

PETROLEUM DEVELOPMENT CORP Weld County CO

Well Name: **Wiedeman Trust 29P-212**

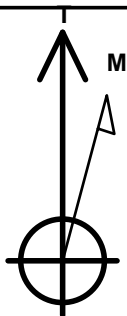
Surface Location: Wiedeman Trust 29O-HZ Pad Sec.29-T4N-R66W
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone

Ground Elevation: 4763.0

| +N/-S | +E/-W | Northing | Easting | Latitude | Longitude | Slot |
|---------------------------------------|-------|------------|------------|-----------|-------------|------|
| 0.0 | 0.0 | 1346577.35 | 3194768.20 | 40.282650 | -104.801880 | |
| RKB - 15' WELL @ 4778.0ft (RKB - 15') | | | | | | |

WELLBORE TARGET DETAILS

| Name | TVD | +N/-S | +E/-W | Shape |
|---------------------------------|--------|--------|--------|-------|
| SHL 2634'FNL & 2535'FWL, Sec.29 | 1.0 | 0.0 | 0.0 | Point |
| BHL 1756'FSL & 500'FEL, Sec.28 | 7031.0 | -907.7 | 7558.5 | Point |



Azimuths to True North
Magnetic North: 8.46°

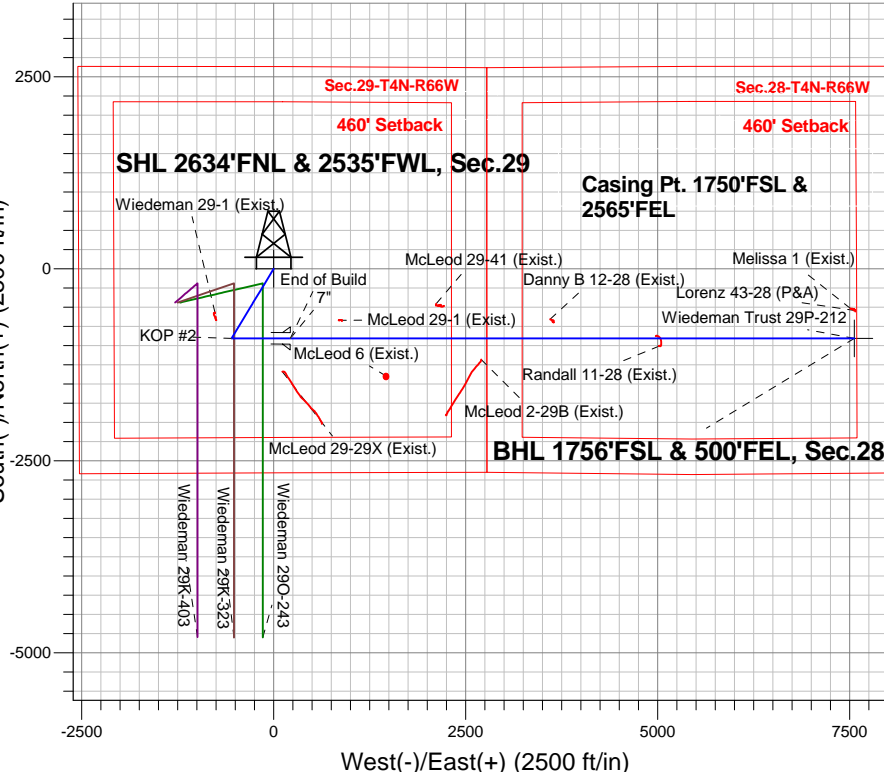
Magnetic Field
Strength: 52745.7srT
Dip Angle: 66.84°
Date: 7/1/2014
Model: IGRF2010

ANNOTATIONS

| TVD | MD | Annotation |
|--------|--------|--------------|
| 200.0 | 200.0 | KOP #1 |
| 6303.0 | 6402.0 | KOP #2 |
| 7066.9 | 7605.7 | End of Build |

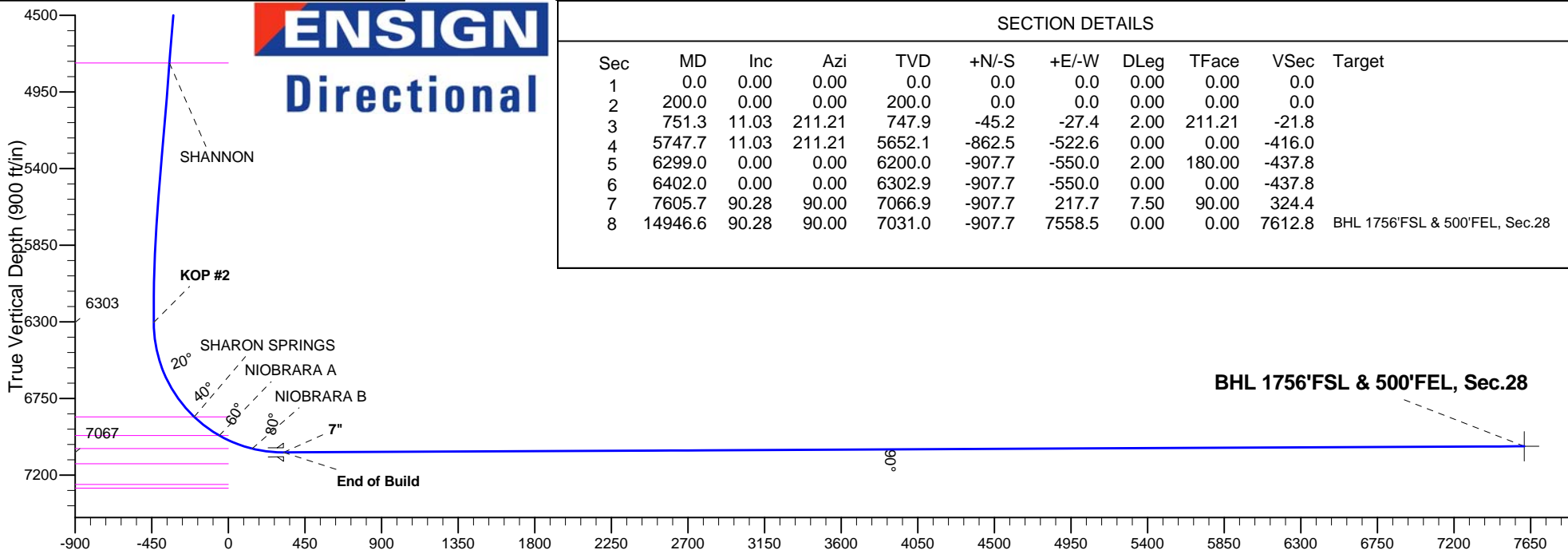
Wiedeman Trust 29O-HZ Pad Sec.29-T4N-R66W
Wiedeman Trust 29P-212
Plan #1 (6-17-14)
16:07, July 01 2014

South(-)/North(+) (2500 ft/in)



West(-)/East(+) (2500 ft/in)

ENSIGN
Directional



SECTION DETAILS

| Sec | MD | Inc | Azi | TVD | +N/-S | +E/-W | DLeg | TFace | VSec | Target |
|-----|---------|-------|--------|--------|--------|--------|------|--------|--------|--------------------------------|
| 1 | 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.0 | |
| 2 | 200.0 | 0.00 | 0.00 | 200.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.0 | |
| 3 | 751.3 | 11.03 | 211.21 | 747.9 | -45.2 | -27.4 | 2.00 | 211.21 | -21.8 | |
| 4 | 5747.7 | 11.03 | 211.21 | 5652.1 | -862.5 | -522.6 | 0.00 | 0.00 | -416.0 | |
| 5 | 6299.0 | 0.00 | 0.00 | 6200.0 | -907.7 | -550.0 | 2.00 | 180.00 | -437.8 | |
| 6 | 6402.0 | 0.00 | 0.00 | 6302.9 | -907.7 | -550.0 | 0.00 | 0.00 | -437.8 | |
| 7 | 7605.7 | 90.28 | 90.00 | 7066.9 | -907.7 | 217.7 | 7.50 | 90.00 | 324.4 | |
| 8 | 14946.6 | 90.28 | 90.00 | 7031.0 | -907.7 | 7558.5 | 0.00 | 0.00 | 7612.8 | BHL 1756'FSL & 500'FEL, Sec.28 |

BHL 1756'FSL & 500'FEL, Sec.28

Vertical Section at 96.85° (900 ft/in)



PETROLEUM DEVELOPMENT CORP Weld County CO

SEC.29-T4N-R66W

Wiedeman Trust 29O-HZ Pad Sec.29-T4N-R66W

Wiedeman Trust 29P-212

Wellbore #1

Plan: Plan #1 (6-17-14)

Standard Planning Report

01 July, 2014

| | | | |
|------------------|-------------------------------------------|-------------------------------------|-----------------------------|
| Database: | landmark | Local Co-ordinate Reference: | Well Wiedeman Trust 29P-212 |
| Company: | PETROLEUM DEVELOPMENT CORP Weld County CO | TVD Reference: | WELL @ 4778.0ft (RKB - 15') |
| Project: | SEC.29-T4N-R66W | MD Reference: | WELL @ 4778.0ft (RKB - 15') |
| Site: | Wiedeman Trust 29O-HZ Pad Sec.29-T4N-R66W | North Reference: | True |
| Well: | Wiedeman Trust 29P-212 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Wellbore #1 | | |
| Design: | Plan #1 (6-17-14) | | |

| | | | |
|--------------------|---------------------------|----------------------|-----------------------------|
| Project | SEC.29-T4N-R66W | | |
| Map System: | US State Plane 1983 | System Datum: | Mean Sea Level |
| Geo Datum: | North American Datum 1983 | | Using Well Reference Point |
| Map Zone: | Colorado Northern Zone | | Using geodetic scale factor |

| | | | | | |
|-----------------------|----------|-------------------------------------------|-----------------|-------------------|-------------|
| Site | | Wiedeman Trust 29O-HZ Pad Sec.29-T4N-R66W | | | |
| Site Position: | | Northing: | 1,346,577.36 ft | Latitude: | 40.282650 |
| From: | Lat/Long | Easting: | 3,194,768.20 ft | Longitude: | -104.801880 |
| Position Uncertainty: | 0.0 ft | Slot Radius: | " | Grid Convergence: | 0.45 ° |

| Well | Wiedeman Trust 29P-212 | | | | | |
|----------------------|------------------------|--------|---------------------|-----------------|---------------|-------------|
| Well Position | +N/-S | 0.0 ft | Northing: | 1,346,577.35 ft | Latitude: | 40.282650 |
| | +E/-W | 0.0 ft | Easting: | 3,194,768.20 ft | Longitude: | -104.801880 |
| Position Uncertainty | | 0.0 ft | Wellhead Elevation: | ft | Ground Level: | 4,763.0 ft |

| | | | | | |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| Wellbore | Wellbore #1 | | | | |
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
| | IGRF2010 | 7/1/2014 | 8.46 | 66.84 | 52,746 |

| | | | | |
|--------------------------|------------------------------|-------------------|----------------------|----------------------|
| Design | Plan #1 (6-17-14) | | | |
| Audit Notes: | | | | |
| Version: | Phase: | PROTOTYPE | Tie On Depth: | 0.0 |
| Vertical Section: | Depth From (TVD) (ft) | +N/-S (ft) | +E/-W (ft) | Direction (°) |
| | 0.0 | 0.0 | 0.0 | 96.85 |

| Plan Sections | | | | | | | | | | |
|----------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|----------------------|---------------------|---------|-------------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) | TFO (°) | Target |
| 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 200.0 | 0.00 | 0.00 | 200.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 751.3 | 11.03 | 211.21 | 747.9 | -45.2 | -27.4 | 2.00 | 2.00 | 0.00 | 211.21 | |
| 5,747.7 | 11.03 | 211.21 | 5,652.1 | -862.5 | -522.6 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 6,299.0 | 0.00 | 0.00 | 6,200.0 | -907.7 | -550.0 | 2.00 | -2.00 | 0.00 | 180.00 | |
| 6,402.0 | 0.00 | 0.00 | 6,302.9 | -907.7 | -550.0 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 7,605.7 | 90.28 | 90.00 | 7,066.9 | -907.7 | 217.7 | 7.50 | 7.50 | 0.00 | 90.00 | |
| 14,946.6 | 90.28 | 90.00 | 7,031.0 | -907.7 | 7,558.5 | 0.00 | 0.00 | 0.00 | 0.00 | BHL 1756'FSL & 5C |

| | | | |
|------------------|----------------------------------------------|-------------------------------------|-----------------------------|
| Database: | landmark | Local Co-ordinate Reference: | Well Wiedeman Trust 29P-212 |
| Company: | PETROLEUM DEVELOPMENT CORP Weld County CO | TVD Reference: | WELL @ 4778.0ft (RKB - 15') |
| Project: | SEC.29-T4N-R66W | MD Reference: | WELL @ 4778.0ft (RKB - 15') |
| Site: | Wiedeman Trust 29O-HZ Pad Sec.29-T4N-R66W | North Reference: | True |
| Well: | Wiedeman Trust 29P-212 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Wellbore #1 | | |
| Design: | Plan #1 (6-17-14) | | |

| Planned Survey | | | | | | | | | |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
| 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 100.0 | 0.00 | 0.00 | 100.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 200.0 | 0.00 | 0.00 | 200.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| KOP #1 | | | | | | | | | |
| 300.0 | 2.00 | 211.21 | 300.0 | -1.5 | -0.9 | -0.7 | 2.00 | 2.00 | 0.00 |
| 400.0 | 4.00 | 211.21 | 399.8 | -6.0 | -3.6 | -2.9 | 2.00 | 2.00 | 0.00 |
| 500.0 | 6.00 | 211.21 | 499.5 | -13.4 | -8.1 | -6.5 | 2.00 | 2.00 | 0.00 |
| 600.0 | 8.00 | 211.21 | 598.7 | -23.8 | -14.4 | -11.5 | 2.00 | 2.00 | 0.00 |
| 700.0 | 10.00 | 211.21 | 697.5 | -37.2 | -22.6 | -18.0 | 2.00 | 2.00 | 0.00 |
| 751.3 | 11.03 | 211.21 | 747.9 | -45.2 | -27.4 | -21.8 | 2.00 | 2.00 | 0.00 |
| 800.0 | 11.03 | 211.21 | 795.7 | -53.2 | -32.2 | -25.7 | 0.00 | 0.00 | 0.00 |
| 900.0 | 11.03 | 211.21 | 893.9 | -69.5 | -42.1 | -33.5 | 0.00 | 0.00 | 0.00 |
| 1,000.0 | 11.03 | 211.21 | 992.0 | -85.9 | -52.1 | -41.4 | 0.00 | 0.00 | 0.00 |
| 1,100.0 | 11.03 | 211.21 | 1,090.2 | -102.3 | -62.0 | -49.3 | 0.00 | 0.00 | 0.00 |
| 1,200.0 | 11.03 | 211.21 | 1,188.3 | -118.6 | -71.9 | -57.2 | 0.00 | 0.00 | 0.00 |
| 1,300.0 | 11.03 | 211.21 | 1,286.5 | -135.0 | -81.8 | -65.1 | 0.00 | 0.00 | 0.00 |
| 1,400.0 | 11.03 | 211.21 | 1,384.6 | -151.3 | -91.7 | -73.0 | 0.00 | 0.00 | 0.00 |
| 1,500.0 | 11.03 | 211.21 | 1,482.8 | -167.7 | -101.6 | -80.9 | 0.00 | 0.00 | 0.00 |
| 1,600.0 | 11.03 | 211.21 | 1,580.9 | -184.0 | -111.5 | -88.8 | 0.00 | 0.00 | 0.00 |
| 1,700.0 | 11.03 | 211.21 | 1,679.1 | -200.4 | -121.4 | -96.7 | 0.00 | 0.00 | 0.00 |
| 1,800.0 | 11.03 | 211.21 | 1,777.2 | -216.8 | -131.3 | -104.6 | 0.00 | 0.00 | 0.00 |
| 1,900.0 | 11.03 | 211.21 | 1,875.4 | -233.1 | -141.3 | -112.4 | 0.00 | 0.00 | 0.00 |
| 2,000.0 | 11.03 | 211.21 | 1,973.6 | -249.5 | -151.2 | -120.3 | 0.00 | 0.00 | 0.00 |
| 2,100.0 | 11.03 | 211.21 | 2,071.7 | -265.8 | -161.1 | -128.2 | 0.00 | 0.00 | 0.00 |
| 2,200.0 | 11.03 | 211.21 | 2,169.9 | -282.2 | -171.0 | -136.1 | 0.00 | 0.00 | 0.00 |
| 2,300.0 | 11.03 | 211.21 | 2,268.0 | -298.5 | -180.9 | -144.0 | 0.00 | 0.00 | 0.00 |
| 2,400.0 | 11.03 | 211.21 | 2,366.2 | -314.9 | -190.8 | -151.9 | 0.00 | 0.00 | 0.00 |
| 2,500.0 | 11.03 | 211.21 | 2,464.3 | -331.3 | -200.7 | -159.8 | 0.00 | 0.00 | 0.00 |
| 2,600.0 | 11.03 | 211.21 | 2,562.5 | -347.6 | -210.6 | -167.7 | 0.00 | 0.00 | 0.00 |
| 2,700.0 | 11.03 | 211.21 | 2,660.6 | -364.0 | -220.5 | -175.6 | 0.00 | 0.00 | 0.00 |
| 2,800.0 | 11.03 | 211.21 | 2,758.8 | -380.3 | -230.4 | -183.5 | 0.00 | 0.00 | 0.00 |
| 2,900.0 | 11.03 | 211.21 | 2,856.9 | -396.7 | -240.4 | -191.3 | 0.00 | 0.00 | 0.00 |
| 3,000.0 | 11.03 | 211.21 | 2,955.1 | -413.0 | -250.3 | -199.2 | 0.00 | 0.00 | 0.00 |
| 3,100.0 | 11.03 | 211.21 | 3,053.2 | -429.4 | -260.2 | -207.1 | 0.00 | 0.00 | 0.00 |
| 3,200.0 | 11.03 | 211.21 | 3,151.4 | -445.8 | -270.1 | -215.0 | 0.00 | 0.00 | 0.00 |
| 3,300.0 | 11.03 | 211.21 | 3,249.6 | -462.1 | -280.0 | -222.9 | 0.00 | 0.00 | 0.00 |
| 3,400.0 | 11.03 | 211.21 | 3,347.7 | -478.5 | -289.9 | -230.8 | 0.00 | 0.00 | 0.00 |
| 3,500.0 | 11.03 | 211.21 | 3,445.9 | -494.8 | -299.8 | -238.7 | 0.00 | 0.00 | 0.00 |
| 3,600.0 | 11.03 | 211.21 | 3,544.0 | -511.2 | -309.7 | -246.6 | 0.00 | 0.00 | 0.00 |
| 3,700.0 | 11.03 | 211.21 | 3,642.2 | -527.5 | -319.6 | -254.5 | 0.00 | 0.00 | 0.00 |
| 3,738.5 | 11.03 | 211.21 | 3,680.0 | -533.8 | -323.5 | -257.5 | 0.00 | 0.00 | 0.00 |
| PARKMAN | | | | | | | | | |
| 3,800.0 | 11.03 | 211.21 | 3,740.3 | -543.9 | -329.6 | -262.4 | 0.00 | 0.00 | 0.00 |
| 3,900.0 | 11.03 | 211.21 | 3,838.5 | -560.2 | -339.5 | -270.2 | 0.00 | 0.00 | 0.00 |
| 4,000.0 | 11.03 | 211.21 | 3,936.6 | -576.6 | -349.4 | -278.1 | 0.00 | 0.00 | 0.00 |
| 4,100.0 | 11.03 | 211.21 | 4,034.8 | -593.0 | -359.3 | -286.0 | 0.00 | 0.00 | 0.00 |
| 4,200.0 | 11.03 | 211.21 | 4,132.9 | -609.3 | -369.2 | -293.9 | 0.00 | 0.00 | 0.00 |
| 4,300.0 | 11.03 | 211.21 | 4,231.1 | -625.7 | -379.1 | -301.8 | 0.00 | 0.00 | 0.00 |
| 4,319.3 | 11.03 | 211.21 | 4,250.0 | -628.8 | -381.0 | -303.3 | 0.00 | 0.00 | 0.00 |
| SUSSEX | | | | | | | | | |
| 4,400.0 | 11.03 | 211.21 | 4,329.3 | -642.0 | -389.0 | -309.7 | 0.00 | 0.00 | 0.00 |
| 4,500.0 | 11.03 | 211.21 | 4,427.4 | -658.4 | -398.9 | -317.6 | 0.00 | 0.00 | 0.00 |

| | | | |
|------------------|----------------------------------------------|-------------------------------------|-----------------------------|
| Database: | landmark | Local Co-ordinate Reference: | Well Wiedeman Trust 29P-212 |
| Company: | PETROLEUM DEVELOPMENT CORP Weld County CO | TVD Reference: | WELL @ 4778.0ft (RKB - 15') |
| Project: | SEC.29-T4N-R66W | MD Reference: | WELL @ 4778.0ft (RKB - 15') |
| Site: | Wiedeman Trust 29O-HZ Pad Sec.29-T4N-R66W | North Reference: | True |
| Well: | Wiedeman Trust 29P-212 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Wellbore #1 | | |
| Design: | Plan #1 (6-17-14) | | |

| Planned Survey | | | | | | | | | |
|--------------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
| 4,600.0 | 11.03 | 211.21 | 4,525.6 | -674.7 | -408.8 | -325.5 | 0.00 | 0.00 | 0.00 |
| 4,700.0 | 11.03 | 211.21 | 4,623.7 | -691.1 | -418.8 | -333.4 | 0.00 | 0.00 | 0.00 |
| 4,800.0 | 11.03 | 211.21 | 4,721.9 | -707.5 | -428.7 | -341.3 | 0.00 | 0.00 | 0.00 |
| 4,859.2 | 11.03 | 211.21 | 4,780.0 | -717.1 | -434.5 | -345.9 | 0.00 | 0.00 | 0.00 |
| SHANNON | | | | | | | | | |
| 4,900.0 | 11.03 | 211.21 | 4,820.0 | -723.8 | -438.6 | -349.1 | 0.00 | 0.00 | 0.00 |
| 5,000.0 | 11.03 | 211.21 | 4,918.2 | -740.2 | -448.5 | -357.0 | 0.00 | 0.00 | 0.00 |
| 5,100.0 | 11.03 | 211.21 | 5,016.3 | -756.5 | -458.4 | -364.9 | 0.00 | 0.00 | 0.00 |
| 5,200.0 | 11.03 | 211.21 | 5,114.5 | -772.9 | -468.3 | -372.8 | 0.00 | 0.00 | 0.00 |
| 5,300.0 | 11.03 | 211.21 | 5,212.6 | -789.2 | -478.2 | -380.7 | 0.00 | 0.00 | 0.00 |
| 5,400.0 | 11.03 | 211.21 | 5,310.8 | -805.6 | -488.1 | -388.6 | 0.00 | 0.00 | 0.00 |
| 5,500.0 | 11.03 | 211.21 | 5,408.9 | -822.0 | -498.0 | -396.5 | 0.00 | 0.00 | 0.00 |
| 5,600.0 | 11.03 | 211.21 | 5,507.1 | -838.3 | -508.0 | -404.4 | 0.00 | 0.00 | 0.00 |
| 5,700.0 | 11.03 | 211.21 | 5,605.3 | -854.7 | -517.9 | -412.3 | 0.00 | 0.00 | 0.00 |
| 5,747.7 | 11.03 | 211.21 | 5,652.1 | -862.5 | -522.6 | -416.0 | 0.00 | 0.00 | 0.00 |
| 5,800.0 | 9.98 | 211.21 | 5,703.5 | -870.6 | -527.5 | -420.0 | 2.00 | -2.00 | 0.00 |
| 5,900.0 | 7.98 | 211.21 | 5,802.3 | -884.0 | -535.6 | -426.4 | 2.00 | -2.00 | 0.00 |
| 6,000.0 | 5.98 | 211.21 | 5,901.5 | -894.4 | -541.9 | -431.4 | 2.00 | -2.00 | 0.00 |
| 6,100.0 | 3.98 | 211.21 | 6,001.1 | -901.8 | -546.4 | -435.0 | 2.00 | -2.00 | 0.00 |
| 6,200.0 | 1.98 | 211.21 | 6,101.0 | -906.2 | -549.1 | -437.1 | 2.00 | -2.00 | 0.00 |
| 6,299.0 | 0.00 | 0.00 | 6,200.0 | -907.7 | -550.0 | -437.8 | 2.00 | -2.00 | 0.00 |
| 6,300.0 | 0.00 | 0.00 | 6,201.0 | -907.7 | -550.0 | -437.8 | 0.00 | 0.00 | 0.00 |
| 6,400.0 | 0.00 | 0.00 | 6,301.0 | -907.7 | -550.0 | -437.8 | 0.00 | 0.00 | 0.00 |
| 6,402.0 | 0.00 | 0.00 | 6,303.0 | -907.7 | -550.0 | -437.8 | 0.00 | 0.00 | 0.00 |
| KOP #2 | | | | | | | | | |
| 6,500.0 | 7.35 | 90.00 | 6,400.7 | -907.7 | -543.7 | -431.6 | 7.50 | 7.50 | 0.00 |
| 6,600.0 | 14.85 | 90.00 | 6,498.8 | -907.7 | -524.5 | -412.5 | 7.50 | 7.50 | 0.00 |
| 6,700.0 | 22.35 | 90.00 | 6,593.5 | -907.7 | -492.6 | -380.9 | 7.50 | 7.50 | 0.00 |
| 6,800.0 | 29.85 | 90.00 | 6,683.2 | -907.7 | -448.6 | -337.2 | 7.50 | 7.50 | 0.00 |
| 6,900.0 | 37.35 | 90.00 | 6,766.4 | -907.7 | -393.3 | -282.3 | 7.50 | 7.50 | 0.00 |
| 7,000.0 | 44.85 | 90.00 | 6,841.7 | -907.7 | -327.6 | -217.1 | 7.50 | 7.50 | 0.00 |
| 7,023.3 | 46.60 | 90.00 | 6,858.0 | -907.7 | -311.0 | -200.5 | 7.50 | 7.50 | 0.00 |
| SHARON SPRINGS | | | | | | | | | |
| 7,100.0 | 52.35 | 90.00 | 6,907.8 | -907.7 | -252.7 | -142.6 | 7.50 | 7.50 | 0.00 |
| 7,200.0 | 59.85 | 90.00 | 6,963.6 | -907.7 | -169.7 | -60.3 | 7.50 | 7.50 | 0.00 |
| 7,208.9 | 60.52 | 90.00 | 6,968.0 | -907.7 | -162.0 | -52.6 | 7.50 | 7.50 | 0.00 |
| NIOBRARA A | | | | | | | | | |
| 7,300.0 | 67.35 | 90.00 | 7,008.0 | -907.7 | -80.2 | 28.6 | 7.50 | 7.50 | 0.00 |
| 7,400.0 | 74.85 | 90.00 | 7,040.3 | -907.7 | 14.3 | 122.5 | 7.50 | 7.50 | 0.00 |
| 7,418.7 | 76.25 | 90.00 | 7,045.0 | -907.7 | 32.4 | 140.4 | 7.50 | 7.50 | 0.00 |
| NIOBRARA B | | | | | | | | | |
| 7,500.0 | 82.35 | 90.00 | 7,060.1 | -907.7 | 112.3 | 219.7 | 7.50 | 7.50 | 0.00 |
| 7,600.0 | 89.85 | 90.00 | 7,066.9 | -907.7 | 212.0 | 318.7 | 7.50 | 7.50 | 0.00 |
| 7,605.7 | 90.28 | 90.00 | 7,066.9 | -907.7 | 217.7 | 324.4 | 7.49 | 7.49 | 0.00 |
| End of Build - 7" | | | | | | | | | |
| 7,700.0 | 90.28 | 90.00 | 7,066.4 | -907.7 | 312.0 | 418.0 | 0.00 | 0.00 | 0.00 |
| 7,800.0 | 90.28 | 90.00 | 7,065.9 | -907.7 | 412.0 | 517.3 | 0.00 | 0.00 | 0.00 |
| 7,900.0 | 90.28 | 90.00 | 7,065.4 | -907.7 | 512.0 | 616.6 | 0.00 | 0.00 | 0.00 |
| 8,000.0 | 90.28 | 90.00 | 7,064.9 | -907.7 | 612.0 | 715.8 | 0.00 | 0.00 | 0.00 |
| 8,100.0 | 90.28 | 90.00 | 7,064.5 | -907.7 | 712.0 | 815.1 | 0.00 | 0.00 | 0.00 |
| 8,200.0 | 90.28 | 90.00 | 7,064.0 | -907.7 | 812.0 | 914.4 | 0.00 | 0.00 | 0.00 |

| | | | |
|------------------|----------------------------------------------|-------------------------------------|-----------------------------|
| Database: | landmark | Local Co-ordinate Reference: | Well Wiedeman Trust 29P-212 |
| Company: | PETROLEUM DEVELOPMENT CORP Weld County CO | TVD Reference: | WELL @ 4778.0ft (RKB - 15') |
| Project: | SEC.29-T4N-R66W | MD Reference: | WELL @ 4778.0ft (RKB - 15') |
| Site: | Wiedeman Trust 29O-HZ Pad Sec.29-T4N-R66W | North Reference: | True |
| Well: | Wiedeman Trust 29P-212 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Wellbore #1 | | |
| Design: | Plan #1 (6-17-14) | | |

| Planned Survey | | | | | | | | | |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
| 8,300.0 | 90.28 | 90.00 | 7,063.5 | -907.7 | 912.0 | 1,013.7 | 0.00 | 0.00 | 0.00 |
| 8,400.0 | 90.28 | 90.00 | 7,063.0 | -907.7 | 1,012.0 | 1,113.0 | 0.00 | 0.00 | 0.00 |
| 8,500.0 | 90.28 | 90.00 | 7,062.5 | -907.7 | 1,112.0 | 1,212.3 | 0.00 | 0.00 | 0.00 |
| 8,600.0 | 90.28 | 90.00 | 7,062.0 | -907.7 | 1,212.0 | 1,311.6 | 0.00 | 0.00 | 0.00 |
| 8,700.0 | 90.28 | 90.00 | 7,061.5 | -907.7 | 1,312.0 | 1,410.8 | 0.00 | 0.00 | 0.00 |
| 8,800.0 | 90.28 | 90.00 | 7,061.0 | -907.7 | 1,412.0 | 1,510.1 | 0.00 | 0.00 | 0.00 |
| 8,900.0 | 90.28 | 90.00 | 7,060.5 | -907.7 | 1,512.0 | 1,609.4 | 0.00 | 0.00 | 0.00 |
| 9,000.0 | 90.28 | 90.00 | 7,060.1 | -907.7 | 1,612.0 | 1,708.7 | 0.00 | 0.00 | 0.00 |
| 9,100.0 | 90.28 | 90.00 | 7,059.6 | -907.7 | 1,712.0 | 1,808.0 | 0.00 | 0.00 | 0.00 |
| 9,200.0 | 90.28 | 90.00 | 7,059.1 | -907.7 | 1,812.0 | 1,907.3 | 0.00 | 0.00 | 0.00 |
| 9,300.0 | 90.28 | 90.00 | 7,058.6 | -907.7 | 1,912.0 | 2,006.6 | 0.00 | 0.00 | 0.00 |
| 9,400.0 | 90.28 | 90.00 | 7,058.1 | -907.7 | 2,012.0 | 2,105.8 | 0.00 | 0.00 | 0.00 |
| 9,500.0 | 90.28 | 90.00 | 7,057.6 | -907.7 | 2,112.0 | 2,205.1 | 0.00 | 0.00 | 0.00 |
| 9,600.0 | 90.28 | 90.00 | 7,057.1 | -907.7 | 2,212.0 | 2,304.4 | 0.00 | 0.00 | 0.00 |
| 9,700.0 | 90.28 | 90.00 | 7,056.6 | -907.7 | 2,312.0 | 2,403.7 | 0.00 | 0.00 | 0.00 |
| 9,800.0 | 90.28 | 90.00 | 7,056.2 | -907.7 | 2,412.0 | 2,503.0 | 0.00 | 0.00 | 0.00 |
| 9,900.0 | 90.28 | 90.00 | 7,055.7 | -907.7 | 2,512.0 | 2,602.3 | 0.00 | 0.00 | 0.00 |
| 10,000.0 | 90.28 | 90.00 | 7,055.2 | -907.7 | 2,612.0 | 2,701.6 | 0.00 | 0.00 | 0.00 |
| 10,100.0 | 90.28 | 90.00 | 7,054.7 | -907.7 | 2,712.0 | 2,800.8 | 0.00 | 0.00 | 0.00 |
| 10,200.0 | 90.28 | 90.00 | 7,054.2 | -907.7 | 2,812.0 | 2,900.1 | 0.00 | 0.00 | 0.00 |
| 10,300.0 | 90.28 | 90.00 | 7,053.7 | -907.7 | 2,912.0 | 2,999.4 | 0.00 | 0.00 | 0.00 |
| 10,400.0 | 90.28 | 90.00 | 7,053.2 | -907.7 | 3,012.0 | 3,098.7 | 0.00 | 0.00 | 0.00 |
| 10,500.0 | 90.28 | 90.00 | 7,052.7 | -907.7 | 3,112.0 | 3,198.0 | 0.00 | 0.00 | 0.00 |
| 10,600.0 | 90.28 | 90.00 | 7,052.2 | -907.7 | 3,211.9 | 3,297.3 | 0.00 | 0.00 | 0.00 |
| 10,700.0 | 90.28 | 90.00 | 7,051.8 | -907.7 | 3,311.9 | 3,396.5 | 0.00 | 0.00 | 0.00 |
| 10,800.0 | 90.28 | 90.00 | 7,051.3 | -907.7 | 3,411.9 | 3,495.8 | 0.00 | 0.00 | 0.00 |
| 10,900.0 | 90.28 | 90.00 | 7,050.8 | -907.7 | 3,511.9 | 3,595.1 | 0.00 | 0.00 | 0.00 |
| 11,000.0 | 90.28 | 90.00 | 7,050.3 | -907.7 | 3,611.9 | 3,694.4 | 0.00 | 0.00 | 0.00 |
| 11,100.0 | 90.28 | 90.00 | 7,049.8 | -907.7 | 3,711.9 | 3,793.7 | 0.00 | 0.00 | 0.00 |
| 11,200.0 | 90.28 | 90.00 | 7,049.3 | -907.7 | 3,811.9 | 3,893.0 | 0.00 | 0.00 | 0.00 |
| 11,300.0 | 90.28 | 90.00 | 7,048.8 | -907.7 | 3,911.9 | 3,992.3 | 0.00 | 0.00 | 0.00 |
| 11,400.0 | 90.28 | 90.00 | 7,048.3 | -907.7 | 4,011.9 | 4,091.5 | 0.00 | 0.00 | 0.00 |
| 11,500.0 | 90.28 | 90.00 | 7,047.8 | -907.7 | 4,111.9 | 4,190.8 | 0.00 | 0.00 | 0.00 |
| 11,600.0 | 90.28 | 90.00 | 7,047.4 | -907.7 | 4,211.9 | 4,290.1 | 0.00 | 0.00 | 0.00 |
| 11,700.0 | 90.28 | 90.00 | 7,046.9 | -907.7 | 4,311.9 | 4,389.4 | 0.00 | 0.00 | 0.00 |
| 11,800.0 | 90.28 | 90.00 | 7,046.4 | -907.7 | 4,411.9 | 4,488.7 | 0.00 | 0.00 | 0.00 |
| 11,900.0 | 90.28 | 90.00 | 7,045.9 | -907.7 | 4,511.9 | 4,588.0 | 0.00 | 0.00 | 0.00 |
| 12,000.0 | 90.28 | 90.00 | 7,045.4 | -907.7 | 4,611.9 | 4,687.3 | 0.00 | 0.00 | 0.00 |
| 12,100.0 | 90.28 | 90.00 | 7,044.9 | -907.7 | 4,711.9 | 4,786.5 | 0.00 | 0.00 | 0.00 |
| 12,200.0 | 90.28 | 90.00 | 7,044.4 | -907.7 | 4,811.9 | 4,885.8 | 0.00 | 0.00 | 0.00 |
| 12,300.0 | 90.28 | 90.00 | 7,043.9 | -907.7 | 4,911.9 | 4,985.1 | 0.00 | 0.00 | 0.00 |
| 12,400.0 | 90.28 | 90.00 | 7,043.4 | -907.7 | 5,011.9 | 5,084.4 | 0.00 | 0.00 | 0.00 |
| 12,500.0 | 90.28 | 90.00 | 7,043.0 | -907.7 | 5,111.9 | 5,183.7 | 0.00 | 0.00 | 0.00 |
| 12,600.0 | 90.28 | 90.00 | 7,042.5 | -907.7 | 5,211.9 | 5,283.0 | 0.00 | 0.00 | 0.00 |
| 12,700.0 | 90.28 | 90.00 | 7,042.0 | -907.7 | 5,311.9 | 5,382.3 | 0.00 | 0.00 | 0.00 |
| 12,800.0 | 90.28 | 90.00 | 7,041.5 | -907.7 | 5,411.9 | 5,481.5 | 0.00 | 0.00 | 0.00 |
| 12,900.0 | 90.28 | 90.00 | 7,041.0 | -907.7 | 5,511.9 | 5,580.8 | 0.00 | 0.00 | 0.00 |
| 13,000.0 | 90.28 | 90.00 | 7,040.5 | -907.7 | 5,611.9 | 5,680.1 | 0.00 | 0.00 | 0.00 |
| 13,100.0 | 90.28 | 90.00 | 7,040.0 | -907.7 | 5,711.9 | 5,779.4 | 0.00 | 0.00 | 0.00 |
| 13,200.0 | 90.28 | 90.00 | 7,039.5 | -907.7 | 5,811.9 | 5,878.7 | 0.00 | 0.00 | 0.00 |
| 13,300.0 | 90.28 | 90.00 | 7,039.0 | -907.7 | 5,911.9 | 5,978.0 | 0.00 | 0.00 | 0.00 |
| 13,400.0 | 90.28 | 90.00 | 7,038.6 | -907.7 | 6,011.9 | 6,077.3 | 0.00 | 0.00 | 0.00 |

