             | 3,060.6             | 7.6       | 6.6    | -161.95         | -161.95               | -59.5                             | 67.4       | 254.9                | 241.5                 | 13.31                   | 19.150             |         |
| 3,200.0   | 3,186.1             | 3,160.4             | 3,156.7             | 7.9       | 6.9    | -161.17         | -161.17               | -67.4                             | 77.7       | 278.7                | 265.0                 | 13.76                   | 20.263             |         |
| 3,300.0   | 3,285.1             | 3,257.4             | 3,252.9             | 8.3       | 7.1    | -160.52         | -160.52               | -75.4                             | 88.1       | 302.7                | 288.4                 | 14.21                   | 21.302             |         |
| 3,400.0   | 3,384.1             | 3,354.5             | 3,349.0             | 8.6       | 7.4    | -159.96         | -159.96               | -83.3                             | 98.5       | 326.6                | 311.9                 | 14.67                   | 22.270             |         |
| 3,500.0   | 3,483.2             | 3,451.5             | 3,445.2             | 8.9       | 7.6    | -159.48         | -159.48               | -91.3                             | 108.9      | 350.6                | 335.5                 | 15.13                   | 23.174             |         |
| 3,600.0   | 3,582.2             | 3,548.6             | 3,541.3             | 9.2       | 7.9    | -159.06         | -159.06               | -99.3                             | 119.2      | 374.6                | 359.0                 | 15.60                   | 24.018             |         |
| 3,700.0   | 3,681.2             | 3,648.7             | 3,640.6             | 9.6       | 8.1    | -158.68         | -158.68               | -107.4                            | 129.8      | 398.5                | 382.4                 | 16.07                   | 24.794             |         |
| 3,720.9   | 3,701.9             | 3,671.7             | 3,663.4             | 9.6       | 8.2    | -158.63         | -158.63               | -109.1                            | 132.1      | 403.3                | 387.1                 | 16.18                   | 24.930             |         |
| 3,800.0   | 3,780.4             | 3,759.7             | 3,751.0             | 9.9       | 8.4    | -158.61         | -158.61               | -114.6                            | 139.2      | 419.2                | 402.6                 | 16.58                   | 25.284             |         |
| 3,900.0   | 3,880.0             | 3,872.7             | 3,863.7             | 10.1      | 8.7    | -158.68         | -158.68               | -119.2                            | 145.2      | 433.6                | 416.5                 | 17.05                   | 25.428             |         |
| 4,000.0   | 3,979.8             | 3,987.0             | 3,977.9             | 10.3      | 8.9    | -158.83         | -158.83               | -121.1                            | 147.7      | 441.4                | 423.9                 | 17.49                   | 25.240             |         |
| 4,100.0   | 4,079.7             | 4,089.8             | 4,080.7             | 10.5      | 9.1    | -158.96         | -158.96               | -121.2                            | 147.8      | 443.8                | 425.9                 | 17.88                   | 24.819             |         |
| 4,120.3   | 4,100.0             | 4,110.1             | 4,101.0             | 10.5      | 9.1    | 93.90           | 93.90                 | -121.2                            | 147.8      | 443.8                | 425.9                 | 17.96                   | 24.716             |         |
| 4,200.0   | 4,179.7             | 4,189.8             | 4,180.7             | 10.6      | 9.3    | 93.90           | 93.90                 | -121.2                            | 147.8      | 443.8                | 425.5                 | 18.28                   | 24.274             |         |
| 4,300.0   | 4,279.7             | 4,289.8             | 4,280.7             | 10.8      | 9.5    | 93.90           | 93.90                 | -121.2                            | 147.8      | 443.8                | 425.1                 | 18.70                   | 23.733             |         |
| 4,400.0   | 4,379.7             | 4,389.8             | 4,380.7             | 11.0      | 9.7    | 93.90           | 93.90                 | -121.2                            | 147.8      | 443.8                | 424.7                 | 19.12                   | 23.214             |         |
| 4,500.0   | 4,479.7             | 4,489.8             | 4,480.7             | 11.2      | 9.9    | 93.90           | 93.90                 | -121.2                            | 147.8      | 443.8                | 424.3                 | 19.54                   | 22.715             |         |
| 4,600.0   | 4,579.7             | 4,589.8             | 4,580.7             | 11.4      | 10.1   | 93.90           | 93.90                 | -121.2                            | 147.8      | 443.8                | 423.9                 | 19.96                   | 22.236             |         |
| 4,700.0   | 4,679.7             | 4,689.8             | 4,680.7             | 11.6      | 10.4   | 93.90           | 93.90                 | -121.2                            | 147.8      | 443.8                | 423.4                 | 20.38                   | 21.776             |         |
| 4,800.0   | 4,779.7             | 4,789.8             | 4,780.7             | 11.7      | 10.6   | 93.90           | 93.90                 | -121.2                            | 147.8      | 443.8                | 423.0                 | 20.80                   | 21.333             |         |

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

|                           |   |                                     |                                       |
|---------------------------|---|-------------------------------------|---------------------------------------|
| <b>Company:</b>           | PETROLEUM DEVELOPMENT CORP Weld County CO | <b>Local Co-ordinate Reference:</b> | Well Ochsner 5G-421                   |
| <b>Project:</b>           | SEC.5-T6N-R67W                            | <b>TVD Reference:</b>               | WELL @ 4897.0ft (RKB Ensign 32 - 15') |
| <b>Reference Site:</b>    | Ochsner L5-HZ Pad Sec.5-T6N-R67W          | <b>MD Reference:</b>                | WELL @ 4897.0ft (RKB Ensign 32 - 15') |
