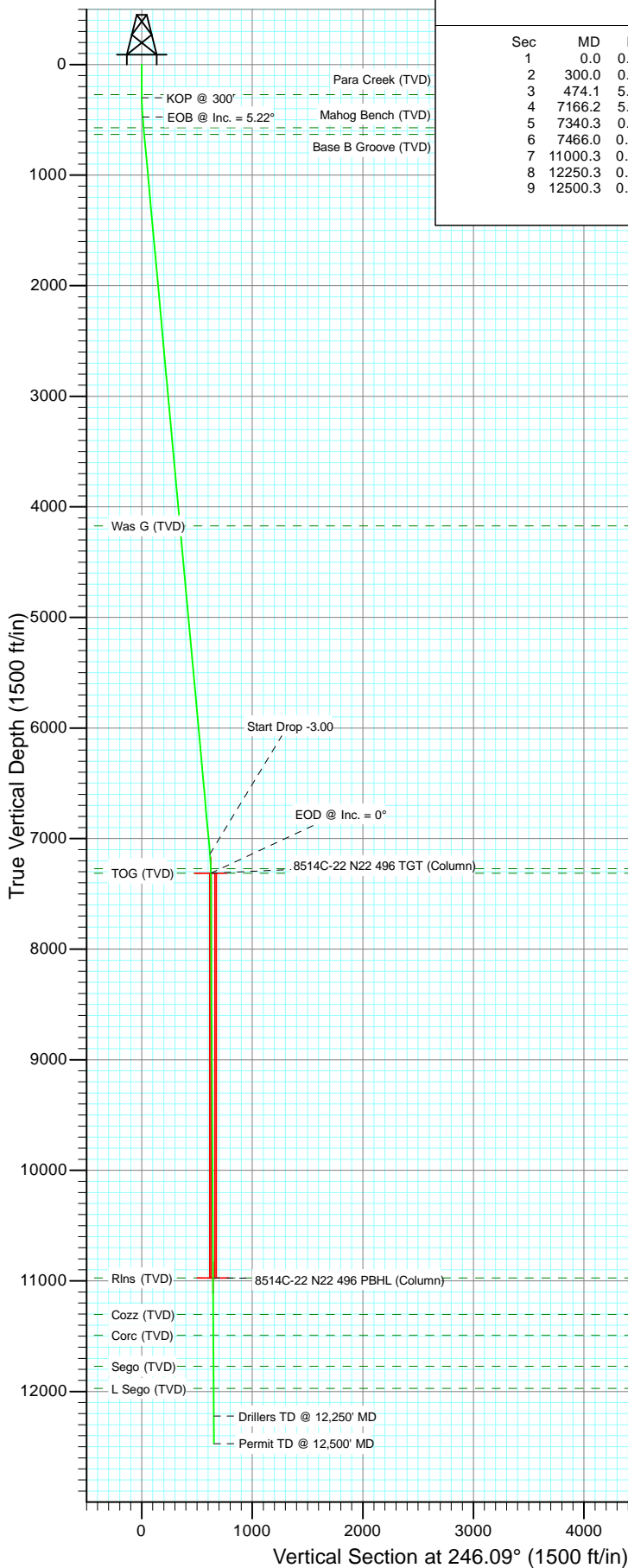
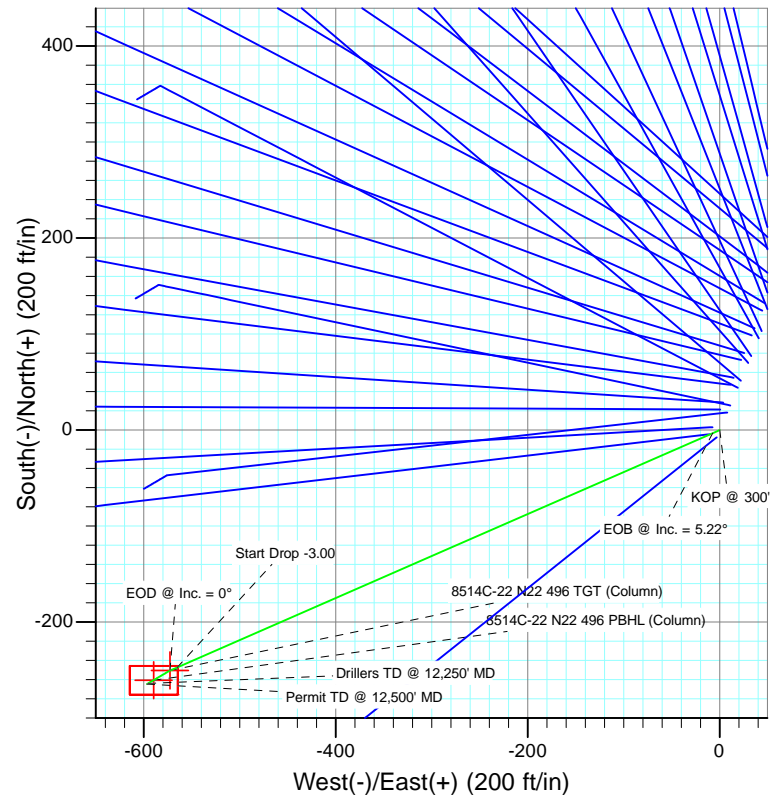




