



# **US ROCKIES REGION PLANNING**

**KERR MCGEE OIL & GAS ONSHORE LP**

**WELD\_WITTEMYER 3 PAD**

**P\_WITTEMYER 24-2**

**P\_WITTEMYER 24-2**

**Plan: PLAN #1 09-02-09 RHS**

## **Standard Planning Report**

**02 September, 2009**





**P\_WITTEMYER 24-2**  
**KERR MCGEE OIL & GAS ONSHORE LP**  
**SECTION 2 T2N R67W**  
**1428 FNL 1264 FEL**  
**LAT: 40° 10' 13.368 N**  
**LONG: 104° 51' 10.188 W**



Azimuths to True North  
Magnetic North: 9.09°  
Magnetic Field  
Strength: 53207.6nT  
Dip Angle: 66.92°  
Date: 9/2/2009  
Model: IGRF200510

**WELL DETAILS: P\_WITTEMYER 24-2**

| +N/-S | +E/-W | Northing   | Ground Level:<br>Easting | 4841.00<br>Latitude | Longitude         | Slot |
|-------|-------|------------|--------------------------|---------------------|-------------------|------|
| 0.00  | 0.00  | 1305572.37 | 3180852.42               | 40° 10' 13.368 N    | 104° 51' 10.188 W |      |

**FORMATION TOP DETAILS**

| TVDPath | MDPath  | Formation   |
|---------|---------|-------------|
| 3877.00 | 4082.05 | PARKMAN     |
| 4413.00 | 4633.63 | SUSSEX TOP  |
| 4840.00 | 5061.81 | SHANNON TOP |
| 7093.00 | 7314.81 | NIO A TOP   |
| 7353.00 | 7574.81 | CODELL TOP  |

**SECTION DETAILS**

| MD      | Inc   | Azi    | TVD     | +N/-S    | +E/-W  | DLeg | TFace  | VSec    | Target  |
|---------|-------|--------|---------|----------|--------|------|--------|---------|---|
| 0.00    | 0.00  | 0.00   | 0.00    | 0.00     | 0.00   | 0.00 | 0.00   | 0.00    |   |
| 950.00  | 0.00  | 0.00   | 950.00  | 0.00     | 0.00   | 0.00 | 0.00   | 0.00    |   |
| 2182.70 | 24.65 | 182.55 | 2145.01 | -260.89  | -11.63 | 2.00 | 182.55 | 261.15  |   |
| 3789.11 | 24.65 | 182.55 | 3604.99 | -930.32  | -41.47 | 0.00 | 0.00   | 931.24  |   |
| 5021.81 | 0.00  | 0.00   | 4800.00 | -1191.20 | -53.10 | 2.00 | 180.00 | 1192.39 |   |
| 7734.81 | 0.00  | 0.00   | 7513.00 | -1191.20 | -53.10 | 0.00 | 0.00   | 1192.39 | PBHL_WITTEMYER 24-2(2620 FNL 1305 FEL)50' TGT RAD |

**CASING DETAILS**

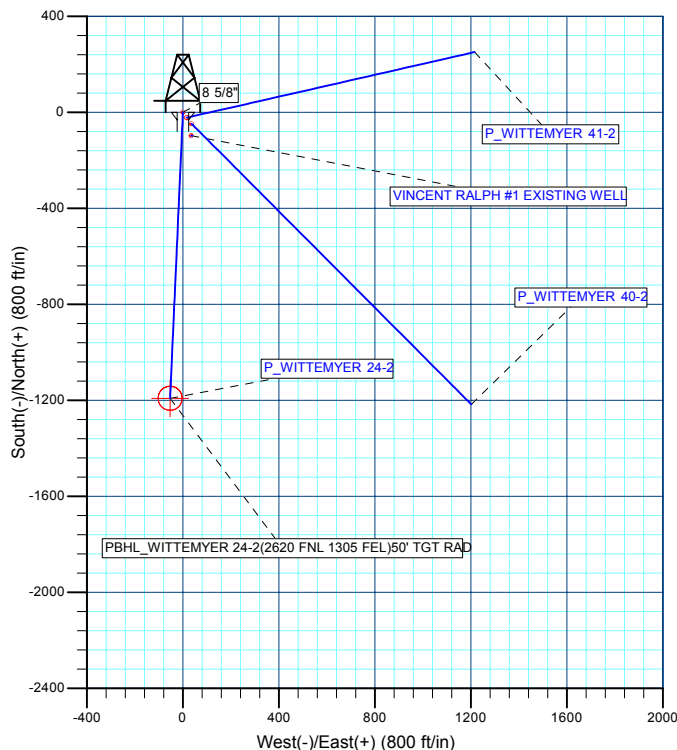
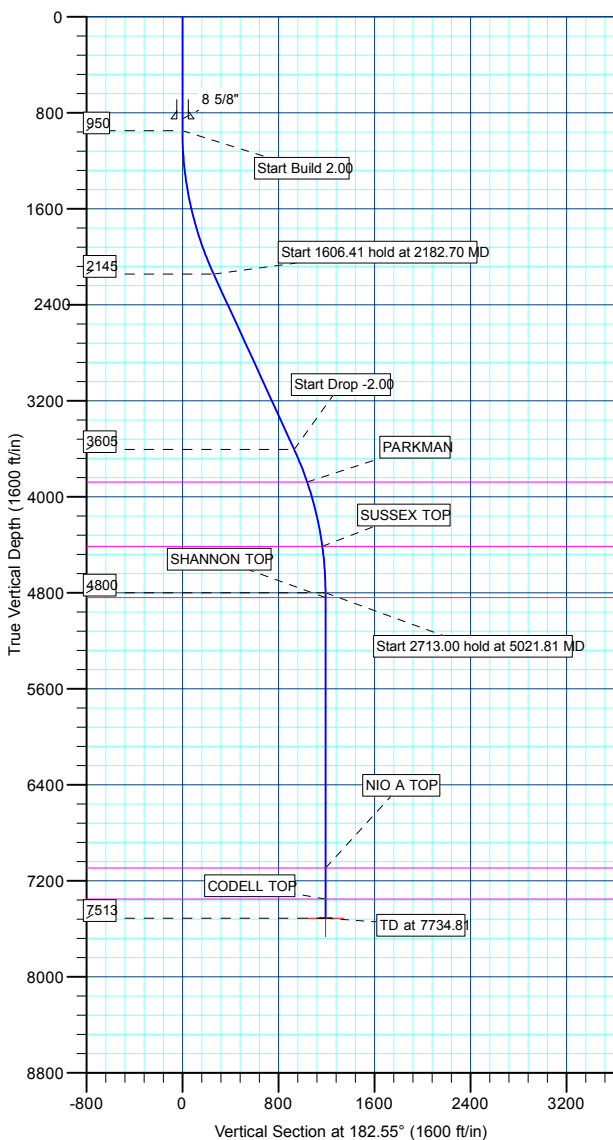
| TVD    | MD     | Name   | Size |
|--------|--------|--------|------|
| 850.00 | 850.00 | 8 5/8" | 8.62 |

**WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)**

| Name | TVD     | +N/-S    | +E/-W  | Northing   | Easting    | Latitude        | Longitude         | Shape                  |
|------|---------|----------|--------|------------|------------|-----------------|-------------------|------------------------|
| PBHL | 7513.00 | -1191.20 | -53.10 | 1304380.82 | 3180808.02 | 40° 10' 1.596 N | 104° 51' 10.872 W | Circle (Radius: 50.00) |



KB ELEV:WELL @ 4856.00ft (Original Well Elev)  
GRD ELEV: 4841.00



Plan: PLAN #1 09-02-09 RHS (P\_WITTEMYER 24-2/P\_WITTEMYER 24-2)

Created By: Robert H. Scott



|                  |                                 |                                     |                                       |
|------------------|---------------------------------|-------------------------------------|---------------------------------------|
| <b>Database:</b> | EDM 2003.21 Single User Db      | <b>Local Co-ordinate Reference:</b> | Well P_WITTEMYER 24-2                 |
| <b>Company:</b>  | US ROCKIES REGION PLANNING      | <b>TVD Reference:</b>               | WELL @ 4856.00ft (Original Well Elev) |
| <b>Project:</b>  | KERR MCGEE OIL & GAS ONSHORE LP | <b>MD Reference:</b>                | WELL @ 4856.00ft (Original Well Elev) |
| <b>Site:</b>     | WELD_WITTEMYER 3 PAD            | <b>North Reference:</b>             | True                                  |
| <b>Well:</b>     | P_WITTEMYER 24-2                | <b>Survey Calculation Method:</b>   | Minimum Curvature                     |
| <b>Wellbore:</b> | P_WITTEMYER 24-2                |                                     |                                       |
| <b>Design:</b>   | PLAN #1 09-02-09 RHS            |                                     |                                       |

|                    |  |                      |                |
|--------------------|--|----------------------|----------------|
| <b>Project</b>     | KERR MCGEE OIL & GAS ONSHORE LP, KERR MCGEE OIL & GAS ONSHORE LP |                      |                |
| <b>Map System:</b> | US State Plane 1983  | <b>System Datum:</b> | Mean Sea Level |
| <b>Geo Datum:</b>  | North American Datum 1983  |                      |                |
| <b>Map Zone:</b>   | Colorado Northern Zone   |                      |                |

|                       |          |  |                 |                   |                   |
|-----------------------|----------|--|-----------------|-------------------|-------------------|
| Site                  |          | WELD_WITTEMYER 3 PAD, SECTION 2 T2N R67W |                 |                   |                   |
| Site Position:        |          | Northing:                                | 1,305,572.37 ft | Latitude:         | 40° 10' 13.368 N  |
| From:                 | Lat/Long | Easting:                                 | 3,180,852.42ft  | Longitude:        | 104° 51' 10.188 W |
| Position Uncertainty: | 0.00 ft  | Slot Radius:                             | in              | Grid Convergence: | 0.42 °            |

| Well                 |       | P_WITTEMYER 24-2 |                     |                 |               |                   |
|----------------------|-------|------------------|---------------------|-----------------|---------------|-------------------|
| Well Position        | +N/-S | 0.00 ft          | Northing:           | 1,305,572.37 ft | Latitude:     | 40° 10' 13.368 N  |
|                      | +E/-W | 0.00 ft          | Easting:            | 3,180,852.42 ft | Longitude:    | 104° 51' 10.188 W |
| Position Uncertainty |       | 0.00 ft          | Wellhead Elevation: | ft              | Ground Level: | 4,841.00 ft       |

|                  |                   |                    |                        |                      |                            |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| <b>Wellbore</b>  | P_WITTEMYER 24-2  |                    |                        |                      |                            |
| <b>Magnetics</b> | <b>Model Name</b> | <b>Sample Date</b> | <b>Declination (°)</b> | <b>Dip Angle (°)</b> | <b>Field Strength (nT)</b> |
|                  | IGRF200510        | 9/2/2009           | 9.09                   | 66.92                | 53,208                     |

|                          |                              |                   |                      |                      |
|--------------------------|------------------------------|-------------------|----------------------|----------------------|
| <b>Design</b>            | PLAN #1 09-02-09 RHS         |                   |                      |                      |
| <b>Audit Notes:</b>      |                              |                   |                      |                      |
| <b>Version:</b>          | <b>Phase:</b>                | PLAN              | <b>Tie On Depth:</b> | 0.00                 |
| <b>Vertical Section:</b> | <b>Depth From (TVD) (ft)</b> | <b>+N/-S (ft)</b> | <b>+E/-W (ft)</b>    | <b>Direction (°)</b> |
|                          | 0.00                         | 0.00              | 0.00                 | 182.55               |

| <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         |
| 0.00                 | 0.00            | 0.00        | 0.00                | 0.00       | 0.00       | 0.00                  | 0.00                 | 0.00                | 0.00    |                |
| 950.00               | 0.00            | 0.00        | 950.00              | 0.00       | 0.00       | 0.00                  | 0.00                 | 0.00                | 0.00    |                |
| 2,182.70             | 24.65           | 182.55      | 2,145.01            | -260.89    | -11.63     | 2.00                  | 2.00                 | 0.00                | 182.55  |                |
| 3,789.11             | 24.65           | 182.55      | 3,604.99            | -930.32    | -41.47     | 0.00                  | 0.00                 | 0.00                | 0.00    |                |
| 5,021.81             | 0.00            | 0.00        | 4,800.00            | -1,191.20  | -53.10     | 2.00                  | -2.00                | 0.00                | 180.00  |                |
| 7,734.81             | 0.00            | 0.00        | 7,513.00            | -1,191.20  | -53.10     | 0.00                  | 0.00                 | 0.00                | 0.00    | PBHL_WITTEMYEI |



|                  |                                 |                                     |                                       |
|------------------|---------------------------------|-------------------------------------|---------------------------------------|
| <b>Database:</b> | EDM 2003.21 Single User Db      | <b>Local Co-ordinate Reference:</b> | Well P_WITTEMYER 24-2                 |
| <b>Company:</b>  | US ROCKIES REGION PLANNING      | <b>TVD Reference:</b>               | WELL @ 4856.00ft (Original Well Elev) |
| <b>Project:</b>  | KERR MCGEE OIL & GAS ONSHORE LP | <b>MD Reference:</b>                | WELL @ 4856.00ft (Original Well Elev) |
| <b>Site:</b>     | WELD_WITTEMYER 3 PAD            | <b>North Reference:</b>             | True                                  |
| <b>Well:</b>     | P_WITTEMYER 24-2                | <b>Survey Calculation Method:</b>   | Minimum Curvature                     |
| <b>Wellbore:</b> | P_WITTEMYER 24-2                |                                     |                                       |
| <b>Design:</b>   | PLAN #1 09-02-09 RHS            |                                     |                                       |