| <b>Site Error:</b>        | 0.0ft                                     | <b>North Reference:</b>             | True                                  |
| <b>Reference Well:</b>    | Ochsner 5G-421                            | <b>Survey Calculation Method:</b>   | Minimum Curvature                     |
| <b>Well Error:</b>        | 0.0ft                                     | <b>Output errors are at</b>         | 2.00 sigma                            |
| <b>Reference Wellbore</b> | Wellbore #1                               | <b>Database:</b>                    | Landmark                              |
| <b>Reference Design:</b>  | Plan #2 (2-20-14)                         | <b>Offset TVD Reference:</b>        | Offset Datum                          |

| Offset Design Ochsner L5-HZ Pad Sec.5-T6N-R67W - Ochsner 5K-241 - Wellbore #1 - Plan #1 (6-28-12) |                     |                     |                     |           |        |                 |                       |                                   |                                   |                      |                       |                         | Offset Site Error: | 0.0 ft  |
|---|---------------------|---------------------|---------------------|-----------|--------|-----------------|-----------------------|-----------------------------------|-----------------------------------|----------------------|-----------------------|-------------------------|--------------------|---------|
| Survey Program: 0-MWD   |                     |                     |                     |           |        |                 |                       |                                   |                                   |                      |                       |                         | Offset Well Error: | 0.0 ft  |
| Measured Depth (ft)   | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference | Offset | Semi Major Axis | Highside Toolface (°) | Offset Wellbore Centre +N/-S (ft) | Offset Wellbore Centre +E/-W (ft) | Between Centres (ft) | Between Ellipses (ft) | Minimum Separation (ft) | Separation Factor  | Warning |
| 4,900.0   | 4,879.7             | 4,889.8             | 4,880.7             | 11.9      | 10.8   | 93.90           | 93.90                 | -121.2                            | 147.8                             | 443.8                | 422.6                 | 21.23                   | 20.906             |         |
| 5,000.0   | 4,979.7             | 4,989.8             | 4,980.7             | 12.1      | 11.0   | 93.90           | 93.90                 | -121.2                            | 147.8                             | 443.8                | 422.2                 | 21.65                   | 20.496             |         |
| 5,100.0   | 5,079.7             | 5,089.8             | 5,080.7             | 12.3      | 11.2   | 93.90           | 93.90                 | -121.2                            | 147.8                             | 443.8                | 421.7                 | 22.08                   | 20.100             |         |
| 5,200.0   | 5,179.7             | 5,189.8             | 5,180.7             | 12.5      | 11.4   | 93.90           | 93.90                 | -121.2                            | 147.8                             | 443.8                | 421.3                 | 22.51                   | 19.719             |         |
| 5,300.0   | 5,279.7             | 5,289.8             | 5,280.7             | 12.7      | 11.6   | 93.90           | 93.90                 | -121.2                            | 147.8                             | 443.8                | 420.9                 | 22.94                   | 19.351             |         |
| 5,400.0   | 5,379.7             | 5,389.8             | 5,380.7             | 12.9      | 11.9   | 93.90           | 93.90                 | -121.2                            | 147.8                             | 443.8                | 420.5                 | 23.36                   | 18.996             |         |
| 5,500.0   | 5,479.7             | 5,489.8             | 5,480.7             | 13.1      | 12.1   | 93.90           | 93.90                 | -121.2                            | 147.8                             | 443.8                | 420.0                 | 23.79                   | 18.653             |         |
| 5,600.0   | 5,579.7             | 5,589.8             | 5,580.7             | 13.3      | 12.3   | 93.90           | 93.90                 | -121.2                            | 147.8                             | 443.8                | 419.6                 | 24.22                   | 18.321             |         |
| 5,700.0   | 5,679.7             | 5,689.8             | 5,680.7             | 13.5      | 12.5   | 93.90           | 93.90                 | -121.2                            | 147.8                             | 443.8                | 419.2                 | 24.66                   | 18.001             |         |
| 5,800.0   | 5,779.7             | 5,789.8             | 5,780.7             | 13.7      | 12.7   | 93.90           | 93.90                 | -121.2                            | 147.8                             | 443.8                | 418.7                 | 25.09                   | 17.691             |         |
| 5,900.0   | 5,879.7             | 5,889.8             | 5,880.7             | 13.9      | 12.9   | 93.90           | 93.90                 | -121.2                            | 147.8                             | 443.8                | 418.3                 | 25.52                   | 17.392             |         |
| 6,000.0   | 5,979.7             | 5,989.8             | 5,980.7             | 14.1      | 13.2   | 93.90           | 93.90                 | -121.2                            | 147.8                             | 443.8                | 417.9                 | 25.95                   | 17.102             |         |
| 6,100.0   | 6,079.7             | 6,089.8             | 6,080.7             | 14.3      | 13.4   | 93.90           | 93.90                 | -121.2                            | 147.8                             | 443.8                | 417.4                 | 26.39                   | 16.821             |         |
| 6,200.0   | 6,179.7             | 6,191.7             | 6,182.6             | 14.5      | 13.6   | 93.69           | 93.69                 | -119.5                            | 147.8                             | 443.7                | 416.9                 | 26.82                   | 16.546             |         |