| | | | |
|------------------|----------------------------------------------|-------------------------------------|-----------------------------|
| Database: | landmark | Local Co-ordinate Reference: | Well Wiedeman Trust 29P-212 |
| Company: | PETROLEUM DEVELOPMENT CORP Weld County CO | TVD Reference: | WELL @ 4778.0ft (RKB - 15') |
| Project: | SEC.29-T4N-R66W | MD Reference: | WELL @ 4778.0ft (RKB - 15') |
| Site: | Wiedeman Trust 29O-HZ Pad Sec.29-T4N-R66W | North Reference: | True |
| Well: | Wiedeman Trust 29P-212 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Wellbore #1 | | |
| Design: | Plan #1 (6-17-14) | | |

| Planned Survey | | | | | | | | | |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
| 13,500.0 | 90.28 | 90.00 | 7,038.1 | -907.7 | 6,111.9 | 6,176.5 | 0.00 | 0.00 | 0.00 |
| 13,600.0 | 90.28 | 90.00 | 7,037.6 | -907.7 | 6,211.9 | 6,275.8 | 0.00 | 0.00 | 0.00 |
| 13,700.0 | 90.28 | 90.00 | 7,037.1 | -907.7 | 6,311.9 | 6,375.1 | 0.00 | 0.00 | 0.00 |
| 13,800.0 | 90.28 | 90.00 | 7,036.6 | -907.7 | 6,411.9 | 6,474.4 | 0.00 | 0.00 | 0.00 |
| 13,900.0 | 90.28 | 90.00 | 7,036.1 | -907.7 | 6,511.9 | 6,573.7 | 0.00 | 0.00 | 0.00 |
| 14,000.0 | 90.28 | 90.00 | 7,035.6 | -907.7 | 6,611.9 | 6,673.0 | 0.00 | 0.00 | 0.00 |
| 14,100.0 | 90.28 | 90.00 | 7,035.1 | -907.7 | 6,711.9 | 6,772.3 | 0.00 | 0.00 | 0.00 |
| 14,200.0 | 90.28 | 90.00 | 7,034.6 | -907.7 | 6,811.9 | 6,871.5 | 0.00 | 0.00 | 0.00 |
| 14,300.0 | 90.28 | 90.00 | 7,034.2 | -907.7 | 6,911.9 | 6,970.8 | 0.00 | 0.00 | 0.00 |
| 14,400.0 | 90.28 | 90.00 | 7,033.7 | -907.7 | 7,011.9 | 7,070.1 | 0.00 | 0.00 | 0.00 |
| 14,500.0 | 90.28 | 90.00 | 7,033.2 | -907.7 | 7,111.9 | 7,169.4 | 0.00 | 0.00 | 0.00 |
| 14,600.0 | 90.28 | 90.00 | 7,032.7 | -907.7 | 7,211.9 | 7,268.7 | 0.00 | 0.00 | 0.00 |
| 14,700.0 | 90.28 | 90.00 | 7,032.2 | -907.7 | 7,311.9 | 7,368.0 | 0.00 | 0.00 | 0.00 |
| 14,800.0 | 90.28 | 90.00 | 7,031.7 | -907.7 | 7,411.9 | 7,467.3 | 0.00 | 0.00 | 0.00 |
| 14,900.0 | 90.28 | 90.00 | 7,031.2 | -907.7 | 7,511.9 | 7,566.5 | 0.00 | 0.00 | 0.00 |
| 14,946.6 | 90.28 | 90.00 | 7,031.0 | -907.7 | 7,558.5 | 7,612.8 | 0.00 | 0.00 | 0.00 |

| Casing Points | | | | |
|---------------------|---------------------|------|---------------------|-------------------|
| Measured Depth (ft) | Vertical Depth (ft) | Name | Casing Diameter (") | Hole Diameter (") |
| 7,605.7 | 7,066.9 | 7" | 7 | 7-1/2 |

| Formations | | | | | |
|---------------------|---------------------|----------------|-----------|---------|-------------------|
| Measured Depth (ft) | Vertical Depth (ft) | Name | Lithology | Dip (°) | Dip Direction (°) |
| 3,738.5 | 3,680.0 | PARKMAN | | 0.00 | |
| 4,319.3 | 4,250.0 | SUSSEX | | 0.00 | |
| 4,859.2 | 4,780.0 | SHANNON | | 0.00 | |
| 7,023.3 | 6,858.0 | SHARON SPRINGS | | 0.00 | |
| 7,208.9 | 6,968.0 | NIOBRARA A | | 0.00 | |
| 7,418.7 | 7,045.0 | NIOBRARA B | | 0.00 | |
| | 7,134.0 | NIOBRARA C | | 0.00 | |
| | 7,255.0 | FT HAYS | | 0.00 | |
| | 7,277.0 | CODELL | | 0.00 | |

| Plan Annotations | | | | |
|---------------------|---------------------|-------------------|------------|--------------|
| Measured Depth (ft) | Vertical Depth (ft) | Local Coordinates | | Comment |
| | | +N/-S (ft) | +E/-W (ft) | |
| 200.0 | 200.0 | 0.0 | 0.0 | KOP #1 |
| 6,402.0 | 6,303.0 | -907.7 | -550.0 | KOP #2 |
| 7,605.7 | 7,066.9 | -907.7 | 217.7 | End of Build |



PETROLEUM DEVELOPMENT CORP Weld County CO

SEC.29-T4N-R66W

Wiedeman Trust 29O-HZ Pad Sec.29-T4N-R66W

Wiedeman Trust 29P-212

Wellbore #1

Plan #1 (6-17-14)

Anticollision Report

09 July, 2014



| | | | |
|---------------------------|-------------------------------------------|-------------------------------------|-----------------------------|
| Company: | PETROLEUM DEVELOPMENT CORP Weld County CO | Local Co-ordinate Reference: | Well Wiedeman Trust 29P-212 |
| Project: | SEC.29-T4N-R66W | TVD Reference: | WELL @ 4778.0ft (RKB - 15') |
| Reference Site: | Wiedeman Trust 29O-HZ Pad Sec.29-T4N-R66W | MD Reference: | WELL @ 4778.0ft (RKB - 15') |
| Site Error: | 0.0ft | North Reference: | True |
| Reference Well: | Wiedeman Trust 29P-212 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Wellbore #1 | Database: | Landmark |
| Reference Design: | Plan #1 (6-17-14) | Offset TVD Reference: | Offset Datum |

| | |
|-------------------------------------|---------------------------------------------------------------------|
| Reference | Plan #1 (6-17-14) |
| Filter type: | NO GLOBAL FILTER: Using user defined selection & filtering criteria |
| Interpolation Method: | Stations |
| Depth Range: | Unlimited |
| Results Limited by: | Maximum center-center distance of 1,000.0ft |
| Warning Levels Evaluated at: | 2.00 Sigma |
| Error Model: | ISCWSA |
| Scan Method: | Closest Approach 3D |
| Error Surface: | Elliptical Conic |

| Survey Tool Program | | Date | 7/9/2014 | | |
|---------------------|----------|---------------------------------|-----------|----------------|--|
| From (ft) | To (ft) | Survey (Wellbore) | Tool Name | Description | |
| 0.0 | 14,946.6 | Plan #1 (6-17-14) (Wellbore #1) | MWD | MWD - Standard | |

| Summary | | | | | | |
|-------------------------------------------------------|-------------------------------|----------------------------|-------------------------------|--------------------------------|-------------------|---------------------|
| Site Name | Reference Measured Depth (ft) | Offset Measured Depth (ft) | Distance Between Centres (ft) | Distance Between Ellipses (ft) | Separation Factor | Warning |
| Offset Well - Wellbore - Design | | | | | | |
| Existing Wells Pad Sec.29-T4-R66W | | | | | | |
| Danny B 12-28 (Exist.) - Wellbore #1 - Wellbore #1 | 10,994.1 | 7,024.3 | 243.5 | 120.8 | 1.985 | CC |
| Danny B 12-28 (Exist.) - Wellbore #1 - Wellbore #1 | 11,000.0 | 7,024.2 | 243.6 | 120.7 | 1.983 | ES, SF |
| Lorenz 43-28 (P&A) - Wellbore #1 - Wellbore #1 | 14,946.6 | 6,997.0 | 360.9 | 0.7 | 1.002 | Level 2, CC, ES, SF |
| McLeod 2-29B (Exist.) - Wellbore #1 - Wellbore #1 | 10,089.0 | 7,124.0 | 283.7 | 180.9 | 2.760 | CC |
| McLeod 2-29B (Exist.) - Wellbore #1 - Wellbore #1 | 10,100.0 | 7,124.0 | 283.9 | 180.9 | 2.754 | ES, SF |
| McLeod 29-1 (Exist.) - Wellbore #1 - Wellbore #1 | 8,235.9 | 7,057.0 | 234.6 | 184.0 | 4.638 | CC, ES, SF |
| McLeod 29-29X (Exist.) - Wellbore #1 - Wellbore #1 | 7,508.9 | 7,136.6 | 430.6 | 393.6 | 11.644 | CC, ES |
| McLeod 29-29X (Exist.) - Wellbore #1 - Wellbore #1 | 7,600.0 | 7,139.6 | 440.1 | 401.7 | 11.461 | SF |
| McLeod 29-41 (Exist.) - Wellbore #1 - Wellbore #1 | 9,501.9 | 7,038.6 | 443.0 | 358.8 | 5.261 | CC, ES |
| McLeod 29-41 (Exist.) - Wellbore #1 - Wellbore #1 | 9,600.0 | 7,039.5 | 453.7 | 366.8 | 5.223 | SF |
| McLeod 6 (Exist.) - Wellbore #1 - Wellbore #1 | 8,850.0 | 7,051.8 | 491.6 | 298.8 | 2.550 | CC, ES |
| McLeod 6 (Exist.) - Wellbore #1 - Wellbore #1 | 8,900.0 | 7,051.5 | 494.2 | 300.0 | 2.546 | SF |
| Melissa 1 (Exist.) - Wellbore #1 - Wellbore #1 | 14,898.3 | 7,000.0 | 385.3 | 153.0 | 1.658 | CC |
| Melissa 1 (Exist.) - Wellbore #1 - Wellbore #1 | 14,900.0 | 7,000.0 | 385.3 | 152.9 | 1.658 | ES, SF |
| Randall 11-28 (Exist.) - Wellbore #1 - Wellbore #1 | 12,407.6 | 7,024.7 | 101.4 | -61.0 | 0.624 | Level 1, CC, ES, SF |
| Wiedeman 29-1 (Exist.) - Wellbore #1 - Wellbore #1 | 4,993.3 | 4,886.3 | 356.7 | 326.6 | 11.860 | CC |
| Wiedeman 29-1 (Exist.) - Wellbore #1 - Wellbore #1 | 5,100.0 | 4,991.6 | 357.3 | 326.4 | 11.584 | ES |
| Wiedeman 29-1 (Exist.) - Wellbore #1 - Wellbore #1 | 6,450.0 | 6,341.5 | 396.9 | 360.5 | 10.923 | SF |
| Wiedeman 29K-HZ Pad Sec.29-T4N-R66W | | | | | | |
| Wiedeman 29K-323 - Wellbore #1 - Plan #3 (4-24-14) | 7,000.0 | 7,594.2 | 387.1 | 354.1 | 11.724 | SF |
| Wiedeman 29K-323 - Wellbore #1 - Plan #3 (4-24-14) | 7,069.5 | 7,602.6 | 377.7 | 346.7 | 12.189 | CC, ES |
| Wiedeman 29K-403 - Wellbore #1 - Plan #2 (4-24-14) | 4,624.2 | 4,582.2 | 765.2 | 734.9 | 25.313 | CC |
| Wiedeman 29K-403 - Wellbore #1 - Plan #2 (4-24-14) | 4,700.0 | 4,654.6 | 765.5 | 734.8 | 24.900 | ES |
| Wiedeman 29K-403 - Wellbore #1 - Plan #2 (4-24-14) | 6,700.0 | 7,283.6 | 844.9 | 806.3 | 21.915 | SF |
| Wiedeman 29O-243 - Wellbore #1 - Plan #2 (4-24-18) | 7,273.5 | 7,575.3 | 93.6 | 67.6 | 3.594 | CC, ES, SF |
| Wiedeman Trust 29O-HZ Pad Sec.29-T4N-R66W | | | | | | |
| Wiedeman Trust 29O-332 - Wellbore #1 - Plan #1 (6-17- | 200.0 | 200.0 | 61.4 | 60.7 | 91.042 | CC, ES |
| Wiedeman Trust 29O-332 - Wellbore #1 - Plan #1 (6-17- | 14,946.6 | 15,035.8 | 631.3 | 192.0 | 1.437 | Level 3, SF |
| Wiedeman Trust 29O-432 - Wellbore #1 - Plan #2 (7-09- | 200.0 | 200.0 | 29.3 | 28.6 | 43.471 | CC, ES |
| Wiedeman Trust 29O-432 - Wellbore #1 - Plan #2 (7-09- | 14,900.0 | 15,036.3 | 428.4 | 45.4 | 1.119 | Level 2, SF |

| | | | |
|---------------------------|----------------------------------------------|-------------------------------------|-----------------------------|
| Company: | PETROLEUM DEVELOPMENT CORP Weld County CO | Local Co-ordinate Reference: | Well Wiedeman Trust 29P-212 |
| Project: | SEC.29-T4N-R66W | TVD Reference: | WELL @ 4778.0ft (RKB - 15') |
| Reference Site: | Wiedeman Trust 29O-HZ Pad Sec.29-T4N-R66W | MD Reference: | WELL @ 4778.0ft (RKB - 15') |
| Site Error: | 0.0ft | North Reference: | True |
| Reference Well: | Wiedeman Trust 29P-212 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Wellbore #1 | Database: | Landmark |
| Reference Design: | Plan #1 (6-17-14) | Offset TVD Reference: | Offset Datum |

| Offset Design Existing Wells Pad Sec.29-T4-R66W - Danny B 12-28 (Exist.) - Wellbore #1 - Wellbore #1 | | | | | | | | | | | | | Offset Site Error: | 0.0 ft |
|------------------------------------------------------------------------------------------------------|---------------------|---------------------|---------------------|----------------|-------------|---------------------------------------|-----------------------------------|------------|----------------------|-----------------------|-------------------------|-------------------|--------------------|--------|
| Survey Program: 100-NS-GYRO-MS | | | | | | | | | | | | | Offset Well Error: | 0.0 ft |
| Measured Depth (ft) | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (ft) | Offset (ft) | Semi Major Axis Highside Toolface (°) | Offset Wellbore Centre +N/-S (ft) | +E/-W (ft) | Between Centres (ft) | Between Ellipses (ft) | Minimum Separation (ft) | Separation Factor | Warning | |
| 10,100.0 | 7,054.7 | 7,048.1 | 7,047.3 | 85.8 | 12.6 | -94.92 | -663.0 | 3,605.5 | 926.4 | 828.4 | 97.97 | 9.455 | | |
| 10,200.0 | 7,054.2 | 7,045.7 | 7,044.9 | 88.6 | 12.6 | -94.37 | -663.1 | 3,605.5 | 830.3 | 729.6 | 100.75 | 8.241 | | |
| 10,300.0 | 7,053.7 | 7,043.3 | 7,042.5 | 91.3 | 12.6 | -93.81 | -663.1 | 3,605.6 | 735.3 | 631.8 | 103.53 | 7.103 | | |
| 10,400.0 | 7,053.2 | 7,040.8 | 7,040.1 | 94.0 | 12.6 | -93.23 | -663.1 | 3,605.6 | 641.9 | 535.6 | 106.31 | 6.038 | | |
| 10,500.0 | 7,052.7 | 7,038.3 | 7,037.5 | 96.8 | 12.6 | -92.63 | -663.2 | 3,605.7 | 550.7 | 441.6 | 109.09 | 5.048 | | |
| 10,600.0 | 7,052.2 | 7,035.6 | 7,034.9 | 99.5 | 12.6 | -92.01 | -663.2 | 3,605.7 | 463.2 | 351.3 | 111.86 | 4.140 | | |
| 10,700.0 | 7,051.8 | 7,032.9 | 7,032.1 | 102.3 | 12.6 | -91.37 | -663.2 | 3,605.8 | 381.8 | 267.1 | 114.63 | 3.330 | | |
| 10,800.0 | 7,051.3 | 7,030.1 | 7,029.3 | 105.0 | 12.6 | -90.70 | -663.2 | 3,605.9 | 311.4 | 194.0 | 117.38 | 2.653 | | |
| 10,900.0 | 7,050.8 | 7,027.2 | 7,026.4 | 107.8 | 12.6 | -90.02 | -663.3 | 3,605.9 | 261.1 | 140.9 | 120.13 | 2.173 | | |
| 10,994.1 | 7,050.3 | 7,024.3 | 7,023.6 | 110.4 | 12.6 | -89.35 | -663.3 | 3,606.0 | 243.5 | 120.8 | 122.70 | 1.985 CC | | |
| 11,000.0 | 7,050.3 | 7,024.2 | 7,023.4 | 110.6 | 12.6 | -89.31 | -663.3 | 3,606.0 | 243.6 | 120.7 | 122.86 | 1.983 ES, SF | | |
| 11,100.0 | 7,049.8 | 7,021.0 | 7,020.3 | 113.3 | 12.6 | -88.58 | -663.3 | 3,606.1 | 265.5 | 139.9 | 125.57 | 2.114 | | |
| 11,200.0 | 7,049.3 | 7,017.8 | 7,017.1 | 116.1 | 12.6 | -87.82 | -663.4 | 3,606.2 | 318.8 | 190.5 | 128.26 | 2.486 | | |
| 11,300.0 | 7,048.8 | 7,014.5 | 7,013.7 | 118.9 | 12.6 | -87.04 | -663.4 | 3,606.3 | 390.8 | 259.9 | 130.93 | 2.985 | | |
| 11,400.0 | 7,048.3 | 7,011.0 | 7,010.2 | 121.6 | 12.6 | -86.22 | -663.5 | 3,606.4 | 473.1 | 339.6 | 133.56 | 3.542 | | |
| 11,500.0 | 7,047.8 | 7,007.4 | 7,006.7 | 124.4 | 12.6 | -85.38 | -663.5 | 3,606.5 | 561.2 | 425.0 | 136.17 | 4.121 | | |
| 11,600.0 | 7,047.4 | 7,003.7 | 7,002.9 | 127.2 | 12.5 | -84.51 | -663.5 | 3,606.6 | 652.7 | 513.9 | 138.73 | 4.705 | | |
| 11,700.0 | 7,046.9 | 6,999.8 | 6,999.1 | 130.0 | 12.5 | -83.61 | -663.6 | 3,606.7 | 746.3 | 605.1 | 141.25 | 5.284 | | |
| 11,800.0 | 7,046.4 | 6,996.4 | 6,995.6 | 132.7 | 12.5 | -82.80 | -663.6 | 3,606.8 | 841.4 | 697.7 | 143.76 | 5.853 | | |
| 11,900.0 | 7,045.9 | 6,992.9 | 6,992.1 | 135.5 | 12.5 | -81.99 | -663.7 | 3,606.9 | 937.5 | 791.3 | 146.23 | 6.411 | | |

| | | | |
|---------------------------|----------------------------------------------|-------------------------------------|-----------------------------|
| Company: | PETROLEUM DEVELOPMENT CORP Weld County CO | Local Co-ordinate Reference: | Well Wiedeman Trust 29P-212 |
| Project: | SEC.29-T4N-R66W | TVD Reference: | WELL @ 4778.0ft (RKB - 15') |
| Reference Site: | Wiedeman Trust 29O-HZ Pad Sec.29-T4N-R66W | MD Reference: | WELL @ 4778.0ft (RKB - 15') |
| Site Error: | 0.0ft | North Reference: | True |
| Reference Well: | Wiedeman Trust 29P-212 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Wellbore #1 | Database: | Landmark |
| Reference Design: | Plan #1 (6-17-14) | Offset TVD Reference: | Offset Datum |

| Offset Design Existing Wells Pad Sec.29-T4-R66W - Lorenz 43-28 (P&A) - Wellbore #1 - Wellbore #1 | | | | | | | | | | | | | Offset Site Error: | 0.0 ft |
|---------------------------------------------------------------------------------------------------------|---------------------|---------------------|---------------------|----------------|-------------|-----------------------|-----------------------------------|------------|----------------------|-----------------------|-------------------------|---------------------------|---------------------------|---------|
| Survey Program: 7340-UNKNOWN | | | | | | | | | | | | | Offset Well Error: | 0.0 ft |
| Reference | Offset | Semi Major Axis | | Distance | | | | | | | | | | Warning |
| Measured Depth (ft) | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (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 | | |
| 14,100.0 | 7,035.1 | 7,001.1 | 7,001.1 | 196.8 | 140.0 | -90.67 | -545.3 | 7,572.4 | 933.1 | 596.4 | 336.66 | 2.772 | | |
| 14,200.0 | 7,034.6 | 7,000.6 | 7,000.6 | 199.6 | 140.0 | -90.59 | -545.3 | 7,572.4 | 841.7 | 502.3 | 339.45 | 2.480 | | |
| 14,300.0 | 7,034.2 | 7,000.2 | 7,000.2 | 202.4 | 140.0 | -90.51 | -545.3 | 7,572.4 | 752.6 | 410.3 | 342.23 | 2.199 | | |
| 14,400.0 | 7,033.7 | 6,999.7 | 6,999.7 | 205.2 | 140.0 | -90.44 | -545.3 | 7,572.4 | 666.5 | 321.5 | 345.02 | 1.932 | | |
| 14,500.0 | 7,033.2 | 6,999.2 | 6,999.2 | 208.0 | 140.0 | -90.36 | -545.3 | 7,572.4 | 584.9 | 237.1 | 347.81 | 1.682 | | |
| 14,600.0 | 7,032.7 | 6,998.7 | 6,998.7 | 210.8 | 140.0 | -90.28 | -545.3 | 7,572.4 | 510.0 | 159.4 | 350.60 | 1.455 Level 3 | | |
| 14,700.0 | 7,032.2 | 6,998.2 | 6,998.2 | 213.6 | 140.0 | -90.20 | -545.3 | 7,572.4 | 444.9 | 91.5 | 353.38 | 1.259 Level 3 | | |
| 14,800.0 | 7,031.7 | 6,997.7 | 6,997.7 | 216.4 | 140.0 | -90.12 | -545.3 | 7,572.4 | 394.8 | 38.6 | 356.17 | 1.108 Level 2 | | |
| 14,900.0 | 7,031.2 | 6,997.2 | 6,997.2 | 219.2 | 139.9 | -90.05 | -545.3 | 7,572.4 | 365.7 | 6.7 | 358.95 | 1.019 Level 2 | | |
| 14,946.6 | 7,031.0 | 6,997.0 | 6,997.0 | 220.5 | 139.9 | -90.01 | -545.3 | 7,572.4 | 360.9 | 0.7 | 360.25 | 1.002 Level 2, CC, ES, SF | | |

| | | | |
|---------------------------|----------------------------------------------|-------------------------------------|-----------------------------|
| Company: | PETROLEUM DEVELOPMENT CORP Weld County CO | Local Co-ordinate Reference: | Well Wiedeman Trust 29P-212 |
| Project: | SEC.29-T4N-R66W | TVD Reference: | WELL @ 4778.0ft (RKB - 15') |
| Reference Site: | Wiedeman Trust 29O-HZ Pad Sec.29-T4N-R66W | MD Reference: | WELL @ 4778.0ft (RKB - 15') |
| Site Error: | 0.0ft | North Reference: | True |
| Reference Well: | Wiedeman Trust 29P-212 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Wellbore #1 | Database: | Landmark |
| Reference Design: | Plan #1 (6-17-14) | Offset TVD Reference: | Offset Datum |

| Offset Design Existing Wells Pad Sec.29-T4-R66W - McLeod 2-29B (Exist.) - Wellbore #1 - Wellbore #1 | | | | | | | | | | | | | | Offset Site Error: 0.0 ft |
|-----------------------------------------------------------------------------------------------------|---------------------|---------------------|---------------------|----------------|-------------|-----------------------|-----------------------------------|------------|----------------------|-----------------------|-------------------------|-------------------|--|---------------------------|
| Survey Program: 100-NS-GYRO-MS | | | | | | | | | | | | | | Offset Well Error: 0.0 ft |
| Reference | Offset | Semi Major Axis | | Distance | | Warning | | | | | | | | |
| Measured Depth (ft) | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (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 | | |
| 9,200.0 | 7,059.1 | 7,127.5 | 7,049.9 | 61.5 | 18.6 | 91.65 | -1,190.6 | 2,701.0 | 933.2 | 854.5 | 78.64 | 11.867 | | |
| 9,300.0 | 7,058.6 | 7,127.1 | 7,049.5 | 64.1 | 18.6 | 91.57 | -1,190.6 | 2,701.0 | 838.5 | 757.1 | 81.32 | 10.310 | | |
| 9,400.0 | 7,058.1 | 7,126.7 | 7,049.1 | 66.8 | 18.6 | 91.49 | -1,190.6 | 2,701.0 | 745.1 | 661.1 | 84.02 | 8.869 | | |
| 9,500.0 | 7,057.6 | 7,126.3 | 7,048.7 | 69.5 | 18.6 | 91.41 | -1,190.6 | 2,701.0 | 653.8 | 567.1 | 86.72 | 7.539 | | |
| 9,600.0 | 7,057.1 | 7,125.9 | 7,048.3 | 72.2 | 18.6 | 91.33 | -1,190.7 | 2,701.0 | 565.4 | 475.9 | 89.43 | 6.321 | | |
| 9,700.0 | 7,056.6 | 7,125.6 | 7,048.0 | 74.9 | 18.6 | 91.26 | -1,190.7 | 2,701.0 | 481.5 | 389.3 | 92.15 | 5.225 | | |
| 9,800.0 | 7,056.2 | 7,125.2 | 7,047.6 | 77.6 | 18.6 | 91.18 | -1,190.7 | 2,701.0 | 405.0 | 310.1 | 94.88 | 4.269 | | |
| 9,900.0 | 7,055.7 | 7,124.8 | 7,047.2 | 80.4 | 18.6 | 91.10 | -1,190.7 | 2,701.0 | 340.9 | 243.3 | 97.61 | 3.493 | | |
| 10,000.0 | 7,055.2 | 7,124.4 | 7,046.8 | 83.1 | 18.6 | 91.02 | -1,190.7 | 2,701.0 | 297.4 | 197.0 | 100.35 | 2.963 | | |
| 10,089.0 | 7,054.7 | 7,124.0 | 7,046.4 | 85.5 | 18.6 | 90.95 | -1,190.7 | 2,701.0 | 283.7 | 180.9 | 102.78 | 2.760 CC | | |
| 10,100.0 | 7,054.7 | 7,124.0 | 7,046.4 | 85.8 | 18.6 | 90.94 | -1,190.7 | 2,701.0 | 283.9 | 180.9 | 103.09 | 2.754 ES, SF | | |
| 10,200.0 | 7,054.2 | 7,123.6 | 7,046.0 | 88.6 | 18.6 | 90.86 | -1,190.7 | 2,701.0 | 304.7 | 198.8 | 105.83 | 2.879 | | |
| 10,300.0 | 7,053.7 | 7,123.2 | 7,045.6 | 91.3 | 18.6 | 90.78 | -1,190.7 | 2,701.0 | 353.6 | 245.0 | 108.58 | 3.256 | | |
| 10,400.0 | 7,053.2 | 7,122.8 | 7,045.2 | 94.0 | 18.6 | 90.70 | -1,190.7 | 2,701.0 | 421.0 | 309.6 | 111.33 | 3.781 | | |
| 10,500.0 | 7,052.7 | 7,122.4 | 7,044.8 | 96.8 | 18.5 | 90.62 | -1,190.7 | 2,701.0 | 499.4 | 385.3 | 114.09 | 4.378 | | |
| 10,600.0 | 7,052.2 | 7,122.0 | 7,044.4 | 99.5 | 18.5 | 90.55 | -1,190.7 | 2,701.0 | 584.5 | 467.6 | 116.84 | 5.002 | | |
| 10,700.0 | 7,051.8 | 7,121.6 | 7,044.0 | 102.3 | 18.5 | 90.47 | -1,190.7 | 2,701.0 | 673.7 | 554.0 | 119.60 | 5.632 | | |
| 10,800.0 | 7,051.3 | 7,121.3 | 7,043.7 | 105.0 | 18.5 | 90.39 | -1,190.7 | 2,701.0 | 765.5 | 643.1 | 122.37 | 6.256 | | |
| 10,900.0 | 7,050.8 | 7,120.9 | 7,043.3 | 107.8 | 18.5 | 90.31 | -1,190.7 | 2,701.0 | 859.2 | 734.1 | 125.13 | 6.866 | | |
| 11,000.0 | 7,050.3 | 7,120.5 | 7,042.9 | 110.6 | 18.5 | 90.23 | -1,190.7 | 2,701.0 | 954.1 | 826.3 | 127.90 | 7.460 | | |