**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) |
|---|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|
| <b>Start Build 2.00</b>                 |                 |             |                     |            |            |                       |                       |                      |                     |
| 950.00                                  | 0.00            | 0.00        | 950.00              | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 1,000.00                                | 1.00            | 182.55      | 1,000.00            | -0.44      | -0.02      | 0.44                  | 2.00                  | 2.00                 | 0.00                |
| 1,100.00                                | 3.00            | 182.55      | 1,099.93            | -3.92      | -0.17      | 3.93                  | 2.00                  | 2.00                 | 0.00                |
| 1,200.00                                | 5.00            | 182.55      | 1,199.68            | -10.89     | -0.49      | 10.90                 | 2.00                  | 2.00                 | 0.00                |
| 1,300.00                                | 7.00            | 182.55      | 1,299.13            | -21.33     | -0.95      | 21.35                 | 2.00                  | 2.00                 | 0.00                |
| 1,400.00                                | 9.00            | 182.55      | 1,398.15            | -35.24     | -1.57      | 35.27                 | 2.00                  | 2.00                 | 0.00                |
| 1,500.00                                | 11.00           | 182.55      | 1,496.63            | -52.58     | -2.34      | 52.63                 | 2.00                  | 2.00                 | 0.00                |
| 1,600.00                                | 13.00           | 182.55      | 1,594.44            | -73.35     | -3.27      | 73.42                 | 2.00                  | 2.00                 | 0.00                |
| 1,700.00                                | 15.00           | 182.55      | 1,691.46            | -97.52     | -4.35      | 97.62                 | 2.00                  | 2.00                 | 0.00                |
| 1,800.00                                | 17.00           | 182.55      | 1,787.58            | -125.05    | -5.57      | 125.18                | 2.00                  | 2.00                 | 0.00                |
| 1,900.00                                | 19.00           | 182.55      | 1,882.68            | -155.92    | -6.95      | 156.08                | 2.00                  | 2.00                 | 0.00                |
| 2,000.00                                | 21.00           | 182.55      | 1,976.65            | -190.09    | -8.47      | 190.28                | 2.00                  | 2.00                 | 0.00                |
| 2,100.00                                | 23.00           | 182.55      | 2,069.36            | -227.51    | -10.14     | 227.74                | 2.00                  | 2.00                 | 0.00                |
| <b>Start 1606.41 hold at 2182.70 MD</b> |                 |             |                     |            |            |                       |                       |                      |                     |
| 2,182.70                                | 24.65           | 182.55      | 2,145.01            | -260.89    | -11.63     | 261.15                | 2.00                  | 2.00                 | 0.00                |
| 2,200.00                                | 24.65           | 182.55      | 2,160.73            | -268.09    | -11.95     | 268.36                | 0.00                  | 0.00                 | 0.00                |
| 2,300.00                                | 24.65           | 182.55      | 2,251.62            | -309.77    | -13.81     | 310.07                | 0.00                  | 0.00                 | 0.00                |
| 2,400.00                                | 24.65           | 182.55      | 2,342.50            | -351.44    | -15.67     | 351.79                | 0.00                  | 0.00                 | 0.00                |
| 2,500.00                                | 24.65           | 182.55      | 2,433.39            | -393.11    | -17.52     | 393.50                | 0.00                  | 0.00                 | 0.00                |
| 2,600.00                                | 24.65           | 182.55      | 2,524.27            | -434.78    | -19.38     | 435.22                | 0.00                  | 0.00                 | 0.00                |
| 2,700.00                                | 24.65           | 182.55      | 2,615.16            | -476.46    | -21.24     | 476.93                | 0.00                  | 0.00                 | 0.00                |
| 2,800.00                                | 24.65           | 182.55      | 2,706.04            | -518.13    | -23.10     | 518.64                | 0.00                  | 0.00                 | 0.00                |
| 2,900.00                                | 24.65           | 182.55      | 2,796.92            | -559.80    | -24.95     | 560.36                | 0.00                  | 0.00                 | 0.00                |
| 3,000.00                                | 24.65           | 182.55      | 2,887.81            | -601.47    | -26.81     | 602.07                | 0.00                  | 0.00                 | 0.00                |
| 3,100.00                                | 24.65           | 182.55      | 2,978.69            | -643.15    | -28.67     | 643.79                | 0.00                  | 0.00                 | 0.00                |
| 3,200.00                                | 24.65           | 182.55      | 3,069.58            | -684.82    | -30.53     | 685.50                | 0.00                  | 0.00                 | 0.00                |
| 3,300.00                                | 24.65           | 182.55      | 3,160.46            | -726.49    | -32.38     | 727.21                | 0.00                  | 0.00                 | 0.00                |
| 3,400.00                                | 24.65           | 182.55      | 3,251.35            | -768.16    | -34.24     | 768.93                | 0.00                  | 0.00                 | 0.00                |
| 3,500.00                                | 24.65           | 182.55      | 3,342.23            | -809.84    | -36.10     | 810.64                | 0.00                  | 0.00                 | 0.00                |
| 3,600.00                                | 24.65           | 182.55      | 3,433.11            | -851.51    | -37.96     | 852.35                | 0.00                  | 0.00                 | 0.00                |
| 3,700.00                                | 24.65           | 182.55      | 3,524.00            | -893.18    | -39.81     | 894.07                | 0.00                  | 0.00                 | 0.00                |
| <b>Start Drop -2.00</b>                 |                 |             |                     |            |            |                       |                       |                      |                     |
| 3,789.11                                | 24.65           | 182.55      | 3,604.99            | -930.32    | -41.47     | 931.24                | 0.00                  | 0.00                 | 0.00                |
| 3,800.00                                | 24.44           | 182.55      | 3,614.89            | -934.83    | -41.67     | 935.76                | 2.00                  | -2.00                | 0.00                |
| 3,900.00                                | 22.44           | 182.55      | 3,706.64            | -974.57    | -43.44     | 975.53                | 2.00                  | -2.00                | 0.00                |
| 4,000.00                                | 20.44           | 182.55      | 3,799.71            | -1,011.07  | -45.07     | 1,012.08              | 2.00                  | -2.00                | 0.00                |
| <b>PARKMAN</b>                          |                 |             |                     |            |            |                       |                       |                      |                     |
| 4,082.05                                | 18.80           | 182.55      | 3,877.00            | -1,038.59  | -46.30     | 1,039.62              | 2.00                  | -2.00                | 0.00                |
| 4,100.00                                | 18.44           | 182.55      | 3,894.01            | -1,044.32  | -46.55     | 1,045.35              | 2.00                  | -2.00                | 0.00                |
| 4,200.00                                | 16.44           | 182.55      | 3,989.41            | -1,074.25  | -47.89     | 1,075.32              | 2.00                  | -2.00                | 0.00                |
| 4,300.00                                | 14.44           | 182.55      | 4,085.80            | -1,100.84  | -49.07     | 1,101.93              | 2.00                  | -2.00                | 0.00                |
| 4,400.00                                | 12.44           | 182.55      | 4,183.06            | -1,124.05  | -50.11     | 1,125.17              | 2.00                  | -2.00                | 0.00                |
| 4,500.00                                | 10.44           | 182.55      | 4,281.07            | -1,143.86  | -50.99     | 1,144.99              | 2.00                  | -2.00                | 0.00                |
| 4,600.00                                | 8.44            | 182.55      | 4,379.71            | -1,160.24  | -51.72     | 1,161.39              | 2.00                  | -2.00                | 0.00                |
| <b>SUSSEX TOP</b>                       |                 |             |                     |            |            |                       |                       |                      |                     |
| 4,633.63                                | 7.76            | 182.55      | 4,413.00            | -1,164.97  | -51.93     | 1,166.13              | 2.00                  | -2.00                | 0.00                |
| 4,700.00                                | 6.44            | 182.55      | 4,478.86            | -1,173.16  | -52.29     | 1,174.33              | 2.00                  | -2.00                | 0.00                |
| 4,800.00                                | 4.44            | 182.55      | 4,578.41            | -1,182.63  | -52.72     | 1,183.80              | 2.00                  | -2.00                | 0.00                |
| 4,900.00                                | 2.44            | 182.55      | 4,678.22            | -1,188.62  | -52.98     | 1,189.80              | 2.00                  | -2.00                | 0.00                |
| 5,000.00                                | 0.44            | 182.55      | 4,778.19            | -1,191.12  | -53.10     | 1,192.30              | 2.00                  | -2.00                | 0.00                |
| <b>Start 2713.00 hold at 5021.81 MD</b> |                 |             |                     |            |            |                       |                       |                      |                     |
| 5,021.81                                | 0.00            | 0.00        | 4,800.00            | -1,191.20  | -53.10     | 1,192.39              | 2.00                  | -2.00                | 0.00                |



|                  |                                 |                                     |                                       |
|------------------|---------------------------------|-------------------------------------|---------------------------------------|
| <b>Database:</b> | EDM 2003.21 Single User Db      | <b>Local Co-ordinate Reference:</b> | Well P_WITTEMYER 24-2                 |
| <b>Company:</b>  | US ROCKIES REGION PLANNING      | <b>TVD Reference:</b>               | WELL @ 4856.00ft (Original Well Elev) |
| <b>Project:</b>  | KERR MCGEE OIL & GAS ONSHORE LP | <b>MD Reference:</b>                | WELL @ 4856.00ft (Original Well Elev) |
| <b>Site:</b>     | WELD_WITTEMYER 3 PAD            | <b>North Reference:</b>             | True                                  |
| <b>Well:</b>     | P_WITTEMYER 24-2                | <b>Survey Calculation Method:</b>   | Minimum Curvature                     |
| <b>Wellbore:</b> | P_WITTEMYER 24-2                |                                     |                                       |
| <b>Design:</b>   | PLAN #1 09-02-09 RHS            |                                     |                                       |

#### 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) |
|--|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|
| <b>SHANNON TOP</b>                                       |                 |             |                     |            |            |                       |                       |                      |                     |
| 5,061.81   | 0.00            | 0.00        | 4,840.00            | -1,191.20  | -53.10     | 1,192.39              | 0.00                  | 0.00                 | 0.00                |
| 5,100.00   | 0.00            | 0.00        | 4,878.19            | -1,191.20  | -53.10     | 1,192.39              | 0.00                  | 0.00                 | 0.00                |
| 5,200.00   | 0.00            | 0.00        | 4,978.19            | -1,191.20  | -53.10     | 1,192.39              | 0.00                  | 0.00                 | 0.00                |
| 5,300.00   | 0.00            | 0.00        | 5,078.19            | -1,191.20  | -53.10     | 1,192.39              | 0.00                  | 0.00                 | 0.00                |
| 5,400.00   | 0.00            | 0.00        | 5,178.19            | -1,191.20  | -53.10     | 1,192.39              | 0.00                  | 0.00                 | 0.00                |
| 5,500.00   | 0.00            | 0.00        | 5,278.19            | -1,191.20  | -53.10     | 1,192.39              | 0.00                  | 0.00                 | 0.00                |
| 5,600.00   | 0.00            | 0.00        | 5,378.19            | -1,191.20  | -53.10     | 1,192.39              | 0.00                  | 0.00                 | 0.00                |
| 5,700.00   | 0.00            | 0.00        | 5,478.19            | -1,191.20  | -53.10     | 1,192.39              | 0.00                  | 0.00                 | 0.00                |
| 5,800.00   | 0.00            | 0.00        | 5,578.19            | -1,191.20  | -53.10     | 1,192.39              | 0.00                  | 0.00                 | 0.00                |
| 5,900.00   | 0.00            | 0.00        | 5,678.19            | -1,191.20  | -53.10     | 1,192.39              | 0.00                  | 0.00                 | 0.00                |
| 6,000.00   | 0.00            | 0.00        | 5,778.19            | -1,191.20  | -53.10     | 1,192.39              | 0.00                  | 0.00                 | 0.00                |
| 6,100.00   | 0.00            | 0.00        | 5,878.19            | -1,191.20  | -53.10     | 1,192.39              | 0.00                  | 0.00                 | 0.00                |
| 6,200.00   | 0.00            | 0.00        | 5,978.19            | -1,191.20  | -53.10     | 1,192.39              | 0.00                  | 0.00                 | 0.00                |
| 6,300.00   | 0.00            | 0.00        | 6,078.19            | -1,191.20  | -53.10     | 1,192.39              | 0.00                  | 0.00                 | 0.00                |
| 6,400.00   | 0.00            | 0.00        | 6,178.19            | -1,191.20  | -53.10     | 1,192.39              | 0.00                  | 0.00                 | 0.00                |
| 6,500.00   | 0.00            | 0.00        | 6,278.19            | -1,191.20  | -53.10     | 1,192.39              | 0.00                  | 0.00                 | 0.00                |
| 6,600.00   | 0.00            | 0.00        | 6,378.19            | -1,191.20  | -53.10     | 1,192.39              | 0.00                  | 0.00                 | 0.00                |
| 6,700.00   | 0.00            | 0.00        | 6,478.19            | -1,191.20  | -53.10     | 1,192.39              | 0.00                  | 0.00                 | 0.00                |
| 6,800.00   | 0.00            | 0.00        | 6,578.19            | -1,191.20  | -53.10     | 1,192.39              | 0.00                  | 0.00                 | 0.00                |
| 6,900.00   | 0.00            | 0.00        | 6,678.19            | -1,191.20  | -53.10     | 1,192.39              | 0.00                  | 0.00                 | 0.00                |
| 7,000.00   | 0.00            | 0.00        | 6,778.19            | -1,191.20  | -53.10     | 1,192.39              | 0.00                  | 0.00                 | 0.00                |
| 7,100.00   | 0.00            | 0.00        | 6,878.19            | -1,191.20  | -53.10     | 1,192.39              | 0.00                  | 0.00                 | 0.00                |
| 7,200.00   | 0.00            | 0.00        | 6,978.19            | -1,191.20  | -53.10     | 1,192.39              | 0.00                  | 0.00                 | 0.00                |
| 7,300.00   | 0.00            | 0.00        | 7,078.19            | -1,191.20  | -53.10     | 1,192.39              | 0.00                  | 0.00                 | 0.00                |
| <b>NIO A TOP</b>   |                 |             |                     |            |            |                       |                       |                      |                     |
| 7,314.81   | 0.00            | 0.00        | 7,093.00            | -1,191.20  | -53.10     | 1,192.39              | 0.00                  | 0.00                 | 0.00                |
| 7,400.00   | 0.00            | 0.00        | 7,178.19            | -1,191.20  | -53.10     | 1,192.39              | 0.00                  | 0.00                 | 0.00                |
| 7,500.00   | 0.00            | 0.00        | 7,278.19            | -1,191.20  | -53.10     | 1,192.39              | 0.00                  | 0.00                 | 0.00                |
| <b>CODELL TOP</b>  |                 |             |                     |            |            |                       |                       |                      |                     |
| 7,574.81   | 0.00            | 0.00        | 7,353.00            | -1,191.20  | -53.10     | 1,192.39              | 0.00                  | 0.00                 | 0.00                |
| 7,600.00   | 0.00            | 0.00        | 7,378.19            | -1,191.20  | -53.10     | 1,192.39              | 0.00                  | 0.00                 | 0.00                |
| 7,700.00   | 0.00            | 0.00        | 7,478.19            | -1,191.20  | -53.10     | 1,192.39              | 0.00                  | 0.00                 | 0.00                |
| <b>PBHL_WITTEMYER 24-2(2620 FNL 1305 FEL)50' TGT RAD</b> |                 |             |                     |            |            |                       |                       |                      |                     |
| 7,734.81   | 0.00            | 0.00        | 7,513.00            | -1,191.20  | -53.10     | 1,192.39              | 0.00                  | 0.00                 | 0.00                |

#### Design Targets

| Target Name               | Dip Angle (°) | Dip Dir. (°) | TVD (ft) | +N/-S (ft) | +E/-W (ft) | Northing (ft) | Easting (ft) | Latitude        | Longitude         |
|---------------------------|---------------|--------------|----------|------------|------------|---------------|--------------|-----------------|-------------------|
| - hit/miss target         |               |              |          |            |            |               |              |                 |                   |
| - Shape                   |               |              |          |            |            |               |              |                 |                   |
| PBHL_WITTEMYER 2          | 0.00          | 0.00         | 7,513.00 | -1,191.20  | -53.10     | 1,304,380.82  | 3,180,808.02 | 40° 10' 1.596 N | 104° 51' 10.872 W |
| - plan hits target center |               |              |          |            |            |               |              |                 |                   |
| - Circle (radius 50.00)   |               |              |          |            |            |               |              |                 |                   |