| 6,300.0   | 6,279.7             | 6,293.8             | 6,283.8             | 14.7      | 13.8   | 91.96           | 91.96                 | -106.1                            | 147.8                             | 443.1                | 415.9                 | 27.21                   | 16.283             |         |
| 6,343.5   | 6,323.2             | 6,336.8             | 6,325.7             | 14.8      | 13.9   | 90.71           | 90.71                 | -96.5                             | 147.8                             | 442.8                | 415.5                 | 27.37                   | 16.180             |         |
| 6,350.0   | 6,329.7             | 6,343.2             | 6,331.8             | 14.8      | 13.9   | 90.50           | 90.50                 | -94.9                             | 147.8                             | 442.8                | 415.4                 | 27.39                   | 16.166             |         |
| 6,366.1   | 6,345.8             | 6,358.8             | 6,346.8             | 14.8      | 13.9   | 89.99           | 89.99                 | -90.6                             | 147.8                             | 442.8                | 415.4                 | 27.45                   | 16.133             |         |
| 6,400.0   | 6,379.7             | 6,391.4             | 6,378.0             | 14.9      | 14.0   | 88.93           | 88.93                 | -80.8                             | 147.8                             | 442.9                | 415.3                 | 27.56                   | 16.068             |         |
| 6,450.0   | 6,429.4             | 6,438.9             | 6,422.5             | 15.0      | 14.1   | 87.37           | 87.37                 | -64.2                             | 147.8                             | 443.3                | 415.6                 | 27.73                   | 15.988             |         |
| 6,500.0   | 6,478.6             | 6,485.8             | 6,465.2             | 15.1      | 14.1   | 85.84           | 85.84                 | -45.2                             | 147.8                             | 444.0                | 416.2                 | 27.89                   | 15.923             |         |
| 6,550.0   | 6,527.2             | 6,531.9             | 6,506.2             | 15.1      | 14.2   | 84.34           | 84.34                 | -23.8                             | 147.8                             | 445.1                | 417.0                 | 28.05                   | 15.870             |         |
| 6,600.0   | 6,574.9             | 6,577.5             | 6,545.3             | 15.2      | 14.3   | 82.87           | 82.87                 | -0.4                              | 147.8                             | 446.4                | 418.2                 | 28.21                   | 15.825             |         |
| 6,650.0   | 6,621.6             | 6,622.5             | 6,582.4             | 15.3      | 14.4   | 81.44           | 81.44                 | 25.0                              | 147.8                             | 448.0                | 419.7                 | 28.39                   | 15.784             |         |
| 6,700.0   | 6,666.9             | 6,666.9             | 6,617.6             | 15.4      | 14.5   | 80.06           | 80.06                 | 52.1                              | 147.8                             | 449.9                | 421.3                 | 28.57                   | 15.746             |         |
| 6,750.0   | 6,710.8             | 6,710.9             | 6,650.7             | 15.5      | 14.6   | 78.74           | 78.74                 | 81.0                              | 147.8                             | 451.9                | 423.1                 | 28.77                   | 15.707             |         |
| 6,800.0   | 6,753.1             | 6,754.4             | 6,681.8             | 15.6      | 14.7   | 77.46           | 77.46                 | 111.3                             | 147.8                             | 454.1                | 425.1                 | 28.99                   | 15.664             |         |
| 6,850.0   | 6,793.4             | 6,800.0             | 6,712.6             | 15.6      | 14.9   | 76.19           | 76.19                 | 145.0                             | 147.8                             | 456.4                | 427.1                 | 29.24                   | 15.608             |         |
| 6,900.0   | 6,831.8             | 6,840.1             | 6,737.9             | 15.7      | 15.1   | 75.10           | 75.10                 | 176.1                             | 147.8                             | 458.7                | 429.2                 | 29.50                   | 15.548             |         |
| 6,950.0   | 6,868.0             | 6,882.4             | 6,762.8             | 15.9      | 15.3   | 74.01           | 74.01                 | 210.3                             | 147.8                             | 461.1                | 431.3                 | 29.81                   | 15.471             |         |
| 7,000.0   | 6,901.9             | 6,924.4             | 6,785.6             | 16.0      | 15.6   | 72.99           | 72.99                 | 245.6                             | 147.8                             | 463.6                | 433.4                 | 30.14                   | 15.378             |         |
| 7,050.0   | 6,933.2             | 6,966.0             | 6,806.3             | 16.2      | 15.9   | 72.04           | 72.04                 | 281.7                             | 147.8                             | 466.0                | 435.4                 | 30.52                   | 15.266             |         |
| 7,100.0   | 6,962.0             | 7,007.4             | 6,824.9             | 16.4      | 16.2   | 71.16           | 71.16                 | 318.7                             | 147.8                             | 468.3                | 437.4                 | 30.94                   | 15.135             |         |
| 7,150.0   | 6,988.1             | 7,050.0             | 6,841.8             | 16.7      | 16.6   | 70.33           | 70.33                 | 357.7                             | 147.8                             | 470.6                | 439.2                 | 31.42                   | 14.977             |         |
| 7,200.0   | 7,011.2             | 7,089.5             | 6,855.6             | 17.0      | 16.9   | 69.62           | 69.62                 | 394.7                             | 147.8                             | 472.7                | 440.8                 | 31.94                   | 14.802             |         |