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|---------------------------|----------------------------------------------|-------------------------------------|-----------------------------|
| Company: | PETROLEUM DEVELOPMENT CORP Weld County CO | Local Co-ordinate Reference: | Well Wiedeman Trust 29P-212 |
| Project: | SEC.29-T4N-R66W | TVD Reference: | WELL @ 4778.0ft (RKB - 15') |
| Reference Site: | Wiedeman Trust 29O-HZ Pad Sec.29-T4N-R66W | MD Reference: | WELL @ 4778.0ft (RKB - 15') |
| Site Error: | 0.0ft | North Reference: | True |
| Reference Well: | Wiedeman Trust 29P-212 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Wellbore #1 | Database: | Landmark |
| Reference Design: | Plan #1 (6-17-14) | Offset TVD Reference: | Offset Datum |

| Offset Design Existing Wells Pad Sec.29-T4-R66W - McLeod 29-1 (Exist.) - Wellbore #1 - Wellbore #1 | | | | | | | | | | | | | Offset Site Error: 0.0 ft | |
|----------------------------------------------------------------------------------------------------|----------------|----------------|----------------|-----------------|--------|-------------------|------------------------|------------|-----------------|------------------|--------------------|-------------------|---------------------------|---------|
| Survey Program: 100-NS-GYRO-MS | | | | | | | | | | | | | Offset Well Error: 0.0 ft | |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | | Warning |
| Measured Depth | Vertical Depth | Measured Depth | Vertical Depth | Reference | Offset | Highside Toolface | Offset Wellbore Centre | | Between Centres | Between Ellipses | Minimum Separation | Separation Factor | | |
| (ft) | (ft) | (ft) | (ft) | (ft) | (ft) | (°) | +N/-S (ft) | +E/-W (ft) | (ft) | (ft) | (ft) | | | |
| 7,300.0 | 7,008.0 | 7,008.6 | 7,008.1 | 23.5 | 14.3 | -33.76 | -672.9 | 848.2 | 957.6 | 936.4 | 21.25 | 45.075 | | |
| 7,350.0 | 7,025.7 | 7,025.7 | 7,025.3 | 23.4 | 14.3 | -40.03 | -672.8 | 848.0 | 912.3 | 889.5 | 22.80 | 40.012 | | |
| 7,400.0 | 7,040.3 | 7,039.9 | 7,039.4 | 23.3 | 14.4 | -47.90 | -672.8 | 847.9 | 866.0 | 840.6 | 25.43 | 34.054 | | |
| 7,450.0 | 7,051.8 | 7,050.9 | 7,050.4 | 23.2 | 14.4 | -57.47 | -672.8 | 847.8 | 819.2 | 790.4 | 28.86 | 28.382 | | |
| 7,500.0 | 7,060.1 | 7,058.7 | 7,058.3 | 23.1 | 14.4 | -68.43 | -672.8 | 847.8 | 772.1 | 739.6 | 32.44 | 23.799 | | |
| 7,550.0 | 7,065.1 | 7,063.3 | 7,062.9 | 23.1 | 14.4 | -79.89 | -672.8 | 847.7 | 724.8 | 689.5 | 35.36 | 20.499 | | |
| 7,600.0 | 7,066.9 | 7,064.7 | 7,064.3 | 23.1 | 14.4 | -90.67 | -672.8 | 847.7 | 677.7 | 640.6 | 37.15 | 18.244 | | |
| 7,605.7 | 7,066.9 | 7,064.7 | 7,064.2 | 23.1 | 14.4 | -91.81 | -672.8 | 847.7 | 672.4 | 635.1 | 37.28 | 18.035 | | |
| 7,700.0 | 7,066.4 | 7,063.5 | 7,063.1 | 24.7 | 14.4 | -91.54 | -672.8 | 847.7 | 584.9 | 546.0 | 38.93 | 15.026 | | |
| 7,800.0 | 7,065.9 | 7,062.3 | 7,061.9 | 26.7 | 14.4 | -91.24 | -672.8 | 847.8 | 495.0 | 454.1 | 40.85 | 12.116 | | |
| 7,900.0 | 7,065.4 | 7,061.1 | 7,060.7 | 28.8 | 14.4 | -90.95 | -672.8 | 847.8 | 409.7 | 366.8 | 42.92 | 9.545 | | |
| 8,000.0 | 7,064.9 | 7,059.9 | 7,059.5 | 31.0 | 14.4 | -90.65 | -672.8 | 847.8 | 332.7 | 287.6 | 45.10 | 7.376 | | |
| 8,100.0 | 7,064.5 | 7,058.7 | 7,058.2 | 33.4 | 14.4 | -90.35 | -672.8 | 847.8 | 271.1 | 223.7 | 47.38 | 5.722 | | |
| 8,200.0 | 7,064.0 | 7,057.4 | 7,057.0 | 35.7 | 14.4 | -90.05 | -672.8 | 847.8 | 237.3 | 187.6 | 49.72 | 4.773 | | |
| 8,235.9 | 7,063.8 | 7,057.0 | 7,056.6 | 36.6 | 14.4 | -89.94 | -672.8 | 847.8 | 234.6 | 184.0 | 50.59 | 4.638 | CC, ES, SF | |
| 8,300.0 | 7,063.5 | 7,056.2 | 7,055.8 | 38.2 | 14.4 | -89.75 | -672.8 | 847.8 | 243.2 | 191.1 | 52.13 | 4.665 | | |
| 8,400.0 | 7,063.0 | 7,055.0 | 7,054.5 | 40.7 | 14.4 | -89.45 | -672.8 | 847.8 | 286.3 | 231.7 | 54.59 | 5.245 | | |
| 8,500.0 | 7,062.5 | 7,053.7 | 7,053.3 | 43.2 | 14.4 | -89.15 | -672.8 | 847.8 | 353.3 | 296.2 | 57.09 | 6.188 | | |
| 8,600.0 | 7,062.0 | 7,052.5 | 7,052.1 | 45.7 | 14.4 | -88.84 | -672.8 | 847.8 | 433.1 | 373.5 | 59.62 | 7.265 | | |
| 8,700.0 | 7,061.5 | 7,051.2 | 7,050.8 | 48.3 | 14.4 | -88.54 | -672.8 | 847.8 | 520.0 | 457.8 | 62.17 | 8.364 | | |
| 8,800.0 | 7,061.0 | 7,050.0 | 7,049.6 | 50.9 | 14.4 | -88.23 | -672.8 | 847.8 | 610.9 | 546.2 | 64.75 | 9.435 | | |
| 8,900.0 | 7,060.5 | 7,048.7 | 7,048.3 | 53.5 | 14.4 | -87.93 | -672.8 | 847.9 | 704.3 | 637.0 | 67.35 | 10.457 | | |
| 9,000.0 | 7,060.1 | 7,047.5 | 7,047.0 | 56.1 | 14.4 | -87.62 | -672.8 | 847.9 | 799.3 | 729.3 | 69.96 | 11.424 | | |
| 9,100.0 | 7,059.6 | 7,046.2 | 7,045.8 | 58.8 | 14.4 | -87.31 | -672.8 | 847.9 | 895.3 | 822.8 | 72.59 | 12.334 | | |
| 9,200.0 | 7,059.1 | 7,045.0 | 7,044.5 | 61.5 | 14.4 | -87.00 | -672.8 | 847.9 | 992.2 | 917.0 | 75.23 | 13.189 | | |

| | | | |
|---------------------------|----------------------------------------------|-------------------------------------|-----------------------------|
| Company: | PETROLEUM DEVELOPMENT CORP Weld County CO | Local Co-ordinate Reference: | Well Wiedeman Trust 29P-212 |
| Project: | SEC.29-T4N-R66W | TVD Reference: | WELL @ 4778.0ft (RKB - 15') |
| Reference Site: | Wiedeman Trust 29O-HZ Pad Sec.29-T4N-R66W | MD Reference: | WELL @ 4778.0ft (RKB - 15') |
| Site Error: | 0.0ft | North Reference: | True |
| Reference Well: | Wiedeman Trust 29P-212 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Wellbore #1 | Database: | Landmark |
| Reference Design: | Plan #1 (6-17-14) | Offset TVD Reference: | Offset Datum |

| Offset Design Existing Wells Pad Sec.29-T4-R66W - McLeod 29-29X (Exist.) - Wellbore #1 - Wellbore #1 | | | | | | | | | | | | Offset Site Error: | 0.0 ft |
|------------------------------------------------------------------------------------------------------|---------------------|---------------------|---------------------|-----------------|-------------|-----------------------|-----------------------------------|------------|----------------------|-----------------------|-------------------------|--------------------|---------|
| Survey Program: 635-NS-GYRO-MS | | | | | | | | | | | | Offset Well Error: | 0.0 ft |
| Reference | | Offset | | Semi Major Axis | | Distance | | | | | | | Warning |
| Measured Depth (ft) | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (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 | |
| 5,400.0 | 5,310.8 | 5,561.6 | 5,488.4 | 21.8 | 12.5 | -80.40 | -1,468.1 | 219.6 | 987.3 | 954.4 | 32.82 | 30.081 | |
| 5,500.0 | 5,408.9 | 5,654.7 | 5,579.8 | 22.2 | 12.8 | -81.77 | -1,452.7 | 210.2 | 965.3 | 931.7 | 33.57 | 28.754 | |
| 5,600.0 | 5,507.1 | 5,748.3 | 5,671.6 | 22.7 | 13.1 | -83.19 | -1,437.4 | 200.4 | 943.8 | 909.5 | 34.32 | 27.497 | |
| 5,700.0 | 5,605.3 | 5,836.0 | 5,757.8 | 23.1 | 13.4 | -84.52 | -1,424.0 | 191.1 | 923.5 | 888.5 | 35.05 | 26.347 | |
| 5,747.7 | 5,652.1 | 5,878.8 | 5,799.9 | 23.3 | 13.5 | -85.18 | -1,417.8 | 186.6 | 914.3 | 878.9 | 35.40 | 25.826 | |
| 5,800.0 | 5,703.5 | 5,924.5 | 5,844.8 | 23.5 | 13.6 | -85.65 | -1,411.4 | 181.8 | 904.5 | 868.8 | 35.73 | 25.315 | |
| 5,900.0 | 5,802.3 | 6,010.0 | 5,929.1 | 23.7 | 13.9 | -86.53 | -1,398.8 | 174.2 | 887.3 | 851.0 | 36.26 | 24.470 | |
| 6,000.0 | 5,901.5 | 6,088.0 | 6,006.1 | 24.0 | 14.1 | -87.21 | -1,387.7 | 167.9 | 871.9 | 835.2 | 36.72 | 23.743 | |
| 6,100.0 | 6,001.1 | 6,182.0 | 6,099.1 | 24.1 | 14.4 | -87.92 | -1,375.8 | 161.6 | 858.8 | 821.6 | 37.19 | 23.094 | |
| 6,200.0 | 6,101.0 | 6,257.1 | 6,173.6 | 24.3 | 14.6 | -88.28 | -1,367.5 | 157.8 | 848.1 | 810.5 | 37.55 | 22.586 | |
| 6,299.0 | 6,200.0 | 6,346.9 | 6,262.9 | 24.4 | 14.8 | 122.72 | -1,359.5 | 153.4 | 839.1 | 809.0 | 30.05 | 27.924 | |
| 6,402.0 | 6,302.9 | 6,437.1 | 6,352.8 | 24.5 | 15.1 | 122.55 | -1,353.7 | 148.6 | 830.9 | 800.5 | 30.46 | 27.282 | |
| 6,450.0 | 6,350.9 | 6,479.8 | 6,395.4 | 24.6 | 15.2 | 32.73 | -1,351.3 | 146.8 | 826.4 | 788.2 | 38.26 | 21.600 | |
| 6,500.0 | 6,400.7 | 6,527.2 | 6,442.7 | 24.6 | 15.3 | 33.13 | -1,348.8 | 144.8 | 819.3 | 781.1 | 38.13 | 21.488 | |
| 6,550.0 | 6,450.1 | 6,573.9 | 6,489.3 | 24.6 | 15.4 | 33.77 | -1,346.6 | 142.8 | 809.5 | 771.7 | 37.86 | 21.382 | |
| 6,600.0 | 6,498.8 | 6,619.5 | 6,534.8 | 24.6 | 15.5 | 34.70 | -1,344.7 | 140.9 | 797.3 | 759.8 | 37.47 | 21.281 | |
| 6,650.0 | 6,546.6 | 6,663.9 | 6,579.2 | 24.6 | 15.6 | 35.91 | -1,343.3 | 138.9 | 782.7 | 745.8 | 36.96 | 21.177 | |
| 6,700.0 | 6,593.5 | 6,706.7 | 6,622.0 | 24.5 | 15.7 | 37.42 | -1,342.1 | 137.0 | 765.9 | 729.5 | 36.36 | 21.064 | |
| 6,750.0 | 6,639.1 | 6,747.0 | 6,662.2 | 24.4 | 15.8 | 39.22 | -1,341.2 | 135.4 | 747.0 | 711.3 | 35.69 | 20.928 | |
| 6,800.0 | 6,683.2 | 6,789.7 | 6,704.8 | 24.4 | 15.9 | 41.47 | -1,340.4 | 133.7 | 726.1 | 691.1 | 35.00 | 20.748 | |
| 6,850.0 | 6,725.7 | 6,829.3 | 6,744.4 | 24.3 | 16.0 | 44.08 | -1,339.8 | 132.1 | 703.5 | 669.2 | 34.31 | 20.502 | |
| 6,900.0 | 6,766.4 | 6,867.1 | 6,782.2 | 24.2 | 16.1 | 47.10 | -1,339.4 | 130.6 | 679.3 | 645.6 | 33.69 | 20.163 | |
| 6,950.0 | 6,805.2 | 6,904.0 | 6,819.0 | 24.1 | 16.2 | 50.58 | -1,339.2 | 129.1 | 653.9 | 620.7 | 33.19 | 19.701 | |
| 7,000.0 | 6,841.7 | 6,937.3 | 6,852.3 | 24.0 | 16.3 | 54.39 | -1,339.0 | 127.8 | 627.6 | 594.7 | 32.85 | 19.107 | |
| 7,050.0 | 6,876.0 | 6,969.4 | 6,884.4 | 23.9 | 16.3 | 58.60 | -1,338.8 | 126.6 | 600.7 | 568.0 | 32.70 | 18.368 | |
| 7,100.0 | 6,907.8 | 6,999.2 | 6,914.1 | 23.8 | 16.4 | 63.09 | -1,338.7 | 125.6 | 573.7 | 540.9 | 32.76 | 17.509 | |
| 7,150.0 | 6,937.0 | 7,026.5 | 6,941.4 | 23.7 | 16.4 | 67.71 | -1,338.5 | 124.6 | 547.0 | 514.0 | 33.01 | 16.572 | |
| 7,200.0 | 6,963.6 | 7,051.2 | 6,966.1 | 23.6 | 16.5 | 72.32 | -1,338.4 | 123.9 | 521.4 | 488.0 | 33.40 | 15.612 | |
| 7,250.0 | 6,987.2 | 7,072.7 | 6,987.7 | 23.6 | 16.5 | 76.66 | -1,338.3 | 123.2 | 497.5 | 463.6 | 33.87 | 14.687 | |
| 7,300.0 | 7,008.0 | 7,091.2 | 7,006.1 | 23.5 | 16.6 | 80.57 | -1,338.2 | 122.6 | 476.0 | 441.7 | 34.40 | 13.839 | |
| 7,350.0 | 7,025.7 | 7,106.8 | 7,021.7 | 23.4 | 16.6 | 83.95 | -1,338.2 | 122.2 | 457.9 | 422.9 | 34.96 | 13.099 | |
| 7,400.0 | 7,040.3 | 7,119.5 | 7,034.4 | 23.3 | 16.6 | 86.66 | -1,338.2 | 121.8 | 443.8 | 408.3 | 35.54 | 12.487 | |
| 7,450.0 | 7,051.8 | 7,129.2 | 7,044.1 | 23.2 | 16.6 | 88.62 | -1,338.2 | 121.5 | 434.6 | 398.4 | 36.17 | 12.015 | |
| 7,500.0 | 7,060.1 | 7,135.8 | 7,050.7 | 23.1 | 16.6 | 89.79 | -1,338.2 | 121.4 | 430.7 | 393.9 | 36.85 | 11.689 | |
| 7,508.9 | 7,061.2 | 7,136.6 | 7,051.5 | 23.1 | 16.6 | 89.91 | -1,338.2 | 121.3 | 430.6 | 393.6 | 36.98 | 11.644 CC, ES | |
| 7,550.0 | 7,065.1 | 7,139.3 | 7,054.2 | 23.1 | 16.7 | 90.11 | -1,338.2 | 121.3 | 432.6 | 395.0 | 37.60 | 11.506 | |
| 7,600.0 | 7,066.9 | 7,139.6 | 7,054.5 | 23.1 | 16.7 | 89.59 | -1,338.2 | 121.2 | 440.1 | 401.7 | 38.40 | 11.461 SF | |
| 7,605.7 | 7,066.9 | 7,139.5 | 7,054.4 | 23.1 | 16.7 | 89.47 | -1,338.2 | 121.3 | 441.3 | 402.8 | 38.50 | 11.464 | |
| 7,700.0 | 7,066.4 | 7,136.5 | 7,051.4 | 24.7 | 16.6 | 89.08 | -1,338.2 | 121.3 | 471.0 | 430.9 | 40.16 | 11.730 | |
| 7,800.0 | 7,065.9 | 7,133.3 | 7,048.2 | 26.7 | 16.6 | 88.65 | -1,338.2 | 121.4 | 519.6 | 477.5 | 42.09 | 12.346 | |
| 7,900.0 | 7,065.4 | 7,130.1 | 7,045.0 | 28.8 | 16.6 | 88.23 | -1,338.2 | 121.5 | 581.5 | 537.3 | 44.16 | 13.168 | |
| 8,000.0 | 7,064.9 | 7,126.9 | 7,041.8 | 31.0 | 16.6 | 87.80 | -1,338.2 | 121.6 | 652.8 | 606.5 | 46.34 | 14.087 | |
| 8,100.0 | 7,064.5 | 7,123.6 | 7,038.5 | 33.4 | 16.6 | 87.37 | -1,338.2 | 121.7 | 730.9 | 682.3 | 48.62 | 15.035 | |
| 8,200.0 | 7,064.0 | 7,120.4 | 7,035.3 | 35.7 | 16.6 | 86.93 | -1,338.2 | 121.8 | 813.8 | 762.9 | 50.96 | 15.970 | |
| 8,300.0 | 7,063.5 | 7,117.0 | 7,032.0 | 38.2 | 16.6 | 86.49 | -1,338.2 | 121.9 | 900.2 | 846.8 | 53.36 | 16.871 | |
| 8,400.0 | 7,063.0 | 7,113.7 | 7,028.6 | 40.7 | 16.6 | 86.05 | -1,338.2 | 122.0 | 989.1 | 933.3 | 55.80 | 17.726 | |

| | | | |
|---------------------------|----------------------------------------------|-------------------------------------|-----------------------------|
| Company: | PETROLEUM DEVELOPMENT CORP Weld County CO | Local Co-ordinate Reference: | Well Wiedeman Trust 29P-212 |
| Project: | SEC.29-T4N-R66W | TVD Reference: | WELL @ 4778.0ft (RKB - 15') |
| Reference Site: | Wiedeman Trust 29O-HZ Pad Sec.29-T4N-R66W | MD Reference: | WELL @ 4778.0ft (RKB - 15') |
| Site Error: | 0.0ft | North Reference: | True |
| Reference Well: | Wiedeman Trust 29P-212 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Wellbore #1 | Database: | Landmark |
| Reference Design: | Plan #1 (6-17-14) | Offset TVD Reference: | Offset Datum |

| Offset Design Existing Wells Pad Sec.29-T4-R66W - McLeod 29-41 (Exist.) - Wellbore #1 - Wellbore #1 | | | | | | | | | | | | | Offset Site Error: 0.0 ft |
|-----------------------------------------------------------------------------------------------------|---------------------|---------------------|---------------------|----------------|-------------|-----------------------|-----------------------------------|------------|----------------------|-----------------------|-------------------------|-------------------|---------------------------|
| Survey Program: 100-NS-GYRO-MS | | | | | | | | | | | | | Offset Well Error: 0.0 ft |
| Reference | Offset | Semi Major Axis | | Distance | | | | | | | | | Warning |
| Measured Depth (ft) | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (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 | |
| 8,700.0 | 7,061.5 | 7,029.7 | 7,027.9 | 48.3 | 15.1 | -87.71 | -464.4 | 2,113.6 | 916.1 | 853.3 | 62.79 | 14.589 | |
| 8,800.0 | 7,061.0 | 7,030.9 | 7,029.1 | 50.9 | 15.1 | -87.87 | -464.4 | 2,113.6 | 829.9 | 764.5 | 65.41 | 12.688 | |
| 8,900.0 | 7,060.5 | 7,032.1 | 7,030.3 | 53.5 | 15.1 | -88.02 | -464.4 | 2,113.6 | 747.3 | 679.2 | 68.05 | 10.982 | |
| 9,000.0 | 7,060.1 | 7,033.3 | 7,031.5 | 56.1 | 15.1 | -88.17 | -464.3 | 2,113.6 | 669.4 | 598.7 | 70.70 | 9.468 | |
| 9,100.0 | 7,059.6 | 7,034.4 | 7,032.6 | 58.8 | 15.1 | -88.32 | -464.3 | 2,113.6 | 598.1 | 524.7 | 73.37 | 8.152 | |
| 9,200.0 | 7,059.1 | 7,035.5 | 7,033.7 | 61.5 | 15.1 | -88.46 | -464.3 | 2,113.6 | 536.0 | 460.0 | 76.05 | 7.049 | |
| 9,300.0 | 7,058.6 | 7,036.6 | 7,034.7 | 64.1 | 15.1 | -88.59 | -464.3 | 2,113.7 | 486.8 | 408.1 | 78.74 | 6.182 | |
| 9,400.0 | 7,058.1 | 7,037.6 | 7,035.8 | 66.8 | 15.1 | -88.73 | -464.3 | 2,113.7 | 454.5 | 373.1 | 81.44 | 5.581 | |
| 9,500.0 | 7,057.6 | 7,038.6 | 7,036.7 | 69.5 | 15.1 | -88.85 | -464.2 | 2,113.7 | 443.0 | 358.8 | 84.16 | 5.264 | |
| 9,501.9 | 7,057.6 | 7,038.6 | 7,036.8 | 69.6 | 15.1 | -88.86 | -464.2 | 2,113.7 | 443.0 | 358.8 | 84.21 | 5.261 CC, ES | |
| 9,600.0 | 7,057.1 | 7,039.5 | 7,037.7 | 72.2 | 15.1 | -88.98 | -464.2 | 2,113.7 | 453.7 | 366.8 | 86.87 | 5.223 SF | |
| 9,700.0 | 7,056.6 | 7,040.4 | 7,038.6 | 74.9 | 15.1 | -89.10 | -464.2 | 2,113.7 | 485.3 | 395.7 | 89.60 | 5.416 | |
| 9,800.0 | 7,056.2 | 7,041.3 | 7,039.5 | 77.6 | 15.1 | -89.21 | -464.2 | 2,113.7 | 533.9 | 441.6 | 92.33 | 5.783 | |
| 9,900.0 | 7,055.7 | 7,042.2 | 7,040.4 | 80.4 | 15.1 | -89.32 | -464.2 | 2,113.7 | 595.6 | 500.5 | 95.07 | 6.265 | |
| 10,000.0 | 7,055.2 | 7,043.0 | 7,041.2 | 83.1 | 15.1 | -89.43 | -464.2 | 2,113.8 | 666.6 | 568.8 | 97.81 | 6.815 | |
| 10,100.0 | 7,054.7 | 7,043.9 | 7,042.0 | 85.8 | 15.1 | -89.54 | -464.1 | 2,113.8 | 744.3 | 643.7 | 100.55 | 7.402 | |
| 10,200.0 | 7,054.2 | 7,044.7 | 7,042.8 | 88.6 | 15.1 | -89.64 | -464.1 | 2,113.8 | 826.8 | 723.5 | 103.30 | 8.004 | |
| 10,300.0 | 7,053.7 | 7,045.4 | 7,043.6 | 91.3 | 15.1 | -89.74 | -464.1 | 2,113.8 | 912.8 | 806.7 | 106.05 | 8.607 | |

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|---------------------------|----------------------------------------------|-------------------------------------|-----------------------------|
| Company: | PETROLEUM DEVELOPMENT CORP Weld County CO | Local Co-ordinate Reference: | Well Wiedeman Trust 29P-212 |
| Project: | SEC.29-T4N-R66W | TVD Reference: | WELL @ 4778.0ft (RKB - 15') |
| Reference Site: | Wiedeman Trust 29O-HZ Pad Sec.29-T4N-R66W | MD Reference: | WELL @ 4778.0ft (RKB - 15') |
| Site Error: | 0.0ft | North Reference: | True |
| Reference Well: | Wiedeman Trust 29P-212 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Wellbore #1 | Database: | Landmark |
| Reference Design: | Plan #1 (6-17-14) | Offset TVD Reference: | Offset Datum |

| Offset Design Existing Wells Pad Sec.29-T4-R66W - McLeod 6 (Exist.) - Wellbore #1 - Wellbore #1 | | | | | | | | | | | | | Offset Site Error: 0.0 ft |
|-------------------------------------------------------------------------------------------------|---------------------|---------------------|---------------------|----------------|-------------|-----------------------|-----------------------------------|------------|----------------------|-----------------------|-------------------------|-------------------|---------------------------|
| Survey Program: 7450-UNKNOWN | | | | | | | | | | | | | Offset Well Error: 0.0 ft |
| Reference | Offset | Semi Major Axis | | Distance | | Warning | | | | | | | |
| Measured Depth (ft) | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (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 | |
| 8,000.0 | 7,064.9 | 7,055.9 | 7,055.9 | 31.0 | 141.1 | 90.48 | -1,398.9 | 1,462.1 | 981.9 | 810.2 | 171.76 | 5.717 | |
| 8,100.0 | 7,064.5 | 7,055.5 | 7,055.5 | 33.4 | 141.1 | 90.43 | -1,398.9 | 1,462.1 | 896.8 | 722.7 | 174.05 | 5.152 | |
| 8,200.0 | 7,064.0 | 7,055.0 | 7,055.0 | 35.7 | 141.1 | 90.37 | -1,398.9 | 1,462.1 | 815.0 | 638.6 | 176.40 | 4.620 | |
| 8,300.0 | 7,063.5 | 7,054.5 | 7,054.5 | 38.2 | 141.1 | 90.31 | -1,398.9 | 1,462.1 | 737.7 | 558.9 | 178.82 | 4.125 | |
| 8,400.0 | 7,063.0 | 7,054.0 | 7,054.0 | 40.7 | 141.1 | 90.26 | -1,398.9 | 1,462.1 | 666.5 | 485.2 | 181.29 | 3.676 | |
| 8,500.0 | 7,062.5 | 7,053.5 | 7,053.5 | 43.2 | 141.1 | 90.20 | -1,398.9 | 1,462.1 | 603.5 | 419.7 | 183.80 | 3.283 | |
| 8,600.0 | 7,062.0 | 7,053.0 | 7,053.0 | 45.7 | 141.1 | 90.14 | -1,398.9 | 1,462.1 | 551.5 | 365.2 | 186.34 | 2.960 | |
| 8,700.0 | 7,061.5 | 7,052.5 | 7,052.5 | 48.3 | 141.1 | 90.09 | -1,398.9 | 1,462.1 | 514.0 | 325.1 | 188.92 | 2.721 | |
| 8,800.0 | 7,061.0 | 7,052.0 | 7,052.0 | 50.9 | 141.0 | 90.03 | -1,398.9 | 1,462.1 | 494.2 | 302.6 | 191.51 | 2.580 | |
| 8,850.0 | 7,060.8 | 7,051.8 | 7,051.8 | 52.2 | 141.0 | 90.00 | -1,398.9 | 1,462.1 | 491.6 | 298.8 | 192.82 | 2.550 CC, ES | |
| 8,900.0 | 7,060.5 | 7,051.5 | 7,051.5 | 53.5 | 141.0 | 89.97 | -1,398.9 | 1,462.1 | 494.2 | 300.0 | 194.13 | 2.546 SF | |
| 9,000.0 | 7,060.1 | 7,051.1 | 7,051.1 | 56.1 | 141.0 | 89.91 | -1,398.9 | 1,462.1 | 514.0 | 317.2 | 196.76 | 2.612 | |
| 9,100.0 | 7,059.6 | 7,050.6 | 7,050.6 | 58.8 | 141.0 | 89.86 | -1,398.9 | 1,462.1 | 551.5 | 352.1 | 199.41 | 2.766 | |
| 9,200.0 | 7,059.1 | 7,050.1 | 7,050.1 | 61.5 | 141.0 | 89.80 | -1,398.9 | 1,462.1 | 603.5 | 401.4 | 202.07 | 2.986 | |
| 9,300.0 | 7,058.6 | 7,049.6 | 7,049.6 | 64.1 | 141.0 | 89.74 | -1,398.9 | 1,462.1 | 666.5 | 461.7 | 204.75 | 3.255 | |
| 9,400.0 | 7,058.1 | 7,049.1 | 7,049.1 | 66.8 | 141.0 | 89.69 | -1,398.9 | 1,462.1 | 737.7 | 530.3 | 207.43 | 3.556 | |
| 9,500.0 | 7,057.6 | 7,048.6 | 7,048.6 | 69.5 | 141.0 | 89.63 | -1,398.9 | 1,462.1 | 815.0 | 604.9 | 210.12 | 3.879 | |
| 9,600.0 | 7,057.1 | 7,048.1 | 7,048.1 | 72.2 | 141.0 | 89.57 | -1,398.9 | 1,462.1 | 896.8 | 683.9 | 212.83 | 4.214 | |
| 9,700.0 | 7,056.6 | 7,047.6 | 7,047.6 | 74.9 | 141.0 | 89.52 | -1,398.9 | 1,462.1 | 981.9 | 766.4 | 215.53 | 4.556 | |

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|---------------------------|----------------------------------------------|-------------------------------------|-----------------------------|
| Company: | PETROLEUM DEVELOPMENT CORP Weld County CO | Local Co-ordinate Reference: | Well Wiedeman Trust 29P-212 |
| Project: | SEC.29-T4N-R66W | TVD Reference: | WELL @ 4778.0ft (RKB - 15') |
| Reference Site: | Wiedeman Trust 29O-HZ Pad Sec.29-T4N-R66W | MD Reference: | WELL @ 4778.0ft (RKB - 15') |
| Site Error: | 0.0ft | North Reference: | True |
| Reference Well: | Wiedeman Trust 29P-212 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Wellbore #1 | Database: | Landmark |
| Reference Design: | Plan #1 (6-17-14) | Offset TVD Reference: | Offset Datum |

| Offset Design Existing Wells Pad Sec.29-T4-R66W - Melissa 1 (Exist.) - Wellbore #1 - Wellbore #1 | | | | | | | | | | | | Offset Site Error: | 0.0 ft |
|--------------------------------------------------------------------------------------------------|---------------------|---------------------|---------------------|-----------------|-------------|-----------------------|-----------------------------------|------------|----------------------|-----------------------|-------------------------|--------------------|---------|
| Survey Program: 100-NS-GYRO-MS | | | | | | | | | | | | Offset Well Error: | 0.0 ft |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | Warning |
| Measured Depth (ft) | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (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 | |
| 14,000.0 | 7,035.6 | 7,010.4 | 7,009.3 | 194.0 | 13.4 | -91.21 | -520.6 | 7,510.1 | 977.4 | 770.2 | 207.22 | 4.717 | |
| 14,100.0 | 7,035.1 | 7,009.2 | 7,008.1 | 196.8 | 13.4 | -91.02 | -520.6 | 7,510.1 | 886.4 | 676.4 | 210.02 | 4.220 | |
| 14,200.0 | 7,034.6 | 7,008.0 | 7,006.9 | 199.6 | 13.4 | -90.84 | -520.6 | 7,510.1 | 797.5 | 584.7 | 212.82 | 3.747 | |
| 14,300.0 | 7,034.2 | 7,006.7 | 7,005.7 | 202.4 | 13.4 | -90.66 | -520.6 | 7,510.1 | 711.6 | 496.0 | 215.62 | 3.300 | |
| 14,400.0 | 7,033.7 | 7,005.5 | 7,004.5 | 205.2 | 13.4 | -90.48 | -520.6 | 7,510.1 | 629.9 | 411.5 | 218.41 | 2.884 | |
| 14,500.0 | 7,033.2 | 7,004.3 | 7,003.3 | 208.0 | 13.4 | -90.30 | -520.7 | 7,510.1 | 554.2 | 333.0 | 221.20 | 2.505 | |
| 14,600.0 | 7,032.7 | 7,003.1 | 7,002.1 | 210.8 | 13.4 | -90.13 | -520.7 | 7,510.1 | 487.3 | 263.3 | 223.99 | 2.175 | |
| 14,700.0 | 7,032.2 | 7,001.9 | 7,000.9 | 213.6 | 13.4 | -89.95 | -520.7 | 7,510.1 | 433.3 | 206.6 | 226.78 | 1.911 | |
| 14,800.0 | 7,031.7 | 7,000.7 | 6,999.7 | 216.4 | 13.4 | -89.77 | -520.7 | 7,510.1 | 397.6 | 168.1 | 229.57 | 1.732 | |
| 14,898.3 | 7,031.2 | 7,000.0 | 6,999.0 | 219.1 | 13.4 | -89.66 | -520.7 | 7,510.1 | 385.3 | 153.0 | 232.32 | 1.658 CC | |
| 14,900.0 | 7,031.2 | 7,000.0 | 6,999.0 | 219.2 | 13.4 | -89.66 | -520.7 | 7,510.1 | 385.3 | 152.9 | 232.36 | 1.658 ES, SF | |
| 14,946.6 | 7,031.0 | 6,999.0 | 6,998.0 | 220.5 | 13.4 | -89.52 | -520.7 | 7,510.1 | 388.3 | 154.6 | 233.66 | 1.662 | |