#### Casing Points

| Measured Depth (ft) | Vertical Depth (ft) | Name   | Casing Diameter (in) | Hole Diameter (in) |
|---------------------|---------------------|--------|----------------------|--------------------|
| 850.00              | 850.00              | 8 5/8" | 8.62                 | 11.00              |



|                  |                                 |                                     |                                       |
|------------------|---------------------------------|-------------------------------------|---------------------------------------|
| <b>Database:</b> | EDM 2003.21 Single User Db      | <b>Local Co-ordinate Reference:</b> | Well P_WITTEMYER 24-2                 |
| <b>Company:</b>  | US ROCKIES REGION PLANNING      | <b>TVD Reference:</b>               | WELL @ 4856.00ft (Original Well Elev) |
| <b>Project:</b>  | KERR MCGEE OIL & GAS ONSHORE LP | <b>MD Reference:</b>                | WELL @ 4856.00ft (Original Well Elev) |
| <b>Site:</b>     | WELD_WITTEMYER 3 PAD            | <b>North Reference:</b>             | True                                  |
| <b>Well:</b>     | P_WITTEMYER 24-2                | <b>Survey Calculation Method:</b>   | Minimum Curvature                     |
| <b>Wellbore:</b> | P_WITTEMYER 24-2                |                                     |                                       |
| <b>Design:</b>   | PLAN #1 09-02-09 RHS            |                                     |                                       |

#### Formations

| Measured Depth (ft) | Vertical Depth (ft) | Name        | Lithology | Dip (°) | Dip Direction (°) |
|---------------------|---------------------|-------------|-----------|---------|-------------------|
| 4,082.05            | 3,877.00            | PARKMAN     |           |         |                   |
| 4,633.63            | 4,413.00            | SUSSEX TOP  |           |         |                   |
| 5,061.81            | 4,840.00            | SHANNON TOP |           |         |                   |
| 7,314.81            | 7,093.00            | NIO A TOP   |           |         |                   |
| 7,574.81            | 7,353.00            | CODELL TOP  |           |         |                   |

#### Plan Annotations

| Measured Depth (ft) | Vertical Depth (ft) | Local Coordinates |            | Comment                          |
|---------------------|---------------------|-------------------|------------|----------------------------------|
|                     |                     | +N/-S (ft)        | +E/-W (ft) |                                  |
| 950.00              | 950.00              | 0.00              | 0.00       | Start Build 2.00                 |
| 2,182.70            | 2,145.01            | -260.89           | -11.63     | Start 1606.41 hold at 2182.70 MD |
| 3,789.11            | 3,604.99            | -930.32           | -41.47     | Start Drop -2.00                 |
| 5,021.81            | 4,800.00            | -1,191.20         | -53.10     | Start 2713.00 hold at 5021.81 MD |
| 7,734.81            | 7,513.00            | -1,191.20         | -53.10     | TD at 7734.81                    |



# **US ROCKIES REGION PLANNING**

**KERR MCGEE OIL & GAS ONSHORE LP  
WELD\_WITTEMYER 3 PAD  
P\_WITTEMYER 24-2**

**P\_WITTEMYER 24-2  
PLAN #1 09-02-09 RHS**

## **Anticollision Report**

**02 September, 2009**





|                           |                                 |                                     |                                       |
|---------------------------|---------------------------------|-------------------------------------|---------------------------------------|
| <b>Company:</b>           | US ROCKIES REGION PLANNING      | <b>Local Co-ordinate Reference:</b> | Well P_WITTEMYER 24-2                 |
| <b>Project:</b>           | KERR MCGEE OIL & GAS ONSHORE LP | <b>TVD Reference:</b>               | WELL @ 4856.00ft (Original Well Elev) |
| <b>Reference Site:</b>    | WELD_WITTEMYER 3 PAD            | <b>MD Reference:</b>                | WELL @ 4856.00ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.00ft                          | <b>North Reference:</b>             | True                                  |
| <b>Reference Well:</b>    | P_WITTEMYER 24-2                | <b>Survey Calculation Method:</b>   | Minimum Curvature                     |
| <b>Well Error:</b>        | 0.00ft                          | <b>Output errors are at</b>         | 2.00 sigma                            |
| <b>Reference Wellbore</b> | P_WITTEMYER 24-2                | <b>Database:</b>                    | EDM 2003.21 Single User Db            |
| <b>Reference Design:</b>  | PLAN #1 09-02-09 RHS            | <b>Offset TVD Reference:</b>        | Offset Datum                          |

|                                     |   |                       |                     |
|-------------------------------------|---|-----------------------|---------------------|
| <b>Reference</b>                    | PLAN #1 09-02-09 RHS  |                       |                     |
| <b>Filter type:</b>                 | NO GLOBAL FILTER: Using user defined selection & filtering criteria |                       |                     |
| <b>Interpolation Method:</b>        | Stations  | <b>Error Model:</b>   | ISCWSA              |
| <b>Depth Range:</b>                 | 0.00 to 20,000.00ft   | <b>Scan Method:</b>   | Closest Approach 3D |
| <b>Results Limited by:</b>          | Maximum center-center distance of 10,000.00ft                       | <b>Error Surface:</b> | Elliptical Conic    |
| <b>Warning Levels Evaluated at:</b> | 2.00 Sigma  |                       |                     |

|                            |                      |                                   |                  |                    |
|----------------------------|----------------------|-----------------------------------|------------------|--------------------|
| <b>Survey Tool Program</b> | <b>Date</b> 9/2/2009 |                                   |                  |                    |
| <b>From (ft)</b>           | <b>To (ft)</b>       | <b>Survey (Wellbore)</b>          | <b>Tool Name</b> | <b>Description</b> |
| 0.00                       | 7,734.81             | PLAN #1 09-02-09 RHS (P_WITTEMYER | MWD              | MWD - Standard     |

|  |                                      |                                   |                                      |                                       |                          |                 |
|--|--------------------------------------|-----------------------------------|--------------------------------------|---------------------------------------|--------------------------|-----------------|
| <b>Summary</b>                                 |                                      |                                   |                                      |                                       |                          |                 |
| <b>Site Name</b>                               | <b>Reference Measured Depth (ft)</b> | <b>Offset Measured Depth (ft)</b> | <b>Distance Between Centres (ft)</b> | <b>Distance Between Ellipses (ft)</b> | <b>Separation Factor</b> | <b>Warning</b>  |
| <b>Offset Well - Wellbore - Design</b>         |                                      |                                   |                                      |                                       |                          |                 |
| WELD_WITTEMYER 3 PAD                           |                                      |                                   |                                      |                                       |                          |                 |
| P_WITTEMYER 40-2 - P_WITTEMYER 40-2 - PLAN #1  | 950.00                               | 950.00                            | 59.70                                | 55.69                                 | 14.880                   | CC              |
| P_WITTEMYER 40-2 - P_WITTEMYER 40-2 - PLAN #1  | 1,000.00                             | 998.99                            | 59.79                                | 55.58                                 | 14.210                   | ES              |
| P_WITTEMYER 40-2 - P_WITTEMYER 40-2 - PLAN #1  | 1,300.00                             | 1,292.12                          | 66.12                                | 60.81                                 | 12.459                   | SF              |
| P_WITTEMYER 41-2 - P_WITTEMYER 41-2 - PLAN #1  | 1,098.68                             | 1,097.83                          | 26.87                                | 22.29                                 | 5.859                    | CC              |
| P_WITTEMYER 41-2 - P_WITTEMYER 41-2 - PLAN #1  | 1,100.00                             | 1,099.14                          | 26.87                                | 22.28                                 | 5.853                    | ES              |
| P_WITTEMYER 41-2 - P_WITTEMYER 41-2 - PLAN #1  | 1,200.00                             | 1,197.82                          | 29.08                                | 24.10                                 | 5.836                    | SF              |
| VINCENT RALPH #1 EXISTING WELL - VINCENT RALPH | 1,693.32                             | 1,685.00                          | 39.28                                | -29.68                                | 0.570                    | Level 1, CC     |
| VINCENT RALPH #1 EXISTING WELL - VINCENT RALPH | 1,700.00                             | 1,691.46                          | 39.32                                | -29.92                                | 0.568                    | Level 1, ES, SF |

|  |                            |                            |                            |                       |                    |                              |  |  |                             |                              |                                |                           |                |
|--|----------------------------|----------------------------|----------------------------|-----------------------|--------------------|------------------------------|--|--|-----------------------------|------------------------------|--------------------------------|---------------------------|----------------|
| <b>Offset Design</b> WELD_WITTEMYER 3 PAD - P_WITTEMYER 40-2 - P_WITTEMYER 40-2 - PLAN #1 09-02-09 RHS |                            |                            |                            |                       |                    |                              |  |  |                             |                              |                                | <b>Offset Site Error:</b> | 0.00 ft        |
| <b>Survey Program:</b> 0-MWD   |                            |                            |                            |                       |                    |                              |  |  |                             |                              |                                | <b>Offset Well Error:</b> | 0.00 ft        |
| <b>Reference</b>   | <b>Offset</b>              | <b>Semi Major Axis</b>     |                            | <b>Distance</b>       |                    |                              |  |  |                             |                              |                                |                           |                |
| <b>Measured Depth (ft)</b>   | <b>Vertical Depth (ft)</b> | <b>Measured Depth (ft)</b> | <b>Vertical Depth (ft)</b> | <b>Reference (ft)</b> | <b>Offset (ft)</b> | <b>Highside Toolface (°)</b> | <b>Offset Wellbore Centre +N/-S (ft)</b> | <b>Offset Wellbore Centre +E/-W (ft)</b> | <b>Between Centres (ft)</b> | <b>Between Ellipses (ft)</b> | <b>Minimum Separation (ft)</b> | <b>Separation Factor</b>  | <b>Warning</b> |
| 0.00   | 0.00                       | 0.00                       | 0.00                       | 0.00                  | 0.00               | 142.52                       | -47.37                                   | 36.33                                    | 59.70                       |                              |                                |                           |                |
| 100.00   | 100.00                     | 100.00                     | 100.00                     | 0.10                  | 0.10               | 142.52                       | -47.37                                   | 36.33                                    | 59.70                       | 59.51                        | 0.19                           | 312.479                   |                |
| 200.00   | 200.00                     | 200.00                     | 200.00                     | 0.32                  | 0.32               | 142.52                       | -47.37                                   | 36.33                                    | 59.70                       | 59.06                        | 0.64                           | 93.196                    |                |
| 300.00   | 300.00                     | 300.00                     | 300.00                     | 0.55                  | 0.55               | 142.52                       | -47.37                                   | 36.33                                    | 59.70                       | 58.61                        | 1.09                           | 54.764                    |                |
| 400.00   | 400.00                     | 400.00                     | 400.00                     | 0.77                  | 0.77               | 142.52                       | -47.37                                   | 36.33                                    | 59.70                       | 58.16                        | 1.54                           | 38.775                    |                |
| 500.00   | 500.00                     | 500.00                     | 500.00                     | 0.99                  | 0.99               | 142.52                       | -47.37                                   | 36.33                                    | 59.70                       | 57.71                        | 1.99                           | 30.012                    |                |
| 600.00   | 600.00                     | 600.00                     | 600.00                     | 1.22                  | 1.22               | 142.52                       | -47.37                                   | 36.33                                    | 59.70                       | 57.26                        | 2.44                           | 24.480                    |                |
| 700.00   | 700.00                     | 700.00                     | 700.00                     | 1.44                  | 1.44               | 142.52                       | -47.37                                   | 36.33                                    | 59.70                       | 56.81                        | 2.89                           | 20.670                    |                |
| 800.00   | 800.00                     | 800.00                     | 800.00                     | 1.67                  | 1.67               | 142.52                       | -47.37                                   | 36.33                                    | 59.70                       | 56.36                        | 3.34                           | 17.886                    |                |
| 900.00   | 900.00                     | 900.00                     | 900.00                     | 1.89                  | 1.89               | 142.52                       | -47.37                                   | 36.33                                    | 59.70                       | 55.91                        | 3.79                           | 15.763                    |                |
| 950.00   | 950.00                     | 950.00                     | 950.00                     | 2.01                  | 2.01               | 142.52                       | -47.37                                   | 36.33                                    | 59.70                       | 55.69                        | 4.01                           | 14.880                    | CC             |
| 1,000.00   | 1,000.00                   | 998.99                     | 998.98                     | 2.10                  | 2.10               | -40.35                       | -47.67                                   | 36.62                                    | 59.79                       | 55.58                        | 4.21                           | 14.210                    | ES             |
| 1,100.00   | 1,099.93                   | 1,096.90                   | 1,096.84                   | 2.28                  | 2.28               | -42.82                       | -50.04                                   | 38.99                                    | 60.58                       | 56.03                        | 4.56                           | 13.300                    |                |
| 1,200.00   | 1,199.68                   | 1,194.65                   | 1,194.35                   | 2.46                  | 2.47               | -47.54                       | -54.77                                   | 43.70                                    | 62.50                       | 57.58                        | 4.92                           | 12.705                    |                |
| 1,300.00   | 1,299.13                   | 1,292.12                   | 1,291.31                   | 2.67                  | 2.69               | -54.00                       | -61.83                                   | 50.73                                    | 66.12                       | 60.81                        | 5.31                           | 12.459                    | SF             |
| 1,400.00   | 1,398.15                   | 1,389.21                   | 1,387.50                   | 2.90                  | 2.92               | -61.41                       | -71.17                                   | 60.05                                    | 72.13                       | 66.39                        | 5.74                           | 12.577                    |                |
| 1,500.00   | 1,496.63                   | 1,485.82                   | 1,482.70                   | 3.18                  | 3.19               | -68.90                       | -82.76                                   | 71.60                                    | 81.07                       | 74.84                        | 6.23                           | 13.021                    |                |
| 1,600.00   | 1,594.44                   | 1,581.85                   | 1,576.74                   | 3.50                  | 3.51               | -75.77                       | -96.53                                   | 85.32                                    | 93.26                       | 86.46                        | 6.80                           | 13.712                    |                |
| 1,700.00   | 1,691.46                   | 1,677.19                   | 1,669.41                   | 3.88                  | 3.87               | -81.67                       | -112.40                                  | 101.13                                   | 108.78                      | 101.30                       | 7.48                           | 14.537                    |                |
| 1,800.00   | 1,787.58                   | 1,771.78                   | 1,760.56                   | 4.32                  | 4.29               | -86.51                       | -130.29                                  | 118.96                                   | 127.54                      | 119.27                       | 8.28                           | 15.411                    |                |