| 7,250.0   | 7,031.5             | 7,130.2             | 6,867.8             | 17.4      | 17.3   | 68.96           | 68.96                 | 433.6                             | 147.8                             | 474.7                | 442.2                 | 32.52                   | 14.600             |         |
| 7,300.0   | 7,048.7             | 7,170.7             | 6,877.8             | 17.8      | 17.7   | 68.38           | 68.38                 | 472.8                             | 147.8                             | 476.5                | 443.4                 | 33.15                   | 14.376             |         |
| 7,350.0   | 7,062.8             | 7,211.1             | 6,885.8             | 18.2      | 18.2   | 67.87           | 67.87                 | 512.4                             | 147.8                             | 478.2                | 444.3                 | 33.84                   | 14.130             |         |
| 7,400.0   | 7,073.7             | 7,250.0             | 6,891.5             | 18.7      | 18.6   | 67.44           | 67.44                 | 550.9                             | 147.8                             | 479.6                | 445.0                 | 34.58                   | 13.870             |         |
| 7,450.0   | 7,081.5             | 7,291.4             | 6,895.3             | 19.3      | 19.1   | 67.07           | 67.07                 | 592.2                             | 147.8                             | 480.8                | 445.4                 | 35.40                   | 13.581             |         |
| 7,463.5   | 7,083.0             | 7,300.0             | 6,895.8             | 19.4      | 19.2   | 67.00           | 67.00                 | 600.7                             | 147.8                             | 481.1                | 445.5                 | 35.61                   | 13.511             |         |
| 7,500.0   | 7,086.8             | 7,331.4             | 6,896.9             | 19.9      | 19.6   | 66.76           | 66.76                 | 632.1                             | 147.8                             | 482.1                | 445.8                 | 36.32                   | 13.275             |         |
| 7,537.5   | 7,090.7             | 7,366.0             | 6,897.0             | 20.3      | 20.0   | 66.37           | 66.37                 | 666.7                             | 147.8                             | 483.6                | 446.6                 | 37.06                   | 13.049             |         |
| 7,600.0   | 7,095.6             | 7,428.3             | 6,897.0             | 21.1      | 20.9   | 65.76           | 65.76                 | 729.0                             | 147.8                             | 485.6                | 447.3                 | 38.35                   | 12.661             |         |
| 7,657.5   | 7,097.0             | 7,485.8             | 6,897.0             | 21.8      | 21.6   | 65.58           | 65.58                 | 786.5                             | 147.7                             | 486.2                | 446.5                 | 39.68                   | 12.254             |         |
| 7,700.0   | 7,097.0             | 7,528.3             | 6,897.0             | 22.4      | 22.2   | 65.58           | 65.58                 | 829.0                             | 147.7                             | 486.2                | 445.4                 | 40.76                   | 11.927             |         |
| 7,800.0   | 7,097.0             | 7,628.3             | 6,897.0             | 23.8      | 23.7   | 65.58           | 65.58                 | 929.0                             | 147.7                             | 486.2                | 442.8                 | 43.41                   | 11.199             |         |
| 7,900.0   | 7,097.0             | 7,728.3             | 6,897.0             | 25.3      | 25.2   | 65.58           | 65.58                 | 1,029.0                           | 147.7                             | 486.2                | 440.0                 | 46.19                   | 10.526             |         |
| 8,000.0   | 7,097.0             | 7,828.3             | 6,897.0             | 26.8      | 26.8   | 65.58           | 65.58                 | 1,129.0                           | 147.7                             | 486.2                | 437.1                 | 49.06                   | 9.909              |         |
| 8,100.0   | 7,097.0             | 7,928.3             | 6,897.0             | 28.4      | 28.4   | 65.58           | 65.58                 | 1,229.0                           | 147.7                             | 486.2                | 434.1                 | 52.02                   | 9.346              |         |
| 8,200.0   | 7,097.0             | 8,028.3             | 6,897.0             | 30.0      | 30.1   | 65.58           | 65.58                 | 1,329.0                           | 147.7                             | 486.1                | 431.1                 | 55.05                   | 8.831              |         |

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



|                           |   |                                     |                                       |
|---------------------------|---|-------------------------------------|---------------------------------------|
| <b>Company:</b>           | PETROLEUM DEVELOPMENT CORP Weld County CO | <b>Local Co-ordinate Reference:</b> | Well Ochsner 5G-421                   |
| <b>Project:</b>           | SEC.5-T6N-R67W                            | <b>TVD Reference:</b>               | WELL @ 4897.0ft (RKB Ensign 32 - 15') |
| <b>Reference Site:</b>    | Ochsner L5-HZ Pad Sec.5-T6N-R67W          | <b>MD Reference:</b>                | WELL @ 4897.0ft (RKB Ensign 32 - 15') |
| <b>Site Error:</b>        | 0.0ft                                     | <b>North Reference:</b>             | True                                  |
| <b>Reference Well:</b>    | Ochsner 5G-421                            | <b>Survey Calculation Method:</b>   | Minimum Curvature                     |
| <b>Well Error:</b>        | 0.0ft                                     | <b>Output errors are at</b>         | 2.00 sigma                            |
| <b>Reference Wellbore</b> | Wellbore #1                               | <b>Database:</b>                    | Landmark                              |
| <b>Reference Design:</b>  | Plan #2 (2-20-14)                         | <b>Offset TVD Reference:</b>        | Offset Datum                          |