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|---------------------------|----------------------------------------------|-------------------------------------|-----------------------------|
| Company: | PETROLEUM DEVELOPMENT CORP Weld County CO | Local Co-ordinate Reference: | Well Wiedeman Trust 29P-212 |
| Project: | SEC.29-T4N-R66W | TVD Reference: | WELL @ 4778.0ft (RKB - 15') |
| Reference Site: | Wiedeman Trust 29O-HZ Pad Sec.29-T4N-R66W | MD Reference: | WELL @ 4778.0ft (RKB - 15') |
| Site Error: | 0.0ft | North Reference: | True |
| Reference Well: | Wiedeman Trust 29P-212 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Wellbore #1 | Database: | Landmark |
| Reference Design: | Plan #1 (6-17-14) | Offset TVD Reference: | Offset Datum |

| Offset Design Existing Wells Pad Sec.29-T4-R66W - Randall 11-28 (Exist.) - Wellbore #1 - Wellbore #1 | | | | | | | | | | | | | | Offset Site Error: | 0.0 ft |
|------------------------------------------------------------------------------------------------------|---------------------|---------------------|---------------------|----------------|-------------|------------------------------------------|--------------------------------------|------------|----------------------|-----------------------|-------------------------|---------------------------|---------|--------------------|--------|
| Survey Program: 100-NS-GYRO-MS | | | | | | | | | | | | | | Offset Well Error: | 0.0 ft |
| Measured Depth (ft) | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (ft) | Offset (ft) | Semi Major Axis Highside Toolface (°) | Offset Wellbore Centre +N/-S (ft) | +E/-W (ft) | Between Centres (ft) | Between Ellipses (ft) | Minimum Separation (ft) | Separation Factor | Warning | | |
| 11,500.0 | 7,047.8 | 7,034.2 | 7,028.9 | 124.4 | 13.1 | 95.32 | -1,007.9 | 5,019.6 | 913.3 | 776.8 | 136.44 | 6.694 | | | |
| 11,600.0 | 7,047.4 | 7,033.2 | 7,027.8 | 127.2 | 13.1 | 94.74 | -1,007.9 | 5,019.6 | 814.0 | 674.6 | 139.34 | 5.842 | | | |
| 11,700.0 | 7,046.9 | 7,032.1 | 7,026.8 | 130.0 | 13.1 | 94.16 | -1,007.9 | 5,019.6 | 714.9 | 572.6 | 142.23 | 5.026 | | | |
| 11,800.0 | 7,046.4 | 7,031.1 | 7,025.7 | 132.7 | 13.1 | 93.57 | -1,007.9 | 5,019.6 | 616.1 | 470.9 | 145.12 | 4.245 | | | |
| 11,900.0 | 7,045.9 | 7,030.1 | 7,024.7 | 135.5 | 13.1 | 92.98 | -1,007.9 | 5,019.6 | 517.7 | 369.7 | 147.99 | 3.498 | | | |
| 12,000.0 | 7,045.4 | 7,029.0 | 7,023.6 | 138.3 | 13.0 | 92.39 | -1,007.9 | 5,019.6 | 420.1 | 269.2 | 150.86 | 2.785 | | | |
| | | | | | | | | | | | | | | | |
| 12,100.0 | 7,044.9 | 7,028.0 | 7,022.6 | 141.1 | 13.0 | 91.80 | -1,007.9 | 5,019.6 | 323.9 | 170.2 | 153.71 | 2.107 | | | |
| 12,200.0 | 7,044.4 | 7,026.9 | 7,021.5 | 143.8 | 13.0 | 91.21 | -1,007.9 | 5,019.6 | 231.1 | 74.6 | 156.55 | 1.476 Level 3 | | | |
| 12,300.0 | 7,043.9 | 7,025.9 | 7,020.5 | 146.6 | 13.0 | 90.62 | -1,007.9 | 5,019.6 | 147.9 | -11.5 | 159.38 | 0.928 Level 1 | | | |
| 12,400.0 | 7,043.4 | 7,024.8 | 7,019.4 | 149.4 | 13.0 | 90.02 | -1,007.9 | 5,019.6 | 101.7 | -60.5 | 162.19 | 0.627 Level 1 | | | |
| 12,407.6 | 7,043.4 | 7,024.7 | 7,019.4 | 149.6 | 13.0 | 89.98 | -1,007.9 | 5,019.6 | 101.4 | -61.0 | 162.41 | 0.624 Level 1, CC, ES, SF | | | |
| | | | | | | | | | | | | | | | |
| 12,500.0 | 7,043.0 | 7,023.8 | 7,018.4 | 152.2 | 13.0 | 89.43 | -1,007.9 | 5,019.6 | 137.1 | -27.9 | 164.99 | 0.831 Level 1 | | | |
| 12,600.0 | 7,042.5 | 7,022.7 | 7,017.3 | 155.0 | 13.0 | 88.83 | -1,007.9 | 5,019.6 | 217.4 | 49.6 | 167.77 | 1.296 Level 3 | | | |
| 12,700.0 | 7,042.0 | 7,021.7 | 7,016.3 | 157.8 | 13.0 | 88.24 | -1,007.9 | 5,019.6 | 309.4 | 138.9 | 170.54 | 1.814 | | | |
| 12,800.0 | 7,041.5 | 7,020.6 | 7,015.2 | 160.5 | 13.0 | 87.64 | -1,007.9 | 5,019.7 | 405.2 | 231.9 | 173.28 | 2.338 | | | |
| 12,900.0 | 7,041.0 | 7,019.6 | 7,014.2 | 163.3 | 13.0 | 87.05 | -1,007.9 | 5,019.7 | 502.6 | 326.6 | 176.01 | 2.856 | | | |
| | | | | | | | | | | | | | | | |
| 13,000.0 | 7,040.5 | 7,018.5 | 7,013.1 | 166.1 | 13.0 | 86.45 | -1,007.9 | 5,019.7 | 600.9 | 422.2 | 178.72 | 3.362 | | | |
| 13,100.0 | 7,040.0 | 7,017.4 | 7,012.1 | 168.9 | 13.0 | 85.86 | -1,007.9 | 5,019.7 | 699.7 | 518.3 | 181.40 | 3.857 | | | |
| 13,200.0 | 7,039.5 | 7,016.4 | 7,011.0 | 171.7 | 13.0 | 85.27 | -1,007.9 | 5,019.7 | 798.7 | 614.7 | 184.07 | 4.339 | | | |
| 13,300.0 | 7,039.0 | 7,015.3 | 7,010.0 | 174.5 | 13.0 | 84.67 | -1,007.9 | 5,019.7 | 898.0 | 711.3 | 186.71 | 4.810 | | | |
| 13,400.0 | 7,038.6 | 7,014.3 | 7,008.9 | 177.3 | 13.0 | 84.08 | -1,007.9 | 5,019.7 | 997.4 | 808.1 | 189.33 | 5.268 | | | |

| | | | |
|---------------------------|----------------------------------------------|-------------------------------------|-----------------------------|
| Company: | PETROLEUM DEVELOPMENT CORP Weld County CO | Local Co-ordinate Reference: | Well Wiedeman Trust 29P-212 |
| Project: | SEC.29-T4N-R66W | TVD Reference: | WELL @ 4778.0ft (RKB - 15') |
| Reference Site: | Wiedeman Trust 29O-HZ Pad Sec.29-T4N-R66W | MD Reference: | WELL @ 4778.0ft (RKB - 15') |
| Site Error: | 0.0ft | North Reference: | True |
| Reference Well: | Wiedeman Trust 29P-212 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Wellbore #1 | Database: | Landmark |
| Reference Design: | Plan #1 (6-17-14) | Offset TVD Reference: | Offset Datum |

| Offset Design Existing Wells Pad Sec.29-T4-R66W - Wiedeman 29-1 (Exist.) - Wellbore #1 - Wellbore #1 | | | | | | | | | | | | | Offset Site Error: | 0.0 ft |
|------------------------------------------------------------------------------------------------------|---------------------|---------------------|---------------------|-----------------|-------------|-----------------------|-----------------------------------|------------|----------------------|-----------------------|-------------------------|-------------------|--------------------|---------|
| Survey Program: 100-MWD | | | | | | | | | | | | | Offset Well Error: | 0.0 ft |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | | Warning |
| Measured Depth (ft) | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (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 | | |
| 400.0 | 399.8 | 385.6 | 385.6 | 0.8 | 0.7 | 16.97 | -670.5 | -745.5 | 996.0 | 994.5 | 1.46 | 680.258 | | |
| 500.0 | 499.5 | 480.8 | 480.8 | 1.0 | 0.9 | 17.17 | -670.4 | -745.5 | 987.6 | 985.7 | 1.89 | 522.540 | | |
| 600.0 | 598.7 | 580.6 | 580.6 | 1.3 | 1.1 | 17.46 | -670.5 | -745.9 | 976.3 | 973.9 | 2.34 | 417.926 | | |
| 700.0 | 697.5 | 680.3 | 680.3 | 1.6 | 1.3 | 17.86 | -670.3 | -746.2 | 961.5 | 958.7 | 2.79 | 344.163 | | |
| 751.3 | 747.9 | 730.0 | 730.0 | 1.8 | 1.4 | 18.09 | -670.3 | -746.3 | 952.7 | 949.6 | 3.03 | 314.444 | | |
| 800.0 | 795.7 | 776.6 | 776.6 | 2.0 | 1.5 | 18.26 | -670.3 | -746.5 | 943.9 | 940.7 | 3.25 | 290.425 | | |
| 900.0 | 893.9 | 875.0 | 875.0 | 2.4 | 1.7 | 18.66 | -670.3 | -747.0 | 926.1 | 922.4 | 3.72 | 249.132 | | |
| 1,000.0 | 992.0 | 974.8 | 974.8 | 2.8 | 1.9 | 19.09 | -669.9 | -747.6 | 908.2 | 904.0 | 4.20 | 216.469 | | |
| 1,100.0 | 1,090.2 | 1,071.1 | 1,071.1 | 3.2 | 2.1 | 19.51 | -669.7 | -748.0 | 890.3 | 885.6 | 4.67 | 190.621 | | |
| 1,200.0 | 1,188.3 | 1,170.9 | 1,170.9 | 3.7 | 2.3 | 19.97 | -669.6 | -748.5 | 872.6 | 867.4 | 5.16 | 169.139 | | |
| 1,300.0 | 1,286.5 | 1,269.3 | 1,269.3 | 4.1 | 2.6 | 20.45 | -669.2 | -749.0 | 854.7 | 849.0 | 5.65 | 151.292 | | |
| 1,400.0 | 1,384.6 | 1,369.5 | 1,369.5 | 4.5 | 2.8 | 20.95 | -668.8 | -749.4 | 836.8 | 830.7 | 6.15 | 136.129 | | |
| 1,500.0 | 1,482.8 | 1,467.6 | 1,467.6 | 4.9 | 3.0 | 21.48 | -668.1 | -749.7 | 818.8 | 812.2 | 6.65 | 123.210 | | |
| 1,600.0 | 1,580.9 | 1,564.5 | 1,564.5 | 5.4 | 3.2 | 22.01 | -667.6 | -750.0 | 801.0 | 793.8 | 7.15 | 112.102 | | |
| 1,700.0 | 1,679.1 | 1,663.7 | 1,663.7 | 5.8 | 3.4 | 22.60 | -667.0 | -750.6 | 783.3 | 775.6 | 7.66 | 102.315 | | |
| 1,800.0 | 1,777.2 | 1,762.4 | 1,762.4 | 6.2 | 3.6 | 23.23 | -666.1 | -751.0 | 765.5 | 757.3 | 8.17 | 93.698 | | |
| 1,900.0 | 1,875.4 | 1,860.3 | 1,860.3 | 6.7 | 3.8 | 23.88 | -665.3 | -751.5 | 747.8 | 739.1 | 8.69 | 86.083 | | |
| 2,000.0 | 1,973.6 | 1,959.8 | 1,959.7 | 7.1 | 4.0 | 24.60 | -664.1 | -752.1 | 730.1 | 720.9 | 9.21 | 79.238 | | |
| 2,100.0 | 2,071.7 | 2,058.2 | 2,058.1 | 7.5 | 4.2 | 25.34 | -662.8 | -752.5 | 712.3 | 702.6 | 9.75 | 73.094 | | |
| 2,200.0 | 2,169.9 | 2,155.9 | 2,155.8 | 7.9 | 4.4 | 26.14 | -661.4 | -753.1 | 694.8 | 684.5 | 10.28 | 67.570 | | |
| 2,300.0 | 2,268.0 | 2,253.5 | 2,253.5 | 8.4 | 4.6 | 26.96 | -660.2 | -753.6 | 677.3 | 666.5 | 10.82 | 62.574 | | |
| 2,400.0 | 2,366.2 | 2,350.9 | 2,350.8 | 8.8 | 4.8 | 27.83 | -658.8 | -754.3 | 660.1 | 648.7 | 11.37 | 58.036 | | |
| 2,500.0 | 2,464.3 | 2,448.4 | 2,448.3 | 9.2 | 5.0 | 28.73 | -657.7 | -754.9 | 643.2 | 631.2 | 11.93 | 53.903 | | |
| 2,600.0 | 2,562.5 | 2,547.1 | 2,547.0 | 9.7 | 5.2 | 29.71 | -656.4 | -755.6 | 626.4 | 613.9 | 12.50 | 50.102 | | |
| 2,700.0 | 2,660.6 | 2,646.1 | 2,645.9 | 10.1 | 5.4 | 30.74 | -655.1 | -756.2 | 609.6 | 596.5 | 13.08 | 46.591 | | |
| 2,800.0 | 2,758.8 | 2,743.2 | 2,743.1 | 10.5 | 5.7 | 31.83 | -653.6 | -756.8 | 593.0 | 579.4 | 13.67 | 43.372 | | |
| 2,900.0 | 2,856.9 | 2,841.0 | 2,840.9 | 11.0 | 5.9 | 32.98 | -652.2 | -757.5 | 576.9 | 562.6 | 14.27 | 40.412 | | |
| 3,000.0 | 2,955.1 | 2,939.3 | 2,939.2 | 11.4 | 6.1 | 34.22 | -650.6 | -758.2 | 560.8 | 545.9 | 14.89 | 37.657 | | |
| 3,100.0 | 3,053.2 | 3,036.2 | 3,036.0 | 11.8 | 6.3 | 35.53 | -648.9 | -759.1 | 545.1 | 529.6 | 15.52 | 35.127 | | |
| 3,200.0 | 3,151.4 | 3,134.5 | 3,134.3 | 12.3 | 6.5 | 36.93 | -647.2 | -760.1 | 529.8 | 513.7 | 16.16 | 32.778 | | |
| 3,300.0 | 3,249.6 | 3,234.0 | 3,233.8 | 12.7 | 6.7 | 38.48 | -645.2 | -761.1 | 514.7 | 497.9 | 16.83 | 30.578 | | |
| 3,400.0 | 3,347.7 | 3,334.9 | 3,334.6 | 13.1 | 6.9 | 40.17 | -642.6 | -761.7 | 499.5 | 482.0 | 17.53 | 28.496 | | |
| 3,500.0 | 3,445.9 | 3,435.8 | 3,435.5 | 13.6 | 7.1 | 41.95 | -640.0 | -761.6 | 484.1 | 465.9 | 18.24 | 26.542 | | |
| 3,600.0 | 3,544.0 | 3,538.0 | 3,537.7 | 14.0 | 7.3 | 43.82 | -637.5 | -760.7 | 468.4 | 449.4 | 18.97 | 24.690 | | |
| 3,700.0 | 3,642.2 | 3,638.0 | 3,637.7 | 14.4 | 7.5 | 45.70 | -635.6 | -758.7 | 452.3 | 432.6 | 19.71 | 22.950 | | |
| 3,800.0 | 3,740.3 | 3,734.0 | 3,733.6 | 14.9 | 7.7 | 47.53 | -634.4 | -756.6 | 436.6 | 416.2 | 20.43 | 21.366 | | |
| 3,900.0 | 3,838.5 | 3,829.8 | 3,829.4 | 15.3 | 7.9 | 49.46 | -633.5 | -755.0 | 422.0 | 400.8 | 21.18 | 19.926 | | |
| 4,000.0 | 3,936.6 | 3,926.5 | 3,926.1 | 15.7 | 8.1 | 51.55 | -632.5 | -753.6 | 408.1 | 386.1 | 21.95 | 18.593 | | |
| 4,100.0 | 4,034.8 | 4,019.0 | 4,018.5 | 16.2 | 8.3 | 53.67 | -631.7 | -753.1 | 395.7 | 373.0 | 22.72 | 17.419 | | |
| 4,200.0 | 4,132.9 | 4,111.6 | 4,111.2 | 16.6 | 8.5 | 55.96 | -630.8 | -753.8 | 385.3 | 361.8 | 23.50 | 16.394 | | |
| 4,300.0 | 4,231.1 | 4,203.2 | 4,202.7 | 17.0 | 8.7 | 58.43 | -629.1 | -756.1 | 377.2 | 352.9 | 24.31 | 15.518 | | |
| 4,400.0 | 4,329.3 | 4,300.0 | 4,299.4 | 17.5 | 8.9 | 61.28 | -626.5 | -759.6 | 371.2 | 346.0 | 25.16 | 14.755 | | |
| 4,500.0 | 4,427.4 | 4,395.6 | 4,394.9 | 17.9 | 9.1 | 64.25 | -623.3 | -763.5 | 366.6 | 340.6 | 26.01 | 14.097 | | |
| 4,600.0 | 4,525.6 | 4,494.2 | 4,493.4 | 18.3 | 9.4 | 67.42 | -619.8 | -767.5 | 363.2 | 336.3 | 26.86 | 13.520 | | |
| 4,700.0 | 4,623.7 | 4,593.8 | 4,592.8 | 18.8 | 9.6 | 70.70 | -616.1 | -771.2 | 360.6 | 332.9 | 27.71 | 13.013 | | |
| 4,800.0 | 4,721.9 | 4,694.5 | 4,693.4 | 19.2 | 9.8 | 74.17 | -611.8 | -774.1 | 358.6 | 330.0 | 28.55 | 12.560 | | |
| 4,900.0 | 4,820.0 | 4,794.5 | 4,793.2 | 19.6 | 10.0 | 77.75 | -607.2 | -776.0 | 357.2 | 327.8 | 29.36 | 12.166 | | |
| 4,993.3 | 4,911.6 | 4,886.3 | 4,885.0 | 20.0 | 10.2 | 81.04 | -603.1 | -777.4 | 356.7 | 326.6 | 30.07 | 11.860 CC | | |
| 5,000.0 | 4,918.2 | 4,892.9 | 4,891.6 | 20.1 | 10.2 | 81.28 | -602.8 | -777.5 | 356.7 | 326.6 | 30.12 | 11.841 | | |
| 5,100.0 | 5,016.3 | 4,991.6 | 4,990.2 | 20.5 | 10.4 | 84.78 | -598.8 | -778.8 | 357.3 | 326.4 | 30.84 | 11.584 ES | | |
| 5,200.0 | 5,114.5 | 5,091.5 | 5,090.0 | 20.9 | 10.7 | 88.29 | -595.0 | -779.8 | 358.8 | 327.3 | 31.52 | 11.382 | | |

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

| | | | |
|---------------------------|----------------------------------------------|-------------------------------------|-----------------------------|
| Company: | PETROLEUM DEVELOPMENT CORP Weld County CO | Local Co-ordinate Reference: | Well Wiedeman Trust 29P-212 |
| Project: | SEC.29-T4N-R66W | TVD Reference: | WELL @ 4778.0ft (RKB - 15') |
| Reference Site: | Wiedeman Trust 29O-HZ Pad Sec.29-T4N-R66W | MD Reference: | WELL @ 4778.0ft (RKB - 15') |
| Site Error: | 0.0ft | North Reference: | True |
| Reference Well: | Wiedeman Trust 29P-212 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Wellbore #1 | Database: | Landmark |
| Reference Design: | Plan #1 (6-17-14) | Offset TVD Reference: | Offset Datum |

| Offset Design | | Existing Wells Pad Sec.29-T4-R66W - Wiedeman 29-1 (Exist.) - Wellbore #1 - Wellbore #1 | | | | | | | | | | Offset Site Error: | | 0.0 ft | | |
|-------------------------|---------------------|----------------------------------------------------------------------------------------|---------------------|-----------------|-------------|-----------------------|-----------------------------------|------------|----------------------|-----------------------|-------------------------|--------------------|--|--------------------|--|--------|
| Survey Program: 100-MWD | | | | | | | | | | | | | | Offset Well Error: | | 0.0 ft |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | | Warning | | |
| Measured Depth (ft) | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (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 | | | | |
| 5,300.0 | 5,212.6 | 5,190.4 | 5,188.9 | 21.4 | 10.9 | 91.72 | -591.5 | -780.3 | 361.1 | 328.9 | 32.15 | 11.230 | | | | |
| 5,400.0 | 5,310.8 | 5,290.6 | 5,289.0 | 21.8 | 11.1 | 95.14 | -588.4 | -780.4 | 364.2 | 331.4 | 32.74 | 11.124 | | | | |
| 5,500.0 | 5,408.9 | 5,389.3 | 5,387.6 | 22.2 | 11.3 | 98.43 | -585.6 | -780.1 | 368.0 | 334.7 | 33.27 | 11.061 | | | | |
| 5,600.0 | 5,507.1 | 5,486.0 | 5,484.2 | 22.7 | 11.5 | 101.60 | -582.9 | -779.8 | 373.0 | 339.3 | 33.76 | 11.050 | | | | |
| 5,700.0 | 5,605.3 | 5,581.3 | 5,579.5 | 23.1 | 11.7 | 104.61 | -580.0 | -779.8 | 379.7 | 345.5 | 34.20 | 11.101 | | | | |
| 5,747.7 | 5,652.1 | 5,627.9 | 5,626.1 | 23.3 | 11.8 | 106.03 | -578.5 | -780.0 | 383.4 | 349.0 | 34.40 | 11.145 | | | | |
| 5,800.0 | 5,703.5 | 5,680.2 | 5,678.4 | 23.5 | 11.9 | 107.57 | -577.1 | -780.4 | 387.5 | 352.9 | 34.58 | 11.206 | | | | |
| 5,900.0 | 5,802.3 | 5,787.2 | 5,785.4 | 23.7 | 12.1 | 110.08 | -575.6 | -781.0 | 394.1 | 359.2 | 34.86 | 11.306 | | | | |
| 6,000.0 | 5,901.5 | 5,890.9 | 5,889.1 | 24.0 | 12.4 | 111.95 | -575.6 | -780.3 | 398.0 | 362.9 | 35.13 | 11.331 | | | | |
| 6,100.0 | 6,001.1 | 5,993.0 | 5,991.1 | 24.1 | 12.6 | 113.35 | -575.8 | -778.4 | 400.2 | 364.8 | 35.39 | 11.306 | | | | |
| 6,200.0 | 6,101.0 | 6,094.8 | 6,092.9 | 24.3 | 12.8 | 114.33 | -576.1 | -775.8 | 400.6 | 364.9 | 35.66 | 11.233 | | | | |
| 6,299.0 | 6,200.0 | 6,196.9 | 6,194.9 | 24.4 | 13.0 | -33.86 | -576.5 | -772.2 | 398.9 | 368.5 | 30.41 | 13.117 | | | | |
| 6,402.0 | 6,302.9 | 6,295.3 | 6,293.3 | 24.5 | 13.2 | -33.34 | -576.3 | -768.0 | 396.7 | 365.8 | 30.85 | 12.860 | | | | |
| 6,421.4 | 6,322.4 | 6,314.0 | 6,311.9 | 24.6 | 13.2 | -123.26 | -576.2 | -767.2 | 396.5 | 360.3 | 36.26 | 10.934 | | | | |
| 6,450.0 | 6,350.9 | 6,341.5 | 6,339.5 | 24.6 | 13.3 | -123.24 | -575.9 | -766.2 | 396.9 | 360.5 | 36.33 | 10.923 SF | | | | |
| 6,500.0 | 6,400.7 | 6,389.6 | 6,387.5 | 24.6 | 13.4 | -123.48 | -575.6 | -764.9 | 399.0 | 362.6 | 36.41 | 10.960 | | | | |
| 6,550.0 | 6,450.1 | 6,437.7 | 6,435.6 | 24.6 | 13.5 | -124.03 | -575.4 | -764.2 | 403.3 | 366.8 | 36.43 | 11.068 | | | | |
| 6,600.0 | 6,498.8 | 6,485.4 | 6,483.3 | 24.6 | 13.6 | -124.82 | -575.2 | -763.7 | 409.6 | 373.2 | 36.39 | 11.255 | | | | |
| 6,650.0 | 6,546.6 | 6,532.2 | 6,530.1 | 24.6 | 13.7 | -125.80 | -575.1 | -763.5 | 418.2 | 381.9 | 36.28 | 11.527 | | | | |
| 6,700.0 | 6,593.5 | 6,577.8 | 6,575.7 | 24.5 | 13.8 | -126.91 | -575.0 | -763.6 | 429.1 | 393.0 | 36.08 | 11.895 | | | | |
| 6,750.0 | 6,639.1 | 6,622.5 | 6,620.4 | 24.4 | 13.9 | -128.09 | -575.0 | -764.0 | 442.6 | 406.8 | 35.78 | 12.370 | | | | |
| 6,800.0 | 6,683.2 | 6,666.2 | 6,664.1 | 24.4 | 14.0 | -129.27 | -574.9 | -764.3 | 458.7 | 423.3 | 35.39 | 12.961 | | | | |
| 6,850.0 | 6,725.7 | 6,708.3 | 6,706.2 | 24.3 | 14.1 | -130.37 | -574.8 | -764.6 | 477.5 | 442.6 | 34.91 | 13.677 | | | | |
| 6,900.0 | 6,766.4 | 6,748.4 | 6,746.3 | 24.2 | 14.1 | -131.32 | -574.7 | -764.9 | 499.0 | 464.6 | 34.35 | 14.527 | | | | |
| 6,950.0 | 6,805.2 | 6,786.6 | 6,784.5 | 24.1 | 14.2 | -132.09 | -574.5 | -765.2 | 523.3 | 489.6 | 33.73 | 15.514 | | | | |
| 7,000.0 | 6,841.7 | 6,822.1 | 6,820.0 | 24.0 | 14.3 | -132.58 | -574.4 | -765.6 | 550.3 | 517.3 | 33.08 | 16.636 | | | | |
| 7,050.0 | 6,876.0 | 6,855.1 | 6,853.0 | 23.9 | 14.4 | -132.77 | -574.2 | -765.9 | 580.1 | 547.7 | 32.44 | 17.882 | | | | |
| 7,100.0 | 6,907.8 | 6,885.5 | 6,883.4 | 23.8 | 14.4 | -132.61 | -574.1 | -766.3 | 612.5 | 580.6 | 31.85 | 19.229 | | | | |
| 7,150.0 | 6,937.0 | 6,914.3 | 6,912.2 | 23.7 | 14.5 | -132.12 | -573.9 | -766.6 | 647.3 | 615.9 | 31.36 | 20.641 | | | | |
| 7,200.0 | 6,963.6 | 6,941.6 | 6,939.4 | 23.6 | 14.5 | -131.25 | -573.7 | -767.0 | 684.3 | 653.3 | 31.02 | 22.061 | | | | |
| 7,250.0 | 6,987.2 | 6,966.1 | 6,963.9 | 23.6 | 14.6 | -129.82 | -573.6 | -767.2 | 723.3 | 692.4 | 30.90 | 23.409 | | | | |
| 7,300.0 | 7,008.0 | 6,987.7 | 6,985.5 | 23.5 | 14.6 | -127.72 | -573.4 | -767.3 | 764.1 | 733.0 | 31.06 | 24.597 | | | | |
| 7,350.0 | 7,025.7 | 7,006.0 | 7,003.8 | 23.4 | 14.7 | -124.76 | -573.3 | -767.4 | 806.5 | 774.9 | 31.58 | 25.535 | | | | |
| 7,400.0 | 7,040.3 | 7,020.6 | 7,018.5 | 23.3 | 14.7 | -120.69 | -573.1 | -767.5 | 850.3 | 817.8 | 32.50 | 26.167 | | | | |
| 7,450.0 | 7,051.8 | 7,032.1 | 7,030.0 | 23.2 | 14.7 | -115.32 | -573.0 | -767.5 | 895.3 | 861.6 | 33.76 | 26.520 | | | | |
| 7,500.0 | 7,060.1 | 7,040.4 | 7,038.2 | 23.1 | 14.7 | -108.38 | -573.0 | -767.5 | 941.3 | 906.1 | 35.23 | 26.715 | | | | |
| 7,550.0 | 7,065.1 | 7,045.3 | 7,043.2 | 23.1 | 14.8 | -99.71 | -572.9 | -767.5 | 988.0 | 951.4 | 36.60 | 26.996 | | | | |

| | | | |
|---------------------------|----------------------------------------------|-------------------------------------|-----------------------------|
| Company: | PETROLEUM DEVELOPMENT CORP Weld County CO | Local Co-ordinate Reference: | Well Wiedeman Trust 29P-212 |
| Project: | SEC.29-T4N-R66W | TVD Reference: | WELL @ 4778.0ft (RKB - 15') |
| Reference Site: | Wiedeman Trust 29O-HZ Pad Sec.29-T4N-R66W | MD Reference: | WELL @ 4778.0ft (RKB - 15') |
| Site Error: | 0.0ft | North Reference: | True |
| Reference Well: | Wiedeman Trust 29P-212 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Wellbore #1 | Database: | Landmark |
| Reference Design: | Plan #1 (6-17-14) | Offset TVD Reference: | Offset Datum |

| Offset Design | | Wiedeman 29K-HZ Pad Sec.29-T4N-R66W - Wiedeman 29K-323 - Wellbore #1 - Plan #3 (4-24-14) | | | | | | | | | | | Offset Site Error: | 0.0 ft |
|-----------------------|---------------------|------------------------------------------------------------------------------------------|---------------------|-----------------|-------------|-----------------------|-----------------------------------|------------|----------------------|-----------------------|-------------------------|-------------------|--------------------|---------|
| Survey Program: 0-MWD | | | | | | | | | | | | | Offset Well Error: | 0.0 ft |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | | Warning |
| Measured Depth (ft) | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (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 | | |
| 2,000.0 | 1,973.6 | 2,149.2 | 2,136.8 | 7.1 | 5.5 | 52.42 | -390.4 | -1,104.8 | 978.4 | 967.4 | 11.04 | 88.604 | | |
| 2,100.0 | 2,071.7 | 2,243.3 | 2,229.5 | 7.5 | 5.8 | 53.51 | -385.2 | -1,089.3 | 949.8 | 938.1 | 11.69 | 81.224 | | |
| 2,200.0 | 2,169.9 | 2,337.4 | 2,322.2 | 7.9 | 6.2 | 54.67 | -379.9 | -1,073.8 | 921.5 | 909.1 | 12.36 | 74.570 | | |
| 2,300.0 | 2,268.0 | 2,431.6 | 2,414.9 | 8.4 | 6.5 | 55.90 | -374.6 | -1,058.4 | 893.6 | 880.5 | 13.04 | 68.550 | | |
| 2,400.0 | 2,366.2 | 2,525.7 | 2,507.6 | 8.8 | 6.9 | 57.21 | -369.4 | -1,042.9 | 866.1 | 852.4 | 13.73 | 63.087 | | |
| 2,500.0 | 2,464.3 | 2,619.8 | 2,600.2 | 9.2 | 7.2 | 58.59 | -364.1 | -1,027.4 | 839.1 | 824.6 | 14.44 | 58.116 | | |
| 2,600.0 | 2,562.5 | 2,713.9 | 2,692.9 | 9.7 | 7.6 | 60.06 | -358.8 | -1,011.9 | 812.6 | 797.4 | 15.16 | 53.584 | | |
| 2,700.0 | 2,660.6 | 2,808.0 | 2,785.6 | 10.1 | 8.0 | 61.63 | -353.6 | -996.4 | 786.6 | 770.7 | 15.91 | 49.445 | | |
| 2,800.0 | 2,758.8 | 2,902.1 | 2,878.3 | 10.5 | 8.3 | 63.30 | -348.3 | -981.0 | 761.3 | 744.6 | 16.67 | 45.660 | | |
| 2,900.0 | 2,856.9 | 2,996.3 | 2,971.0 | 11.0 | 8.7 | 65.07 | -343.0 | -965.5 | 736.6 | 719.2 | 17.46 | 42.197 | | |
| 3,000.0 | 2,955.1 | 3,090.4 | 3,063.7 | 11.4 | 9.0 | 66.95 | -337.8 | -950.0 | 712.7 | 694.5 | 18.26 | 39.028 | | |
| 3,100.0 | 3,053.2 | 3,184.5 | 3,156.4 | 11.8 | 9.4 | 68.96 | -332.5 | -934.5 | 689.7 | 670.6 | 19.09 | 36.130 | | |
| 3,200.0 | 3,151.4 | 3,278.6 | 3,249.0 | 12.3 | 9.8 | 71.09 | -327.2 | -919.1 | 667.5 | 647.6 | 19.94 | 33.482 | | |
| 3,300.0 | 3,249.6 | 3,372.7 | 3,341.7 | 12.7 | 10.1 | 73.36 | -322.0 | -903.6 | 646.3 | 625.5 | 20.80 | 31.068 | | |
| 3,400.0 | 3,347.7 | 3,466.8 | 3,434.4 | 13.1 | 10.5 | 75.76 | -316.7 | -888.1 | 626.3 | 604.6 | 21.69 | 28.872 | | |
| 3,500.0 | 3,445.9 | 3,561.0 | 3,527.1 | 13.6 | 10.9 | 78.30 | -311.4 | -872.6 | 607.5 | 584.9 | 22.60 | 26.883 | | |
| 3,600.0 | 3,544.0 | 3,655.1 | 3,619.8 | 14.0 | 11.2 | 80.99 | -306.2 | -857.2 | 590.0 | 566.5 | 23.51 | 25.090 | | |
| 3,700.0 | 3,642.2 | 3,749.2 | 3,712.5 | 14.4 | 11.6 | 83.82 | -300.9 | -841.7 | 573.9 | 549.5 | 24.44 | 23.482 | | |
| 3,800.0 | 3,740.3 | 3,843.3 | 3,805.2 | 14.9 | 12.0 | 86.79 | -295.6 | -826.2 | 559.5 | 534.1 | 25.37 | 22.052 | | |
| 3,900.0 | 3,838.5 | 3,937.4 | 3,897.8 | 15.3 | 12.3 | 89.89 | -290.3 | -810.7 | 546.8 | 520.5 | 26.30 | 20.792 | | |
| 4,000.0 | 3,936.6 | 4,031.5 | 3,990.5 | 15.7 | 12.7 | 93.12 | -285.1 | -795.2 | 535.8 | 508.6 | 27.21 | 19.695 | | |
| 4,100.0 | 4,034.8 | 4,125.7 | 4,083.2 | 16.2 | 13.1 | 96.45 | -279.8 | -779.8 | 526.9 | 498.8 | 28.10 | 18.752 | | |
| 4,200.0 | 4,132.9 | 4,219.8 | 4,175.9 | 16.6 | 13.5 | 99.88 | -274.5 | -764.3 | 520.0 | 491.0 | 28.95 | 17.959 | | |
| 4,300.0 | 4,231.1 | 4,313.9 | 4,268.6 | 17.0 | 13.8 | 103.37 | -269.3 | -748.8 | 515.2 | 485.4 | 29.77 | 17.306 | | |
| 4,400.0 | 4,329.3 | 4,408.0 | 4,361.3 | 17.5 | 14.2 | 106.91 | -264.0 | -733.3 | 512.6 | 482.1 | 30.53 | 16.788 | | |
| 4,466.9 | 4,394.9 | 4,471.0 | 4,423.2 | 17.7 | 14.4 | 109.29 | -260.5 | -723.0 | 512.1 | 481.1 | 31.01 | 16.512 | | |
| 4,500.0 | 4,427.4 | 4,502.1 | 4,453.9 | 17.9 | 14.6 | 110.47 | -258.7 | -717.9 | 512.2 | 481.0 | 31.24 | 16.395 | | |
| 4,600.0 | 4,525.6 | 4,596.2 | 4,546.6 | 18.3 | 14.9 | 114.02 | -253.5 | -702.4 | 514.1 | 482.2 | 31.89 | 16.120 | | |
| 4,700.0 | 4,623.7 | 4,690.4 | 4,639.3 | 18.8 | 15.3 | 117.53 | -248.2 | -686.9 | 518.1 | 485.6 | 32.47 | 15.955 | | |
| 4,800.0 | 4,721.9 | 4,784.5 | 4,732.0 | 19.2 | 15.7 | 120.98 | -242.9 | -671.4 | 524.3 | 491.3 | 33.00 | 15.890 | | |
| 4,900.0 | 4,820.0 | 4,878.6 | 4,824.7 | 19.6 | 16.0 | 124.35 | -237.7 | -655.9 | 532.6 | 499.1 | 33.46 | 15.918 | | |
| 5,000.0 | 4,918.2 | 4,972.7 | 4,917.4 | 20.1 | 16.4 | 127.61 | -232.4 | -640.5 | 542.9 | 509.0 | 33.87 | 16.028 | | |
| 5,100.0 | 5,016.3 | 5,066.8 | 5,010.1 | 20.5 | 16.8 | 130.76 | -227.1 | -625.0 | 555.0 | 520.8 | 34.23 | 16.212 | | |
| 5,200.0 | 5,114.5 | 5,160.9 | 5,102.7 | 20.9 | 17.2 | 133.77 | -221.9 | -609.5 | 568.9 | 534.3 | 34.56 | 16.462 | | |
| 5,300.0 | 5,212.6 | 5,255.1 | 5,195.4 | 21.4 | 17.5 | 136.65 | -216.6 | -594.0 | 584.4 | 549.5 | 34.85 | 16.769 | | |
| 5,400.0 | 5,310.8 | 5,349.2 | 5,288.1 | 21.8 | 17.9 | 139.38 | -211.3 | -578.6 | 601.4 | 566.3 | 35.12 | 17.125 | | |
| 5,500.0 | 5,408.9 | 5,443.3 | 5,380.8 | 22.2 | 18.3 | 141.98 | -206.1 | -563.1 | 619.8 | 584.4 | 35.37 | 17.522 | | |
| 5,600.0 | 5,507.1 | 5,542.0 | 5,478.1 | 22.7 | 18.6 | 144.45 | -200.9 | -547.8 | 639.2 | 603.6 | 35.56 | 17.976 | | |
| 5,700.0 | 5,605.3 | 5,643.9 | 5,579.2 | 23.1 | 18.9 | 146.58 | -196.6 | -535.3 | 658.7 | 622.9 | 35.73 | 18.436 | | |
| 5,747.7 | 5,652.1 | 5,693.3 | 5,628.3 | 23.3 | 19.0 | 147.45 | -195.0 | -530.5 | 667.9 | 632.0 | 35.82 | 18.646 | | |
| 5,800.0 | 5,703.5 | 5,748.0 | 5,682.8 | 23.5 | 19.1 | 148.39 | -193.5 | -526.1 | 677.4 | 641.4 | 35.92 | 18.857 | | |
| 5,900.0 | 5,802.3 | 5,854.4 | 5,789.1 | 23.7 | 19.3 | 149.76 | -191.5 | -520.3 | 692.7 | 656.6 | 36.12 | 19.177 | | |
| 6,000.0 | 5,901.5 | 5,962.6 | 5,897.3 | 24.0 | 19.4 | 150.58 | -190.8 | -518.3 | 704.0 | 667.6 | 36.36 | 19.362 | | |
| 6,100.0 | 6,001.1 | 6,062.5 | 5,997.1 | 24.1 | 19.6 | 151.00 | -190.8 | -518.3 | 711.5 | 674.9 | 36.62 | 19.430 | | |
| 6,200.0 | 6,101.0 | 6,162.4 | 6,097.0 | 24.3 | 19.7 | 151.24 | -190.8 | -518.3 | 716.1 | 679.2 | 36.88 | 19.417 | | |
| 6,299.0 | 6,200.0 | 6,261.4 | 6,196.0 | 24.4 | 19.9 | 2.54 | -190.8 | -518.3 | 717.6 | 679.7 | 37.88 | 18.944 | | |
| 6,402.0 | 6,302.9 | 6,364.3 | 6,298.9 | 24.5 | 20.0 | 2.54 | -190.8 | -518.3 | 717.6 | 679.4 | 38.20 | 18.788 | | |
| 6,450.0 | 6,350.9 | 6,412.3 | 6,346.9 | 24.6 | 20.1 | -87.58 | -190.8 | -518.3 | 717.5 | 679.9 | 37.61 | 19.080 | | |
| 6,500.0 | 6,400.7 | 6,462.1 | 6,396.7 | 24.6 | 20.2 | -87.97 | -190.8 | -518.3 | 717.3 | 679.6 | 37.79 | 18.983 | | |
| 6,550.0 | 6,450.1 | 6,513.4 | 6,449.9 | 24.6 | 20.4 | -95.96 | -327.9 | -518.3 | 706.8 | 667.1 | 39.72 | 17.796 | | |
| 6,600.0 | 6,498.8 | 7,278.6 | 7,074.9 | 24.6 | 20.6 | -113.06 | -572.7 | -518.3 | 669.9 | 628.6 | 41.29 | 16.223 | | |