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





# Weatherford International Ltd.

## Anticollision Report



|                           |                                 |                                     |                                       |
|---------------------------|---------------------------------|-------------------------------------|---------------------------------------|
| <b>Company:</b>           | US ROCKIES REGION PLANNING      | <b>Local Co-ordinate Reference:</b> | Well P_WITTEMYER 24-2                 |
| <b>Project:</b>           | KERR MCGEE OIL & GAS ONSHORE LP | <b>TVD Reference:</b>               | WELL @ 4856.00ft (Original Well Elev) |
| <b>Reference Site:</b>    | WELD_WITTEMYER 3 PAD            | <b>MD Reference:</b>                | WELL @ 4856.00ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.00ft                          | <b>North Reference:</b>             | True                                  |
| <b>Reference Well:</b>    | P_WITTEMYER 24-2                | <b>Survey Calculation Method:</b>   | Minimum Curvature                     |
| <b>Well Error:</b>        | 0.00ft                          | <b>Output errors are at</b>         | 2.00 sigma                            |
| <b>Reference Wellbore</b> | P_WITTEMYER 24-2                | <b>Database:</b>                    | EDM 2003.21 Single User Db            |
| <b>Reference Design:</b>  | PLAN #1 09-02-09 RHS            | <b>Offset TVD Reference:</b>        | Offset Datum                          |

| Offset Design WELD_WITTEMYER 3 PAD - P_WITTEMYER 40-2 - P_WITTEMYER 40-2 - PLAN #1 09-02-09 RHS |                     |                     |                     |                 |             |                       |                                   |            |                      |                       |                         | Offset Site Error: | 0.00 ft |
|---|---------------------|---------------------|---------------------|-----------------|-------------|-----------------------|-----------------------------------|------------|----------------------|-----------------------|-------------------------|--------------------|---------|
| Survey Program: 0-MWD   |                     |                     |                     |                 |             |                       |                                   |            |                      |                       |                         | Offset Well Error: | 0.00 ft |
| Reference   |                     | Offset              |                     | Semi Major Axis |             |                       | Distance                          |            |                      |                       |                         |                    | Warning |
| 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  |         |
| 1,900.00  | 1,882.68            | 1,865.52            | 1,850.02            | 4.83            | 4.76        | -90.39                | -150.11                           | 138.72     | 149.40               | 140.22                | 9.18                    | 16.268             |         |
| 2,000.00  | 1,976.65            | 1,958.35            | 1,937.65            | 5.40            | 5.29        | -93.45                | -171.77                           | 160.31     | 174.20               | 163.99                | 10.21                   | 17.068             |         |
| 2,100.00  | 2,069.36            | 2,050.19            | 2,023.34            | 6.04            | 5.88        | -95.85                | -195.17                           | 183.63     | 201.77               | 190.43                | 11.34                   | 17.794             |         |
| 2,182.70  | 2,145.01            | 2,125.35            | 2,092.66            | 6.62            | 6.40        | -97.43                | -215.77                           | 204.16     | 226.59               | 214.23                | 12.36                   | 18.338             |         |
| 2,200.00  | 2,160.73            | 2,140.99            | 2,106.98            | 6.74            | 6.52        | -97.82                | -220.21                           | 208.59     | 231.99               | 219.41                | 12.58                   | 18.439             |         |
| 2,300.00  | 2,251.62            | 2,233.44            | 2,191.13            | 7.48            | 7.22        | -99.57                | -247.33                           | 235.61     | 264.14               | 250.21                | 13.93                   | 18.966             |         |
| 2,400.00  | 2,342.50            | 2,327.81            | 2,276.90            | 8.24            | 7.97        | -100.92               | -275.20                           | 263.39     | 296.63               | 281.30                | 15.33                   | 19.355             |         |
| 2,500.00  | 2,433.39            | 2,422.18            | 2,362.67            | 9.00            | 8.73        | -102.01               | -303.07                           | 291.17     | 329.24               | 312.49                | 16.75                   | 19.654             |         |
| 2,600.00  | 2,524.27            | 2,516.54            | 2,448.44            | 9.78            | 9.50        | -102.90               | -330.94                           | 318.95     | 361.94               | 343.74                | 18.20                   | 19.889             |         |
| 2,700.00  | 2,615.16            | 2,610.91            | 2,534.22            | 10.56           | 10.28       | -103.64               | -358.81                           | 346.72     | 394.70               | 375.04                | 19.66                   | 20.077             |         |
| 2,800.00  | 2,706.04            | 2,705.28            | 2,619.99            | 11.35           | 11.07       | -104.27               | -386.68                           | 374.50     | 427.51               | 406.38                | 21.13                   | 20.229             |         |
| 2,900.00  | 2,796.92            | 2,799.64            | 2,705.76            | 12.14           | 11.86       | -104.81               | -414.55                           | 402.28     | 460.37               | 437.75                | 22.62                   | 20.355             |         |
| 3,000.00  | 2,887.81            | 2,894.01            | 2,791.53            | 12.94           | 12.65       | -105.28               | -442.43                           | 430.06     | 493.25               | 469.14                | 24.11                   | 20.460             |         |
| 3,100.00  | 2,978.69            | 2,988.38            | 2,877.30            | 13.74           | 13.45       | -105.69               | -470.30                           | 457.84     | 526.16               | 500.55                | 25.60                   | 20.549             |         |
| 3,200.00  | 3,069.58            | 3,082.74            | 2,963.07            | 14.54           | 14.26       | -106.05               | -498.17                           | 485.61     | 559.09               | 531.98                | 27.11                   | 20.626             |         |
| 3,300.00  | 3,160.46            | 3,177.11            | 3,048.84            | 15.35           | 15.06       | -106.37               | -526.04                           | 513.39     | 592.04               | 563.43                | 28.61                   | 20.692             |         |
| 3,400.00  | 3,251.35            | 3,271.48            | 3,134.61            | 16.16           | 15.87       | -106.66               | -553.91                           | 541.17     | 625.00               | 594.88                | 30.12                   | 20.749             |         |
| 3,500.00  | 3,342.23            | 3,365.85            | 3,220.39            | 16.96           | 16.68       | -106.91               | -581.78                           | 568.95     | 657.98               | 626.34                | 31.63                   | 20.800             |         |
| 3,600.00  | 3,433.11            | 3,460.21            | 3,306.16            | 17.77           | 17.49       | -107.15               | -609.65                           | 596.72     | 690.96               | 657.82                | 33.15                   | 20.845             |         |
| 3,700.00  | 3,524.00            | 3,554.58            | 3,391.93            | 18.58           | 18.30       | -107.36               | -637.53                           | 624.50     | 723.96               | 689.30                | 34.66                   | 20.885             |         |
| 3,789.11  | 3,604.99            | 3,638.67            | 3,468.36            | 19.31           | 19.02       | -107.53               | -662.36                           | 649.26     | 753.37               | 717.36                | 36.02                   | 20.918             |         |
| 3,800.00  | 3,614.89            | 3,648.95            | 3,477.70            | 19.38           | 19.11       | -107.63               | -665.40                           | 652.28     | 756.96               | 720.78                | 36.18                   | 20.923             |         |
| 3,900.00  | 3,706.64            | 3,743.55            | 3,563.69            | 19.95           | 19.93       | -108.30               | -693.34                           | 680.13     | 789.35               | 751.80                | 37.55                   | 21.019             |         |
| 4,000.00  | 3,799.71            | 3,838.45            | 3,649.95            | 20.49           | 20.75       | -108.70               | -721.37                           | 708.06     | 820.71               | 781.81                | 38.90                   | 21.096             |         |
| 4,100.00  | 3,894.01            | 3,933.54            | 3,736.37            | 20.99           | 21.57       | -108.87               | -749.45                           | 736.05     | 851.04               | 810.82                | 40.22                   | 21.160             |         |
| 4,200.00  | 3,989.41            | 4,028.70            | 3,822.86            | 21.47           | 22.39       | -108.81               | -777.56                           | 764.06     | 880.36               | 838.86                | 41.49                   | 21.217             |         |
| 4,300.00  | 4,085.80            | 4,123.81            | 3,909.31            | 21.90           | 23.22       | -108.57               | -805.65                           | 792.06     | 908.73               | 866.01                | 42.72                   | 21.273             |         |
| 4,400.00  | 4,183.06            | 4,218.76            | 3,995.61            | 22.29           | 24.04       | -108.15               | -833.69                           | 820.01     | 936.24               | 892.36                | 43.88                   | 21.336             |         |
| 4,500.00  | 4,281.07            | 4,313.44            | 4,081.66            | 22.64           | 24.86       | -107.58               | -861.65                           | 847.88     | 963.00               | 918.02                | 44.98                   | 21.410             |         |
| 4,600.00  | 4,379.71            | 4,407.72            | 4,167.35            | 22.94           | 25.68       | -106.87               | -889.50                           | 875.63     | 989.13               | 943.12                | 46.00                   | 21.501             |         |
| 4,700.00  | 4,478.86            | 4,501.49            | 4,252.58            | 23.20           | 26.49       | -106.03               | -917.19                           | 903.23     | 1,014.77             | 967.83                | 46.94                   | 21.616             |         |
| 4,800.00  | 4,578.41            | 4,594.63            | 4,337.25            | 23.41           | 27.30       | -105.09               | -944.71                           | 930.65     | 1,040.09             | 992.29                | 47.80                   | 21.760             |         |
| 4,900.00  | 4,678.22            | 4,687.05            | 4,421.24            | 23.58           | 28.10       | -104.05               | -972.00                           | 957.86     | 1,065.25             | 1,016.69              | 48.56                   | 21.938             |         |
| 5,000.00  | 4,778.19            | 4,778.61            | 4,504.47            | 23.69           | 28.90       | -102.93               | -999.04                           | 984.81     | 1,090.44             | 1,041.22              | 49.22                   | 22.156             |         |
| 5,021.81  | 4,800.00            | 4,798.46            | 4,522.51            | 23.71           | 29.07       | 79.88                 | -1,004.91                         | 990.65     | 1,095.96             | 1,046.61              | 49.35                   | 22.209             |         |
| 5,100.00  | 4,878.19            | 4,869.53            | 4,587.10            | 23.78           | 29.69       | 81.17                 | -1,025.89                         | 1,011.57   | 1,116.05             | 1,066.33              | 49.72                   | 22.445             |         |
| 5,200.00  | 4,978.19            | 4,985.01            | 4,692.71            | 23.87           | 30.49       | 83.13                 | -1,058.98                         | 1,044.54   | 1,141.84             | 1,091.74              | 50.10                   | 22.791             |         |
| 5,300.00  | 5,078.19            | 5,111.49            | 4,810.40            | 23.95           | 31.25       | 84.97                 | -1,091.77                         | 1,077.22   | 1,165.86             | 1,115.46              | 50.40                   | 23.132             |         |
| 5,400.00  | 5,178.19            | 5,242.22            | 4,934.07            | 24.04           | 31.95       | 86.57                 | -1,121.76                         | 1,107.11   | 1,187.65             | 1,137.00              | 50.65                   | 23.447             |         |
| 5,500.00  | 5,278.19            | 5,376.85            | 5,063.31            | 24.13           | 32.58       | 87.94                 | -1,148.44                         | 1,133.70   | 1,206.85             | 1,155.97              | 50.88                   | 23.720             |         |
| 5,600.00  | 5,378.19            | 5,514.92            | 5,197.55            | 24.22           | 33.14       | 89.06                 | -1,171.30                         | 1,156.49   | 1,223.16             | 1,172.07              | 51.09                   | 23.943             |         |
| 5,700.00  | 5,478.19            | 5,655.92            | 5,336.06            | 24.31           | 33.60       | 89.94                 | -1,189.89                         | 1,175.02   | 1,236.31             | 1,185.03              | 51.28                   | 24.108             |         |
| 5,800.00  | 5,578.19            | 5,799.23            | 5,478.00            | 24.41           | 33.98       | 90.58                 | -1,203.82                         | 1,188.90   | 1,246.09             | 1,194.61              | 51.48                   | 24.205             |         |
| 5,900.00  | 5,678.19            | 5,944.18            | 5,622.38            | 24.50           | 34.24       | 90.99                 | -1,212.77                         | 1,197.82   | 1,252.35             | 1,200.67              | 51.68                   | 24.235             |         |
| 6,000.00  | 5,778.19            | 6,090.04            | 5,768.13            | 24.60           | 34.41       | 91.16                 | -1,216.55                         | 1,201.59   | 1,254.98             | 1,203.09              | 51.89                   | 24.186             |         |
| 6,100.00  | 5,878.19            | 6,200.10            | 5,878.19            | 24.70           | 34.50       | 91.16                 | -1,216.67                         | 1,201.71   | 1,255.07             | 1,202.98              | 52.09                   | 24.095             |         |
| 6,200.00  | 5,978.19            | 6,300.10            | 5,978.19            | 24.80           | 34.57       | 91.16                 | -1,216.67                         | 1,201.71   | 1,255.07             | 1,202.79              | 52.28                   | 24.007             |         |
| 6,300.00  | 6,078.19            | 6,400.10            | 6,078.19            | 24.90           | 34.65       | 91.16                 | -1,216.67                         | 1,201.71   | 1,255.07             | 1,202.60              | 52.47                   | 23.919             |         |
| 6,400.00  | 6,178.19            | 6,500.10            | 6,178.19            | 25.01           | 34.72       | 91.16                 | -1,216.67                         | 1,201.71   | 1,255.07             | 1,202.40              | 52.67                   | 23.829             |         |
| 6,500.00  | 6,278.19            | 6,600.10            | 6,278.19            | 25.11           | 34.80       | 91.16                 | -1,216.67                         | 1,201.71   | 1,255.07             | 1,202.20              | 52.87                   | 23.739             |         |
| 6,600.00  | 6,378.19            | 6,700.10            | 6,378.19            | 25.22           | 34.88       | 91.16                 | -1,216.67                         | 1,201.71   | 1,255.07             | 1,202.00              | 53.07                   | 23.649             |         |
| 6,700.00  | 6,478.19            | 6,800.10            | 6,478.19            | 25.33           | 34.96       | 91.16                 | -1,216.67                         | 1,201.71   | 1,255.07             | 1,201.79              | 53.28                   | 23.557             |         |