| Offset Design Ochsner L5-HZ Pad Sec.5-T6N-R67W - Ochsner 5K-241 - Wellbore #1 - Plan #1 (6-28-12) |                     |                     |                     |                 |        |                       |                                   |            |                      |                       |                         |         | Offset Site Error: | 0.0 ft |
|---|---------------------|---------------------|---------------------|-----------------|--------|-----------------------|-----------------------------------|------------|----------------------|-----------------------|-------------------------|---------|--------------------|--------|
| Survey Program: 0-MWD   |                     |                     |                     |                 |        |                       |                                   |            |                      |                       |                         |         | Offset Well Error: | 0.0 ft |
| Reference   |                     | Offset              |                     | Semi Major Axis |        |                       | Distance                          |            |                      |                       |                         | Warning |                    |        |
| Measured Depth (ft)   | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference       | Offset | Highside Toolface (°) | Offset Wellbore Centre +N/-S (ft) | +E/-W (ft) | Between Centres (ft) | Between Ellipses (ft) | Minimum Separation (ft) |         | Separation Factor  |        |
| 8,300.0   | 7,097.0             | 8,128.3             | 6,897.0             | 31.7            | 31.7   | 65.58                 | 1,429.0                           | 147.7      | 486.1                | 428.0                 | 58.14                   | 8.362   |                    |        |
| 8,400.0   | 7,097.0             | 8,228.3             | 6,897.0             | 33.3            | 33.4   | 65.58                 | 1,529.0                           | 147.7      | 486.1                | 424.8                 | 61.28                   | 7.933   |                    |        |
| 8,500.0   | 7,097.0             | 8,328.3             | 6,897.0             | 35.0            | 35.2   | 65.58                 | 1,629.0                           | 147.7      | 486.1                | 421.7                 | 64.46                   | 7.541   |                    |        |
| 8,600.0   | 7,097.0             | 8,428.3             | 6,897.0             | 36.8            | 36.9   | 65.58                 | 1,729.0                           | 147.7      | 486.1                | 418.4                 | 67.68                   | 7.182   |                    |        |
| 8,700.0   | 7,097.0             | 8,528.3             | 6,897.0             | 38.5            | 38.7   | 65.58                 | 1,829.0                           | 147.7      | 486.1                | 415.2                 | 70.93                   | 6.853   |                    |        |
| 8,800.0   | 7,097.0             | 8,628.3             | 6,897.0             | 40.3            | 40.5   | 65.57                 | 1,929.0                           | 147.7      | 486.1                | 411.9                 | 74.21                   | 6.550   |                    |        |
| 8,900.0   | 7,097.0             | 8,728.3             | 6,897.0             | 42.0            | 42.3   | 65.57                 | 2,029.0                           | 147.7      | 486.1                | 408.6                 | 77.52                   | 6.270   |                    |        |
| 9,000.0   | 7,097.0             | 8,828.3             | 6,897.0             | 43.8            | 44.1   | 65.57                 | 2,129.0                           | 147.7      | 486.1                | 405.2                 | 80.85                   | 6.012   |                    |        |
| 9,100.0   | 7,097.0             | 8,928.3             | 6,897.0             | 45.6            | 45.9   | 65.57                 | 2,229.0                           | 147.7      | 486.1                | 401.9                 | 84.19                   | 5.773   |                    |        |
| 9,200.0   | 7,097.0             | 9,028.3             | 6,897.0             | 47.4            | 47.7   | 65.57                 | 2,329.0                           | 147.7      | 486.0                | 398.5                 | 87.55                   | 5.552   |                    |        |
| 9,300.0   | 7,097.0             | 9,128.3             | 6,897.0             | 49.3            | 49.5   | 65.57                 | 2,429.0                           | 147.6      | 486.0                | 395.1                 | 90.93                   | 5.345   |                    |        |
| 9,400.0   | 7,097.0             | 9,228.3             | 6,897.0             | 51.1            | 51.4   | 65.57                 | 2,529.0                           | 147.6      | 486.0                | 391.7                 | 94.32                   | 5.153   |                    |        |
| 9,500.0   | 7,097.0             | 9,328.3             | 6,897.0             | 52.9            | 53.2   | 65.57                 | 2,629.0                           | 147.6      | 486.0                | 388.3                 | 97.72                   | 4.974   |                    |        |
| 9,600.0   | 7,097.0             | 9,428.3             | 6,897.0             | 54.8            | 55.1   | 65.57                 | 2,729.0                           | 147.6      | 486.0                | 384.9                 | 101.13                  | 4.806   |                    |        |
| 9,700.0   | 7,097.0             | 9,528.3             | 6,897.0             | 56.6            | 56.9   | 65.57                 | 2,829.0                           | 147.6      | 486.0                | 381.4                 | 104.55                  | 4.648   |                    |        |
| 9,800.0   | 7,097.0             | 9,628.3             | 6,897.0             | 58.4            | 58.8   | 65.57                 | 2,929.0                           | 147.6      | 486.0                | 378.0                 | 107.98                  | 4.501   |                    |        |
| 9,900.0   | 7,097.0             | 9,728.3             | 6,897.0             | 60.3            | 60.6   | 65.57                 | 3,029.0                           | 147.6      | 486.0                | 374.6                 | 111.42                  | 4.362   |                    |        |
| 10,000.0  | 7,097.0             | 9,828.3             | 6,897.0             | 62.2            | 62.5   | 65.57                 | 3,129.0                           | 147.6      | 486.0                | 371.1                 | 114.86                  | 4.231   |                    |        |