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

| | | | |
|---------------------------|----------------------------------------------|-------------------------------------|-----------------------------|
| Company: | PETROLEUM DEVELOPMENT CORP Weld County CO | Local Co-ordinate Reference: | Well Wiedeman Trust 29P-212 |
| Project: | SEC.29-T4N-R66W | TVD Reference: | WELL @ 4778.0ft (RKB - 15') |
| Reference Site: | Wiedeman Trust 29O-HZ Pad Sec.29-T4N-R66W | MD Reference: | WELL @ 4778.0ft (RKB - 15') |
| Site Error: | 0.0ft | North Reference: | True |
| Reference Well: | Wiedeman Trust 29P-212 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Wellbore #1 | Database: | Landmark |
| Reference Design: | Plan #1 (6-17-14) | Offset TVD Reference: | Offset Datum |

| Offset Design | | Wiedeman 29K-HZ Pad Sec.29-T4N-R66W - Wiedeman 29K-323 - Wellbore #1 - Plan #3 (4-24-14) | | | | | | | | | | Offset Site Error: | | 0.0 ft |
|-----------------------|---------------------|------------------------------------------------------------------------------------------|---------------------|-----------------|-------------|-----------------------|-----------------------------------|------------|----------------------|-----------------------|-------------------------|--------------------|--|---------|
| Survey Program: 0-MWD | | | | | | | | | | | | Offset Well Error: | | 0.0 ft |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | | Warning |
| Measured Depth (ft) | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (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 | | |
| 6,650.0 | 6,546.6 | 7,412.1 | 7,131.2 | 24.6 | 21.0 | -132.39 | -693.6 | -518.3 | 626.3 | 585.2 | 41.18 | 15.209 | | |
| 6,700.0 | 6,593.5 | 7,479.3 | 7,151.4 | 24.5 | 21.2 | -147.70 | -757.6 | -518.3 | 582.1 | 541.9 | 40.21 | 14.478 | | |
| 6,750.0 | 6,639.1 | 7,518.9 | 7,160.6 | 24.4 | 21.4 | -157.75 | -796.2 | -518.3 | 539.2 | 500.1 | 39.13 | 13.779 | | |
| 6,800.0 | 6,683.2 | 7,544.8 | 7,165.5 | 24.4 | 21.6 | -164.11 | -821.6 | -518.3 | 498.8 | 460.7 | 38.04 | 13.111 | | |
| 6,850.0 | 6,725.7 | 7,562.9 | 7,168.5 | 24.3 | 21.7 | -168.22 | -839.5 | -518.3 | 462.0 | 425.1 | 36.91 | 12.518 | | |
| 6,900.0 | 6,766.4 | 7,576.3 | 7,170.4 | 24.2 | 21.8 | -170.98 | -852.7 | -518.3 | 430.2 | 394.5 | 35.69 | 12.052 | | |
| 6,950.0 | 6,805.2 | 7,586.4 | 7,171.7 | 24.1 | 21.9 | -172.90 | -862.7 | -518.3 | 404.7 | 370.3 | 34.39 | 11.767 | | |
| 7,000.0 | 6,841.7 | 7,594.2 | 7,172.6 | 24.0 | 21.9 | -174.28 | -870.5 | -518.3 | 387.1 | 354.1 | 33.02 | 11.724 SF | | |
| 7,050.0 | 6,876.0 | 7,600.5 | 7,173.2 | 23.9 | 22.0 | -175.29 | -876.7 | -518.3 | 378.5 | 346.9 | 31.57 | 11.989 | | |
| 7,069.5 | 6,888.7 | 7,602.6 | 7,173.4 | 23.9 | 22.0 | -175.61 | -878.8 | -518.3 | 377.7 | 346.7 | 30.99 | 12.189 CC, ES | | |
| 7,100.0 | 6,907.8 | 7,605.5 | 7,173.7 | 23.8 | 22.0 | -176.05 | -881.7 | -518.3 | 379.6 | 349.5 | 30.07 | 12.623 | | |
| 7,150.0 | 6,937.0 | 7,609.6 | 7,174.1 | 23.7 | 22.0 | -176.62 | -885.8 | -518.3 | 390.3 | 361.7 | 28.54 | 13.677 | | |
| 7,200.0 | 6,963.6 | 7,612.9 | 7,174.4 | 23.6 | 22.0 | -177.05 | -889.1 | -518.3 | 409.9 | 382.9 | 27.00 | 15.182 | | |
| 7,250.0 | 6,987.2 | 7,615.6 | 7,174.6 | 23.6 | 22.1 | -177.37 | -891.8 | -518.3 | 437.0 | 411.5 | 25.48 | 17.152 | | |
| 7,300.0 | 7,008.0 | 7,617.8 | 7,174.8 | 23.5 | 22.1 | -177.59 | -894.0 | -518.3 | 470.4 | 446.3 | 24.03 | 19.577 | | |
| 7,350.0 | 7,025.7 | 7,619.6 | 7,174.9 | 23.4 | 22.1 | -177.73 | -895.7 | -518.3 | 508.6 | 485.9 | 22.68 | 22.422 | | |
| 7,400.0 | 7,040.3 | 7,620.9 | 7,175.1 | 23.3 | 22.1 | -177.77 | -897.1 | -518.3 | 550.5 | 529.0 | 21.50 | 25.607 | | |
| 7,450.0 | 7,051.8 | 7,621.9 | 7,175.1 | 23.2 | 22.1 | -177.71 | -898.1 | -518.3 | 595.1 | 574.6 | 20.53 | 28.988 | | |
| 7,500.0 | 7,060.1 | 7,622.7 | 7,175.2 | 23.1 | 22.1 | -177.48 | -898.8 | -518.3 | 641.7 | 621.9 | 19.84 | 32.348 | | |
| 7,550.0 | 7,065.1 | 7,623.1 | 7,175.2 | 23.1 | 22.1 | -176.97 | -899.2 | -518.3 | 689.8 | 670.3 | 19.49 | 35.391 | | |
| 7,600.0 | 7,066.9 | 7,623.2 | 7,175.2 | 23.1 | 22.1 | -175.83 | -899.4 | -518.3 | 738.9 | 719.3 | 19.60 | 37.700 | | |
| 7,605.7 | 7,066.9 | 7,623.2 | 7,175.2 | 23.1 | 22.1 | -175.62 | -899.4 | -518.3 | 744.5 | 724.9 | 19.65 | 37.886 | | |
| 7,700.0 | 7,066.4 | 7,623.2 | 7,175.2 | 24.7 | 22.1 | -175.59 | -899.3 | -518.3 | 837.9 | 817.8 | 20.12 | 41.651 | | |
| 7,800.0 | 7,065.9 | 7,623.1 | 7,175.2 | 26.7 | 22.1 | -175.55 | -899.2 | -518.3 | 937.1 | 916.5 | 20.64 | 45.401 | | |

| | | | |
|---------------------------|----------------------------------------------|-------------------------------------|-----------------------------|
| Company: | PETROLEUM DEVELOPMENT CORP Weld County CO | Local Co-ordinate Reference: | Well Wiedeman Trust 29P-212 |
| Project: | SEC.29-T4N-R66W | TVD Reference: | WELL @ 4778.0ft (RKB - 15') |
| Reference Site: | Wiedeman Trust 29O-HZ Pad Sec.29-T4N-R66W | MD Reference: | WELL @ 4778.0ft (RKB - 15') |
| Site Error: | 0.0ft | North Reference: | True |
| Reference Well: | Wiedeman Trust 29P-212 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Wellbore #1 | Database: | Landmark |
| Reference Design: | Plan #1 (6-17-14) | Offset TVD Reference: | Offset Datum |

| Offset Design | | Wiedeman 29K-HZ Pad Sec.29-T4N-R66W - Wiedeman 29K-403 - Wellbore #1 - Plan #2 (4-24-14) | | | | | | | | | | Offset Site Error: | | 0.0 ft | |
|-----------------------|---------------------|------------------------------------------------------------------------------------------|---------------------|-----------------|-------------|-----------------------|-----------------------------------|------------|----------------------|-----------------------|-------------------------|--------------------|--|---------|--|
| Survey Program: 0-MWD | | | | | | | | | | | | Offset Well Error: | | 0.0 ft | |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | | Warning | |
| Measured Depth (ft) | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (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 | | | |
| 2,500.0 | 2,464.3 | 2,551.8 | 2,545.0 | 9.2 | 6.0 | 58.65 | -355.6 | -1,184.5 | 987.7 | 973.4 | 14.26 | 69.261 | | | |
| 2,600.0 | 2,562.5 | 2,647.4 | 2,640.0 | 9.7 | 6.3 | 59.98 | -348.8 | -1,176.6 | 969.4 | 954.4 | 14.97 | 64.770 | | | |
| 2,700.0 | 2,660.6 | 2,743.0 | 2,735.0 | 10.1 | 6.6 | 61.36 | -342.0 | -1,168.7 | 951.6 | 935.9 | 15.68 | 60.678 | | | |
| 2,800.0 | 2,758.8 | 2,838.6 | 2,830.0 | 10.5 | 6.9 | 62.79 | -335.2 | -1,160.8 | 934.4 | 918.0 | 16.41 | 56.944 | | | |
| 2,900.0 | 2,856.9 | 2,934.1 | 2,925.0 | 11.0 | 7.1 | 64.27 | -328.4 | -1,152.9 | 917.8 | 900.7 | 17.15 | 53.533 | | | |
| 3,000.0 | 2,955.1 | 3,029.7 | 3,020.0 | 11.4 | 7.4 | 65.79 | -321.5 | -1,145.0 | 901.9 | 884.1 | 17.89 | 50.412 | | | |
| 3,100.0 | 3,053.2 | 3,125.3 | 3,115.0 | 11.8 | 7.7 | 67.37 | -314.7 | -1,137.1 | 886.7 | 868.1 | 18.65 | 47.556 | | | |
| 3,200.0 | 3,151.4 | 3,220.9 | 3,210.0 | 12.3 | 8.0 | 69.00 | -307.9 | -1,129.2 | 872.2 | 852.8 | 19.41 | 44.941 | | | |
| 3,300.0 | 3,249.6 | 3,316.5 | 3,305.0 | 12.7 | 8.3 | 70.68 | -301.1 | -1,121.3 | 858.5 | 838.3 | 20.18 | 42.548 | | | |
| 3,400.0 | 3,347.7 | 3,412.0 | 3,400.1 | 13.1 | 8.5 | 72.40 | -294.3 | -1,113.4 | 845.6 | 824.6 | 20.95 | 40.357 | | | |
| 3,500.0 | 3,445.9 | 3,507.6 | 3,495.1 | 13.6 | 8.8 | 74.18 | -287.5 | -1,105.4 | 833.5 | 811.8 | 21.73 | 38.353 | | | |
| 3,600.0 | 3,544.0 | 3,603.2 | 3,590.1 | 14.0 | 9.1 | 76.00 | -280.7 | -1,097.5 | 822.3 | 799.8 | 22.51 | 36.522 | | | |
| 3,700.0 | 3,642.2 | 3,698.8 | 3,685.1 | 14.4 | 9.4 | 77.86 | -273.9 | -1,089.6 | 812.0 | 788.7 | 23.30 | 34.852 | | | |
| 3,800.0 | 3,740.3 | 3,794.4 | 3,780.1 | 14.9 | 9.7 | 79.77 | -267.0 | -1,081.7 | 802.6 | 778.5 | 24.08 | 33.330 | | | |
| 3,900.0 | 3,838.5 | 3,889.9 | 3,875.1 | 15.3 | 9.9 | 81.72 | -260.2 | -1,073.8 | 794.2 | 769.4 | 24.86 | 31.947 | | | |
| 4,000.0 | 3,936.6 | 3,985.5 | 3,970.1 | 15.7 | 10.2 | 83.70 | -253.4 | -1,065.9 | 786.9 | 761.2 | 25.64 | 30.694 | | | |
| 4,100.0 | 4,034.8 | 4,081.1 | 4,065.1 | 16.2 | 10.5 | 85.71 | -246.6 | -1,058.0 | 780.5 | 754.1 | 26.40 | 29.561 | | | |
| 4,200.0 | 4,132.9 | 4,176.7 | 4,160.1 | 16.6 | 10.8 | 87.75 | -239.8 | -1,050.1 | 775.3 | 748.1 | 27.16 | 28.541 | | | |
| 4,300.0 | 4,231.1 | 4,272.3 | 4,255.1 | 17.0 | 11.1 | 89.82 | -233.0 | -1,042.2 | 771.1 | 743.2 | 27.91 | 27.627 | | | |
| 4,400.0 | 4,329.3 | 4,367.8 | 4,350.1 | 17.5 | 11.3 | 91.90 | -226.2 | -1,034.3 | 768.0 | 739.4 | 28.64 | 26.812 | | | |
| 4,500.0 | 4,427.4 | 4,463.4 | 4,445.2 | 17.9 | 11.6 | 94.00 | -219.3 | -1,026.3 | 766.0 | 736.7 | 29.36 | 26.090 | | | |
| 4,600.0 | 4,525.6 | 4,559.0 | 4,540.2 | 18.3 | 11.9 | 96.10 | -212.5 | -1,018.4 | 765.2 | 735.1 | 30.06 | 25.455 | | | |
| 4,624.2 | 4,549.3 | 4,582.2 | 4,563.2 | 18.4 | 12.0 | 96.61 | -210.9 | -1,016.5 | 765.2 | 734.9 | 30.23 | 25.313 CC | | | |
| 4,700.0 | 4,623.7 | 4,654.6 | 4,635.2 | 18.8 | 12.2 | 98.20 | -205.7 | -1,010.5 | 765.5 | 734.8 | 30.74 | 24.900 ES | | | |
| 4,800.0 | 4,721.9 | 4,748.7 | 4,728.7 | 19.2 | 12.5 | 100.25 | -199.2 | -1,003.0 | 767.0 | 735.6 | 31.38 | 24.440 | | | |
| 4,900.0 | 4,820.0 | 4,842.1 | 4,821.9 | 19.6 | 12.7 | 102.09 | -194.4 | -997.4 | 769.8 | 737.8 | 31.96 | 24.086 | | | |
| 5,000.0 | 4,918.2 | 4,937.1 | 4,916.8 | 20.1 | 12.8 | 103.71 | -191.6 | -994.1 | 773.7 | 741.2 | 32.49 | 23.813 | | | |
| 5,100.0 | 5,016.3 | 5,033.7 | 5,013.3 | 20.5 | 13.0 | 105.12 | -190.8 | -993.2 | 778.5 | 745.5 | 33.00 | 23.588 | | | |
| 5,200.0 | 5,114.5 | 5,131.8 | 5,111.5 | 20.9 | 13.2 | 106.45 | -190.8 | -993.2 | 783.8 | 750.3 | 33.52 | 23.383 | | | |
| 5,300.0 | 5,212.6 | 5,230.0 | 5,209.6 | 21.4 | 13.4 | 107.76 | -190.8 | -993.2 | 789.5 | 755.5 | 34.04 | 23.197 | | | |
| 5,400.0 | 5,310.8 | 5,328.2 | 5,307.8 | 21.8 | 13.5 | 109.05 | -190.8 | -993.2 | 795.7 | 761.1 | 34.54 | 23.034 | | | |
| 5,500.0 | 5,408.9 | 5,426.3 | 5,405.9 | 22.2 | 13.7 | 110.32 | -190.8 | -993.2 | 802.2 | 767.2 | 35.04 | 22.894 | | | |
| 5,600.0 | 5,507.1 | 5,524.5 | 5,504.1 | 22.7 | 13.9 | 111.57 | -190.8 | -993.2 | 809.2 | 773.6 | 35.53 | 22.774 | | | |
| 5,700.0 | 5,605.3 | 5,622.6 | 5,602.3 | 23.1 | 14.1 | 112.80 | -190.8 | -993.2 | 816.5 | 780.5 | 36.01 | 22.673 | | | |
| 5,747.7 | 5,652.1 | 5,669.5 | 5,649.1 | 23.3 | 14.2 | 113.38 | -190.8 | -993.2 | 820.1 | 783.9 | 36.24 | 22.632 | | | |
| 5,800.0 | 5,703.5 | 5,720.9 | 5,700.5 | 23.5 | 14.3 | 114.05 | -190.8 | -993.2 | 824.0 | 787.6 | 36.45 | 22.606 | | | |
| 5,900.0 | 5,802.3 | 5,819.6 | 5,799.3 | 23.7 | 14.5 | 115.14 | -190.8 | -993.2 | 830.6 | 793.8 | 36.79 | 22.578 | | | |
| 6,000.0 | 5,901.5 | 5,918.9 | 5,898.5 | 24.0 | 14.7 | 115.99 | -190.8 | -993.2 | 835.9 | 798.7 | 37.11 | 22.522 | | | |
| 6,100.0 | 6,001.1 | 6,018.5 | 5,998.1 | 24.1 | 14.9 | 116.59 | -190.8 | -993.2 | 839.7 | 802.3 | 37.43 | 22.436 | | | |
| 6,200.0 | 6,101.0 | 6,118.4 | 6,098.0 | 24.3 | 15.1 | 116.94 | -190.8 | -993.2 | 842.1 | 804.3 | 37.73 | 22.318 | | | |
| 6,299.0 | 6,200.0 | 6,217.4 | 6,197.0 | 24.4 | 15.3 | -31.73 | -190.8 | -993.2 | 842.8 | 811.3 | 31.51 | 26.748 | | | |
| 6,402.0 | 6,302.9 | 6,320.3 | 6,299.9 | 24.5 | 15.5 | -31.73 | -190.8 | -993.2 | 842.8 | 810.9 | 31.89 | 26.431 | | | |
| 6,450.0 | 6,350.9 | 6,368.3 | 6,347.9 | 24.6 | 15.6 | -121.75 | -190.8 | -993.2 | 843.6 | 805.1 | 38.49 | 21.917 | | | |
| 6,500.0 | 6,400.7 | 6,418.1 | 6,397.7 | 24.6 | 15.6 | -121.86 | -190.8 | -993.2 | 846.2 | 807.6 | 38.55 | 21.947 | | | |
| 6,550.0 | 6,450.1 | 6,467.4 | 6,447.1 | 24.6 | 15.7 | -122.04 | -190.8 | -993.2 | 850.4 | 811.9 | 38.54 | 22.065 | | | |
| 6,600.0 | 6,498.8 | 6,516.1 | 6,495.8 | 24.6 | 15.8 | -122.28 | -190.8 | -993.2 | 856.5 | 818.1 | 38.46 | 22.272 | | | |
| 6,650.0 | 6,546.6 | 6,563.5 | 6,544.7 | 24.6 | 16.2 | -130.63 | -262.4 | -993.2 | 860.4 | 821.4 | 39.05 | 22.034 | | | |
| 6,700.0 | 6,593.5 | 6,610.9 | 6,592.2 | 24.5 | 16.3 | -150.39 | -523.3 | -993.2 | 844.9 | 806.3 | 38.55 | 21.915 SF | | | |
| 6,750.0 | 6,639.1 | 6,656.5 | 6,638.7 | 24.4 | 16.9 | -161.50 | -664.0 | -993.2 | 825.5 | 787.9 | 37.64 | 21.935 | | | |
| 6,800.0 | 6,683.2 | 6,700.6 | 6,682.8 | 24.4 | 17.4 | -167.32 | -737.3 | -993.2 | 809.2 | 772.6 | 36.68 | 22.060 | | | |
| 6,850.0 | 6,725.7 | 6,743.1 | 6,725.5 | 24.3 | 17.8 | -170.69 | -780.5 | -993.2 | 797.9 | 762.3 | 35.62 | 22.402 | | | |

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

| | | | |
|---------------------------|----------------------------------------------|-------------------------------------|-----------------------------|
| Company: | PETROLEUM DEVELOPMENT CORP Weld County CO | Local Co-ordinate Reference: | Well Wiedeman Trust 29P-212 |
| Project: | SEC.29-T4N-R66W | TVD Reference: | WELL @ 4778.0ft (RKB - 15') |
| Reference Site: | Wiedeman Trust 29O-HZ Pad Sec.29-T4N-R66W | MD Reference: | WELL @ 4778.0ft (RKB - 15') |
| Site Error: | 0.0ft | North Reference: | True |
| Reference Well: | Wiedeman Trust 29P-212 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Wellbore #1 | Database: | Landmark |
| Reference Design: | Plan #1 (6-17-14) | Offset TVD Reference: | Offset Datum |

| Offset Design | | | | | | | | | | Wiedeman 29K-HZ Pad Sec.29-T4N-R66W - Wiedeman 29K-403 - Wellbore #1 - Plan #2 (4-24-14) | | | | Offset Site Error: | 0.0 ft |
|-----------------------|---------------------|---------------------|---------------------|-----------------|-------------|-----------------------|-----------------------------------|------------|----------------------|------------------------------------------------------------------------------------------|-------------------------|-------------------|--|--------------------|--------|
| Survey Program: 0-MWD | | | | | | | | | | | | | | Offset Well Error: | 0.0 ft |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | | Warning | |
| Measured Depth (ft) | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (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 | | | |
| 6,900.0 | 6,766.4 | 7,595.1 | 7,271.5 | 24.2 | 18.0 | -172.81 | -808.7 | -993.2 | 792.4 | 757.9 | 34.43 | 23.010 | | | |
| 6,920.3 | 6,782.4 | 7,604.0 | 7,273.2 | 24.2 | 18.1 | -173.45 | -817.4 | -993.2 | 791.8 | 757.9 | 33.92 | 23.342 | | | |
| 6,950.0 | 6,805.2 | 7,614.9 | 7,275.1 | 24.1 | 18.2 | -174.23 | -828.2 | -993.2 | 792.9 | 759.8 | 33.15 | 23.919 | | | |
| 7,000.0 | 6,841.7 | 7,629.4 | 7,277.3 | 24.0 | 18.3 | -175.22 | -842.5 | -993.2 | 799.8 | 768.0 | 31.78 | 25.167 | | | |
| 7,050.0 | 6,876.0 | 7,640.2 | 7,278.9 | 23.9 | 18.4 | -175.94 | -853.2 | -993.2 | 812.7 | 782.4 | 30.33 | 26.792 | | | |
| 7,100.0 | 6,907.8 | 7,648.6 | 7,279.9 | 23.8 | 18.5 | -176.46 | -861.5 | -993.2 | 831.4 | 802.6 | 28.84 | 28.830 | | | |
| 7,150.0 | 6,937.0 | 7,655.1 | 7,280.7 | 23.7 | 18.6 | -176.85 | -868.0 | -993.2 | 855.5 | 828.2 | 27.32 | 31.313 | | | |
| 7,200.0 | 6,963.6 | 7,660.3 | 7,281.3 | 23.6 | 18.6 | -177.13 | -873.2 | -993.2 | 884.4 | 858.6 | 25.81 | 34.269 | | | |
| 7,250.0 | 6,987.2 | 7,663.5 | 7,281.6 | 23.6 | 18.6 | -177.24 | -876.4 | -993.2 | 917.6 | 893.3 | 24.34 | 37.702 | | | |
| 7,300.0 | 7,008.0 | 7,665.7 | 7,281.8 | 23.5 | 18.7 | -177.24 | -878.5 | -993.2 | 954.5 | 931.5 | 22.95 | 41.584 | | | |
| 7,350.0 | 7,025.7 | 7,667.5 | 7,282.0 | 23.4 | 18.7 | -177.17 | -880.3 | -993.2 | 994.5 | 972.8 | 21.70 | 45.830 | | | |

| | | | |
|---------------------------|----------------------------------------------|-------------------------------------|-----------------------------|
| Company: | PETROLEUM DEVELOPMENT CORP Weld County CO | Local Co-ordinate Reference: | Well Wiedeman Trust 29P-212 |
| Project: | SEC.29-T4N-R66W | TVD Reference: | WELL @ 4778.0ft (RKB - 15') |
| Reference Site: | Wiedeman Trust 29O-HZ Pad Sec.29-T4N-R66W | MD Reference: | WELL @ 4778.0ft (RKB - 15') |
| Site Error: | 0.0ft | North Reference: | True |
| Reference Well: | Wiedeman Trust 29P-212 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Wellbore #1 | Database: | Landmark |
| Reference Design: | Plan #1 (6-17-14) | Offset TVD Reference: | Offset Datum |

| Offset Design | | Wiedeman 29K-HZ Pad Sec.29-T4N-R66W - Wiedeman 29O-243 - Wellbore #1 - Plan #2 (4-24-18) | | | | | | | | | | | Offset Site Error: | 0.0 ft | |
|-----------------------|---------------------|------------------------------------------------------------------------------------------|---------------------|-----------------|-------------|-----------------------|------------------------|------------|----------------------|-----------------------|-------------------------|-------------------|--------------------|---------|--|
| Survey Program: 0-MWD | | | | | | | | | | | | | Offset Well Error: | 0.0 ft | |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | | Warning | |
| Measured Depth (ft) | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (ft) | Offset (ft) | Highside Toolface (°) | Offset Wellbore Centre | | Between Centres (ft) | Between Ellipses (ft) | Minimum Separation (ft) | Separation Factor | | | |
| | | | | | | | +N/-S (ft) | +E/-W (ft) | | | | | | | |
| 1,300.0 | 1,286.5 | 1,509.0 | 1,489.1 | 4.1 | 5.2 | 45.56 | -393.3 | -1,017.1 | 992.1 | 985.0 | 7.08 | 140.217 | | | |
| 1,400.0 | 1,384.6 | 1,602.2 | 1,580.2 | 4.5 | 5.6 | 46.34 | -388.9 | -998.2 | 958.2 | 950.5 | 7.68 | 124.832 | | | |
| 1,500.0 | 1,482.8 | 1,695.4 | 1,671.4 | 4.9 | 6.0 | 47.17 | -384.5 | -979.3 | 924.4 | 916.1 | 8.28 | 111.572 | | | |
| 1,600.0 | 1,580.9 | 1,788.6 | 1,762.6 | 5.4 | 6.4 | 48.07 | -380.1 | -960.4 | 890.8 | 881.9 | 8.90 | 100.039 | | | |
| 1,700.0 | 1,679.1 | 1,881.9 | 1,853.7 | 5.8 | 6.9 | 49.03 | -375.8 | -941.4 | 857.4 | 847.8 | 9.53 | 89.925 | | | |
| 1,800.0 | 1,777.2 | 1,975.1 | 1,949.0 | 6.2 | 7.3 | 50.07 | -371.4 | -922.5 | 824.2 | 814.0 | 10.18 | 80.991 | | | |
| 1,900.0 | 1,875.4 | 2,068.3 | 2,036.1 | 6.7 | 7.7 | 51.19 | -367.0 | -903.6 | 791.3 | 780.5 | 10.83 | 73.049 | | | |
| 2,000.0 | 1,973.6 | 2,161.5 | 2,127.3 | 7.1 | 8.1 | 52.40 | -362.6 | -884.7 | 758.8 | 747.2 | 11.51 | 65.950 | | | |
| 2,100.0 | 2,071.7 | 2,254.7 | 2,218.4 | 7.5 | 8.6 | 53.73 | -358.2 | -865.8 | 726.5 | 714.3 | 12.20 | 59.573 | | | |
| 2,200.0 | 2,169.9 | 2,348.0 | 2,309.6 | 7.9 | 9.0 | 55.16 | -353.8 | -846.8 | 694.7 | 681.8 | 12.91 | 53.821 | | | |
| 2,300.0 | 2,268.0 | 2,441.2 | 2,400.8 | 8.4 | 9.4 | 56.74 | -349.4 | -827.9 | 663.3 | 649.6 | 13.64 | 48.615 | | | |
| 2,400.0 | 2,366.2 | 2,534.4 | 2,491.9 | 8.8 | 9.8 | 58.46 | -345.1 | -809.0 | 632.4 | 618.0 | 14.41 | 43.890 | | | |
| 2,500.0 | 2,464.3 | 2,627.6 | 2,583.1 | 9.2 | 10.3 | 60.35 | -340.7 | -790.1 | 602.1 | 586.9 | 15.21 | 39.595 | | | |
| 2,600.0 | 2,562.5 | 2,720.8 | 2,674.3 | 9.7 | 10.7 | 62.42 | -336.3 | -771.1 | 572.5 | 556.4 | 16.04 | 35.686 | | | |
| 2,700.0 | 2,660.6 | 2,814.0 | 2,765.4 | 10.1 | 11.1 | 64.71 | -331.9 | -752.2 | 543.6 | 526.7 | 16.92 | 32.130 | | | |
| 2,800.0 | 2,758.8 | 2,907.3 | 2,856.6 | 10.5 | 11.5 | 67.23 | -327.5 | -733.3 | 515.8 | 497.9 | 17.85 | 28.899 | | | |
| 2,900.0 | 2,856.9 | 3,000.5 | 2,947.8 | 11.0 | 12.0 | 70.02 | -323.1 | -714.4 | 489.0 | 470.1 | 18.83 | 25.971 | | | |
| 3,000.0 | 2,955.1 | 3,093.7 | 3,039.0 | 11.4 | 12.4 | 73.11 | -318.7 | -695.4 | 463.4 | 443.6 | 19.86 | 23.332 | | | |
| 3,100.0 | 3,053.2 | 3,186.9 | 3,130.1 | 11.8 | 12.8 | 76.51 | -314.4 | -676.5 | 439.4 | 418.5 | 20.96 | 20.969 | | | |
| 3,200.0 | 3,151.4 | 3,280.1 | 3,221.3 | 12.3 | 13.2 | 80.26 | -310.0 | -657.6 | 417.2 | 395.1 | 22.10 | 18.875 | | | |
| 3,300.0 | 3,249.6 | 3,373.3 | 3,312.5 | 12.7 | 13.7 | 84.37 | -305.6 | -638.7 | 397.0 | 373.7 | 23.29 | 17.044 | | | |
| 3,400.0 | 3,347.7 | 3,466.6 | 3,403.6 | 13.1 | 14.1 | 88.85 | -301.2 | -619.7 | 379.2 | 354.7 | 24.51 | 15.473 | | | |
| 3,500.0 | 3,445.9 | 3,559.8 | 3,494.8 | 13.6 | 14.5 | 93.70 | -296.8 | -600.8 | 364.2 | 338.4 | 25.72 | 14.157 | | | |
| 3,600.0 | 3,544.0 | 3,653.0 | 3,586.0 | 14.0 | 14.9 | 98.87 | -292.4 | -581.9 | 352.2 | 325.3 | 26.90 | 13.091 | | | |
| 3,700.0 | 3,642.2 | 3,746.2 | 3,677.2 | 14.4 | 15.4 | 104.31 | -288.0 | -563.0 | 343.6 | 315.6 | 28.01 | 12.269 | | | |
| 3,800.0 | 3,740.3 | 3,839.4 | 3,768.3 | 14.9 | 15.8 | 109.94 | -283.6 | -544.0 | 338.8 | 309.8 | 29.00 | 11.681 | | | |
| 3,877.1 | 3,816.0 | 3,911.3 | 3,838.6 | 15.2 | 16.1 | 114.35 | -280.3 | -529.5 | 337.6 | 307.9 | 29.67 | 11.379 | | | |
| 3,900.0 | 3,838.5 | 3,932.7 | 3,859.5 | 15.3 | 16.2 | 115.66 | -279.3 | -525.1 | 337.7 | 307.9 | 29.85 | 11.314 | | | |
| 4,000.0 | 3,936.6 | 4,025.9 | 3,950.7 | 15.7 | 16.7 | 121.35 | -274.9 | -506.2 | 340.5 | 310.0 | 30.53 | 11.153 | | | |
| 4,100.0 | 4,034.8 | 4,119.1 | 4,041.8 | 16.2 | 17.1 | 126.91 | -270.5 | -487.3 | 347.1 | 316.1 | 31.06 | 11.177 | | | |
| 4,200.0 | 4,132.9 | 4,212.3 | 4,133.0 | 16.6 | 17.5 | 132.24 | -266.1 | -468.3 | 357.3 | 325.8 | 31.44 | 11.365 | | | |
| 4,300.0 | 4,231.1 | 4,305.5 | 4,224.2 | 17.0 | 17.9 | 137.26 | -261.7 | -449.4 | 370.7 | 339.0 | 31.70 | 11.695 | | | |
| 4,400.0 | 4,329.3 | 4,398.7 | 4,315.4 | 17.5 | 18.4 | 141.94 | -257.3 | -430.5 | 387.1 | 355.2 | 31.87 | 12.144 | | | |
| 4,500.0 | 4,427.4 | 4,492.0 | 4,406.5 | 17.9 | 18.8 | 146.26 | -252.9 | -411.6 | 406.0 | 374.0 | 32.00 | 12.688 | | | |
| 4,600.0 | 4,525.6 | 4,585.2 | 4,497.7 | 18.3 | 19.2 | 150.20 | -248.6 | -392.6 | 427.2 | 395.1 | 32.10 | 13.306 | | | |
| 4,700.0 | 4,623.7 | 4,678.4 | 4,588.9 | 18.8 | 19.6 | 153.79 | -244.2 | -373.7 | 450.3 | 418.0 | 32.20 | 13.981 | | | |
| 4,800.0 | 4,721.9 | 4,771.6 | 4,680.0 | 19.2 | 20.1 | 157.04 | -239.8 | -354.8 | 475.0 | 442.7 | 32.32 | 14.695 | | | |
| 4,900.0 | 4,820.0 | 4,864.8 | 4,771.2 | 19.6 | 20.5 | 159.98 | -235.4 | -335.9 | 501.1 | 468.6 | 32.46 | 15.436 | | | |
| 5,000.0 | 4,918.2 | 4,958.0 | 4,862.4 | 20.1 | 20.9 | 162.65 | -231.0 | -317.0 | 528.4 | 495.8 | 32.64 | 16.192 | | | |
| 5,100.0 | 5,016.3 | 5,051.3 | 4,953.6 | 20.5 | 21.4 | 165.06 | -226.6 | -298.0 | 556.8 | 523.9 | 32.84 | 16.954 | | | |
| 5,200.0 | 5,114.5 | 5,144.5 | 5,044.7 | 20.9 | 21.8 | 167.25 | -222.2 | -279.1 | 585.9 | 552.9 | 33.08 | 17.715 | | | |
| 5,300.0 | 5,212.6 | 5,237.7 | 5,135.9 | 21.4 | 22.2 | 169.24 | -217.9 | -260.2 | 615.9 | 582.5 | 33.34 | 18.471 | | | |
| 5,400.0 | 5,310.8 | 5,330.9 | 5,227.1 | 21.8 | 22.6 | 171.05 | -213.5 | -241.3 | 646.5 | 612.8 | 33.64 | 19.217 | | | |
| 5,500.0 | 5,408.9 | 5,424.1 | 5,318.2 | 22.2 | 23.1 | 172.70 | -209.1 | -222.3 | 677.6 | 643.6 | 33.96 | 19.951 | | | |
| 5,600.0 | 5,507.1 | 5,518.6 | 5,410.6 | 22.7 | 23.5 | 174.22 | -204.6 | -203.2 | 709.2 | 674.9 | 34.31 | 20.672 | | | |
| 5,700.0 | 5,605.3 | 5,630.7 | 5,520.8 | 23.1 | 23.9 | 175.72 | -199.9 | -182.8 | 739.9 | 705.3 | 34.63 | 21.363 | | | |
| 5,747.7 | 5,652.1 | 5,685.3 | 5,574.7 | 23.3 | 24.1 | 176.30 | -198.0 | -174.4 | 753.8 | 719.0 | 34.79 | 21.669 | | | |
| 5,800.0 | 5,703.5 | 5,745.9 | 5,634.7 | 23.5 | 24.2 | 176.87 | -196.1 | -166.3 | 767.9 | 732.9 | 35.02 | 21.926 | | | |
| 5,900.0 | 5,802.3 | 5,864.4 | 5,752.5 | 23.7 | 24.5 | 177.67 | -193.2 | -153.9 | 790.5 | 755.1 | 35.45 | 22.299 | | | |
| 6,000.0 | 5,901.5 | 5,985.6 | 5,873.5 | 24.0 | 24.7 | 178.15 | -191.4 | -146.2 | 807.0 | 771.2 | 35.85 | 22.509 | | | |
| 6,100.0 | 6,001.1 | 6,108.7 | 5,996.5 | 24.1 | 24.8 | 178.33 | -190.8 | -143.5 | 817.2 | 781.0 | 36.22 | 22.564 | | | |