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



# Weatherford International Ltd.

## Anticollision Report



|                           |                                 |                                     |                                       |
|---------------------------|---------------------------------|-------------------------------------|---------------------------------------|
| <b>Company:</b>           | US ROCKIES REGION PLANNING      | <b>Local Co-ordinate Reference:</b> | Well P_WITTEMYER 24-2                 |
| <b>Project:</b>           | KERR MCGEE OIL & GAS ONSHORE LP | <b>TVD Reference:</b>               | WELL @ 4856.00ft (Original Well Elev) |
| <b>Reference Site:</b>    | WELD_WITTEMYER 3 PAD            | <b>MD Reference:</b>                | WELL @ 4856.00ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.00ft                          | <b>North Reference:</b>             | True                                  |
| <b>Reference Well:</b>    | P_WITTEMYER 24-2                | <b>Survey Calculation Method:</b>   | Minimum Curvature                     |
| <b>Well Error:</b>        | 0.00ft                          | <b>Output errors are at</b>         | 2.00 sigma                            |
| <b>Reference Wellbore</b> | P_WITTEMYER 24-2                | <b>Database:</b>                    | EDM 2003.21 Single User Db            |
| <b>Reference Design:</b>  | PLAN #1 09-02-09 RHS            | <b>Offset TVD Reference:</b>        | Offset Datum                          |

| <b>Offset Design</b> WELD_WITTEMYER 3 PAD - P_WITTEMYER 40-2 - P_WITTEMYER 40-2 - PLAN #1 09-02-09 RHS |                        |                        |                        |                   |                |                          |   |               |                         |                          |                            | <b>Offset Site Error:</b> | 0.00 ft |
|--|------------------------|------------------------|------------------------|-------------------|----------------|--------------------------|---|---------------|-------------------------|--------------------------|----------------------------|---------------------------|---------|
| Survey Program: 0-MWD  |                        |                        |                        |                   |                |                          |   |               |                         |                          |                            | <b>Offset Well Error:</b> | 0.00 ft |
| Reference  |                        | Offset                 |                        | Semi Major Axis   |                |                          | Distance                                |               |                         |                          |                            |                           |         |
| Measured Depth<br>(ft)   | Vertical Depth<br>(ft) | Measured Depth<br>(ft) | Vertical Depth<br>(ft) | Reference<br>(ft) | Offset<br>(ft) | Highside Toolface<br>(°) | Offset Wellbore Centre<br>+N/-S<br>(ft) | +E/-W<br>(ft) | Between Centres<br>(ft) | Between Ellipses<br>(ft) | Minimum Separation<br>(ft) | Separation Factor         | Warning |
| 6,800.00   | 6,578.19               | 6,900.10               | 6,578.19               | 25.44             | 35.04          | 91.16                    | -1,216.67                               | 1,201.71      | 1,255.07                | 1,201.58                 | 53.49                      | 23.466                    |         |
| 6,900.00   | 6,678.19               | 7,000.10               | 6,678.19               | 25.55             | 35.12          | 91.16                    | -1,216.67                               | 1,201.71      | 1,255.07                | 1,201.37                 | 53.70                      | 23.373                    |         |
| 7,000.00   | 6,778.19               | 7,100.10               | 6,778.19               | 25.67             | 35.21          | 91.16                    | -1,216.67                               | 1,201.71      | 1,255.07                | 1,201.16                 | 53.91                      | 23.280                    |         |
| 7,100.00   | 6,878.19               | 7,200.10               | 6,878.19               | 25.78             | 35.29          | 91.16                    | -1,216.67                               | 1,201.71      | 1,255.07                | 1,200.94                 | 54.13                      | 23.186                    |         |
| 7,200.00   | 6,978.19               | 7,300.10               | 6,978.19               | 25.90             | 35.38          | 91.16                    | -1,216.67                               | 1,201.71      | 1,255.07                | 1,200.72                 | 54.35                      | 23.092                    |         |
| 7,300.00   | 7,078.19               | 7,400.10               | 7,078.19               | 26.02             | 35.46          | 91.16                    | -1,216.67                               | 1,201.71      | 1,255.07                | 1,200.49                 | 54.57                      | 22.998                    |         |
| 7,400.00   | 7,178.19               | 7,500.10               | 7,178.19               | 26.13             | 35.55          | 91.16                    | -1,216.67                               | 1,201.71      | 1,255.07                | 1,200.27                 | 54.80                      | 22.903                    |         |
| 7,500.00   | 7,278.19               | 7,600.10               | 7,278.19               | 26.26             | 35.64          | 91.16                    | -1,216.67                               | 1,201.71      | 1,255.07                | 1,200.04                 | 55.03                      | 22.808                    |         |
| 7,600.00   | 7,378.19               | 7,700.10               | 7,378.19               | 26.38             | 35.73          | 91.16                    | -1,216.67                               | 1,201.71      | 1,255.07                | 1,199.81                 | 55.26                      | 22.712                    |         |
| 7,700.00   | 7,478.19               | 7,800.10               | 7,478.19               | 26.50             | 35.83          | 91.16                    | -1,216.67                               | 1,201.71      | 1,255.07                | 1,199.57                 | 55.49                      | 22.616                    |         |
| 7,734.81   | 7,513.00               | 7,834.91               | 7,513.00               | 26.54             | 35.86          | 91.16                    | -1,216.67                               | 1,201.71      | 1,255.07                | 1,199.49                 | 55.58                      | 22.583                    |         |



|                           |                                 |                                     |                                       |
|---------------------------|---------------------------------|-------------------------------------|---------------------------------------|
| <b>Company:</b>           | US ROCKIES REGION PLANNING      | <b>Local Co-ordinate Reference:</b> | Well P_WITTEMYER 24-2                 |
| <b>Project:</b>           | KERR MCGEE OIL & GAS ONSHORE LP | <b>TVD Reference:</b>               | WELL @ 4856.00ft (Original Well Elev) |
| <b>Reference Site:</b>    | WELD_WITTEMYER 3 PAD            | <b>MD Reference:</b>                | WELL @ 4856.00ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.00ft                          | <b>North Reference:</b>             | True                                  |
| <b>Reference Well:</b>    | P_WITTEMYER 24-2                | <b>Survey Calculation Method:</b>   | Minimum Curvature                     |
| <b>Well Error:</b>        | 0.00ft                          | <b>Output errors are at</b>         | 2.00 sigma                            |
| <b>Reference Wellbore</b> | P_WITTEMYER 24-2                | <b>Database:</b>                    | EDM 2003.21 Single User Db            |
| <b>Reference Design:</b>  | PLAN #1 09-02-09 RHS            | <b>Offset TVD Reference:</b>        | Offset Datum                          |

| Offset Design WELD_WITTEMYER 3 PAD - P_WITTEMYER 41-2 - P_WITTEMYER 41-2 - PLAN #1 09-02-09 RHS |                     |                     |                     |                |             |                      |                                   |            |                      |                       |                         | Offset Site Error: | 0.00 ft |
|---|---------------------|---------------------|---------------------|----------------|-------------|----------------------|-----------------------------------|------------|----------------------|-----------------------|-------------------------|--------------------|---------|
| Survey Program: 0-MWD   |                     |                     |                     |                |             |                      |                                   |            |                      |                       |                         | Offset Well Error: | 0.00 ft |
| Reference   | Offset              | Semi Major Axis     |                     | Distance       |             | Warning              |                                   |            |                      |                       |                         |                    |         |
| Measured Depth (ft)   | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (ft) | Offset (ft) | Highside Tooface (") | Offset Wellbore Centre +N/-S (ft) | +E/-W (ft) | Between Centres (ft) | Between Ellipses (ft) | Minimum Separation (ft) | Separation Factor  |         |
| 0.00  | 0.00                | 0.00                | 0.00                | 0.00           | 0.00        | 142.52               | -21.87                            | 16.77      | 27.56                |                       |                         |                    |         |
| 100.00  | 100.00              | 100.00              | 100.00              | 0.10           | 0.10        | 142.52               | -21.87                            | 16.77      | 27.56                | 27.37                 | 0.19                    | 144.241            |         |
| 200.00  | 200.00              | 200.00              | 200.00              | 0.32           | 0.32        | 142.52               | -21.87                            | 16.77      | 27.56                | 26.92                 | 0.64                    | 43.019             |         |
| 300.00  | 300.00              | 300.00              | 300.00              | 0.55           | 0.55        | 142.52               | -21.87                            | 16.77      | 27.56                | 26.47                 | 1.09                    | 25.279             |         |
| 400.00  | 400.00              | 400.00              | 400.00              | 0.77           | 0.77        | 142.52               | -21.87                            | 16.77      | 27.56                | 26.02                 | 1.54                    | 17.899             |         |
| 500.00  | 500.00              | 500.00              | 500.00              | 0.99           | 0.99        | 142.52               | -21.87                            | 16.77      | 27.56                | 25.57                 | 1.99                    | 13.854             |         |
| 600.00  | 600.00              | 600.00              | 600.00              | 1.22           | 1.22        | 142.52               | -21.87                            | 16.77      | 27.56                | 25.12                 | 2.44                    | 11.300             |         |
| 700.00  | 700.00              | 700.00              | 700.00              | 1.44           | 1.44        | 142.52               | -21.87                            | 16.77      | 27.56                | 24.67                 | 2.89                    | 9.541              |         |
| 800.00  | 800.00              | 800.00              | 800.00              | 1.67           | 1.67        | 142.52               | -21.87                            | 16.77      | 27.56                | 24.22                 | 3.34                    | 8.256              |         |
| 900.00  | 900.00              | 900.00              | 900.00              | 1.89           | 1.89        | 142.52               | -21.87                            | 16.77      | 27.56                | 23.77                 | 3.79                    | 7.276              |         |
| 950.00  | 950.00              | 950.00              | 950.00              | 2.01           | 2.01        | 142.52               | -21.87                            | 16.77      | 27.56                | 23.55                 | 4.01                    | 6.869              |         |
| 1,000.00  | 1,000.00            | 999.79              | 999.79              | 2.10           | 2.11        | -41.44               | -21.77                            | 17.19      | 27.41                | 23.20                 | 4.22                    | 6.502              |         |
| 1,098.68  | 1,098.61            | 1,097.83            | 1,097.77            | 2.27           | 2.32        | -52.78               | -21.02                            | 20.49      | 26.87                | 22.29                 | 4.59                    | 5.859 CC           |         |
| 1,100.00  | 1,099.93            | 1,099.14            | 1,099.08            | 2.28           | 2.32        | -53.02               | -21.01                            | 20.55      | 26.87                | 22.28                 | 4.59                    | 5.853 ES           |         |
| 1,200.00  | 1,199.68            | 1,197.82            | 1,197.51            | 2.46           | 2.53        | -75.00               | -19.49                            | 27.21      | 29.08                | 24.10                 | 4.98                    | 5.836 SF           |         |
| 1,300.00  | 1,299.13            | 1,295.37            | 1,294.53            | 2.67           | 2.76        | -97.79               | -17.25                            | 37.04      | 38.49                | 33.09                 | 5.39                    | 7.135              |         |
| 1,400.00  | 1,398.15            | 1,391.39            | 1,389.64            | 2.90           | 3.01        | -113.14              | -14.33                            | 49.85      | 56.16                | 50.34                 | 5.82                    | 9.648              |         |
| 1,500.00  | 1,496.63            | 1,485.49            | 1,482.37            | 3.18           | 3.28        | -122.06              | -10.78                            | 65.42      | 80.89                | 74.62                 | 6.27                    | 12.903             |         |
| 1,600.00  | 1,594.44            | 1,577.32            | 1,572.32            | 3.50           | 3.59        | -127.28              | -6.67                             | 83.47      | 111.62               | 104.88                | 6.74                    | 16.549             |         |
| 1,700.00  | 1,691.46            | 1,666.58            | 1,659.13            | 3.88           | 3.93        | -130.45              | -2.06                             | 103.69     | 147.75               | 140.50                | 7.25                    | 20.371             |         |
| 1,800.00  | 1,787.58            | 1,753.00            | 1,742.52            | 4.32           | 4.30        | -132.43              | 2.98                              | 125.78     | 188.88               | 181.08                | 7.80                    | 24.223             |         |
| 1,900.00  | 1,882.68            | 1,836.36            | 1,822.29            | 4.83           | 4.70        | -133.67              | 8.36                              | 149.39     | 234.69               | 226.31                | 8.38                    | 28.010             |         |
| 2,000.00  | 1,976.65            | 1,916.49            | 1,898.26            | 5.40           | 5.12        | -134.41              | 14.02                             | 174.22     | 284.92               | 275.93                | 9.00                    | 31.665             |         |
| 2,100.00  | 2,069.36            | 1,993.24            | 1,970.34            | 6.04           | 5.58        | -134.79              | 19.88                             | 199.93     | 339.32               | 329.67                | 9.66                    | 35.140             |         |
| 2,182.70  | 2,145.01            | 2,054.11            | 2,026.98            | 6.62           | 5.97        | -134.91              | 24.83                             | 221.66     | 387.28               | 377.05                | 10.23                   | 37.844             |         |
| 2,200.00  | 2,160.73            | 2,066.56            | 2,038.50            | 6.74           | 6.05        | -135.09              | 25.88                             | 226.24     | 397.61               | 387.25                | 10.37                   | 38.361             |         |
| 2,300.00  | 2,251.62            | 2,137.35            | 2,103.64            | 7.48           | 6.55        | -135.88              | 32.03                             | 253.26     | 458.31               | 447.17                | 11.14                   | 41.133             |         |
| 2,400.00  | 2,342.50            | 2,208.89            | 2,168.80            | 8.24           | 7.08        | -136.36              | 38.60                             | 282.07     | 520.53               | 508.57                | 11.95                   | 43.552             |         |
| 2,500.00  | 2,433.39            | 2,286.80            | 2,239.56            | 9.00           | 7.69        | -136.75              | 45.85                             | 313.86     | 583.15               | 570.34                | 12.81                   | 45.525             |         |
| 2,600.00  | 2,524.27            | 2,364.71            | 2,310.31            | 9.78           | 8.31        | -137.06              | 53.09                             | 345.64     | 645.79               | 632.11                | 13.68                   | 47.191             |         |
| 2,700.00  | 2,615.16            | 2,442.62            | 2,381.07            | 10.56          | 8.94        | -137.31              | 60.34                             | 377.43     | 708.44               | 693.86                | 14.57                   | 48.612             |         |
| 2,800.00  | 2,706.04            | 2,520.53            | 2,451.83            | 11.35          | 9.57        | -137.52              | 67.58                             | 409.22     | 771.09               | 755.62                | 15.47                   | 49.833             |         |
| 2,900.00  | 2,796.92            | 2,598.43            | 2,522.59            | 12.14          | 10.21       | -137.71              | 74.83                             | 441.01     | 833.75               | 817.37                | 16.38                   | 50.889             |         |
| 3,000.00  | 2,887.81            | 2,676.34            | 2,593.35            | 12.94          | 10.86       | -137.86              | 82.08                             | 472.80     | 896.42               | 879.11                | 17.30                   | 51.807             |         |
| 3,100.00  | 2,978.69            | 2,754.25            | 2,664.11            | 13.74          | 11.51       | -138.00              | 89.32                             | 504.59     | 959.08               | 940.85                | 18.23                   | 52.612             |         |
| 3,200.00  | 3,069.58            | 2,832.16            | 2,734.86            | 14.54          | 12.16       | -138.12              | 96.57                             | 536.38     | 1,021.76             | 1,002.59              | 19.16                   | 53.324             |         |
| 3,300.00  | 3,160.46            | 2,910.07            | 2,805.62            | 15.35          | 12.82       | -138.22              | 103.81                            | 568.17     | 1,084.43             | 1,064.33              | 20.10                   | 53.956             |         |
| 3,400.00  | 3,251.35            | 2,987.98            | 2,876.38            | 16.16          | 13.48       | -138.32              | 111.06                            | 599.96     | 1,147.10             | 1,126.06              | 21.04                   | 54.519             |         |
| 3,500.00  | 3,342.23            | 3,065.89            | 2,947.14            | 16.96          | 14.14       | -138.40              | 118.30                            | 631.75     | 1,209.78             | 1,187.79              | 21.99                   | 55.023             |         |
| 3,600.00  | 3,433.11            | 3,143.80            | 3,017.90            | 17.77          | 14.80       | -138.48              | 125.55                            | 663.54     | 1,272.46             | 1,249.52              | 22.94                   | 55.478             |         |
| 3,700.00  | 3,524.00            | 3,221.71            | 3,088.65            | 18.58          | 15.47       | -138.54              | 132.80                            | 695.33     | 1,335.14             | 1,311.25              | 23.89                   | 55.890             |         |
| 3,789.11  | 3,604.99            | 3,291.13            | 3,151.71            | 19.31          | 16.06       | -138.60              | 139.25                            | 723.66     | 1,390.99             | 1,366.25              | 24.74                   | 56.225             |         |
| 3,800.00  | 3,614.89            | 3,299.62            | 3,159.42            | 19.38          | 16.14       | -138.72              | 140.04                            | 727.13     | 1,397.81             | 1,372.95              | 24.85                   | 56.244             |         |
| 3,900.00  | 3,706.64            | 3,378.53            | 3,231.09            | 19.95          | 16.81       | -139.73              | 147.38                            | 759.32     | 1,459.23             | 1,433.40              | 25.83                   | 56.494             |         |
| 4,000.00  | 3,799.71            | 3,459.01            | 3,304.17            | 20.49          | 17.50       | -140.55              | 154.87                            | 792.16     | 1,518.53             | 1,491.72              | 26.81                   | 56.633             |         |
| 4,100.00  | 3,894.01            | 3,540.95            | 3,378.60            | 20.99          | 18.21       | -141.22              | 162.49                            | 825.60     | 1,575.65             | 1,547.85              | 27.79                   | 56.690             |         |
| 4,200.00  | 3,989.41            | 3,624.27            | 3,454.27            | 21.47          | 18.93       | -141.75              | 170.24                            | 859.59     | 1,630.53             | 1,601.77              | 28.76                   | 56.686             |         |
| 4,300.00  | 4,085.80            | 3,708.85            | 3,531.09            | 21.90          | 19.66       | -142.16              | 178.10                            | 894.11     | 1,683.14             | 1,653.43              | 29.72                   | 56.640             |         |
| 4,400.00  | 4,183.06            | 3,794.60            | 3,608.97            | 22.29          | 20.40       | -142.46              | 186.08                            | 929.09     | 1,733.45             | 1,702.80              | 30.65                   | 56.565             |         |
| 4,500.00  | 4,281.07            | 3,894.07            | 3,699.35            | 22.64          | 21.23       | -142.59              | 195.30                            | 969.58     | 1,781.38             | 1,749.78              | 31.60                   | 56.373             |         |
| 4,600.00  | 4,379.71            | 4,073.88            | 3,865.53            | 22.94          | 22.38       | -142.29              | 210.55                            | 1,036.46   | 1,824.16             | 1,791.43              | 32.73                   | 55.735             |         |
| 4,700.00  | 4,478.86            | 4,265.46            | 4,046.95            | 23.20          | 23.43       | -142.01              | 224.21                            | 1,096.39   | 1,859.75             | 1,825.99              | 33.77                   | 55.077             |         |