| 10,100.0  | 7,097.0             | 9,928.3             | 6,897.0             | 64.0            | 64.4   | 65.57                 | 3,229.0                           | 147.6      | 486.0                | 367.6                 | 118.31                  | 4.107   |                    |        |
| 10,200.0  | 7,097.0             | 10,028.3            | 6,897.0             | 65.9            | 66.3   | 65.57                 | 3,329.0                           | 147.6      | 485.9                | 364.2                 | 121.77                  | 3.991   |                    |        |
| 10,300.0  | 7,097.0             | 10,128.3            | 6,897.0             | 67.8            | 68.1   | 65.57                 | 3,429.0                           | 147.6      | 485.9                | 360.7                 | 125.24                  | 3.880   |                    |        |
| 10,400.0  | 7,097.0             | 10,228.3            | 6,897.0             | 69.6            | 70.0   | 65.57                 | 3,529.0                           | 147.6      | 485.9                | 357.2                 | 128.70                  | 3.776   |                    |        |
| 10,500.0  | 7,097.0             | 10,328.3            | 6,897.0             | 71.5            | 71.9   | 65.57                 | 3,629.0                           | 147.6      | 485.9                | 353.7                 | 132.18                  | 3.676   |                    |        |
| 10,600.0  | 7,097.0             | 10,428.3            | 6,897.0             | 73.4            | 73.8   | 65.56                 | 3,729.0                           | 147.6      | 485.9                | 350.2                 | 135.65                  | 3.582   |                    |        |
| 10,700.0  | 7,097.0             | 10,528.3            | 6,897.0             | 75.3            | 75.7   | 65.56                 | 3,829.0                           | 147.6      | 485.9                | 346.8                 | 139.13                  | 3.492   |                    |        |
| 10,800.0  | 7,097.0             | 10,628.3            | 6,897.0             | 77.1            | 77.5   | 65.56                 | 3,929.0                           | 147.5      | 485.9                | 343.3                 | 142.62                  | 3.407   |                    |        |
| 10,900.0  | 7,097.0             | 10,728.3            | 6,897.0             | 79.0            | 79.4   | 65.56                 | 4,029.0                           | 147.5      | 485.9                | 339.8                 | 146.11                  | 3.325   |                    |        |
| 11,000.0  | 7,097.0             | 10,828.3            | 6,897.0             | 80.9            | 81.3   | 65.56                 | 4,129.0                           | 147.5      | 485.9                | 336.3                 | 149.60                  | 3.248   |                    |        |
| 11,100.0  | 7,097.0             | 10,928.3            | 6,897.0             | 82.8            | 83.2   | 65.56                 | 4,229.0                           | 147.5      | 485.9                | 332.8                 | 153.09                  | 3.174   |                    |        |
| 11,200.0  | 7,097.0             | 11,028.3            | 6,897.0             | 84.7            | 85.1   | 65.56                 | 4,329.0                           | 147.5      | 485.8                | 329.3                 | 156.59                  | 3.103   |                    |        |
| 11,300.0  | 7,097.0             | 11,128.3            | 6,897.0             | 86.6            | 87.0   | 65.56                 | 4,429.0                           | 147.5      | 485.8                | 325.7                 | 160.09                  | 3.035   |                    |        |
| 11,400.0  | 7,097.0             | 11,228.3            | 6,897.0             | 88.5            | 88.9   | 65.56                 | 4,529.0                           | 147.5      | 485.8                | 322.2                 | 163.59                  | 2.970   |                    |        |
| 11,500.0  | 7,097.0             | 11,328.3            | 6,897.0             | 90.4            | 90.8   | 65.56                 | 4,629.0                           | 147.5      | 485.8                | 318.7                 | 167.09                  | 2.907   |                    |        |
| 11,600.0  | 7,097.0             | 11,428.3            | 6,897.0             | 92.2            | 92.7   | 65.56                 | 4,729.0                           | 147.5      | 485.8                | 315.2                 | 170.60                  | 2.848   |                    |        |
| 11,700.0  | 7,097.0             | 11,528.3            | 6,897.0             | 94.1            | 94.6   | 65.56                 | 4,829.0                           | 147.5      | 485.8                | 311.7                 | 174.11                  | 2.790   |                    |        |
| 11,800.0  | 7,097.0             | 11,628.3            | 6,897.0             | 96.0            | 96.5   | 65.56                 | 4,929.0                           | 147.5      | 485.8                | 308.2                 | 177.62                  | 2.735   |                    |        |
| 11,900.0  | 7,097.0             | 11,728.3            | 6,897.0             | 97.9            | 98.4   | 65.56                 | 5,029.0                           | 147.5      | 485.8                | 304.6                 | 181.13                  | 2.682   |                    |        |
| 12,000.0  | 7,097.0             | 11,828.3            | 6,897.0             | 99.8            | 100.3  | 65.56                 | 5,129.0                           | 147.5      | 485.8                | 301.1                 | 184.64                  | 2.631   |                    |        |
| 12,100.0  | 7,097.0             | 11,928.3            | 6,897.0             | 101.7           | 102.2  | 65.56                 | 5,229.0                           | 147.5      | 485.7                | 297.6                 | 188.15                  | 2.582   |                    |        |
| 12,200.0  | 7,097.0             | 12,028.3            | 6,897.0             | 103.6           | 104.1  | 65.56                 | 5,329.0                           | 147.5      | 485.7                | 294.1                 | 191.67                  | 2.534   |                    |        |
| 12,300.0  | 7,097.0             | 12,128.3            | 6,897.0             | 105.5           | 106.0  | 65.56                 | 5,429.0                           | 147.5      | 485.7                | 290.5                 | 195.19                  | 2.489   |                    |        |