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

| | | | |
|---------------------------|----------------------------------------------|-------------------------------------|-----------------------------|
| Company: | PETROLEUM DEVELOPMENT CORP Weld County CO | Local Co-ordinate Reference: | Well Wiedeman Trust 29P-212 |
| Project: | SEC.29-T4N-R66W | TVD Reference: | WELL @ 4778.0ft (RKB - 15') |
| Reference Site: | Wiedeman Trust 29O-HZ Pad Sec.29-T4N-R66W | MD Reference: | WELL @ 4778.0ft (RKB - 15') |
| Site Error: | 0.0ft | North Reference: | True |
| Reference Well: | Wiedeman Trust 29P-212 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Wellbore #1 | Database: | Landmark |
| Reference Design: | Plan #1 (6-17-14) | Offset TVD Reference: | Offset Datum |

| Offset Design Wiedeman 29K-HZ Pad Sec.29-T4N-R66W - Wiedeman 29O-243 - Wellbore #1 - Plan #2 (4-24-18) | | | | | | | | | | | Offset Site Error: | | 0.0 ft |
|--------------------------------------------------------------------------------------------------------|----------------|----------------|----------------|-----------------|--------|-------------------|------------------------|------------|-----------------|------------------|--------------------|--------------------|-------------------|
| Survey Program: 0-MWD | | | | | | | | | | | Offset Well Error: | | 0.0 ft |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | Warning | | |
| Measured Depth | Vertical Depth | Measured Depth | Vertical Depth | Reference | Offset | Highside Toolface | Offset Wellbore Centre | | Between Centres | Between Ellipses | | Minimum Separation | Separation Factor |
| (ft) | (ft) | (ft) | (ft) | (ft) | (ft) | (°) | +N/-S (ft) | +E/-W (ft) | (ft) | (ft) | | (ft) | |
| 6,200.0 | 6,101.0 | 6,209.2 | 6,097.0 | 24.3 | 24.9 | 178.34 | -190.8 | -143.5 | 822.4 | 785.9 | 36.53 | 22.514 | |
| 6,299.0 | 6,200.0 | 6,308.2 | 6,196.0 | 24.4 | 25.1 | 29.56 | -190.8 | -143.5 | 824.1 | 779.5 | 44.67 | 18.449 | |
| 6,402.0 | 6,302.9 | 6,411.1 | 6,298.9 | 24.5 | 25.2 | 29.56 | -190.8 | -143.5 | 824.1 | 779.2 | 44.93 | 18.344 | |
| 6,450.0 | 6,350.9 | 6,871.1 | 6,734.5 | 24.6 | 25.4 | -57.31 | -315.5 | -143.5 | 815.4 | 777.6 | 37.82 | 21.558 | |
| 6,500.0 | 6,400.7 | 7,224.5 | 6,975.8 | 24.6 | 25.5 | -46.32 | -569.5 | -143.5 | 781.0 | 742.2 | 38.79 | 20.136 | |
| 6,550.0 | 6,450.1 | 7,362.9 | 7,034.4 | 24.6 | 25.8 | -38.11 | -694.6 | -143.5 | 738.6 | 699.0 | 39.60 | 18.653 | |
| 6,600.0 | 6,498.8 | 7,431.6 | 7,054.9 | 24.6 | 26.0 | -33.27 | -760.1 | -143.5 | 693.3 | 653.3 | 40.00 | 17.332 | |
| 6,650.0 | 6,546.6 | 7,471.9 | 7,064.1 | 24.6 | 26.2 | -30.87 | -799.3 | -143.5 | 646.6 | 606.5 | 40.06 | 16.139 | |
| 6,700.0 | 6,593.5 | 7,498.1 | 7,069.0 | 24.5 | 26.3 | -30.41 | -825.1 | -143.5 | 598.9 | 559.0 | 39.87 | 15.020 | |
| 6,750.0 | 6,639.1 | 7,516.4 | 7,071.9 | 24.4 | 26.4 | -32.04 | -843.2 | -143.5 | 550.4 | 510.9 | 39.54 | 13.922 | |
| 6,800.0 | 6,683.2 | 7,529.9 | 7,073.8 | 24.4 | 26.4 | -36.80 | -856.5 | -143.5 | 501.4 | 462.2 | 39.24 | 12.777 | |
| 6,850.0 | 6,725.7 | 7,540.1 | 7,075.0 | 24.3 | 26.5 | -48.08 | -866.7 | -143.5 | 451.9 | 412.4 | 39.59 | 11.414 | |
| 6,900.0 | 6,766.4 | 7,548.1 | 7,075.9 | 24.2 | 26.5 | -75.65 | -874.6 | -143.5 | 402.2 | 359.8 | 42.43 | 9.479 | |
| 6,950.0 | 6,805.2 | 7,554.4 | 7,076.5 | 24.1 | 26.6 | -121.84 | -880.9 | -143.5 | 352.4 | 310.2 | 42.21 | 8.349 | |
| 7,000.0 | 6,841.7 | 7,559.6 | 7,077.0 | 24.0 | 26.6 | -150.55 | -886.0 | -143.5 | 302.7 | 265.7 | 37.04 | 8.173 | |
| 7,050.0 | 6,876.0 | 7,563.8 | 7,077.4 | 23.9 | 26.6 | -162.86 | -890.2 | -143.5 | 253.6 | 219.6 | 34.03 | 7.452 | |
| 7,100.0 | 6,907.8 | 7,567.3 | 7,077.7 | 23.8 | 26.6 | -168.90 | -893.7 | -143.5 | 205.8 | 173.8 | 31.95 | 6.441 | |
| 7,150.0 | 6,937.0 | 7,570.1 | 7,077.9 | 23.7 | 26.7 | -172.32 | -896.6 | -143.5 | 160.7 | 130.5 | 30.14 | 5.331 | |
| 7,200.0 | 6,963.6 | 7,572.5 | 7,078.1 | 23.6 | 26.7 | -174.45 | -898.9 | -143.5 | 121.7 | 93.3 | 28.44 | 4.280 | |
| 7,250.0 | 6,987.2 | 7,574.5 | 7,078.2 | 23.6 | 26.7 | -175.87 | -900.9 | -143.5 | 96.9 | 70.1 | 26.80 | 3.615 | |
| 7,273.5 | 6,997.3 | 7,575.3 | 7,078.3 | 23.5 | 26.7 | -176.37 | -901.7 | -143.5 | 93.6 | 67.6 | 26.05 | 3.594 CC, ES, SF | |
| 7,300.0 | 7,008.0 | 7,576.1 | 7,078.3 | 23.5 | 26.7 | -176.85 | -902.5 | -143.5 | 97.7 | 72.5 | 25.23 | 3.874 | |
| 7,350.0 | 7,025.7 | 7,577.4 | 7,078.4 | 23.4 | 26.7 | -177.55 | -903.8 | -143.5 | 123.8 | 100.0 | 23.77 | 5.209 | |
| 7,400.0 | 7,040.3 | 7,578.4 | 7,078.5 | 23.3 | 26.7 | -178.05 | -904.8 | -143.5 | 163.3 | 140.9 | 22.45 | 7.276 | |
| 7,450.0 | 7,051.8 | 7,579.2 | 7,078.5 | 23.2 | 26.7 | -178.36 | -905.6 | -143.5 | 208.7 | 187.4 | 21.33 | 9.785 | |
| 7,500.0 | 7,060.1 | 7,579.7 | 7,078.6 | 23.1 | 26.7 | -178.49 | -906.1 | -143.5 | 256.7 | 236.3 | 20.46 | 12.546 | |
| 7,550.0 | 7,065.1 | 7,580.0 | 7,078.6 | 23.1 | 26.7 | -178.24 | -906.4 | -143.5 | 306.0 | 286.1 | 19.92 | 15.364 | |
| 7,600.0 | 7,066.9 | 7,580.1 | 7,078.6 | 23.1 | 26.7 | -176.32 | -906.5 | -143.5 | 355.8 | 335.8 | 19.99 | 17.794 | |
| 7,605.7 | 7,066.9 | 7,580.1 | 7,078.6 | 23.1 | 26.7 | -175.61 | -906.5 | -143.5 | 361.5 | 341.3 | 20.15 | 17.943 | |
| 7,700.0 | 7,066.4 | 7,580.1 | 7,078.6 | 24.7 | 26.7 | -175.40 | -906.5 | -143.5 | 455.7 | 435.1 | 20.66 | 22.063 | |
| 7,800.0 | 7,065.9 | 7,580.0 | 7,078.6 | 26.7 | 26.7 | -175.18 | -906.4 | -143.5 | 555.7 | 534.5 | 21.23 | 26.173 | |
| 7,900.0 | 7,065.4 | 7,580.0 | 7,078.6 | 28.8 | 26.7 | -174.96 | -906.4 | -143.5 | 655.7 | 633.8 | 21.84 | 30.021 | |
| 8,000.0 | 7,064.9 | 7,579.9 | 7,078.6 | 31.0 | 26.7 | -174.74 | -906.3 | -143.5 | 755.7 | 733.2 | 22.48 | 33.617 | |
| 8,100.0 | 7,064.5 | 7,579.9 | 7,078.6 | 33.4 | 26.7 | -174.52 | -906.3 | -143.5 | 855.6 | 832.5 | 23.14 | 36.970 | |
| 8,200.0 | 7,064.0 | 7,579.8 | 7,078.6 | 35.7 | 26.7 | -174.30 | -906.2 | -143.5 | 955.6 | 931.8 | 23.83 | 40.095 | |

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|---------------------------|-------------------------------------------|-------------------------------------|-----------------------------|
| Company: | PETROLEUM DEVELOPMENT CORP Weld County CO | Local Co-ordinate Reference: | Well Wiedeman Trust 29P-212 |
| Project: | SEC.29-T4N-R66W | TVD Reference: | WELL @ 4778.0ft (RKB - 15') |
| Reference Site: | Wiedeman Trust 29O-HZ Pad Sec.29-T4N-R66W | MD Reference: | WELL @ 4778.0ft (RKB - 15') |
| Site Error: | 0.0ft | North Reference: | True |
| Reference Well: | Wiedeman Trust 29P-212 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Wellbore #1 | Database: | Landmark |
| Reference Design: | Plan #1 (6-17-14) | Offset TVD Reference: | Offset Datum |

| Offset Design Wiedeman Trust 29O-HZ Pad Sec.29-T4N-R66W - Wiedeman Trust 29O-332 - Wellbore #1 - Plan #1 (| | | | | | | | | | | | | | Offset Site Error: | 0.0 ft |
|------------------------------------------------------------------------------------------------------------|---------------------|---------------------|---------------------|----------------|-------------|-----------------------|-----------------------------------|------------|----------------------|-----------------------|-------------------------|-------------------|---------|--------------------|--------|
| Survey Program: 0-MWD | | | | | | | | | | | | | | Offset Well Error: | 0.0 ft |
| Measured Depth (ft) | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (ft) | Offset (ft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (ft) | +E/-W (ft) | Between Centres (ft) | Between Ellipses (ft) | Minimum Separation (ft) | Separation Factor | Warning | | |
| 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -39.51 | 47.4 | -39.1 | 61.4 | | | | | | |
| 100.0 | 100.0 | 100.0 | 100.0 | 0.1 | 0.1 | -39.51 | 47.4 | -39.1 | 61.4 | 61.2 | 0.22 | 273.126 | | | |
| 200.0 | 200.0 | 200.0 | 200.0 | 0.3 | 0.3 | -39.51 | 47.4 | -39.1 | 61.4 | 60.7 | 0.67 | 91.042 CC, ES | | | |
| 300.0 | 300.0 | 300.0 | 300.0 | 0.5 | 0.6 | 110.78 | 47.4 | -39.1 | 62.0 | 60.9 | 1.10 | 56.191 | | | |
| 400.0 | 399.8 | 399.8 | 399.8 | 0.8 | 0.8 | 115.12 | 47.4 | -39.1 | 64.0 | 62.5 | 1.54 | 41.621 | | | |
| 500.0 | 499.5 | 499.5 | 499.5 | 1.0 | 1.0 | 121.68 | 47.4 | -39.1 | 68.2 | 66.2 | 2.00 | 34.040 | | | |
| 600.0 | 598.7 | 598.7 | 598.7 | 1.3 | 1.2 | 129.44 | 47.4 | -39.1 | 75.3 | 72.8 | 2.49 | 30.255 | | | |
| 700.0 | 697.5 | 697.5 | 697.5 | 1.6 | 1.5 | 137.31 | 47.4 | -39.1 | 86.2 | 83.2 | 2.99 | 28.861 | | | |
| 751.3 | 747.9 | 747.9 | 747.9 | 1.8 | 1.6 | 141.09 | 47.4 | -39.1 | 93.3 | 90.1 | 3.24 | 28.803 | | | |
| 800.0 | 795.7 | 795.7 | 795.7 | 2.0 | 1.7 | 144.40 | 47.4 | -39.1 | 100.8 | 97.3 | 3.48 | 28.996 | | | |
| 900.0 | 893.9 | 893.9 | 893.9 | 2.4 | 1.9 | 149.84 | 47.4 | -39.1 | 117.0 | 113.0 | 3.95 | 29.592 | | | |
| 1,000.0 | 992.0 | 992.0 | 992.0 | 2.8 | 2.1 | 153.94 | 47.4 | -39.1 | 133.9 | 129.5 | 4.42 | 30.280 | | | |
| 1,100.0 | 1,090.2 | 1,090.2 | 1,090.2 | 3.2 | 2.3 | 157.11 | 47.4 | -39.1 | 151.4 | 146.5 | 4.89 | 30.961 | | | |
| 1,200.0 | 1,188.3 | 1,188.3 | 1,188.3 | 3.7 | 2.6 | 159.62 | 47.4 | -39.1 | 169.2 | 163.8 | 5.36 | 31.595 | | | |
| 1,300.0 | 1,286.5 | 1,286.5 | 1,286.5 | 4.1 | 2.8 | 161.66 | 47.4 | -39.1 | 187.3 | 181.5 | 5.82 | 32.171 | | | |
| 1,400.0 | 1,384.6 | 1,384.6 | 1,384.6 | 4.5 | 3.0 | 163.33 | 47.4 | -39.1 | 205.5 | 199.3 | 6.29 | 32.688 | | | |
| 1,500.0 | 1,482.8 | 1,482.8 | 1,482.8 | 4.9 | 3.2 | 164.74 | 47.4 | -39.1 | 224.0 | 217.2 | 6.76 | 33.151 | | | |
| 1,600.0 | 1,580.9 | 1,580.9 | 1,580.9 | 5.4 | 3.4 | 165.92 | 47.4 | -39.1 | 242.5 | 235.3 | 7.22 | 33.565 | | | |
| 1,700.0 | 1,679.1 | 1,679.1 | 1,679.1 | 5.8 | 3.7 | 166.94 | 47.4 | -39.1 | 261.1 | 253.4 | 7.69 | 33.935 | | | |
| 1,800.0 | 1,777.2 | 1,777.2 | 1,777.2 | 6.2 | 3.9 | 167.83 | 47.4 | -39.1 | 279.8 | 271.6 | 8.16 | 34.268 | | | |
| 1,900.0 | 1,875.4 | 1,875.4 | 1,875.4 | 6.7 | 4.1 | 168.60 | 47.4 | -39.1 | 298.5 | 289.9 | 8.64 | 34.568 | | | |
| 2,000.0 | 1,973.6 | 1,973.6 | 1,973.6 | 7.1 | 4.3 | 169.28 | 47.4 | -39.1 | 317.3 | 308.2 | 9.11 | 34.840 | | | |
| 2,100.0 | 2,071.7 | 2,071.7 | 2,071.7 | 7.5 | 4.5 | 169.82 | 46.8 | -40.0 | 335.3 | 325.8 | 9.58 | 35.007 | | | |
| 2,200.0 | 2,169.9 | 2,169.9 | 2,169.9 | 7.9 | 4.8 | 169.91 | 44.2 | -44.4 | 350.6 | 340.5 | 10.04 | 34.903 | | | |
| 2,300.0 | 2,268.0 | 2,268.0 | 2,268.0 | 8.4 | 5.0 | 169.58 | 39.4 | -52.4 | 362.8 | 352.3 | 10.52 | 34.477 | | | |
| 2,400.0 | 2,366.2 | 2,366.2 | 2,366.2 | 8.8 | 5.2 | 168.86 | 32.5 | -64.1 | 372.1 | 361.0 | 11.03 | 33.740 | | | |
| 2,500.0 | 2,464.3 | 2,464.3 | 2,464.3 | 9.2 | 5.5 | 167.77 | 23.4 | -79.4 | 378.4 | 366.9 | 11.56 | 32.732 | | | |
| 2,600.0 | 2,562.5 | 2,562.5 | 2,562.5 | 9.7 | 5.7 | 166.63 | 14.2 | -95.0 | 383.4 | 371.3 | 12.10 | 31.687 | | | |
| 2,700.0 | 2,660.6 | 2,660.6 | 2,660.6 | 10.1 | 6.0 | 165.52 | 5.0 | -110.5 | 388.5 | 375.8 | 12.65 | 30.705 | | | |
| 2,800.0 | 2,758.8 | 2,758.8 | 2,758.8 | 10.5 | 6.3 | 164.43 | -4.3 | -125.9 | 393.8 | 380.5 | 13.22 | 29.776 | | | |
| 2,900.0 | 2,856.9 | 2,856.9 | 2,856.9 | 11.0 | 6.6 | 163.38 | -13.5 | -141.4 | 399.1 | 385.3 | 13.81 | 28.899 | | | |
| 3,000.0 | 2,955.1 | 2,955.1 | 2,955.1 | 11.4 | 6.9 | 162.35 | -22.7 | -156.9 | 404.7 | 390.3 | 14.42 | 28.072 | | | |
| 3,100.0 | 3,053.2 | 3,053.2 | 3,053.2 | 11.8 | 7.3 | 161.36 | -31.9 | -172.4 | 410.3 | 395.3 | 15.03 | 27.292 | | | |
| 3,200.0 | 3,151.4 | 3,151.4 | 3,151.4 | 12.3 | 7.6 | 160.39 | -41.1 | -187.9 | 416.1 | 400.4 | 15.67 | 26.558 | | | |
| 3,300.0 | 3,249.6 | 3,249.6 | 3,249.6 | 12.7 | 7.9 | 159.44 | -50.3 | -203.4 | 422.0 | 405.7 | 16.31 | 25.866 | | | |
| 3,400.0 | 3,347.7 | 3,347.7 | 3,347.7 | 13.1 | 8.3 | 158.52 | -59.5 | -218.9 | 428.0 | 411.0 | 16.97 | 25.215 | | | |
| 3,500.0 | 3,445.9 | 3,445.9 | 3,445.9 | 13.6 | 8.6 | 157.63 | -68.7 | -234.4 | 434.1 | 416.4 | 17.64 | 24.602 | | | |
| 3,600.0 | 3,544.0 | 3,544.0 | 3,544.0 | 14.0 | 9.0 | 156.77 | -77.9 | -249.9 | 440.3 | 422.0 | 18.33 | 24.024 | | | |
| 3,700.0 | 3,642.2 | 3,642.2 | 3,642.2 | 14.4 | 9.4 | 155.92 | -87.1 | -265.4 | 446.6 | 427.6 | 19.02 | 23.480 | | | |
| 3,800.0 | 3,740.3 | 3,740.3 | 3,740.3 | 14.9 | 9.7 | 155.10 | -96.3 | -280.9 | 453.0 | 433.3 | 19.72 | 22.967 | | | |
| 3,900.0 | 3,838.5 | 3,838.5 | 3,838.5 | 15.3 | 10.1 | 154.31 | -105.5 | -296.4 | 459.5 | 439.1 | 20.44 | 22.484 | | | |
| 4,000.0 | 3,936.6 | 3,936.6 | 3,936.6 | 15.7 | 10.5 | 153.53 | -114.7 | -311.8 | 466.1 | 444.9 | 21.16 | 22.028 | | | |
| 4,100.0 | 4,034.8 | 4,034.8 | 4,034.8 | 16.2 | 10.9 | 152.78 | -123.9 | -327.3 | 472.7 | 450.8 | 21.89 | 21.598 | | | |
| 4,200.0 | 4,132.9 | 4,132.9 | 4,132.9 | 16.6 | 11.3 | 152.05 | -133.1 | -342.8 | 479.5 | 456.8 | 22.62 | 21.193 | | | |
| 4,300.0 | 4,231.1 | 4,231.1 | 4,231.1 | 17.0 | 11.6 | 151.34 | -142.3 | -358.3 | 486.3 | 462.9 | 23.37 | 20.809 | | | |
| 4,400.0 | 4,329.3 | 4,329.3 | 4,329.3 | 17.5 | 12.0 | 150.64 | -151.5 | -373.8 | 493.2 | 469.1 | 24.12 | 20.447 | | | |
| 4,500.0 | 4,427.4 | 4,427.4 | 4,427.4 | 17.9 | 12.4 | 149.97 | -160.7 | -389.3 | 500.1 | 475.3 | 24.88 | 20.104 | | | |
| 4,600.0 | 4,525.6 | 4,525.6 | 4,525.6 | 18.3 | 12.8 | 149.32 | -169.9 | -404.8 | 507.2 | 481.5 | 25.64 | 19.780 | | | |
| 4,700.0 | 4,623.7 | 4,623.7 | 4,623.7 | 18.8 | 13.2 | 148.68 | -179.1 | -420.3 | 514.2 | 487.8 | 26.41 | 19.473 | | | |
| 4,800.0 | 4,721.9 | 4,721.9 | 4,721.9 | 19.2 | 13.6 | 148.06 | -188.3 | -435.8 | 521.4 | 494.2 | 27.18 | 19.182 | | | |
| 4,900.0 | 4,820.0 | 4,820.0 | 4,820.0 | 19.6 | 14.0 | 147.46 | -197.5 | -451.3 | 528.6 | 500.7 | 27.96 | 18.906 | | | |

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

| | | | |
|---------------------------|----------------------------------------------|-------------------------------------|-----------------------------|
| Company: | PETROLEUM DEVELOPMENT CORP Weld County CO | Local Co-ordinate Reference: | Well Wiedeman Trust 29P-212 |
| Project: | SEC.29-T4N-R66W | TVD Reference: | WELL @ 4778.0ft (RKB - 15') |
| Reference Site: | Wiedeman Trust 29O-HZ Pad Sec.29-T4N-R66W | MD Reference: | WELL @ 4778.0ft (RKB - 15') |
| Site Error: | 0.0ft | North Reference: | True |
| Reference Well: | Wiedeman Trust 29P-212 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Wellbore #1 | Database: | Landmark |
| Reference Design: | Plan #1 (6-17-14) | Offset TVD Reference: | Offset Datum |

| Offset Design | | Wiedeman Trust 29O-HZ Pad Sec.29-T4N-R66W - Wiedeman Trust 29O-332 - Wellbore #1 - Plan #1 (| | | | | | | | | | Offset Site Error: | | 0.0 ft | |
|-----------------------|---------------------|----------------------------------------------------------------------------------------------|---------------------|-----------------|-------------|-----------------------|-----------------------------------|------------|----------------------|-----------------------|-------------------------|--------------------|--|---------|--|
| Survey Program: 0-MWD | | | | | | | | | | | | Offset Well Error: | | 0.0 ft | |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | | Warning | |
| Measured Depth (ft) | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (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 | | | |
| 5,000.0 | 4,918.2 | 5,009.3 | 4,965.4 | 20.1 | 14.4 | 146.87 | -206.7 | -466.8 | 535.9 | 507.1 | 28.74 | 18.645 | | | |
| 5,100.0 | 5,016.3 | 5,108.9 | 5,063.4 | 20.5 | 14.8 | 146.30 | -215.9 | -482.2 | 543.2 | 513.7 | 29.53 | 18.396 | | | |
| 5,200.0 | 5,114.5 | 5,208.5 | 5,161.3 | 20.9 | 15.2 | 145.75 | -225.1 | -497.7 | 550.6 | 520.3 | 30.32 | 18.160 | | | |
| 5,300.0 | 5,212.6 | 5,308.1 | 5,259.2 | 21.4 | 15.6 | 145.21 | -234.3 | -513.2 | 558.0 | 526.9 | 31.11 | 17.935 | | | |
| 5,400.0 | 5,310.8 | 5,407.7 | 5,357.2 | 21.8 | 16.0 | 144.68 | -243.5 | -528.7 | 565.5 | 533.6 | 31.91 | 17.721 | | | |
| 5,500.0 | 5,408.9 | 5,507.3 | 5,455.1 | 22.2 | 16.4 | 144.17 | -252.7 | -544.2 | 573.0 | 540.3 | 32.71 | 17.518 | | | |
| 5,600.0 | 5,507.1 | 5,600.0 | 5,546.4 | 22.7 | 16.7 | 143.77 | -260.9 | -558.0 | 580.9 | 547.5 | 33.43 | 17.376 | | | |
| 5,700.0 | 5,605.3 | 5,692.3 | 5,637.8 | 23.1 | 17.0 | 143.63 | -267.6 | -569.3 | 590.2 | 556.2 | 34.03 | 17.343 | | | |
| 5,747.7 | 5,652.1 | 5,735.9 | 5,681.1 | 23.3 | 17.1 | 143.66 | -270.2 | -573.7 | 595.1 | 560.9 | 34.29 | 17.357 | | | |
| 5,800.0 | 5,703.5 | 5,783.5 | 5,728.4 | 23.5 | 17.2 | 143.79 | -272.8 | -578.0 | 600.5 | 566.0 | 34.54 | 17.385 | | | |
| 5,900.0 | 5,802.3 | 5,874.6 | 5,819.2 | 23.7 | 17.4 | 144.09 | -276.4 | -584.2 | 609.7 | 574.8 | 34.93 | 17.457 | | | |
| 6,000.0 | 5,901.5 | 5,965.6 | 5,910.2 | 24.0 | 17.6 | 144.42 | -278.6 | -587.8 | 617.5 | 582.3 | 35.24 | 17.524 | | | |
| 6,100.0 | 6,001.1 | 6,056.6 | 6,001.1 | 24.1 | 17.7 | 144.80 | -279.3 | -589.1 | 623.9 | 588.4 | 35.48 | 17.584 | | | |
| 6,200.0 | 6,101.0 | 6,156.5 | 6,101.0 | 24.3 | 17.9 | 145.13 | -279.3 | -589.1 | 628.2 | 592.5 | 35.70 | 17.595 | | | |
| 6,299.0 | 6,200.0 | 6,255.5 | 6,200.0 | 24.4 | 18.0 | -3.56 | -279.3 | -589.1 | 629.6 | 592.8 | 36.75 | 17.130 | | | |
| 6,402.0 | 6,302.9 | 6,358.4 | 6,302.9 | 24.5 | 18.2 | -3.56 | -279.3 | -589.1 | 629.6 | 592.5 | 37.07 | 16.985 | | | |
| 6,450.0 | 6,350.9 | 6,406.4 | 6,350.9 | 24.6 | 18.2 | -93.67 | -279.3 | -589.1 | 629.7 | 593.2 | 36.42 | 17.290 | | | |
| 6,500.0 | 6,400.7 | 6,456.3 | 6,400.8 | 24.6 | 18.3 | -94.08 | -279.3 | -589.1 | 630.0 | 593.4 | 36.61 | 17.208 | | | |
| 6,550.0 | 6,450.1 | 6,509.2 | 6,453.7 | 24.6 | 18.4 | -94.64 | -279.3 | -587.1 | 630.5 | 593.7 | 36.78 | 17.141 | | | |
| 6,600.0 | 6,498.8 | 6,562.7 | 6,506.9 | 24.6 | 18.4 | -95.19 | -279.3 | -581.5 | 631.0 | 594.1 | 36.88 | 17.108 | | | |
| 6,650.0 | 6,546.6 | 6,616.6 | 6,560.0 | 24.6 | 18.4 | -95.71 | -279.3 | -572.0 | 631.5 | 594.6 | 36.92 | 17.107 | | | |
| 6,700.0 | 6,593.5 | 6,671.0 | 6,612.7 | 24.5 | 18.4 | -96.20 | -279.3 | -558.7 | 632.1 | 595.2 | 36.89 | 17.134 | | | |
| 6,750.0 | 6,639.1 | 6,725.9 | 6,664.8 | 24.4 | 18.4 | -96.67 | -279.3 | -541.5 | 632.7 | 595.9 | 36.81 | 17.187 | | | |
| 6,800.0 | 6,683.2 | 6,781.2 | 6,715.9 | 24.4 | 18.3 | -97.11 | -279.3 | -520.4 | 633.3 | 596.6 | 36.69 | 17.260 | | | |
| 6,850.0 | 6,725.7 | 6,836.9 | 6,765.7 | 24.3 | 18.2 | -97.52 | -279.3 | -495.5 | 633.8 | 597.3 | 36.54 | 17.346 | | | |
| 6,900.0 | 6,766.4 | 6,893.0 | 6,813.9 | 24.2 | 18.2 | -97.90 | -279.3 | -466.8 | 634.4 | 598.0 | 36.38 | 17.438 | | | |
| 6,950.0 | 6,805.2 | 6,949.5 | 6,860.2 | 24.1 | 18.1 | -98.23 | -279.3 | -434.5 | 634.9 | 598.7 | 36.23 | 17.523 | | | |
| 7,000.0 | 6,841.7 | 7,006.3 | 6,904.2 | 24.0 | 18.1 | -98.53 | -279.3 | -398.6 | 635.4 | 599.3 | 36.13 | 17.588 | | | |
| 7,050.0 | 6,876.0 | 7,063.4 | 6,945.6 | 23.9 | 18.0 | -98.78 | -279.3 | -359.3 | 635.8 | 599.7 | 36.09 | 17.619 | | | |
| 7,100.0 | 6,907.8 | 7,120.7 | 6,984.1 | 23.8 | 18.1 | -99.00 | -279.3 | -316.8 | 636.2 | 600.0 | 36.15 | 17.599 | | | |
| 7,150.0 | 6,937.0 | 7,178.3 | 7,019.4 | 23.7 | 18.1 | -99.17 | -279.3 | -271.4 | 636.4 | 600.1 | 36.34 | 17.515 | | | |
| 7,200.0 | 6,963.6 | 7,236.0 | 7,051.4 | 23.6 | 18.3 | -99.29 | -279.3 | -223.4 | 636.6 | 600.0 | 36.68 | 17.356 | | | |
| 7,250.0 | 6,987.2 | 7,293.8 | 7,079.6 | 23.6 | 18.5 | -99.37 | -279.3 | -172.9 | 636.8 | 599.6 | 37.21 | 17.115 | | | |
| 7,300.0 | 7,008.0 | 7,351.7 | 7,104.0 | 23.5 | 18.9 | -99.40 | -279.3 | -120.5 | 636.8 | 598.9 | 37.93 | 16.790 | | | |
| 7,350.0 | 7,025.7 | 7,409.5 | 7,124.3 | 23.4 | 19.4 | -99.39 | -279.3 | -66.3 | 636.8 | 597.9 | 38.86 | 16.385 | | | |
| 7,400.0 | 7,040.3 | 7,467.4 | 7,140.5 | 23.3 | 20.0 | -99.33 | -279.3 | -10.8 | 636.7 | 596.7 | 40.00 | 15.916 | | | |
| 7,450.0 | 7,051.8 | 7,525.1 | 7,152.4 | 23.2 | 20.7 | -99.22 | -279.3 | 45.7 | 636.5 | 595.1 | 41.33 | 15.399 | | | |
| 7,500.0 | 7,060.1 | 7,582.7 | 7,160.0 | 23.1 | 21.6 | -99.06 | -279.3 | 102.8 | 636.2 | 593.3 | 42.83 | 14.852 | | | |
| 7,550.0 | 7,065.1 | 7,640.1 | 7,163.2 | 23.1 | 22.5 | -98.87 | -279.3 | 160.1 | 635.8 | 591.3 | 44.49 | 14.292 | | | |
| 7,600.0 | 7,066.9 | 7,692.7 | 7,163.1 | 23.1 | 23.4 | -98.71 | -279.3 | 212.7 | 635.5 | 589.3 | 46.19 | 13.760 | | | |
| 7,605.7 | 7,066.9 | 7,698.4 | 7,163.1 | 23.1 | 23.5 | -98.71 | -279.3 | 218.4 | 635.5 | 589.1 | 46.38 | 13.702 | | | |
| 7,700.0 | 7,066.4 | 7,792.7 | 7,162.4 | 24.7 | 25.3 | -98.68 | -279.3 | 312.7 | 635.5 | 585.7 | 49.80 | 12.761 | | | |
| 7,800.0 | 7,065.9 | 7,892.7 | 7,161.6 | 26.7 | 27.4 | -98.66 | -279.3 | 412.7 | 635.4 | 581.7 | 53.73 | 11.825 | | | |
| 7,900.0 | 7,065.4 | 7,992.7 | 7,160.9 | 28.8 | 29.5 | -98.64 | -279.3 | 512.7 | 635.3 | 577.4 | 57.94 | 10.966 | | | |
| 8,000.0 | 7,064.9 | 8,092.7 | 7,160.1 | 31.0 | 31.8 | -98.62 | -279.3 | 612.7 | 635.3 | 572.9 | 62.35 | 10.188 | | | |
| 8,100.0 | 7,064.5 | 8,192.7 | 7,159.4 | 33.4 | 34.2 | -98.59 | -279.3 | 712.7 | 635.2 | 568.3 | 66.94 | 9.489 | | | |
| 8,200.0 | 7,064.0 | 8,292.7 | 7,158.6 | 35.7 | 36.6 | -98.57 | -279.3 | 812.7 | 635.2 | 563.5 | 71.67 | 8.863 | | | |
| 8,300.0 | 7,063.5 | 8,392.7 | 7,157.9 | 38.2 | 39.1 | -98.55 | -279.3 | 912.7 | 635.1 | 558.6 | 76.50 | 8.302 | | | |
| 8,400.0 | 7,063.0 | 8,492.7 | 7,157.1 | 40.7 | 41.6 | -98.52 | -279.3 | 1,012.7 | 635.0 | 553.6 | 81.43 | 7.798 | | | |
| 8,500.0 | 7,062.5 | 8,592.7 | 7,156.4 | 43.2 | 44.1 | -98.50 | -279.3 | 1,112.7 | 635.0 | 548.5 | 86.44 | 7.346 | | | |