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



# Weatherford International Ltd.

## Anticollision Report



|                           |                                 |                                     |                                       |
|---------------------------|---------------------------------|-------------------------------------|---------------------------------------|
| <b>Company:</b>           | US ROCKIES REGION PLANNING      | <b>Local Co-ordinate Reference:</b> | Well P_WITTEMYER 24-2                 |
| <b>Project:</b>           | KERR MCGEE OIL & GAS ONSHORE LP | <b>TVD Reference:</b>               | WELL @ 4856.00ft (Original Well Elev) |
| <b>Reference Site:</b>    | WELD_WITTEMYER 3 PAD            | <b>MD Reference:</b>                | WELL @ 4856.00ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.00ft                          | <b>North Reference:</b>             | True                                  |
| <b>Reference Well:</b>    | P_WITTEMYER 24-2                | <b>Survey Calculation Method:</b>   | Minimum Curvature                     |
| <b>Well Error:</b>        | 0.00ft                          | <b>Output errors are at</b>         | 2.00 sigma                            |
| <b>Reference Wellbore</b> | P_WITTEMYER 24-2                | <b>Database:</b>                    | EDM 2003.21 Single User Db            |
| <b>Reference Design:</b>  | PLAN #1 09-02-09 RHS            | <b>Offset TVD Reference:</b>        | Offset Datum                          |

| Offset Design         |                     |                     |                     |                 |             |                       |                                   |            |                      |                       |                         | Offset Site Error: | 0.00 ft |
|-----------------------|---------------------|---------------------|---------------------|-----------------|-------------|-----------------------|-----------------------------------|------------|----------------------|-----------------------|-------------------------|--------------------|---------|
| Survey Program: 0-MWD |                     |                     |                     |                 |             |                       |                                   |            |                      |                       |                         | Offset Well Error: | 0.00 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 |
| 4,800.00              | 4,578.41            | 4,467.41            | 4,242.17            | 23.41           | 24.34       | -141.75               | 235.66                            | 1,146.61   | 1,887.59             | 1,852.91              | 34.68                   | 54.431             |         |
| 4,900.00              | 4,678.22            | 4,677.69            | 4,448.78            | 23.58           | 25.05       | -141.53               | 244.30                            | 1,184.53   | 1,907.18             | 1,871.74              | 35.43                   | 53.822             |         |
| 5,000.00              | 4,778.19            | 4,893.72            | 4,663.41            | 23.69           | 25.56       | -141.34               | 249.64                            | 1,207.99   | 1,918.15             | 1,882.14              | 36.01                   | 53.264             |         |
| 5,021.81              | 4,800.00            | 4,941.32            | 4,710.91            | 23.71           | 25.63       | 41.25                 | 250.34                            | 1,211.03   | 1,919.37             | 1,883.26              | 36.11                   | 53.153             |         |
| 5,100.00              | 4,878.19            | 5,108.69            | 4,878.19            | 23.78           | 25.83       | 41.33                 | 251.38                            | 1,215.61   | 1,921.12             | 1,884.70              | 36.41                   | 52.759             |         |
| 5,200.00              | 4,978.19            | 5,208.69            | 4,978.19            | 23.87           | 25.92       | 41.33                 | 251.38                            | 1,215.61   | 1,921.12             | 1,884.48              | 36.64                   | 52.436             |         |
| 5,300.00              | 5,078.19            | 5,308.69            | 5,078.19            | 23.95           | 26.01       | 41.33                 | 251.38                            | 1,215.61   | 1,921.12             | 1,884.24              | 36.87                   | 52.101             |         |
| 5,400.00              | 5,178.19            | 5,408.69            | 5,178.19            | 24.04           | 26.10       | 41.33                 | 251.38                            | 1,215.61   | 1,921.12             | 1,884.00              | 37.11                   | 51.766             |         |
| 5,500.00              | 5,278.19            | 5,508.69            | 5,278.19            | 24.13           | 26.19       | 41.33                 | 251.38                            | 1,215.61   | 1,921.12             | 1,883.76              | 37.35                   | 51.429             |         |
| 5,600.00              | 5,378.19            | 5,608.69            | 5,378.19            | 24.22           | 26.29       | 41.33                 | 251.38                            | 1,215.61   | 1,921.12             | 1,883.51              | 37.60                   | 51.092             |         |
| 5,700.00              | 5,478.19            | 5,708.69            | 5,478.19            | 24.31           | 26.38       | 41.33                 | 251.38                            | 1,215.61   | 1,921.12             | 1,883.26              | 37.85                   | 50.754             |         |
| 5,800.00              | 5,578.19            | 5,808.69            | 5,578.19            | 24.41           | 26.48       | 41.33                 | 251.38                            | 1,215.61   | 1,921.12             | 1,883.01              | 38.11                   | 50.415             |         |
| 5,900.00              | 5,678.19            | 5,908.69            | 5,678.19            | 24.50           | 26.58       | 41.33                 | 251.38                            | 1,215.61   | 1,921.12             | 1,882.75              | 38.36                   | 50.076             |         |
| 6,000.00              | 5,778.19            | 6,008.69            | 5,778.19            | 24.60           | 26.68       | 41.33                 | 251.38                            | 1,215.61   | 1,921.12             | 1,882.49              | 38.62                   | 49.738             |         |
| 6,100.00              | 5,878.19            | 6,108.69            | 5,878.19            | 24.70           | 26.79       | 41.33                 | 251.38                            | 1,215.61   | 1,921.12             | 1,882.23              | 38.89                   | 49.399             |         |
| 6,200.00              | 5,978.19            | 6,208.69            | 5,978.19            | 24.80           | 26.89       | 41.33                 | 251.38                            | 1,215.61   | 1,921.12             | 1,881.96              | 39.16                   | 49.061             |         |
| 6,300.00              | 6,078.19            | 6,308.69            | 6,078.19            | 24.90           | 27.00       | 41.33                 | 251.38                            | 1,215.61   | 1,921.12             | 1,881.69              | 39.43                   | 48.724             |         |
| 6,400.00              | 6,178.19            | 6,408.69            | 6,178.19            | 25.01           | 27.10       | 41.33                 | 251.38                            | 1,215.61   | 1,921.12             | 1,881.41              | 39.70                   | 48.387             |         |
| 6,500.00              | 6,278.19            | 6,508.69            | 6,278.19            | 25.11           | 27.21       | 41.33                 | 251.38                            | 1,215.61   | 1,921.12             | 1,881.13              | 39.98                   | 48.050             |         |
| 6,600.00              | 6,378.19            | 6,608.69            | 6,378.19            | 25.22           | 27.32       | 41.33                 | 251.38                            | 1,215.61   | 1,921.12             | 1,880.85              | 40.26                   | 47.715             |         |
| 6,700.00              | 6,478.19            | 6,708.69            | 6,478.19            | 25.33           | 27.43       | 41.33                 | 251.38                            | 1,215.61   | 1,921.12             | 1,880.57              | 40.55                   | 47.381             |         |
| 6,800.00              | 6,578.19            | 6,808.69            | 6,578.19            | 25.44           | 27.55       | 41.33                 | 251.38                            | 1,215.61   | 1,921.12             | 1,880.28              | 40.83                   | 47.048             |         |
| 6,900.00              | 6,678.19            | 6,908.69            | 6,678.19            | 25.55           | 27.66       | 41.33                 | 251.38                            | 1,215.61   | 1,921.12             | 1,879.99              | 41.12                   | 46.717             |         |
| 7,000.00              | 6,778.19            | 7,008.69            | 6,778.19            | 25.67           | 27.78       | 41.33                 | 251.38                            | 1,215.61   | 1,921.12             | 1,879.70              | 41.42                   | 46.387             |         |
| 7,100.00              | 6,878.19            | 7,108.69            | 6,878.19            | 25.78           | 27.89       | 41.33                 | 251.38                            | 1,215.61   | 1,921.12             | 1,879.41              | 41.71                   | 46.058             |         |
| 7,200.00              | 6,978.19            | 7,208.69            | 6,978.19            | 25.90           | 28.01       | 41.33                 | 251.38                            | 1,215.61   | 1,921.12             | 1,879.11              | 42.01                   | 45.731             |         |
| 7,300.00              | 7,078.19            | 7,308.69            | 7,078.19            | 26.02           | 28.13       | 41.33                 | 251.38                            | 1,215.61   | 1,921.12             | 1,878.81              | 42.31                   | 45.406             |         |
| 7,400.00              | 7,178.19            | 7,408.69            | 7,178.19            | 26.13           | 28.25       | 41.33                 | 251.38                            | 1,215.61   | 1,921.12             | 1,878.50              | 42.61                   | 45.083             |         |
| 7,500.00              | 7,278.19            | 7,508.69            | 7,278.19            | 26.26           | 28.38       | 41.33                 | 251.38                            | 1,215.61   | 1,921.12             | 1,878.20              | 42.92                   | 44.761             |         |
| 7,600.00              | 7,378.19            | 7,608.69            | 7,378.19            | 26.38           | 28.50       | 41.33                 | 251.38                            | 1,215.61   | 1,921.12             | 1,877.89              | 43.23                   | 44.442             |         |
| 7,700.00              | 7,478.19            | 7,708.69            | 7,478.19            | 26.50           | 28.62       | 41.33                 | 251.38                            | 1,215.61   | 1,921.12             | 1,877.58              | 43.54                   | 44.124             |         |
| 7,714.42              | 7,492.61            | 7,723.11            | 7,492.61            | 26.52           | 28.64       | 41.33                 | 251.38                            | 1,215.61   | 1,921.12             | 1,877.53              | 43.58                   | 44.079             |         |
| 7,734.81              | 7,513.00            | 7,728.50            | 7,498.00            | 26.54           | 28.65       | 41.33                 | 251.38                            | 1,215.61   | 1,921.17             | 1,877.55              | 43.62                   | 44.040             |         |



# Weatherford International Ltd.

## Anticollision Report



|                           |                                 |                                     |                                       |
|---------------------------|---------------------------------|-------------------------------------|---------------------------------------|
| <b>Company:</b>           | US ROCKIES REGION PLANNING      | <b>Local Co-ordinate Reference:</b> | Well P_WITTEMYER 24-2                 |
| <b>Project:</b>           | KERR MCGEE OIL & GAS ONSHORE LP | <b>TVD Reference:</b>               | WELL @ 4856.00ft (Original Well Elev) |
| <b>Reference Site:</b>    | WELD_WITTEMYER 3 PAD            | <b>MD Reference:</b>                | WELL @ 4856.00ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.00ft                          | <b>North Reference:</b>             | True                                  |
| <b>Reference Well:</b>    | P_WITTEMYER 24-2                | <b>Survey Calculation Method:</b>   | Minimum Curvature                     |
| <b>Well Error:</b>        | 0.00ft                          | <b>Output errors are at</b>         | 2.00 sigma                            |
| <b>Reference Wellbore</b> | P_WITTEMYER 24-2                | <b>Database:</b>                    | EDM 2003.21 Single User Db            |
| <b>Reference Design:</b>  | PLAN #1 09-02-09 RHS            | <b>Offset TVD Reference:</b>        | Offset Datum                          |