| 12,400.0  | 7,097.0             | 12,228.3            | 6,897.0             | 107.4           | 107.9  | 65.56                 | 5,529.0                           | 147.4      | 485.7                | 287.0                 | 198.71                  | 2.444   |                    |        |
| 12,500.0  | 7,097.0             | 12,328.3            | 6,897.0             | 109.3           | 109.8  | 65.55                 | 5,629.0                           | 147.4      | 485.7                | 283.5                 | 202.23                  | 2.402   |                    |        |
| 12,600.0  | 7,097.0             | 12,428.3            | 6,897.0             | 111.2           | 111.7  | 65.55                 | 5,729.0                           | 147.4      | 485.7                | 280.0                 | 205.75                  | 2.361   |                    |        |
| 12,700.0  | 7,097.0             | 12,528.3            | 6,897.0             | 113.1           | 113.6  | 65.55                 | 5,829.0                           | 147.4      | 485.7                | 276.4                 | 209.27                  | 2.321   |                    |        |
| 12,800.0  | 7,097.0             | 12,628.3            | 6,897.0             | 115.0           | 115.5  | 65.55                 | 5,929.0                           | 147.4      | 485.7                | 272.9                 | 212.79                  | 2.282   |                    |        |
| 12,900.0  | 7,097.0             | 12,728.3            | 6,897.0             | 117.0           | 117.4  | 65.55                 | 6,029.0                           | 147.4      | 485.7                | 269.4                 | 216.32                  | 2.245   |                    |        |
| 13,000.0  | 7,097.0             | 12,828.3            | 6,897.0             | 118.9           | 119.4  | 65.55                 | 6,129.0                           | 147.4      | 485.7                | 265.8                 | 219.84                  | 2.209   |                    |        |
| 13,100.0  | 7,097.0             | 12,928.3            | 6,897.0             | 120.8           | 121.3  | 65.55                 | 6,229.0                           | 147.4      | 485.6                | 262.3                 | 223.37                  | 2.174   |                    |        |
| 13,200.0  | 7,097.0             | 13,028.3            | 6,897.0             | 122.7           | 123.2  | 65.55                 | 6,329.0                           | 147.4      | 485.6                | 258.7                 | 226.90                  | 2.140   |                    |        |
| 13,300.0  | 7,097.0             | 13,128.3            | 6,897.0             | 124.6           | 125.1  | 65.55                 | 6,429.0                           | 147.4      | 485.6                | 255.2                 | 230.43                  | 2.108   |                    |        |

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

|                           |   |                                     |                                       |
|---------------------------|---|-------------------------------------|---------------------------------------|
| <b>Company:</b>           | PETROLEUM DEVELOPMENT CORP Weld County CO | <b>Local Co-ordinate Reference:</b> | Well Ochsner 5G-421                   |
| <b>Project:</b>           | SEC.5-T6N-R67W                            | <b>TVD Reference:</b>               | WELL @ 4897.0ft (RKB Ensign 32 - 15') |
| <b>Reference Site:</b>    | Ochsner L5-HZ Pad Sec.5-T6N-R67W          | <b>MD Reference:</b>                | WELL @ 4897.0ft (RKB Ensign 32 - 15') |
| <b>Site Error:</b>        | 0.0ft                                     | <b>North Reference:</b>             | True                                  |
| <b>Reference Well:</b>    | Ochsner 5G-421                            | <b>Survey Calculation Method:</b>   | Minimum Curvature                     |
| <b>Well Error:</b>        | 0.0ft                                     | <b>Output errors are at</b>         | 2.00 sigma                            |
| <b>Reference Wellbore</b> | Wellbore #1                               | <b>Database:</b>                    | Landmark                              |
| <b>Reference Design:</b>  | Plan #2 (2-20-14)                         | <b>Offset TVD Reference:</b>        | Offset Datum                          |

| <b>Offset Design</b> Ochsner L5-HZ Pad Sec.5-T6N-R67W - Ochsner 5K-241 - Wellbore #1 - Plan #1 (6-28-12) |                        |                        |                        |           |        |                             |   |               |                            |                             |                               | <b>Offset Site Error:</b> | 0.0 ft  |
|--|------------------------|------------------------|------------------------|-----------|--------|-----------------------------|---|---------------|----------------------------|-----------------------------|-------------------------------|---------------------------|---------|
| Survey Program: 0-MWD  |                        |                        |                        |           |        |                             |   |               |                            |                             |                               | <b>Offset Well Error:</b> | 0.0 ft  |
| Measured Depth<br>(ft)   | Vertical Depth<br>(ft) | Measured Depth<br>(ft) | Vertical Depth<br>(ft) | Reference | Offset | Highside<br>Toolface<br>(°) | Offset Wellbore Centre<br>+N/-S<br>(ft) | +E/-W<br>(ft) | Between<br>Centres<br>(ft) | Between<br>Ellipses<br>(ft) | Minimum<br>Separation<br>(ft) | Separation<br>Factor      | Warning |
| 13,400.0   | 7,097.0                | 13,228.3               | 6,897.0                | 126.5     | 127.0  | 65.55                       | 6,529.0                                 | 147.4         | 485.6                      | 251.7                       | 233.95                        | 2.076                     |         |
| 13,500.0   | 7,097.0                | 13,328.3               | 6,897.0                | 128.4     | 128.9  | 65.55                       | 6,629.0                                 | 147.4         | 485.6                      | 248.1                       | 237.48                        | 2.045                     |         |