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

| | | | |
|---------------------------|-------------------------------------------|-------------------------------------|-----------------------------|
| Company: | PETROLEUM DEVELOPMENT CORP Weld County CO | Local Co-ordinate Reference: | Well Wiedeman Trust 29P-212 |
| Project: | SEC.29-T4N-R66W | TVD Reference: | WELL @ 4778.0ft (RKB - 15') |
| Reference Site: | Wiedeman Trust 29O-HZ Pad Sec.29-T4N-R66W | MD Reference: | WELL @ 4778.0ft (RKB - 15') |
| Site Error: | 0.0ft | North Reference: | True |
| Reference Well: | Wiedeman Trust 29P-212 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Wellbore #1 | Database: | Landmark |
| Reference Design: | Plan #1 (6-17-14) | Offset TVD Reference: | Offset Datum |

| Offset Design | | Wiedeman Trust 29O-HZ Pad Sec.29-T4N-R66W - Wiedeman Trust 29O-332 - Wellbore #1 - Plan #1 (| | | | | | | | | | Offset Site Error: | | 0.0 ft | |
|-----------------------|---------------------|----------------------------------------------------------------------------------------------|---------------------|-----------------|-------------|-----------------------|-----------------------------------|------------|----------------------|-----------------------|-------------------------|--------------------|--|---------|--|
| Survey Program: 0-MWD | | | | | | | | | | | | Offset Well Error: | | 0.0 ft | |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | | Warning | |
| Measured Depth (ft) | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (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 | | | |
| 8,600.0 | 7,062.0 | 8,692.7 | 7,155.6 | 45.7 | 46.7 | -98.48 | -279.3 | 1,212.7 | 634.9 | 543.4 | 91.51 | 6.938 | | | |
| 8,700.0 | 7,061.5 | 8,792.7 | 7,154.9 | 48.3 | 49.3 | -98.45 | -279.3 | 1,312.7 | 634.9 | 538.2 | 96.64 | 6.570 | | | |
| 8,800.0 | 7,061.0 | 8,892.7 | 7,154.1 | 50.9 | 51.9 | -98.43 | -279.3 | 1,412.7 | 634.8 | 533.0 | 101.81 | 6.235 | | | |
| 8,900.0 | 7,060.5 | 8,892.7 | 7,153.4 | 53.5 | 54.6 | -98.41 | -279.3 | 1,512.7 | 634.7 | 527.7 | 107.02 | 5.931 | | | |
| 9,000.0 | 7,060.1 | 9,092.7 | 7,152.6 | 56.1 | 57.2 | -98.38 | -279.3 | 1,612.7 | 634.7 | 522.4 | 112.26 | 5.653 | | | |
| 9,100.0 | 7,059.6 | 9,192.7 | 7,151.9 | 58.8 | 59.9 | -98.36 | -279.3 | 1,712.7 | 634.6 | 517.1 | 117.54 | 5.399 | | | |
| 9,200.0 | 7,059.1 | 9,292.7 | 7,151.1 | 61.5 | 62.6 | -98.34 | -279.3 | 1,812.7 | 634.6 | 511.7 | 122.84 | 5.166 | | | |
| 9,300.0 | 7,058.6 | 9,392.7 | 7,150.4 | 64.1 | 65.3 | -98.32 | -279.3 | 1,912.7 | 634.5 | 506.3 | 128.16 | 4.951 | | | |
| 9,400.0 | 7,058.1 | 9,492.7 | 7,149.6 | 66.8 | 68.0 | -98.29 | -279.3 | 2,012.6 | 634.4 | 500.9 | 133.51 | 4.752 | | | |
| 9,500.0 | 7,057.6 | 9,592.7 | 7,148.8 | 69.5 | 70.7 | -98.27 | -279.3 | 2,112.6 | 634.4 | 495.5 | 138.87 | 4.568 | | | |
| 9,600.0 | 7,057.1 | 9,692.7 | 7,148.1 | 72.2 | 73.4 | -98.25 | -279.3 | 2,212.6 | 634.3 | 490.1 | 144.24 | 4.398 | | | |
| 9,700.0 | 7,056.6 | 9,792.7 | 7,147.3 | 74.9 | 76.1 | -98.22 | -279.3 | 2,312.6 | 634.3 | 484.6 | 149.64 | 4.239 | | | |
| 9,800.0 | 7,056.2 | 9,892.7 | 7,146.6 | 77.6 | 78.9 | -98.20 | -279.3 | 2,412.6 | 634.2 | 479.2 | 155.04 | 4.091 | | | |
| 9,900.0 | 7,055.7 | 9,992.7 | 7,145.8 | 80.4 | 81.6 | -98.18 | -279.3 | 2,512.6 | 634.1 | 473.7 | 160.46 | 3.952 | | | |
| 10,000.0 | 7,055.2 | 10,092.7 | 7,145.1 | 83.1 | 84.3 | -98.15 | -279.3 | 2,612.6 | 634.1 | 468.2 | 165.88 | 3.822 | | | |
| 10,100.0 | 7,054.7 | 10,192.7 | 7,144.3 | 85.8 | 87.1 | -98.13 | -279.3 | 2,712.6 | 634.0 | 462.7 | 171.32 | 3.701 | | | |
| 10,200.0 | 7,054.2 | 10,292.7 | 7,143.6 | 88.6 | 89.8 | -98.11 | -279.3 | 2,812.6 | 634.0 | 457.2 | 176.77 | 3.587 | | | |
| 10,300.0 | 7,053.7 | 10,392.7 | 7,142.8 | 91.3 | 92.6 | -98.08 | -279.3 | 2,912.6 | 633.9 | 451.7 | 182.22 | 3.479 | | | |
| 10,400.0 | 7,053.2 | 10,492.7 | 7,142.1 | 94.0 | 95.3 | -98.06 | -279.3 | 3,012.6 | 633.9 | 446.2 | 187.68 | 3.377 | | | |
| 10,500.0 | 7,052.7 | 10,592.7 | 7,141.3 | 96.8 | 98.1 | -98.04 | -279.3 | 3,112.6 | 633.8 | 440.7 | 193.15 | 3.281 | | | |
| 10,600.0 | 7,052.2 | 10,692.7 | 7,140.6 | 99.5 | 100.9 | -98.01 | -279.3 | 3,212.6 | 633.7 | 435.1 | 198.62 | 3.191 | | | |
| 10,700.0 | 7,051.8 | 10,792.7 | 7,139.8 | 102.3 | 103.6 | -97.99 | -279.3 | 3,312.6 | 633.7 | 429.6 | 204.10 | 3.105 | | | |
| 10,800.0 | 7,051.3 | 10,892.7 | 7,139.1 | 105.0 | 106.4 | -97.97 | -279.3 | 3,412.6 | 633.6 | 424.0 | 209.58 | 3.023 | | | |
| 10,900.0 | 7,050.8 | 10,992.7 | 7,138.3 | 107.8 | 109.2 | -97.94 | -279.3 | 3,512.6 | 633.6 | 418.5 | 215.07 | 2.946 | | | |
| 11,000.0 | 7,050.3 | 11,092.7 | 7,137.6 | 110.6 | 111.9 | -97.92 | -279.3 | 3,612.6 | 633.5 | 412.9 | 220.57 | 2.872 | | | |
| 11,100.0 | 7,049.8 | 11,192.7 | 7,136.8 | 113.3 | 114.7 | -97.90 | -279.3 | 3,712.6 | 633.5 | 407.4 | 226.07 | 2.802 | | | |
| 11,200.0 | 7,049.3 | 11,292.7 | 7,136.1 | 116.1 | 117.5 | -97.88 | -279.3 | 3,812.6 | 633.4 | 401.8 | 231.57 | 2.735 | | | |
| 11,300.0 | 7,048.8 | 11,392.7 | 7,135.3 | 118.9 | 120.2 | -97.85 | -279.3 | 3,912.6 | 633.3 | 396.3 | 237.08 | 2.671 | | | |
| 11,400.0 | 7,048.3 | 11,492.7 | 7,134.6 | 121.6 | 123.0 | -97.83 | -279.3 | 4,012.6 | 633.3 | 390.7 | 242.59 | 2.611 | | | |
| 11,500.0 | 7,047.8 | 11,592.7 | 7,133.8 | 124.4 | 125.8 | -97.81 | -279.3 | 4,112.6 | 633.2 | 385.1 | 248.10 | 2.552 | | | |
| 11,600.0 | 7,047.4 | 11,692.7 | 7,133.1 | 127.2 | 128.6 | -97.78 | -279.3 | 4,212.6 | 633.2 | 379.5 | 253.62 | 2.497 | | | |
| 11,700.0 | 7,046.9 | 11,792.7 | 7,132.3 | 130.0 | 131.4 | -97.76 | -279.3 | 4,312.6 | 633.1 | 374.0 | 259.14 | 2.443 | | | |
| 11,800.0 | 7,046.4 | 11,892.7 | 7,131.6 | 132.7 | 134.1 | -97.74 | -279.3 | 4,412.6 | 633.1 | 368.4 | 264.66 | 2.392 | | | |
| 11,900.0 | 7,045.9 | 11,992.7 | 7,130.8 | 135.5 | 136.9 | -97.71 | -279.3 | 4,512.6 | 633.0 | 362.8 | 270.19 | 2.343 | | | |
| 12,000.0 | 7,045.4 | 12,092.7 | 7,130.1 | 138.3 | 139.7 | -97.69 | -279.3 | 4,612.6 | 632.9 | 357.2 | 275.72 | 2.296 | | | |
| 12,100.0 | 7,044.9 | 12,192.7 | 7,129.3 | 141.1 | 142.5 | -97.67 | -279.3 | 4,712.6 | 632.9 | 351.6 | 281.25 | 2.250 | | | |
| 12,200.0 | 7,044.4 | 12,292.7 | 7,128.6 | 143.8 | 145.3 | -97.64 | -279.3 | 4,812.6 | 632.8 | 346.0 | 286.78 | 2.207 | | | |
| 12,300.0 | 7,043.9 | 12,392.7 | 7,127.8 | 146.6 | 148.1 | -97.62 | -279.3 | 4,912.6 | 632.8 | 340.5 | 292.32 | 2.165 | | | |
| 12,400.0 | 7,043.4 | 12,492.7 | 7,127.1 | 149.4 | 150.8 | -97.60 | -279.3 | 5,012.6 | 632.7 | 334.9 | 297.85 | 2.124 | | | |
| 12,500.0 | 7,043.0 | 12,592.7 | 7,126.3 | 152.2 | 153.6 | -97.57 | -279.3 | 5,112.6 | 632.7 | 329.3 | 303.39 | 2.085 | | | |
| 12,600.0 | 7,042.5 | 12,692.7 | 7,125.6 | 155.0 | 156.4 | -97.55 | -279.3 | 5,212.5 | 632.6 | 323.7 | 308.94 | 2.048 | | | |
| 12,700.0 | 7,042.0 | 12,792.7 | 7,124.8 | 157.8 | 159.2 | -97.53 | -279.3 | 5,312.5 | 632.5 | 318.1 | 314.48 | 2.011 | | | |
| 12,800.0 | 7,041.5 | 12,892.7 | 7,124.1 | 160.5 | 162.0 | -97.50 | -279.3 | 5,412.5 | 632.5 | 312.5 | 320.03 | 1.976 | | | |
| 12,900.0 | 7,041.0 | 12,992.7 | 7,123.3 | 163.3 | 164.8 | -97.48 | -279.3 | 5,512.5 | 632.4 | 306.9 | 325.57 | 1.943 | | | |
| 13,000.0 | 7,040.5 | 13,092.7 | 7,122.6 | 166.1 | 167.6 | -97.46 | -279.3 | 5,612.5 | 632.4 | 301.3 | 331.12 | 1.910 | | | |
| 13,100.0 | 7,040.0 | 13,192.7 | 7,121.8 | 168.9 | 170.4 | -97.43 | -279.3 | 5,712.5 | 632.3 | 295.7 | 336.67 | 1.878 | | | |
| 13,200.0 | 7,039.5 | 13,292.7 | 7,121.1 | 171.7 | 173.2 | -97.41 | -279.3 | 5,812.5 | 632.3 | 290.0 | 342.23 | 1.848 | | | |
| 13,300.0 | 7,039.0 | 13,392.7 | 7,120.3 | 174.5 | 175.9 | -97.39 | -279.3 | 5,912.5 | 632.2 | 284.4 | 347.78 | 1.818 | | | |
| 13,400.0 | 7,038.6 | 13,492.7 | 7,119.6 | 177.3 | 178.7 | -97.36 | -279.3 | 6,012.5 | 632.2 | 278.8 | 353.34 | 1.789 | | | |
| 13,500.0 | 7,038.1 | 13,592.7 | 7,118.8 | 180.1 | 181.5 | -97.34 | -279.3 | 6,112.5 | 632.1 | 273.2 | 358.89 | 1.761 | | | |
| 13,600.0 | 7,037.6 | 13,692.7 | 7,118.1 | 182.8 | 184.3 | -97.32 | -279.3 | 6,212.5 | 632.1 | 267.6 | 364.45 | 1.734 | | | |

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

| | | | |
|---------------------------|----------------------------------------------|-------------------------------------|-----------------------------|
| Company: | PETROLEUM DEVELOPMENT CORP Weld County CO | Local Co-ordinate Reference: | Well Wiedeman Trust 29P-212 |
| Project: | SEC.29-T4N-R66W | TVD Reference: | WELL @ 4778.0ft (RKB - 15') |
| Reference Site: | Wiedeman Trust 29O-HZ Pad Sec.29-T4N-R66W | MD Reference: | WELL @ 4778.0ft (RKB - 15') |
| Site Error: | 0.0ft | North Reference: | True |
| Reference Well: | Wiedeman Trust 29P-212 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Wellbore #1 | Database: | Landmark |
| Reference Design: | Plan #1 (6-17-14) | Offset TVD Reference: | Offset Datum |

| Offset Design Wiedeman Trust 29O-HZ Pad Sec.29-T4N-R66W - Wiedeman Trust 29O-332 - Wellbore #1 - Plan #1 (| | | | | | | | | | Offset Site Error: | | 0.0 ft | |
|------------------------------------------------------------------------------------------------------------|---------------------|---------------------|---------------------|-----------------|-------------|-----------------------|-----------------------------------|------------|----------------------|-----------------------|-------------------------|-------------------|---------|
| Survey Program: 0-MWD | | | | | | | | | | Offset Well Error: | | 0.0 ft | |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | |
| Measured Depth (ft) | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (ft) | Offset (ft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (ft) | +E/-W (ft) | Between Centres (ft) | Between Ellipses (ft) | Minimum Separation (ft) | Separation Factor | Warning |
| 13,700.0 | 7,037.1 | 13,792.7 | 7,117.3 | 185.6 | 187.1 | -97.29 | -279.3 | 6,312.5 | 632.0 | 262.0 | 370.01 | 1.708 | |
| 13,800.0 | 7,036.6 | 13,892.7 | 7,116.6 | 188.4 | 189.9 | -97.27 | -279.3 | 6,412.5 | 631.9 | 256.4 | 375.57 | 1.683 | |
| 13,900.0 | 7,036.1 | 13,992.7 | 7,115.8 | 191.2 | 192.7 | -97.25 | -279.3 | 6,512.5 | 631.9 | 250.8 | 381.13 | 1.658 | |
| 14,000.0 | 7,035.6 | 14,092.7 | 7,115.1 | 194.0 | 195.5 | -97.22 | -279.3 | 6,612.5 | 631.8 | 245.1 | 386.70 | 1.634 | |
| 14,100.0 | 7,035.1 | 14,192.7 | 7,114.3 | 196.8 | 198.3 | -97.20 | -279.3 | 6,712.5 | 631.8 | 239.5 | 392.26 | 1.611 | |
| 14,200.0 | 7,034.6 | 14,292.7 | 7,113.6 | 199.6 | 201.1 | -97.18 | -279.3 | 6,812.5 | 631.7 | 233.9 | 397.83 | 1.588 | |
| 14,300.0 | 7,034.2 | 14,392.7 | 7,112.8 | 202.4 | 203.9 | -97.15 | -279.3 | 6,912.5 | 631.7 | 228.3 | 403.39 | 1.566 | |
| 14,400.0 | 7,033.7 | 14,492.7 | 7,112.1 | 205.2 | 206.7 | -97.13 | -279.3 | 7,012.5 | 631.6 | 222.7 | 408.96 | 1.544 | |
| 14,500.0 | 7,033.2 | 14,592.7 | 7,111.3 | 208.0 | 209.5 | -97.11 | -279.3 | 7,112.5 | 631.6 | 217.0 | 414.53 | 1.524 | |
| 14,600.0 | 7,032.7 | 14,692.7 | 7,110.6 | 210.8 | 212.3 | -97.08 | -279.3 | 7,212.5 | 631.5 | 211.4 | 420.10 | 1.503 | |
| 14,700.0 | 7,032.2 | 14,792.7 | 7,109.8 | 213.6 | 215.1 | -97.06 | -279.3 | 7,312.5 | 631.5 | 205.8 | 425.67 | 1.483 Level 3 | |
| 14,800.0 | 7,031.7 | 14,892.7 | 7,109.1 | 216.4 | 217.9 | -97.04 | -279.3 | 7,412.5 | 631.4 | 200.2 | 431.25 | 1.464 Level 3 | |
| 14,900.0 | 7,031.2 | 14,992.7 | 7,108.3 | 219.2 | 220.7 | -97.01 | -279.3 | 7,512.5 | 631.4 | 194.5 | 436.82 | 1.445 Level 3 | |
| 14,937.1 | 7,031.0 | 15,029.8 | 7,108.0 | 220.2 | 221.7 | -97.01 | -279.3 | 7,549.6 | 631.3 | 192.4 | 438.89 | 1.438 Level 3 | |
| 14,946.6 | 7,031.0 | 15,035.8 | 7,108.0 | 220.5 | 221.9 | -97.00 | -279.3 | 7,555.5 | 631.3 | 192.0 | 439.32 | 1.437 Level 3, SF | |

| | | | |
|---------------------------|----------------------------------------------|-------------------------------------|-----------------------------|
| Company: | PETROLEUM DEVELOPMENT CORP Weld County CO | Local Co-ordinate Reference: | Well Wiedeman Trust 29P-212 |
| Project: | SEC.29-T4N-R66W | TVD Reference: | WELL @ 4778.0ft (RKB - 15') |
| Reference Site: | Wiedeman Trust 29O-HZ Pad Sec.29-T4N-R66W | MD Reference: | WELL @ 4778.0ft (RKB - 15') |
| Site Error: | 0.0ft | North Reference: | True |
| Reference Well: | Wiedeman Trust 29P-212 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Wellbore #1 | Database: | Landmark |
| Reference Design: | Plan #1 (6-17-14) | Offset TVD Reference: | Offset Datum |

| Offset Design Wiedeman Trust 29O-HZ Pad Sec.29-T4N-R66W - Wiedeman Trust 29O-432 - Wellbore #1 - Plan #2 (| | | | | | | | | | | | | | Offset Site Error: | 0.0 ft |
|------------------------------------------------------------------------------------------------------------|---------------------|---------------------|---------------------|----------------|-------------|-----------------------|-----------------------------------|------------|----------------------|-----------------------|-------------------------|-------------------|---------|--------------------|--------|
| Survey Program: 0-MWD | | | | | | | | | | | | | | Offset Well Error: | 0.0 ft |
| Measured Depth (ft) | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (ft) | Offset (ft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (ft) | +E/-W (ft) | Between Centres (ft) | Between Ellipses (ft) | Minimum Separation (ft) | Separation Factor | Warning | | |
| 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -41.78 | 21.9 | -19.5 | 29.3 | | | | | | |
| 100.0 | 100.0 | 100.0 | 100.0 | 0.1 | 0.1 | -41.78 | 21.9 | -19.5 | 29.3 | 29.1 | 0.22 | 130.413 | | | |
| 200.0 | 200.0 | 200.0 | 200.0 | 0.3 | 0.3 | -41.78 | 21.9 | -19.5 | 29.3 | 28.6 | 0.67 | 43.471 CC, ES | | | |
| 300.0 | 300.0 | 300.0 | 300.0 | 0.5 | 0.6 | 110.20 | 21.9 | -19.5 | 29.9 | 28.8 | 1.10 | 27.078 | | | |
| 400.0 | 399.8 | 399.8 | 399.8 | 0.8 | 0.8 | 118.96 | 21.9 | -19.5 | 32.1 | 30.5 | 1.54 | 20.828 | | | |
| 500.0 | 499.5 | 499.5 | 499.5 | 1.0 | 1.0 | 130.73 | 21.9 | -19.5 | 37.1 | 35.1 | 2.00 | 18.523 | | | |
| 600.0 | 598.7 | 598.7 | 598.7 | 1.3 | 1.2 | 142.17 | 21.9 | -19.5 | 46.0 | 43.5 | 2.47 | 18.582 | | | |
| 700.0 | 697.5 | 697.5 | 697.5 | 1.6 | 1.5 | 151.35 | 21.9 | -19.5 | 59.2 | 56.2 | 2.95 | 20.082 | | | |
| 751.3 | 747.9 | 747.9 | 747.9 | 1.8 | 1.6 | 155.08 | 21.9 | -19.5 | 67.5 | 64.4 | 3.19 | 21.202 | | | |
| 800.0 | 795.7 | 795.7 | 795.7 | 2.0 | 1.7 | 158.02 | 21.9 | -19.5 | 76.1 | 72.7 | 3.41 | 22.326 | | | |
| 900.0 | 893.9 | 893.9 | 893.9 | 2.4 | 1.9 | 162.38 | 21.9 | -19.5 | 94.2 | 90.3 | 3.87 | 24.340 | | | |
| 1,000.0 | 992.0 | 992.0 | 992.0 | 2.8 | 2.1 | 165.32 | 21.9 | -19.5 | 112.6 | 108.2 | 4.33 | 25.996 | | | |
| 1,100.0 | 1,090.2 | 1,090.2 | 1,090.2 | 3.2 | 2.3 | 167.44 | 21.9 | -19.5 | 131.2 | 126.4 | 4.79 | 27.363 | | | |
| 1,200.0 | 1,188.3 | 1,188.3 | 1,188.3 | 3.7 | 2.6 | 169.03 | 21.9 | -19.5 | 149.9 | 144.7 | 5.26 | 28.500 | | | |
| 1,300.0 | 1,286.5 | 1,291.4 | 1,291.4 | 4.1 | 2.8 | 170.13 | 20.8 | -20.5 | 167.5 | 161.7 | 5.71 | 29.305 | | | |
| 1,400.0 | 1,384.6 | 1,396.3 | 1,396.2 | 4.5 | 3.0 | 170.58 | 17.0 | -24.2 | 181.7 | 175.6 | 6.15 | 29.530 | | | |
| 1,500.0 | 1,482.8 | 1,502.2 | 1,501.6 | 4.9 | 3.2 | 170.55 | 10.4 | -30.5 | 192.6 | 186.0 | 6.61 | 29.138 | | | |
| 1,600.0 | 1,580.9 | 1,608.6 | 1,607.2 | 5.4 | 3.4 | 170.09 | 0.9 | -39.7 | 200.1 | 193.0 | 7.09 | 28.231 | | | |
| 1,700.0 | 1,679.1 | 1,715.3 | 1,712.5 | 5.8 | 3.7 | 169.24 | -11.5 | -51.5 | 204.2 | 196.6 | 7.59 | 26.909 | | | |
| 1,800.0 | 1,777.2 | 1,815.2 | 1,810.8 | 6.2 | 4.0 | 168.27 | -24.3 | -63.8 | 206.7 | 198.6 | 8.10 | 25.527 | | | |
| 1,900.0 | 1,875.4 | 1,915.1 | 1,909.2 | 6.7 | 4.3 | 167.33 | -37.2 | -76.2 | 209.2 | 200.6 | 8.62 | 24.278 | | | |
| 2,000.0 | 1,973.6 | 2,015.0 | 2,007.5 | 7.1 | 4.6 | 166.41 | -50.0 | -88.5 | 211.8 | 202.6 | 9.15 | 23.142 | | | |
| 2,100.0 | 2,071.7 | 2,114.9 | 2,105.8 | 7.5 | 4.9 | 165.51 | -62.9 | -100.8 | 214.4 | 204.7 | 9.70 | 22.112 | | | |
| 2,200.0 | 2,169.9 | 2,214.9 | 2,204.1 | 7.9 | 5.3 | 164.64 | -75.7 | -113.1 | 217.1 | 206.9 | 10.26 | 21.169 | | | |
| 2,300.0 | 2,268.0 | 2,314.8 | 2,302.4 | 8.4 | 5.6 | 163.78 | -88.6 | -125.4 | 219.9 | 209.1 | 10.83 | 20.307 | | | |
| 2,400.0 | 2,366.2 | 2,414.7 | 2,400.7 | 8.8 | 6.0 | 162.95 | -101.4 | -137.8 | 222.7 | 211.3 | 11.41 | 19.516 | | | |
| 2,500.0 | 2,464.3 | 2,514.6 | 2,499.0 | 9.2 | 6.4 | 162.14 | -114.3 | -150.1 | 225.5 | 213.5 | 12.00 | 18.790 | | | |
| 2,600.0 | 2,562.5 | 2,614.5 | 2,597.3 | 9.7 | 6.7 | 161.35 | -127.1 | -162.4 | 228.4 | 215.8 | 12.60 | 18.121 | | | |
| 2,700.0 | 2,660.6 | 2,714.4 | 2,695.6 | 10.1 | 7.1 | 160.57 | -139.9 | -174.7 | 231.3 | 218.1 | 13.22 | 17.503 | | | |
| 2,800.0 | 2,758.8 | 2,814.3 | 2,794.0 | 10.5 | 7.5 | 159.82 | -152.8 | -187.0 | 234.3 | 220.5 | 13.84 | 16.932 | | | |
| 2,900.0 | 2,856.9 | 2,914.2 | 2,892.3 | 11.0 | 7.9 | 159.09 | -165.6 | -199.3 | 237.3 | 222.8 | 14.47 | 16.403 | | | |
| 3,000.0 | 2,955.1 | 3,014.1 | 2,990.6 | 11.4 | 8.3 | 158.37 | -178.5 | -211.7 | 240.4 | 225.2 | 15.11 | 15.911 | | | |
| 3,100.0 | 3,053.2 | 3,114.0 | 3,088.9 | 11.8 | 8.7 | 157.68 | -191.3 | -224.0 | 243.4 | 227.7 | 15.75 | 15.454 | | | |
| 3,200.0 | 3,151.4 | 3,213.9 | 3,187.2 | 12.3 | 9.1 | 157.00 | -204.2 | -236.3 | 246.6 | 230.1 | 16.41 | 15.028 | | | |
| 3,300.0 | 3,249.6 | 3,313.9 | 3,285.5 | 12.7 | 9.5 | 156.33 | -217.0 | -248.6 | 249.7 | 232.6 | 17.07 | 14.631 | | | |
| 3,400.0 | 3,347.7 | 3,413.8 | 3,383.8 | 13.1 | 9.8 | 155.69 | -229.8 | -260.9 | 252.9 | 235.2 | 17.74 | 14.259 | | | |
| 3,500.0 | 3,445.9 | 3,513.7 | 3,482.1 | 13.6 | 10.2 | 155.06 | -242.7 | -273.3 | 256.1 | 237.7 | 18.41 | 13.911 | | | |
| 3,600.0 | 3,544.0 | 3,613.6 | 3,580.4 | 14.0 | 10.6 | 154.45 | -255.5 | -285.6 | 259.4 | 240.3 | 19.09 | 13.584 | | | |
| 3,700.0 | 3,642.2 | 3,713.5 | 3,678.8 | 14.4 | 11.0 | 153.85 | -268.4 | -297.9 | 262.6 | 242.8 | 19.78 | 13.278 | | | |
| 3,800.0 | 3,740.3 | 3,813.4 | 3,777.1 | 14.9 | 11.4 | 153.26 | -281.2 | -310.2 | 265.9 | 245.5 | 20.47 | 12.989 | | | |
| 3,900.0 | 3,838.5 | 3,913.3 | 3,875.4 | 15.3 | 11.8 | 152.69 | -294.1 | -322.5 | 269.3 | 248.1 | 21.17 | 12.718 | | | |
| 4,000.0 | 3,936.6 | 4,013.2 | 3,973.7 | 15.7 | 12.2 | 152.14 | -306.9 | -334.9 | 272.6 | 250.7 | 21.88 | 12.462 | | | |
| 4,100.0 | 4,034.8 | 4,113.1 | 4,072.0 | 16.2 | 12.7 | 151.59 | -319.8 | -347.2 | 276.0 | 253.4 | 22.58 | 12.220 | | | |
| 4,200.0 | 4,132.9 | 4,213.0 | 4,170.3 | 16.6 | 13.1 | 151.07 | -332.6 | -359.5 | 279.4 | 256.1 | 23.30 | 11.992 | | | |
| 4,300.0 | 4,231.1 | 4,312.9 | 4,268.6 | 17.0 | 13.5 | 150.55 | -345.4 | -371.8 | 282.8 | 258.8 | 24.02 | 11.776 | | | |
| 4,400.0 | 4,329.3 | 4,412.9 | 4,366.9 | 17.5 | 13.9 | 150.05 | -358.3 | -384.1 | 286.3 | 261.5 | 24.74 | 11.572 | | | |
| 4,500.0 | 4,427.4 | 4,512.8 | 4,465.2 | 17.9 | 14.3 | 149.55 | -371.1 | -396.4 | 289.7 | 264.3 | 25.47 | 11.378 | | | |
| 4,600.0 | 4,525.6 | 4,612.7 | 4,563.6 | 18.3 | 14.7 | 149.07 | -384.0 | -408.8 | 293.2 | 267.0 | 26.20 | 11.194 | | | |
| 4,700.0 | 4,623.7 | 4,712.6 | 4,661.9 | 18.8 | 15.1 | 148.60 | -396.8 | -421.1 | 296.8 | 269.8 | 26.93 | 11.019 | | | |
| 4,800.0 | 4,721.9 | 4,812.5 | 4,760.2 | 19.2 | 15.5 | 148.15 | -409.7 | -433.4 | 300.3 | 272.6 | 27.67 | 10.852 | | | |
| 4,900.0 | 4,820.0 | 4,912.4 | 4,858.5 | 19.6 | 15.9 | 147.70 | -422.5 | -445.7 | 303.8 | 275.4 | 28.41 | 10.694 | | | |