| Offset Design WELD_WITTEMYER 3 PAD - VINCENT RALPH #1 EXISTING WELL - VINCENT RALPH #1 EXISTING |                     |                     |                     |                |             |                       |                                   |            |                      |                       |                         | Offset Site Error:    | 0.00 ft |
|---|---------------------|---------------------|---------------------|----------------|-------------|-----------------------|-----------------------------------|------------|----------------------|-----------------------|-------------------------|-----------------------|---------|
| Survey Program: 0-UNKNOWN   |                     |                     |                     |                |             |                       |                                   |            |                      |                       |                         | Offset Well Error:    | 0.00 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 |
| 0.00  | 0.00                | 0.00                | 0.00                | 0.00           | 0.00        | 160.28                | -97.55                            | 34.97      | 103.63               |                       |                         |                       |         |
| 100.00  | 100.00              | 100.00              | 100.00              | 0.10           | 1.70        | 160.28                | -97.55                            | 34.97      | 103.63               | 101.83                | 1.80                    | 57.714                |         |
| 200.00  | 200.00              | 200.00              | 200.00              | 0.32           | 5.70        | 160.28                | -97.55                            | 34.97      | 103.63               | 97.61                 | 6.02                    | 17.213                |         |
| 300.00  | 300.00              | 300.00              | 300.00              | 0.55           | 9.70        | 160.28                | -97.55                            | 34.97      | 103.63               | 93.38                 | 10.25                   | 10.115                |         |
| 400.00  | 400.00              | 400.00              | 400.00              | 0.77           | 13.70       | 160.28                | -97.55                            | 34.97      | 103.63               | 89.16                 | 14.47                   | 7.162                 |         |
| 500.00  | 500.00              | 500.00              | 500.00              | 0.99           | 17.70       | 160.28                | -97.55                            | 34.97      | 103.63               | 84.93                 | 18.69                   | 5.543                 |         |
| 600.00  | 600.00              | 600.00              | 600.00              | 1.22           | 21.70       | 160.28                | -97.55                            | 34.97      | 103.63               | 80.71                 | 22.92                   | 4.521                 |         |
| 700.00  | 700.00              | 700.00              | 700.00              | 1.44           | 25.70       | 160.28                | -97.55                            | 34.97      | 103.63               | 76.48                 | 27.14                   | 3.818                 |         |
| 800.00  | 800.00              | 800.00              | 800.00              | 1.67           | 29.70       | 160.28                | -97.55                            | 34.97      | 103.63               | 72.26                 | 31.37                   | 3.303                 |         |
| 900.00  | 900.00              | 900.00              | 900.00              | 1.89           | 33.70       | 160.28                | -97.55                            | 34.97      | 103.63               | 68.03                 | 35.59                   | 2.911                 |         |
| 950.00  | 950.00              | 950.00              | 950.00              | 2.01           | 35.70       | 160.28                | -97.55                            | 34.97      | 103.63               | 65.92                 | 37.71                   | 2.748                 |         |
| 1,000.00  | 1,000.00            | 1,000.00            | 1,000.00            | 2.10           | 37.70       | -22.37                | -97.55                            | 34.97      | 103.22               | 63.42                 | 39.80                   | 2.594                 |         |
| 1,100.00  | 1,099.93            | 1,099.93            | 1,099.93            | 2.28           | 41.70       | -23.16                | -97.55                            | 34.97      | 100.00               | 56.08                 | 43.92                   | 2.277                 |         |
| 1,200.00  | 1,199.68            | 1,199.68            | 1,199.68            | 2.46           | 45.69       | -24.89                | -97.55                            | 34.97      | 93.63                | 45.63                 | 48.00                   | 1.951                 |         |
| 1,300.00  | 1,299.13            | 1,299.13            | 1,299.13            | 2.67           | 49.67       | -27.97                | -97.55                            | 34.97      | 84.26                | 32.24                 | 52.02                   | 1.620                 |         |
| 1,400.00  | 1,398.15            | 1,398.15            | 1,398.15            | 2.90           | 53.63       | -33.27                | -97.55                            | 34.97      | 72.24                | 16.22                 | 56.01                   | 1.290 Level 3         |         |
| 1,500.00  | 1,496.63            | 1,496.63            | 1,496.63            | 3.18           | 57.57       | -42.77                | -97.55                            | 34.97      | 58.43                | -1.66                 | 60.09                   | 0.972 Level 1         |         |
| 1,600.00  | 1,594.44            | 1,594.44            | 1,594.44            | 3.50           | 61.48       | -60.87                | -97.55                            | 34.97      | 45.25                | -19.29                | 64.55                   | 0.701 Level 1         |         |
| 1,693.32  | 1,685.00            | 1,685.00            | 1,685.00            | 3.86           | 65.10       | -90.00                | -97.55                            | 34.97      | 39.28                | -29.68                | 68.96                   | 0.570 Level 1, CC     |         |
| 1,700.00  | 1,691.46            | 1,691.46            | 1,691.46            | 3.88           | 65.36       | -92.43                | -97.55                            | 34.97      | 39.32                | -29.92                | 69.24                   | 0.568 Level 1, ES, SF |         |
| 1,800.00  | 1,787.58            | 1,787.58            | 1,787.58            | 4.32           | 69.20       | -125.49               | -97.55                            | 34.97      | 49.00                | -23.34                | 72.34                   | 0.677 Level 1         |         |
| 1,900.00  | 1,882.68            | 1,882.68            | 1,882.68            | 4.83           | 73.01       | -145.38               | -97.55                            | 34.97      | 71.87                | -2.73                 | 74.60                   | 0.963 Level 1         |         |
| 2,000.00  | 1,976.65            | 1,976.65            | 1,976.65            | 5.40           | 76.77       | -155.97               | -97.55                            | 34.97      | 102.23               | 25.26                 | 76.97                   | 1.328 Level 3         |         |
| 2,100.00  | 2,069.36            | 2,069.36            | 2,069.36            | 6.04           | 80.47       | -162.07               | -97.55                            | 34.97      | 137.57               | 58.22                 | 79.35                   | 1.734                 |         |
| 2,182.70  | 2,145.01            | 2,145.01            | 2,145.01            | 6.62           | 83.50       | -165.34               | -97.55                            | 34.97      | 169.86               | 88.61                 | 81.25                   | 2.091                 |         |
| 2,200.00  | 2,160.73            | 2,160.73            | 2,160.73            | 6.74           | 84.13       | -165.93               | -97.55                            | 34.97      | 176.88               | 95.05                 | 81.83                   | 2.162                 |         |
| 2,300.00  | 2,251.62            | 2,251.62            | 2,251.62            | 7.48           | 87.76       | -168.59               | -97.55                            | 34.97      | 217.75               | 132.48                | 85.27                   | 2.554                 |         |
| 2,400.00  | 2,342.50            | 2,342.50            | 2,342.50            | 8.24           | 91.40       | -170.41               | -97.55                            | 34.97      | 258.89               | 170.10                | 88.79                   | 2.916                 |         |
| 2,500.00  | 2,433.39            | 2,433.39            | 2,433.39            | 9.00           | 95.04       | -171.74               | -97.55                            | 34.97      | 300.19               | 207.83                | 92.36                   | 3.250                 |         |
| 2,600.00  | 2,524.27            | 2,524.27            | 2,524.27            | 9.78           | 98.67       | -172.74               | -97.55                            | 34.97      | 341.59               | 245.64                | 95.95                   | 3.560                 |         |
| 2,700.00  | 2,615.16            | 2,615.16            | 2,615.16            | 10.56          | 102.31      | -173.53               | -97.55                            | 34.97      | 383.06               | 283.50                | 99.55                   | 3.848                 |         |
| 2,800.00  | 2,706.04            | 2,706.04            | 2,706.04            | 11.35          | 105.94      | -174.16               | -97.55                            | 34.97      | 424.57               | 321.40                | 103.17                  | 4.115                 |         |
| 2,900.00  | 2,796.92            | 2,796.92            | 2,796.92            | 12.14          | 109.58      | -174.68               | -97.55                            | 34.97      | 466.12               | 359.32                | 106.80                  | 4.365                 |         |
| 3,000.00  | 2,887.81            | 2,887.81            | 2,887.81            | 12.94          | 113.21      | -175.12               | -97.55                            | 34.97      | 507.70               | 397.27                | 110.43                  | 4.597                 |         |
| 3,100.00  | 2,978.69            | 2,978.69            | 2,978.69            | 13.74          | 116.85      | -175.49               | -97.55                            | 34.97      | 549.30               | 435.23                | 114.07                  | 4.815                 |         |
| 3,200.00  | 3,069.58            | 3,069.58            | 3,069.58            | 14.54          | 120.48      | -175.81               | -97.55                            | 34.97      | 590.91               | 473.20                | 117.72                  | 5.020                 |         |
| 3,300.00  | 3,160.46            | 3,160.46            | 3,160.46            | 15.35          | 124.12      | -176.08               | -97.55                            | 34.97      | 632.54               | 511.18                | 121.36                  | 5.212                 |         |
| 3,400.00  | 3,251.35            | 3,251.35            | 3,251.35            | 16.16          | 127.75      | -176.33               | -97.55                            | 34.97      | 674.18               | 549.17                | 125.01                  | 5.393                 |         |
| 3,500.00  | 3,342.23            | 3,342.23            | 3,342.23            | 16.96          | 131.39      | -176.54               | -97.55                            | 34.97      | 715.83               | 587.16                | 128.67                  | 5.563                 |         |
| 3,600.00  | 3,433.11            | 3,433.11            | 3,433.11            | 17.77          | 135.02      | -176.73               | -97.55                            | 34.97      | 757.48               | 625.16                | 132.32                  | 5.725                 |         |
| 3,700.00  | 3,524.00            | 3,524.00            | 3,524.00            | 18.58          | 138.66      | -176.90               | -97.55                            | 34.97      | 799.14               | 663.16                | 135.98                  | 5.877                 |         |
| 3,789.11  | 3,604.99            | 3,604.99            | 3,604.99            | 19.31          | 141.90      | -177.04               | -97.55                            | 34.97      | 836.27               | 697.03                | 139.24                  | 6.006                 |         |
| 3,800.00  | 3,614.89            | 3,614.89            | 3,614.89            | 19.38          | 142.30      | -177.06               | -97.55                            | 34.97      | 840.79               | 700.93                | 139.86                  | 6.012                 |         |
| 3,900.00  | 3,706.64            | 3,706.64            | 3,706.64            | 19.95          | 145.97      | -177.23               | -97.55                            | 34.97      | 880.52               | 735.01                | 145.51                  | 6.051                 |         |
| 4,000.00  | 3,799.71            | 3,799.71            | 3,799.71            | 20.49          | 149.69      | -177.38               | -97.55                            | 34.97      | 917.03               | 765.90                | 151.12                  | 6.068                 |         |
| 4,100.00  | 3,894.01            | 3,894.01            | 3,894.01            | 20.99          | 153.46      | -177.50               | -97.55                            | 34.97      | 950.27               | 793.53                | 156.74                  | 6.063                 |         |
| 4,200.00  | 3,989.41            | 3,989.41            | 3,989.41            | 21.47          | 157.28      | -177.61               | -97.55                            | 34.97      | 980.21               | 817.93                | 162.28                  | 6.040                 |         |
| 4,300.00  | 4,085.80            | 4,085.80            | 4,085.80            | 21.90          | 161.13      | -177.69               | -97.55                            | 34.97      | 1,006.80             | 839.08                | 167.73                  | 6.003                 |         |
| 4,400.00  | 4,183.06            | 4,183.06            | 4,183.06            | 22.29          | 165.02      | -177.76               | -97.55                            | 34.97      | 1,030.02             | 856.97                | 173.05                  | 5.952                 |         |
| 4,500.00  | 4,281.07            | 4,281.07            | 4,281.07            | 22.64          | 168.94      | -177.82               | -97.55                            | 34.97      | 1,049.84             | 871.59                | 178.24                  | 5.890                 |         |
| 4,600.00  | 4,379.71            | 4,379.71            | 4,379.71            | 22.94          | 172.89      | -177.87               | -97.55                            | 34.97      | 1,066.22             | 882.94                | 183.27                  | 5.818                 |         |
| 4,700.00  | 4,478.86            | 4,478.86            | 4,478.86            | 23.20          | 176.85      | -177.90               | -97.55                            | 34.97      | 1,079.15             | 891.02                | 188.13                  | 5.736                 |         |

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



# Weatherford International Ltd.

## Anticollision Report



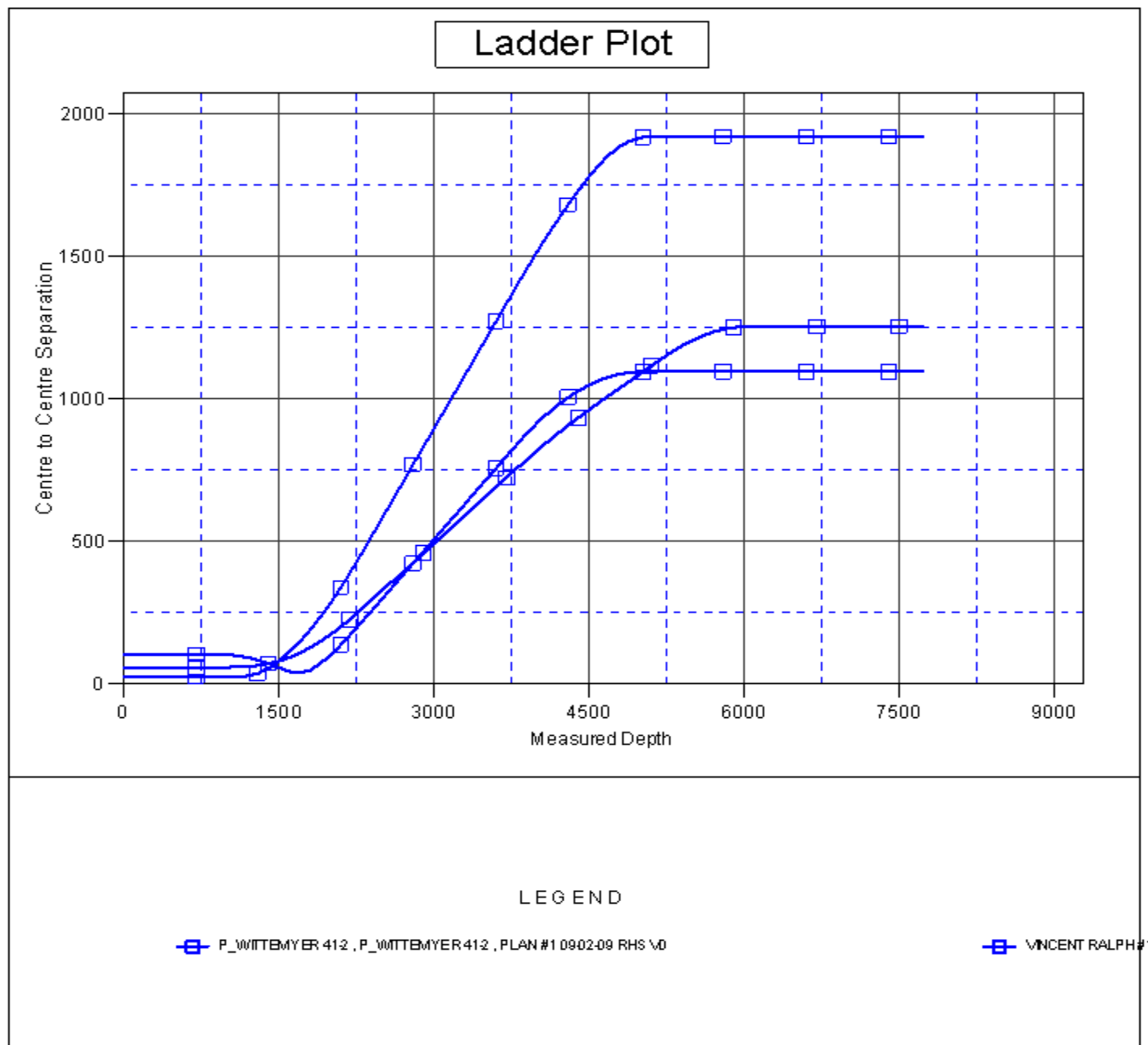
|                           |                                 |                                     |                                       |
|---------------------------|---------------------------------|-------------------------------------|---------------------------------------|
| <b>Company:</b>           | US ROCKIES REGION PLANNING      | <b>Local Co-ordinate Reference:</b> | Well P_WITTEMYER 24-2                 |
| <b>Project:</b>           | KERR MCGEE OIL & GAS ONSHORE LP | <b>TVD Reference:</b>               | WELL @ 4856.00ft (Original Well Elev) |
| <b>Reference Site:</b>    | WELD_WITTEMYER 3 PAD            | <b>MD Reference:</b>                | WELL @ 4856.00ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.00ft                          | <b>North Reference:</b>             | True                                  |
| <b>Reference Well:</b>    | P_WITTEMYER 24-2                | <b>Survey Calculation Method:</b>   | Minimum Curvature                     |
| <b>Well Error:</b>        | 0.00ft                          | <b>Output errors are at</b>         | 2.00 sigma                            |
| <b>Reference Wellbore</b> | P_WITTEMYER 24-2                | <b>Database:</b>                    | EDM 2003.21 Single User Db            |
| <b>Reference Design:</b>  | PLAN #1 09-02-09 RHS            | <b>Offset TVD Reference:</b>        | Offset Datum                          |