| 13,600.0   | 7,097.0                | 13,428.3               | 6,897.0                | 130.3     | 130.8  | 65.55                       | 6,729.0                                 | 147.4         | 485.6                      | 244.6                       | 241.01                        | 2.015                     |         |
| 13,700.0   | 7,097.0                | 13,528.3               | 6,897.0                | 132.2     | 132.7  | 65.55                       | 6,829.0                                 | 147.4         | 485.6                      | 241.0                       | 244.54                        | 1.986                     |         |
| 13,800.0   | 7,097.0                | 13,628.3               | 6,897.0                | 134.1     | 134.6  | 65.55                       | 6,929.0                                 | 147.4         | 485.6                      | 237.5                       | 248.08                        | 1.957                     |         |
| 13,900.0   | 7,097.0                | 13,728.3               | 6,897.0                | 136.0     | 136.6  | 65.55                       | 7,029.0                                 | 147.4         | 485.6                      | 234.0                       | 251.61                        | 1.930                     |         |
| 14,000.0   | 7,097.0                | 13,828.3               | 6,897.0                | 137.9     | 138.5  | 65.55                       | 7,129.0                                 | 147.3         | 485.6                      | 230.4                       | 255.14                        | 1.903                     |         |
| 14,100.0   | 7,097.0                | 13,928.3               | 6,897.0                | 139.9     | 140.4  | 65.55                       | 7,229.0                                 | 147.3         | 485.5                      | 226.9                       | 258.67                        | 1.877                     |         |
| 14,200.0   | 7,097.0                | 14,028.3               | 6,897.0                | 141.8     | 142.3  | 65.55                       | 7,329.0                                 | 147.3         | 485.5                      | 223.3                       | 262.21                        | 1.852                     |         |
| 14,300.0   | 7,097.0                | 14,128.3               | 6,897.0                | 143.7     | 144.2  | 65.54                       | 7,429.0                                 | 147.3         | 485.5                      | 219.8                       | 265.74                        | 1.827                     |         |
| 14,342.7   | 7,097.0                | 14,171.0               | 6,897.0                | 144.5     | 145.0  | 65.54                       | 7,471.7                                 | 147.3         | 485.5                      | 218.3                       | 267.25                        | 1.817                     |         |
| 14,357.8   | 7,097.0                | 14,182.5               | 6,897.0                | 144.8     | 145.2  | 65.54                       | 7,483.1                                 | 147.3         | 485.5                      | 217.8                       | 267.72                        | 1.814 SF                  |         |



|                           |   |                                     |                                       |
|---------------------------|---|-------------------------------------|---------------------------------------|
| <b>Company:</b>           | PETROLEUM DEVELOPMENT CORP Weld County CO | <b>Local Co-ordinate Reference:</b> | Well Ochsner 5G-421                   |
| <b>Project:</b>           | SEC.5-T6N-R67W                            | <b>TVD Reference:</b>               | WELL @ 4897.0ft (RKB Ensign 32 - 15') |
| <b>Reference Site:</b>    | Ochsner L5-HZ Pad Sec.5-T6N-R67W          | <b>MD Reference:</b>                | WELL @ 4897.0ft (RKB Ensign 32 - 15') |
| <b>Site Error:</b>        | 0.0ft                                     | <b>North Reference:</b>             | True                                  |
| <b>Reference Well:</b>    | Ochsner 5G-421                            | <b>Survey Calculation Method:</b>   | Minimum Curvature                     |
| <b>Well Error:</b>        | 0.0ft                                     | <b>Output errors are at</b>         | 2.00 sigma                            |
| <b>Reference Wellbore</b> | Wellbore #1                               | <b>Database:</b>                    | Landmark                              |
| <b>Reference Design:</b>  | Plan #2 (2-20-14)                         | <b>Offset TVD Reference:</b>        | Offset Datum                          |

Reference Depths are relative to WELL @ 4897.0ft (RKB Ensign 32 - 1 Coordinates are relative to: Ochsner 5G-421  
Offset Depths are relative to Offset Datum  
Central Meridian is -105.500000 °  
Coordinate System is US State Plane 1983, Colorado Northern Zone  
Grid Convergence at Surface is: 0.37°



|                           |   |                                     |                                       |
|---------------------------|---|-------------------------------------|---------------------------------------|
| <b>Company:</b>           | PETROLEUM DEVELOPMENT CORP Weld County CO | <b>Local Co-ordinate Reference:</b> | Well Ochsner 5G-421                   |
| <b>Project:</b>           | SEC.5-T6N-R67W                            | <b>TVD Reference:</b>               | WELL @ 4897.0ft (RKB Ensign 32 - 15') |
| <b>Reference Site:</b>    | Ochsner L5-HZ Pad Sec.5-T6N-R67W          | <b>MD Reference:</b>                | WELL @ 4897.0ft (RKB Ensign 32 - 15') |
| <b>Site Error:</b>        | 0.0ft                                     | <b>North Reference:</b>             | True                                  |
| <b>Reference Well:</b>    | Ochsner 5G-421                            | <b>Survey Calculation Method:</b>   | Minimum Curvature                     |
| <b>Well Error:</b>        | 0.0ft                                     | <b>Output errors are at</b>         | 2.00 sigma                            |
| <b>Reference Wellbore</b> | Wellbore #1                               | <b>Database:</b>                    | Landmark                              |
| <b>Reference Design:</b>  | Plan #2 (2-20-14)                         | <b>Offset TVD Reference:</b>        | Offset Datum                          |

Reference Depths are relative to WELL @ 4897.0ft (RKB Ensign 32 - 1 Coordinates are relative to: Ochsner 5G-421  
Offset Depths are relative to Offset Datum  
Central Meridian is -105.500000 °  
Coordinate System is US State Plane 1983, Colorado Northern Zone  
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