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

| | | | |
|---------------------------|-------------------------------------------|-------------------------------------|-----------------------------|
| Company: | PETROLEUM DEVELOPMENT CORP Weld County CO | Local Co-ordinate Reference: | Well Wiedeman Trust 29P-212 |
| Project: | SEC.29-T4N-R66W | TVD Reference: | WELL @ 4778.0ft (RKB - 15') |
| Reference Site: | Wiedeman Trust 29O-HZ Pad Sec.29-T4N-R66W | MD Reference: | WELL @ 4778.0ft (RKB - 15') |
| Site Error: | 0.0ft | North Reference: | True |
| Reference Well: | Wiedeman Trust 29P-212 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Wellbore #1 | Database: | Landmark |
| Reference Design: | Plan #1 (6-17-14) | Offset TVD Reference: | Offset Datum |

| Offset Design | | Wiedeman Trust 29O-HZ Pad Sec.29-T4N-R66W - Wiedeman Trust 29O-432 - Wellbore #1 - Plan #2 (| | | | | | | | | | Offset Site Error: | | 0.0 ft |
|-----------------------|---------------------|----------------------------------------------------------------------------------------------|---------------------|-----------------|-------------|-----------------------|-----------------------------------|------------|----------------------|-----------------------|-------------------------|--------------------|--|---------|
| Survey Program: 0-MWD | | | | | | | | | | | | Offset Well Error: | | 0.0 ft |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | | Warning |
| Measured Depth (ft) | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (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 | | |
| 5,000.0 | 4,918.2 | 5,012.3 | 4,956.8 | 20.1 | 16.3 | 147.26 | -435.4 | -458.0 | 307.4 | 278.2 | 29.16 | 10.543 | | |
| 5,100.0 | 5,016.3 | 5,112.2 | 5,055.1 | 20.5 | 16.7 | 146.84 | -448.2 | -470.4 | 311.0 | 281.1 | 29.90 | 10.400 | | |
| 5,200.0 | 5,114.5 | 5,212.1 | 5,153.4 | 20.9 | 17.1 | 146.42 | -461.0 | -482.7 | 314.6 | 283.9 | 30.65 | 10.262 | | |
| 5,300.0 | 5,212.6 | 5,312.0 | 5,251.7 | 21.4 | 17.5 | 146.01 | -473.9 | -495.0 | 318.2 | 286.8 | 31.41 | 10.131 | | |
| 5,400.0 | 5,310.8 | 5,411.9 | 5,350.1 | 21.8 | 17.9 | 145.61 | -486.7 | -507.3 | 321.8 | 289.7 | 32.16 | 10.006 | | |
| 5,500.0 | 5,408.9 | 5,511.9 | 5,448.4 | 22.2 | 18.3 | 145.22 | -499.6 | -519.6 | 325.5 | 292.6 | 32.92 | 9.886 | | |
| 5,600.0 | 5,507.1 | 5,607.6 | 5,542.7 | 22.7 | 18.7 | 144.92 | -511.5 | -531.1 | 329.5 | 295.9 | 33.62 | 9.801 | | |
| 5,700.0 | 5,605.3 | 5,700.0 | 5,634.1 | 23.1 | 18.9 | 144.99 | -521.1 | -540.3 | 335.6 | 301.4 | 34.16 | 9.823 | | |
| 5,747.7 | 5,652.1 | 5,744.2 | 5,678.0 | 23.3 | 19.0 | 145.15 | -524.9 | -544.0 | 339.2 | 304.8 | 34.37 | 9.868 | | |
| 5,800.0 | 5,703.5 | 5,792.4 | 5,725.9 | 23.5 | 19.1 | 145.42 | -528.6 | -547.4 | 343.4 | 308.8 | 34.57 | 9.932 | | |
| 5,900.0 | 5,802.3 | 5,884.4 | 5,817.6 | 23.7 | 19.3 | 145.96 | -533.8 | -552.5 | 350.9 | 316.0 | 34.85 | 10.067 | | |
| 6,000.0 | 5,901.5 | 5,976.3 | 5,909.4 | 24.0 | 19.5 | 146.53 | -537.0 | -555.5 | 357.7 | 322.6 | 35.07 | 10.200 | | |
| 6,100.0 | 6,001.1 | 6,068.0 | 6,001.1 | 24.1 | 19.6 | 147.13 | -538.0 | -556.5 | 363.9 | 328.7 | 35.22 | 10.332 | | |
| 6,200.0 | 6,101.0 | 6,167.9 | 6,101.0 | 24.3 | 19.7 | 147.62 | -538.0 | -556.5 | 368.3 | 332.9 | 35.36 | 10.414 | | |
| 6,299.0 | 6,200.0 | 6,266.9 | 6,200.0 | 24.4 | 19.9 | -1.01 | -538.0 | -556.5 | 369.7 | 330.1 | 39.62 | 9.332 | | |
| 6,402.0 | 6,302.9 | 6,369.8 | 6,302.9 | 24.5 | 20.0 | -1.01 | -538.0 | -556.5 | 369.7 | 329.8 | 39.90 | 9.267 | | |
| 6,450.0 | 6,350.9 | 6,417.9 | 6,350.9 | 24.6 | 20.1 | -91.23 | -538.0 | -556.5 | 369.7 | 333.7 | 36.06 | 10.254 | | |
| 6,500.0 | 6,400.7 | 6,467.6 | 6,400.7 | 24.6 | 20.1 | -91.96 | -538.0 | -556.5 | 369.9 | 333.5 | 36.34 | 10.178 | | |
| 6,550.0 | 6,450.1 | 6,517.0 | 6,450.1 | 24.6 | 20.2 | -93.15 | -538.0 | -556.5 | 370.2 | 333.5 | 36.71 | 10.085 | | |
| 6,600.0 | 6,498.8 | 6,565.7 | 6,498.8 | 24.6 | 20.3 | -94.78 | -538.0 | -556.5 | 371.0 | 333.9 | 37.15 | 9.988 | | |
| 6,650.0 | 6,546.6 | 6,616.5 | 6,549.6 | 24.6 | 20.3 | -96.68 | -538.0 | -554.9 | 372.4 | 334.8 | 37.58 | 9.907 | | |
| 6,700.0 | 6,593.5 | 6,668.4 | 6,601.2 | 24.5 | 20.4 | -98.56 | -538.0 | -549.7 | 374.1 | 336.2 | 37.92 | 9.865 | | |
| 6,750.0 | 6,639.1 | 6,721.2 | 6,653.2 | 24.4 | 20.4 | -100.41 | -538.0 | -540.9 | 376.3 | 338.1 | 38.16 | 9.860 | | |
| 6,800.0 | 6,683.2 | 6,775.0 | 6,705.5 | 24.4 | 20.3 | -102.21 | -538.0 | -528.2 | 378.8 | 340.5 | 38.29 | 9.893 | | |
| 6,850.0 | 6,725.7 | 6,829.9 | 6,757.8 | 24.3 | 20.3 | -103.96 | -538.0 | -511.5 | 381.6 | 343.3 | 38.30 | 9.962 | | |
| 6,900.0 | 6,766.4 | 6,885.9 | 6,809.7 | 24.2 | 20.3 | -105.65 | -538.0 | -490.6 | 384.7 | 346.4 | 38.22 | 10.065 | | |
| 6,950.0 | 6,805.2 | 6,942.9 | 6,860.9 | 24.1 | 20.2 | -107.26 | -538.0 | -465.5 | 387.9 | 349.9 | 38.04 | 10.198 | | |
| 7,000.0 | 6,841.7 | 7,001.1 | 6,911.1 | 24.0 | 20.1 | -108.78 | -538.0 | -436.0 | 391.4 | 353.6 | 37.80 | 10.355 | | |
| 7,050.0 | 6,876.0 | 7,060.5 | 6,959.8 | 23.9 | 20.0 | -110.22 | -538.0 | -402.1 | 394.9 | 357.4 | 37.51 | 10.527 | | |
| 7,100.0 | 6,907.8 | 7,120.9 | 7,006.5 | 23.8 | 19.9 | -111.55 | -538.0 | -363.8 | 398.4 | 361.2 | 37.21 | 10.705 | | |
| 7,150.0 | 6,937.0 | 7,182.4 | 7,050.8 | 23.7 | 19.8 | -112.78 | -538.0 | -321.2 | 401.8 | 364.8 | 36.95 | 10.873 | | |
| 7,200.0 | 6,963.6 | 7,245.0 | 7,092.2 | 23.6 | 19.7 | -113.89 | -538.0 | -274.3 | 405.1 | 368.3 | 36.77 | 11.015 | | |
| 7,250.0 | 6,987.2 | 7,308.6 | 7,130.2 | 23.6 | 19.7 | -114.89 | -538.0 | -223.3 | 408.1 | 371.4 | 36.73 | 11.112 | | |
| 7,300.0 | 7,008.0 | 7,373.1 | 7,164.3 | 23.5 | 19.6 | -115.75 | -538.0 | -168.6 | 410.9 | 374.0 | 36.86 | 11.147 | | |
| 7,350.0 | 7,025.7 | 7,438.3 | 7,194.0 | 23.4 | 19.7 | -116.48 | -538.0 | -110.5 | 413.3 | 376.1 | 37.21 | 11.106 | | |
| 7,400.0 | 7,040.3 | 7,504.3 | 7,218.8 | 23.3 | 19.8 | -117.07 | -538.0 | -49.4 | 415.3 | 377.5 | 37.82 | 10.980 | | |
| 7,450.0 | 7,051.8 | 7,570.9 | 7,238.4 | 23.2 | 20.1 | -117.52 | -538.0 | 14.2 | 416.8 | 378.1 | 38.72 | 10.766 | | |
| 7,500.0 | 7,060.1 | 7,637.8 | 7,252.5 | 23.1 | 20.8 | -117.82 | -538.0 | 79.7 | 417.9 | 378.0 | 39.89 | 10.477 | | |
| 7,550.0 | 7,065.1 | 7,705.0 | 7,260.8 | 23.1 | 21.7 | -117.98 | -538.0 | 146.3 | 418.4 | 377.1 | 41.33 | 10.125 | | |
| 7,600.0 | 7,066.9 | 7,771.2 | 7,263.2 | 23.1 | 22.8 | -117.98 | -538.0 | 212.4 | 418.4 | 375.4 | 42.99 | 9.732 | | |
| 7,603.9 | 7,066.9 | 7,775.0 | 7,263.2 | 23.1 | 22.8 | -117.98 | -538.0 | 216.3 | 418.4 | 375.3 | 43.11 | 9.705 | | |
| 7,605.7 | 7,066.9 | 7,776.9 | 7,263.2 | 23.1 | 22.9 | -117.98 | -538.0 | 218.1 | 418.4 | 375.2 | 43.17 | 9.692 | | |
| 7,700.0 | 7,066.4 | 7,871.2 | 7,263.0 | 24.7 | 24.6 | -118.02 | -538.0 | 312.4 | 418.5 | 372.3 | 46.18 | 9.063 | | |
| 7,800.0 | 7,065.9 | 7,971.2 | 7,262.8 | 26.7 | 26.6 | -118.05 | -538.0 | 412.4 | 418.6 | 369.0 | 49.64 | 8.433 | | |
| 7,900.0 | 7,065.4 | 8,071.2 | 7,262.6 | 28.8 | 28.8 | -118.09 | -538.0 | 512.4 | 418.7 | 365.4 | 53.34 | 7.850 | | |
| 8,000.0 | 7,064.9 | 8,171.2 | 7,262.4 | 31.0 | 31.0 | -118.12 | -538.0 | 612.4 | 418.9 | 361.6 | 57.24 | 7.318 | | |
| 8,100.0 | 7,064.5 | 8,271.2 | 7,262.2 | 33.4 | 33.3 | -118.16 | -538.0 | 712.4 | 419.0 | 357.7 | 61.29 | 6.836 | | |
| 8,200.0 | 7,064.0 | 8,371.2 | 7,262.0 | 35.7 | 35.7 | -118.19 | -538.0 | 812.4 | 419.1 | 353.6 | 65.47 | 6.402 | | |
| 8,300.0 | 7,063.5 | 8,471.2 | 7,261.7 | 38.2 | 38.2 | -118.23 | -538.0 | 912.4 | 419.2 | 349.5 | 69.75 | 6.010 | | |
| 8,400.0 | 7,063.0 | 8,571.2 | 7,261.5 | 40.7 | 40.7 | -118.26 | -538.0 | 1,012.4 | 419.3 | 345.2 | 74.11 | 5.658 | | |

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

| | | | |
|---------------------------|-------------------------------------------|-------------------------------------|-----------------------------|
| Company: | PETROLEUM DEVELOPMENT CORP Weld County CO | Local Co-ordinate Reference: | Well Wiedeman Trust 29P-212 |
| Project: | SEC.29-T4N-R66W | TVD Reference: | WELL @ 4778.0ft (RKB - 15') |
| Reference Site: | Wiedeman Trust 29O-HZ Pad Sec.29-T4N-R66W | MD Reference: | WELL @ 4778.0ft (RKB - 15') |
| Site Error: | 0.0ft | North Reference: | True |
| Reference Well: | Wiedeman Trust 29P-212 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Wellbore #1 | Database: | Landmark |
| Reference Design: | Plan #1 (6-17-14) | Offset TVD Reference: | Offset Datum |

| Offset Design | | Wiedeman Trust 29O-HZ Pad Sec.29-T4N-R66W - Wiedeman Trust 29O-432 - Wellbore #1 - Plan #2 (| | | | | | | | | | Offset Site Error: | | 0.0 ft | |
|-----------------------|---------------------|----------------------------------------------------------------------------------------------|---------------------|-----------------|-------------|-----------------------|-----------------------------------|------------|----------------------|-----------------------|-------------------------|--------------------|--|---------|--|
| Survey Program: 0-MWD | | | | | | | | | | | | Offset Well Error: | | 0.0 ft | |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | | Warning | |
| Measured Depth (ft) | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (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 | | | |
| 8,500.0 | 7,062.5 | 8,671.2 | 7,261.3 | 43.2 | 43.2 | -118.30 | -538.0 | 1,112.4 | 419.4 | 340.9 | 78.55 | 5.340 | | | |
| 8,600.0 | 7,062.0 | 8,771.2 | 7,261.1 | 45.7 | 45.8 | -118.33 | -538.0 | 1,212.4 | 419.5 | 336.5 | 83.04 | 5.052 | | | |
| 8,700.0 | 7,061.5 | 8,871.2 | 7,260.9 | 48.3 | 48.4 | -118.37 | -538.0 | 1,312.4 | 419.7 | 332.1 | 87.58 | 4.792 | | | |
| 8,800.0 | 7,061.0 | 8,971.2 | 7,260.7 | 50.9 | 51.0 | -118.40 | -538.0 | 1,412.4 | 419.8 | 327.6 | 92.16 | 4.555 | | | |
| 8,900.0 | 7,060.5 | 9,071.2 | 7,260.5 | 53.5 | 53.6 | -118.44 | -538.0 | 1,512.4 | 419.9 | 323.1 | 96.78 | 4.339 | | | |
| 9,000.0 | 7,060.1 | 9,171.2 | 7,260.3 | 56.1 | 56.3 | -118.47 | -538.0 | 1,612.4 | 420.0 | 318.6 | 101.42 | 4.141 | | | |
| 9,100.0 | 7,059.6 | 9,271.2 | 7,260.1 | 58.8 | 59.0 | -118.51 | -538.0 | 1,712.4 | 420.1 | 314.0 | 106.09 | 3.960 | | | |
| 9,200.0 | 7,059.1 | 9,371.2 | 7,259.9 | 61.5 | 61.6 | -118.54 | -538.0 | 1,812.4 | 420.2 | 309.4 | 110.78 | 3.793 | | | |
| 9,300.0 | 7,058.6 | 9,471.2 | 7,259.7 | 64.1 | 64.3 | -118.58 | -538.0 | 1,912.4 | 420.3 | 304.8 | 115.49 | 3.639 | | | |
| 9,400.0 | 7,058.1 | 9,571.2 | 7,259.4 | 66.8 | 67.0 | -118.61 | -538.0 | 2,012.4 | 420.5 | 300.2 | 120.22 | 3.497 | | | |
| 9,500.0 | 7,057.6 | 9,671.2 | 7,259.2 | 69.5 | 69.7 | -118.65 | -538.0 | 2,112.4 | 420.6 | 295.6 | 124.96 | 3.366 | | | |
| 9,600.0 | 7,057.1 | 9,771.2 | 7,259.0 | 72.2 | 72.4 | -118.68 | -538.0 | 2,212.4 | 420.7 | 291.0 | 129.71 | 3.243 | | | |
| 9,700.0 | 7,056.6 | 9,871.2 | 7,258.8 | 74.9 | 75.2 | -118.72 | -538.0 | 2,312.4 | 420.8 | 286.3 | 134.48 | 3.129 | | | |
| 9,800.0 | 7,056.2 | 9,971.2 | 7,258.6 | 77.6 | 77.9 | -118.75 | -538.0 | 2,412.4 | 420.9 | 281.7 | 139.25 | 3.023 | | | |
| 9,900.0 | 7,055.7 | 10,071.2 | 7,258.4 | 80.4 | 80.6 | -118.79 | -538.0 | 2,512.4 | 421.0 | 277.0 | 144.03 | 2.923 | | | |
| 10,000.0 | 7,055.2 | 10,171.2 | 7,258.2 | 83.1 | 83.3 | -118.82 | -538.0 | 2,612.4 | 421.1 | 272.3 | 148.81 | 2.830 | | | |
| 10,100.0 | 7,054.7 | 10,271.2 | 7,258.0 | 85.8 | 86.1 | -118.85 | -538.0 | 2,712.4 | 421.3 | 267.7 | 153.60 | 2.743 | | | |
| 10,200.0 | 7,054.2 | 10,371.2 | 7,257.8 | 88.6 | 88.8 | -118.89 | -538.0 | 2,812.4 | 421.4 | 263.0 | 158.40 | 2.660 | | | |
| 10,300.0 | 7,053.7 | 10,471.2 | 7,257.6 | 91.3 | 91.6 | -118.92 | -538.0 | 2,912.4 | 421.5 | 258.3 | 163.20 | 2.583 | | | |
| 10,400.0 | 7,053.2 | 10,571.2 | 7,257.4 | 94.0 | 94.3 | -118.96 | -538.0 | 3,012.4 | 421.6 | 253.6 | 168.01 | 2.510 | | | |
| 10,500.0 | 7,052.7 | 10,671.2 | 7,257.1 | 96.8 | 97.1 | -118.99 | -538.0 | 3,112.4 | 421.7 | 248.9 | 172.81 | 2.440 | | | |
| 10,600.0 | 7,052.2 | 10,771.2 | 7,256.9 | 99.5 | 99.8 | -119.03 | -538.0 | 3,212.4 | 421.8 | 244.2 | 177.62 | 2.375 | | | |
| 10,700.0 | 7,051.8 | 10,871.2 | 7,256.7 | 102.3 | 102.6 | -119.06 | -538.0 | 3,312.4 | 422.0 | 239.5 | 182.44 | 2.313 | | | |
| 10,800.0 | 7,051.3 | 10,971.2 | 7,256.5 | 105.0 | 105.4 | -119.10 | -538.0 | 3,412.4 | 422.1 | 234.8 | 187.25 | 2.254 | | | |
| 10,900.0 | 7,050.8 | 11,071.2 | 7,256.3 | 107.8 | 108.1 | -119.13 | -538.0 | 3,512.4 | 422.2 | 230.1 | 192.06 | 2.198 | | | |
| 11,000.0 | 7,050.3 | 11,171.2 | 7,256.1 | 110.6 | 110.9 | -119.17 | -538.0 | 3,612.4 | 422.3 | 225.4 | 196.88 | 2.145 | | | |
| 11,100.0 | 7,049.8 | 11,271.2 | 7,255.9 | 113.3 | 113.7 | -119.20 | -538.0 | 3,712.4 | 422.4 | 220.7 | 201.70 | 2.094 | | | |
| 11,200.0 | 7,049.3 | 11,371.1 | 7,255.7 | 116.1 | 116.4 | -119.23 | -538.0 | 3,812.4 | 422.5 | 216.0 | 206.51 | 2.046 | | | |
| 11,300.0 | 7,048.8 | 11,471.1 | 7,255.5 | 118.9 | 119.2 | -119.27 | -538.0 | 3,912.4 | 422.7 | 211.3 | 211.33 | 2.000 | | | |
| 11,400.0 | 7,048.3 | 11,571.1 | 7,255.3 | 121.6 | 122.0 | -119.30 | -538.0 | 4,012.4 | 422.8 | 206.6 | 216.15 | 1.956 | | | |
| 11,500.0 | 7,047.8 | 11,671.1 | 7,255.0 | 124.4 | 124.8 | -119.34 | -538.0 | 4,112.4 | 422.9 | 201.9 | 220.97 | 1.914 | | | |
| 11,600.0 | 7,047.4 | 11,771.1 | 7,254.8 | 127.2 | 127.5 | -119.37 | -538.0 | 4,212.4 | 423.0 | 197.2 | 225.78 | 1.874 | | | |
| 11,700.0 | 7,046.9 | 11,871.1 | 7,254.6 | 130.0 | 130.3 | -119.41 | -538.0 | 4,312.4 | 423.1 | 192.5 | 230.60 | 1.835 | | | |
| 11,800.0 | 7,046.4 | 11,971.1 | 7,254.4 | 132.7 | 133.1 | -119.44 | -538.0 | 4,412.4 | 423.3 | 187.8 | 235.41 | 1.798 | | | |
| 11,900.0 | 7,045.9 | 12,071.1 | 7,254.2 | 135.5 | 135.9 | -119.48 | -538.0 | 4,512.4 | 423.4 | 183.1 | 240.23 | 1.762 | | | |
| 12,000.0 | 7,045.4 | 12,171.1 | 7,254.0 | 138.3 | 138.7 | -119.51 | -538.0 | 4,612.4 | 423.5 | 178.5 | 245.04 | 1.728 | | | |
| 12,100.0 | 7,044.9 | 12,271.1 | 7,253.8 | 141.1 | 141.4 | -119.54 | -538.0 | 4,712.4 | 423.6 | 173.8 | 249.85 | 1.695 | | | |
| 12,200.0 | 7,044.4 | 12,371.1 | 7,253.6 | 143.8 | 144.2 | -119.58 | -538.0 | 4,812.4 | 423.7 | 169.1 | 254.67 | 1.664 | | | |
| 12,300.0 | 7,043.9 | 12,471.1 | 7,253.4 | 146.6 | 147.0 | -119.61 | -538.0 | 4,912.4 | 423.9 | 164.4 | 259.47 | 1.634 | | | |
| 12,400.0 | 7,043.4 | 12,571.1 | 7,253.2 | 149.4 | 149.8 | -119.65 | -538.0 | 5,012.4 | 424.0 | 159.7 | 264.28 | 1.604 | | | |
| 12,500.0 | 7,043.0 | 12,671.1 | 7,253.0 | 152.2 | 152.6 | -119.68 | -538.0 | 5,112.4 | 424.1 | 155.0 | 269.09 | 1.576 | | | |
| 12,600.0 | 7,042.5 | 12,771.1 | 7,252.7 | 155.0 | 155.4 | -119.72 | -538.0 | 5,212.4 | 424.2 | 150.3 | 273.89 | 1.549 | | | |
| 12,700.0 | 7,042.0 | 12,871.1 | 7,252.5 | 157.8 | 158.2 | -119.75 | -538.0 | 5,312.4 | 424.3 | 145.6 | 278.70 | 1.523 | | | |
| 12,800.0 | 7,041.5 | 12,971.1 | 7,252.3 | 160.5 | 161.0 | -119.78 | -538.0 | 5,412.4 | 424.5 | 141.0 | 283.50 | 1.497 Level 3 | | | |
| 12,900.0 | 7,041.0 | 13,071.1 | 7,252.1 | 163.3 | 163.7 | -119.82 | -538.0 | 5,512.4 | 424.6 | 136.3 | 288.30 | 1.473 Level 3 | | | |
| 13,000.0 | 7,040.5 | 13,171.1 | 7,251.9 | 166.1 | 166.5 | -119.85 | -538.0 | 5,612.4 | 424.7 | 131.6 | 293.10 | 1.449 Level 3 | | | |
| 13,100.0 | 7,040.0 | 13,271.1 | 7,251.7 | 168.9 | 169.3 | -119.89 | -538.0 | 5,712.4 | 424.8 | 126.9 | 297.89 | 1.426 Level 3 | | | |
| 13,200.0 | 7,039.5 | 13,371.1 | 7,251.5 | 171.7 | 172.1 | -119.92 | -538.0 | 5,812.4 | 424.9 | 122.3 | 302.68 | 1.404 Level 3 | | | |
| 13,300.0 | 7,039.0 | 13,471.1 | 7,251.3 | 174.5 | 174.9 | -119.95 | -538.0 | 5,912.4 | 425.1 | 117.6 | 307.48 | 1.382 Level 3 | | | |
| 13,400.0 | 7,038.6 | 13,571.1 | 7,251.1 | 177.3 | 177.7 | -119.99 | -538.0 | 6,012.4 | 425.2 | 112.9 | 312.26 | 1.362 Level 3 | | | |
| 13,500.0 | 7,038.1 | 13,671.1 | 7,250.9 | 180.1 | 180.5 | -120.02 | -538.0 | 6,112.4 | 425.3 | 108.2 | 317.05 | 1.341 Level 3 | | | |

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

| | | | |
|---------------------------|-------------------------------------------|-------------------------------------|-----------------------------|
| Company: | PETROLEUM DEVELOPMENT CORP Weld County CO | Local Co-ordinate Reference: | Well Wiedeman Trust 29P-212 |
| Project: | SEC.29-T4N-R66W | TVD Reference: | WELL @ 4778.0ft (RKB - 15') |
| Reference Site: | Wiedeman Trust 29O-HZ Pad Sec.29-T4N-R66W | MD Reference: | WELL @ 4778.0ft (RKB - 15') |
| Site Error: | 0.0ft | North Reference: | True |
| Reference Well: | Wiedeman Trust 29P-212 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Wellbore #1 | Database: | Landmark |
| Reference Design: | Plan #1 (6-17-14) | Offset TVD Reference: | Offset Datum |

| Offset Design | | Wiedeman Trust 29O-HZ Pad Sec.29-T4N-R66W - Wiedeman Trust 29O-432 - Wellbore #1 - Plan #2 (| | | | | | | | | | Offset Site Error: | | 0.0 ft | |
|-----------------------|---------------------|----------------------------------------------------------------------------------------------|---------------------|-----------------|-------------|-----------------------|-----------------------------------|------------|----------------------|-----------------------|-------------------------|--------------------|-------------|---------|--|
| Survey Program: 0-MWD | | | | | | | | | | | | Offset Well Error: | | 0.0 ft | |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | | Warning | |
| Measured Depth (ft) | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (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 | | | |
| 13,600.0 | 7,037.6 | 13,771.1 | 7,250.6 | 182.8 | 183.3 | -120.06 | -538.0 | 6,212.4 | 425.4 | 103.6 | 321.84 | 1.322 | Level 3 | | |
| 13,700.0 | 7,037.1 | 13,871.1 | 7,250.4 | 185.6 | 186.1 | -120.09 | -538.0 | 6,312.4 | 425.5 | 98.9 | 326.62 | 1.303 | Level 3 | | |
| 13,800.0 | 7,036.6 | 13,971.1 | 7,250.2 | 188.4 | 188.9 | -120.12 | -538.0 | 6,412.4 | 425.7 | 94.3 | 331.40 | 1.284 | Level 3 | | |
| 13,900.0 | 7,036.1 | 14,071.1 | 7,250.0 | 191.2 | 191.7 | -120.16 | -538.0 | 6,512.4 | 425.8 | 89.6 | 336.18 | 1.267 | Level 3 | | |
| 14,000.0 | 7,035.6 | 14,171.1 | 7,249.8 | 194.0 | 194.5 | -120.19 | -538.0 | 6,612.4 | 425.9 | 85.0 | 340.95 | 1.249 | Level 2 | | |
| 14,100.0 | 7,035.1 | 14,271.1 | 7,249.6 | 196.8 | 197.2 | -120.23 | -538.0 | 6,712.4 | 426.0 | 80.3 | 345.72 | 1.232 | Level 2 | | |
| 14,200.0 | 7,034.6 | 14,371.1 | 7,249.4 | 199.6 | 200.0 | -120.26 | -538.0 | 6,812.4 | 426.2 | 75.7 | 350.50 | 1.216 | Level 2 | | |
| 14,300.0 | 7,034.2 | 14,471.1 | 7,249.2 | 202.4 | 202.8 | -120.29 | -538.0 | 6,912.4 | 426.3 | 71.0 | 355.26 | 1.200 | Level 2 | | |
| 14,400.0 | 7,033.7 | 14,571.1 | 7,249.0 | 205.2 | 205.6 | -120.33 | -538.0 | 7,012.4 | 426.4 | 66.4 | 360.03 | 1.184 | Level 2 | | |
| 14,500.0 | 7,033.2 | 14,671.1 | 7,248.8 | 208.0 | 208.4 | -120.36 | -538.0 | 7,112.4 | 426.5 | 61.7 | 364.79 | 1.169 | Level 2 | | |
| 14,600.0 | 7,032.7 | 14,771.1 | 7,248.6 | 210.8 | 211.2 | -120.39 | -538.0 | 7,212.4 | 426.6 | 57.1 | 369.55 | 1.154 | Level 2 | | |
| 14,700.0 | 7,032.2 | 14,871.1 | 7,248.3 | 213.6 | 214.0 | -120.43 | -538.0 | 7,312.4 | 426.8 | 52.5 | 374.31 | 1.140 | Level 2 | | |
| 14,800.0 | 7,031.7 | 14,971.1 | 7,248.1 | 216.4 | 216.8 | -120.46 | -538.0 | 7,412.4 | 426.9 | 47.8 | 379.06 | 1.126 | Level 2 | | |
| 14,841.6 | 7,031.5 | 15,012.8 | 7,248.0 | 217.5 | 218.0 | -120.48 | -538.0 | 7,454.0 | 426.9 | 45.9 | 381.04 | 1.120 | Level 2 | | |
| 14,900.0 | 7,031.2 | 15,036.3 | 7,248.0 | 219.2 | 218.6 | -120.48 | -538.0 | 7,477.5 | 428.4 | 45.4 | 383.01 | 1.119 | Level 2, SF | | |
| 14,946.6 | 7,031.0 | 15,036.3 | 7,248.0 | 220.5 | 218.6 | -120.48 | -538.0 | 7,477.5 | 434.8 | 50.6 | 384.15 | 1.132 | Level 2 | | |

| | | | |
|---------------------------|----------------------------------------------|-------------------------------------|-----------------------------|
| Company: | PETROLEUM DEVELOPMENT CORP Weld County CO | Local Co-ordinate Reference: | Well Wiedeman Trust 29P-212 |
| Project: | SEC.29-T4N-R66W | TVD Reference: | WELL @ 4778.0ft (RKB - 15') |
| Reference Site: | Wiedeman Trust 29O-HZ Pad Sec.29-T4N-R66W | MD Reference: | WELL @ 4778.0ft (RKB - 15') |
| Site Error: | 0.0ft | North Reference: | True |
| Reference Well: | Wiedeman Trust 29P-212 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Wellbore #1 | Database: | Landmark |
| Reference Design: | Plan #1 (6-17-14) | Offset TVD Reference: | Offset Datum |

Reference Depths are relative to WELL @ 4778.0ft (RKB - 15')

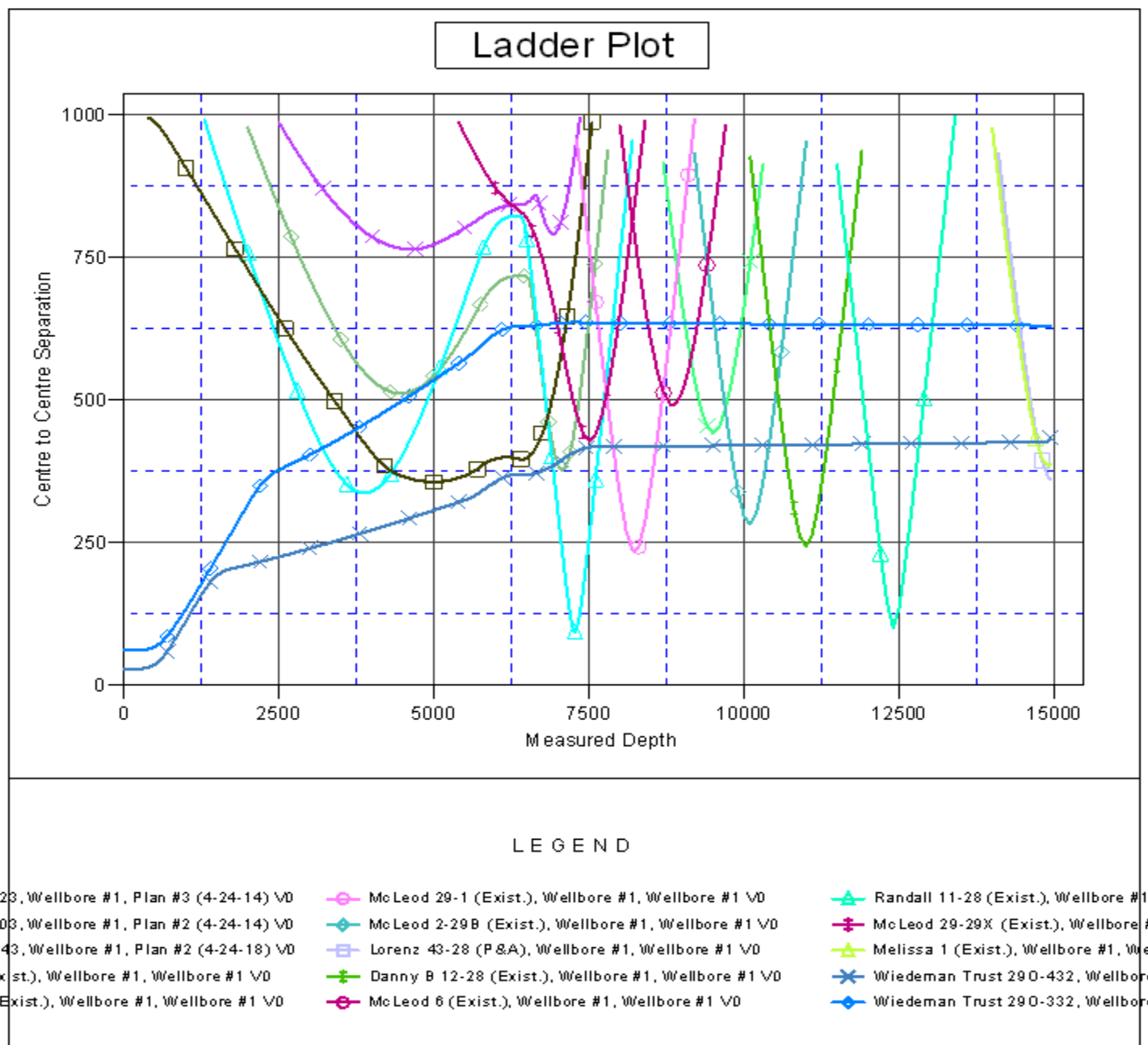
Offset Depths are relative to Offset Datum

Central Meridian is -105.500000 °

Coordinates are relative to: Wiedeman Trust 29P-212

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.45°



| | | | |
|---------------------------|----------------------------------------------|-------------------------------------|-----------------------------|
| Company: | PETROLEUM DEVELOPMENT CORP Weld County CO | Local Co-ordinate Reference: | Well Wiedeman Trust 29P-212 |
| Project: | SEC.29-T4N-R66W | TVD Reference: | WELL @ 4778.0ft (RKB - 15') |
| Reference Site: | Wiedeman Trust 29O-HZ Pad Sec.29-T4N-R66W | MD Reference: | WELL @ 4778.0ft (RKB - 15') |
| Site Error: | 0.0ft | North Reference: | True |
| Reference Well: | Wiedeman Trust 29P-212 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Wellbore #1 | Database: | Landmark |
| Reference Design: | Plan #1 (6-17-14) | Offset TVD Reference: | Offset Datum |

Reference Depths are relative to WELL @ 4778.0ft (RKB - 15')
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: Wiedeman Trust 29P-212
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.45°