| Offset Design             |                     |                     |                     |                 |             |                       |                                   |            |                      |                       |                         | Offset Site Error: | 0.00 ft |
|---------------------------|---------------------|---------------------|---------------------|-----------------|-------------|-----------------------|-----------------------------------|------------|----------------------|-----------------------|-------------------------|--------------------|---------|
| Survey Program: 0-UNKNOWN |                     |                     |                     |                 |             |                       |                                   |            |                      |                       |                         | Offset Well Error: | 0.00 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 |
| 4,800.00                  | 4,578.41            | 4,578.41            | 4,578.41            | 23.41           | 180.84      | -177.93               | -97.55                            | 34.97      | 1,088.62             | 895.83                | 192.79                  | 5.647              |         |
| 4,900.00                  | 4,678.22            | 4,678.22            | 4,678.22            | 23.58           | 184.83      | -177.94               | -97.55                            | 34.97      | 1,094.61             | 897.38                | 197.23                  | 5.550              |         |
| 5,000.00                  | 4,778.19            | 4,778.19            | 4,778.19            | 23.69           | 188.83      | -177.95               | -97.55                            | 34.97      | 1,097.11             | 895.67                | 201.44                  | 5.446              |         |
| 5,021.81                  | 4,800.00            | 4,800.00            | 4,800.00            | 23.71           | 189.70      | 4.60                  | -97.55                            | 34.97      | 1,097.20             | 894.87                | 202.32                  | 5.423              |         |
| 5,100.00                  | 4,878.19            | 4,878.19            | 4,878.19            | 23.78           | 192.83      | 4.60                  | -97.55                            | 34.97      | 1,097.20             | 891.62                | 205.57                  | 5.337              |         |
| 5,200.00                  | 4,978.19            | 4,978.19            | 4,978.19            | 23.87           | 196.83      | 4.60                  | -97.55                            | 34.97      | 1,097.20             | 887.46                | 209.73                  | 5.231              |         |
| 5,300.00                  | 5,078.19            | 5,078.19            | 5,078.19            | 23.95           | 200.83      | 4.60                  | -97.55                            | 34.97      | 1,097.20             | 883.30                | 213.89                  | 5.130              |         |
| 5,400.00                  | 5,178.19            | 5,178.19            | 5,178.19            | 24.04           | 204.83      | 4.60                  | -97.55                            | 34.97      | 1,097.20             | 879.14                | 218.05                  | 5.032              |         |
| 5,500.00                  | 5,278.19            | 5,278.19            | 5,278.19            | 24.13           | 208.83      | 4.60                  | -97.55                            | 34.97      | 1,097.20             | 874.98                | 222.22                  | 4.938              |         |
| 5,600.00                  | 5,378.19            | 5,378.19            | 5,378.19            | 24.22           | 212.83      | 4.60                  | -97.55                            | 34.97      | 1,097.20             | 870.81                | 226.38                  | 4.847              |         |
| 5,700.00                  | 5,478.19            | 5,478.19            | 5,478.19            | 24.31           | 216.83      | 4.60                  | -97.55                            | 34.97      | 1,097.20             | 866.65                | 230.55                  | 4.759              |         |
| 5,800.00                  | 5,578.19            | 5,578.19            | 5,578.19            | 24.41           | 220.83      | 4.60                  | -97.55                            | 34.97      | 1,097.20             | 862.48                | 234.72                  | 4.675              |         |
| 5,900.00                  | 5,678.19            | 5,678.19            | 5,678.19            | 24.50           | 224.83      | 4.60                  | -97.55                            | 34.97      | 1,097.20             | 858.31                | 238.89                  | 4.593              |         |
| 6,000.00                  | 5,778.19            | 5,778.19            | 5,778.19            | 24.60           | 228.83      | 4.60                  | -97.55                            | 34.97      | 1,097.20             | 854.14                | 243.06                  | 4.514              |         |
| 6,100.00                  | 5,878.19            | 5,878.19            | 5,878.19            | 24.70           | 232.83      | 4.60                  | -97.55                            | 34.97      | 1,097.20             | 849.96                | 247.23                  | 4.438              |         |
| 6,200.00                  | 5,978.19            | 5,978.19            | 5,978.19            | 24.80           | 236.83      | 4.60                  | -97.55                            | 34.97      | 1,097.20             | 845.79                | 251.41                  | 4.364              |         |
| 6,300.00                  | 6,078.19            | 6,078.19            | 6,078.19            | 24.90           | 240.83      | 4.60                  | -97.55                            | 34.97      | 1,097.20             | 841.61                | 255.58                  | 4.293              |         |
| 6,400.00                  | 6,178.19            | 6,178.19            | 6,178.19            | 25.01           | 244.83      | 4.60                  | -97.55                            | 34.97      | 1,097.20             | 837.44                | 259.76                  | 4.224              |         |
| 6,500.00                  | 6,278.19            | 6,278.19            | 6,278.19            | 25.11           | 248.83      | 4.60                  | -97.55                            | 34.97      | 1,097.20             | 833.26                | 263.94                  | 4.157              |         |
| 6,600.00                  | 6,378.19            | 6,378.19            | 6,378.19            | 25.22           | 252.83      | 4.60                  | -97.55                            | 34.97      | 1,097.20             | 829.08                | 268.12                  | 4.092              |         |
| 6,700.00                  | 6,478.19            | 6,478.19            | 6,478.19            | 25.33           | 256.83      | 4.60                  | -97.55                            | 34.97      | 1,097.20             | 824.90                | 272.30                  | 4.029              |         |
| 6,800.00                  | 6,578.19            | 6,578.19            | 6,578.19            | 25.44           | 260.83      | 4.60                  | -97.55                            | 34.97      | 1,097.20             | 820.72                | 276.48                  | 3.968              |         |
| 6,900.00                  | 6,678.19            | 6,678.19            | 6,678.19            | 25.55           | 264.83      | 4.60                  | -97.55                            | 34.97      | 1,097.20             | 816.53                | 280.66                  | 3.909              |         |
| 7,000.00                  | 6,778.19            | 6,778.19            | 6,778.19            | 25.67           | 268.83      | 4.60                  | -97.55                            | 34.97      | 1,097.20             | 812.35                | 284.85                  | 3.852              |         |
| 7,100.00                  | 6,878.19            | 6,878.19            | 6,878.19            | 25.78           | 272.83      | 4.60                  | -97.55                            | 34.97      | 1,097.20             | 808.16                | 289.03                  | 3.796              |         |
| 7,200.00                  | 6,978.19            | 6,978.19            | 6,978.19            | 25.90           | 276.83      | 4.60                  | -97.55                            | 34.97      | 1,097.20             | 803.98                | 293.22                  | 3.742              |         |
| 7,300.00                  | 7,078.19            | 7,078.19            | 7,078.19            | 26.02           | 280.83      | 4.60                  | -97.55                            | 34.97      | 1,097.20             | 799.79                | 297.40                  | 3.689              |         |
| 7,400.00                  | 7,178.19            | 7,178.19            | 7,178.19            | 26.13           | 284.83      | 4.60                  | -97.55                            | 34.97      | 1,097.20             | 795.60                | 301.59                  | 3.638              |         |
| 7,500.00                  | 7,278.19            | 7,278.19            | 7,278.19            | 26.26           | 288.83      | 4.60                  | -97.55                            | 34.97      | 1,097.20             | 791.41                | 305.78                  | 3.588              |         |
| 7,600.00                  | 7,378.19            | 7,378.19            | 7,378.19            | 26.38           | 292.83      | 4.60                  | -97.55                            | 34.97      | 1,097.20             | 787.22                | 309.97                  | 3.540              |         |
| 7,700.00                  | 7,478.19            | 7,478.19            | 7,478.19            | 26.50           | 296.83      | 4.60                  | -97.55                            | 34.97      | 1,097.20             | 783.03                | 314.16                  | 3.492              |         |
| 7,734.81                  | 7,513.00            | 7,513.00            | 7,513.00            | 26.54           | 298.22      | 4.60                  | -97.55                            | 34.97      | 1,097.20             | 781.57                | 315.62                  | 3.476              |         |



|                           |                                 |                                     |                                       |
|---------------------------|---------------------------------|-------------------------------------|---------------------------------------|
| <b>Company:</b>           | US ROCKIES REGION PLANNING      | <b>Local Co-ordinate Reference:</b> | Well P_WITTEMYER 24-2                 |
| <b>Project:</b>           | KERR MCGEE OIL & GAS ONSHORE LP | <b>TVD Reference:</b>               | WELL @ 4856.00ft (Original Well Elev) |
| <b>Reference Site:</b>    | WELD_WITTEMYER 3 PAD            | <b>MD Reference:</b>                | WELL @ 4856.00ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.00ft                          | <b>North Reference:</b>             | True                                  |
| <b>Reference Well:</b>    | P_WITTEMYER 24-2                | <b>Survey Calculation Method:</b>   | Minimum Curvature                     |
| <b>Well Error:</b>        | 0.00ft                          | <b>Output errors are at</b>         | 2.00 sigma                            |
| <b>Reference Wellbore</b> | P_WITTEMYER 24-2                | <b>Database:</b>                    | EDM 2003.21 Single User Db            |
| <b>Reference Design:</b>  | PLAN #1 09-02-09 RHS            | <b>Offset TVD Reference:</b>        | Offset Datum                          |

Reference Depths are relative to WELL @ 4856.00ft (Original Well Elev) Coordinates are relative to: P\_WITTEMYER 24-2  
Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1983, Colorado Northern Zone  
Central Meridian is 105° 30' 0.000 W ° Grid Convergence at Surface is: 0.42°



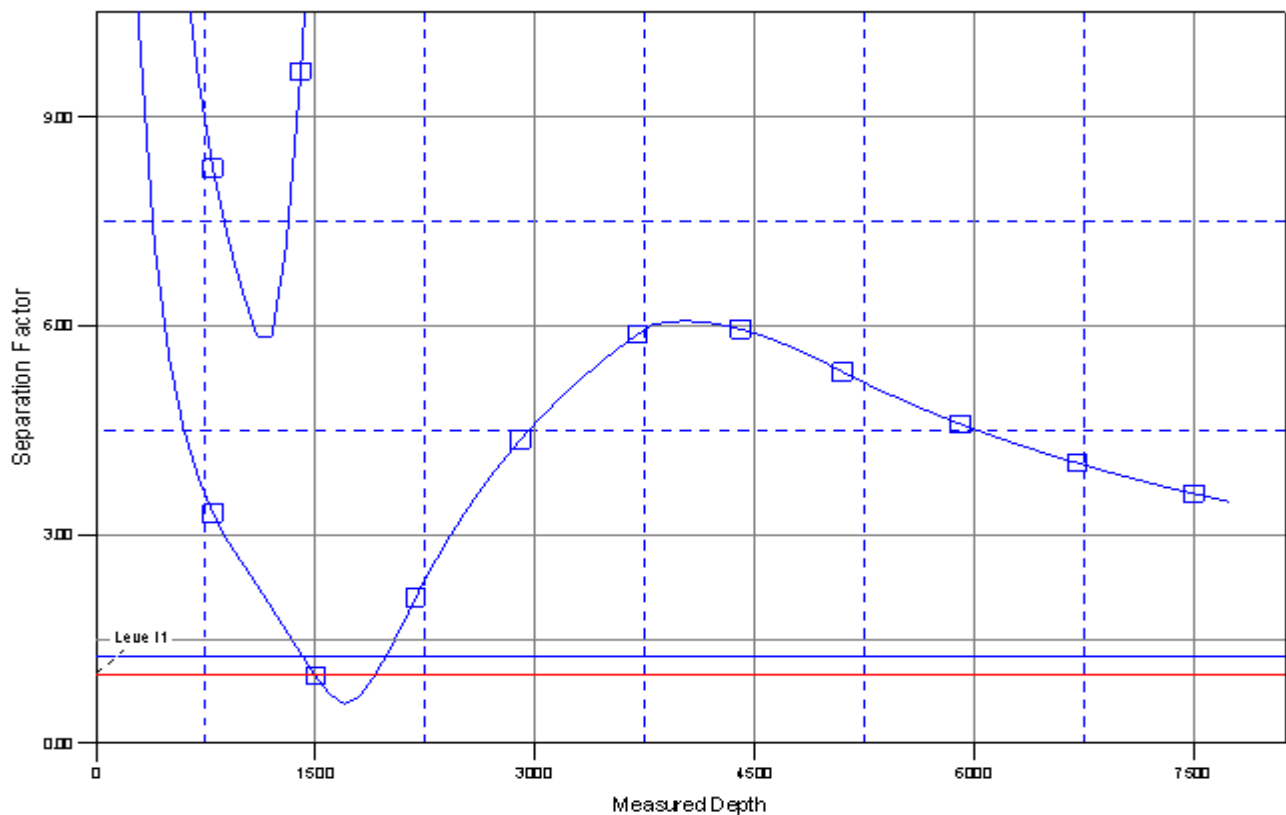




|                           |                                 |                                     |                                       |
|---------------------------|---------------------------------|-------------------------------------|---------------------------------------|
| <b>Company:</b>           | US ROCKIES REGION PLANNING      | <b>Local Co-ordinate Reference:</b> | Well P_WITTEMYER 24-2                 |
| <b>Project:</b>           | KERR MCGEE OIL & GAS ONSHORE LP | <b>TVD Reference:</b>               | WELL @ 4856.00ft (Original Well Elev) |
| <b>Reference Site:</b>    | WELD_WITTEMYER 3 PAD            | <b>MD Reference:</b>                | WELL @ 4856.00ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.00ft                          | <b>North Reference:</b>             | True                                  |
| <b>Reference Well:</b>    | P_WITTEMYER 24-2                | <b>Survey Calculation Method:</b>   | Minimum Curvature                     |
| <b>Well Error:</b>        | 0.00ft                          | <b>Output errors are at</b>         | 2.00 sigma                            |
| <b>Reference Wellbore</b> | P_WITTEMYER 24-2                | <b>Database:</b>                    | EDM 2003.21 Single User Db            |
| <b>Reference Design:</b>  | PLAN #1 09-02-09 RHS            | <b>Offset TVD Reference:</b>        | Offset Datum                          |

Reference Depths are relative to WELL @ 4856.00ft (Original Well Elev) Coordinates are relative to: P\_WITTEMYER 24-2  
Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1983, Colorado Northern Zone  
Central Meridian is 105° 30' 0.000 W ° Grid Convergence at Surface is: 0.42°

## Separation Factor Plot



### LEGEND

— P\_WITTEMYER 412 , P\_WITTEMYER 412 , PLAN #1 09-02-09 RHS \0

— VINCENT RALPH #1