Project: Story Gulch
Site: S22-T4S-R96W (N22 496) (Column Pattern)
Well: 8514C-22 N22 496
Wellbore: DD
Design: Plan #1



| SECTION DETAILS | | | | | | | | | | |
|-----------------|---------|------|--------|---------|--------|--------|------|--------|-------|--------------------------------|
| Sec | MD | Inc | Azi | TVD | +N/-S | +E/-W | Dleg | TFace | Vsect | Target |
| 1 | 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.0 | |
| 2 | 300.0 | 0.00 | 0.00 | 300.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.0 | |
| 3 | 474.1 | 5.22 | 246.38 | 473.8 | -3.2 | -7.3 | 3.00 | 246.38 | 7.9 | |
| 4 | 7166.2 | 5.22 | 246.38 | 7138.2 | -247.2 | -565.3 | 0.00 | 0.00 | 617.0 | |
| 5 | 7340.3 | 0.00 | 0.00 | 7312.0 | -250.4 | -572.6 | 3.00 | 180.00 | 624.9 | 8514C-22 N22 496 TGT (Column) |
| 6 | 7466.0 | 0.31 | 239.55 | 7437.8 | -250.6 | -572.9 | 0.25 | 239.55 | 625.3 | |
| 7 | 11000.3 | 0.31 | 239.55 | 10972.0 | -260.4 | -589.6 | 0.00 | 0.00 | 644.6 | 8514C-22 N22 496 PBHL (Column) |
| 8 | 12250.3 | 0.31 | 239.55 | 12222.0 | -263.9 | -595.5 | 0.00 | 0.00 | 651.4 | |
| 9 | 12500.3 | 0.31 | 239.55 | 12472.0 | -264.6 | -596.7 | 0.00 | 0.00 | 652.7 | |



| FORMATION TOP DETAILS | | |
|-----------------------|---------|---------------------|
| TVDPATH | MDPATH | Formation |
| 272.0 | 272.0 | Para Creek (TVD) |
| 572.0 | 572.7 | Mahog Bench (TVD) |
| 632.0 | 632.9 | Base B Groove (TVD) |
| 4172.0 | 4187.7 | Was G (TVD) |
| 7272.0 | 7300.3 | WF (TVD) |
| 7312.0 | 7340.3 | TOG (TVD) |
| 10972.0 | 11000.3 | Rins (TVD) |
| 11302.0 | 11330.3 | Cozz (TVD) |
| 11492.0 | 11520.3 | Corc (TVD) |
| 11772.0 | 11800.3 | Sego (TVD) |
| 11972.0 | 12000.3 | L Sego (TVD) |



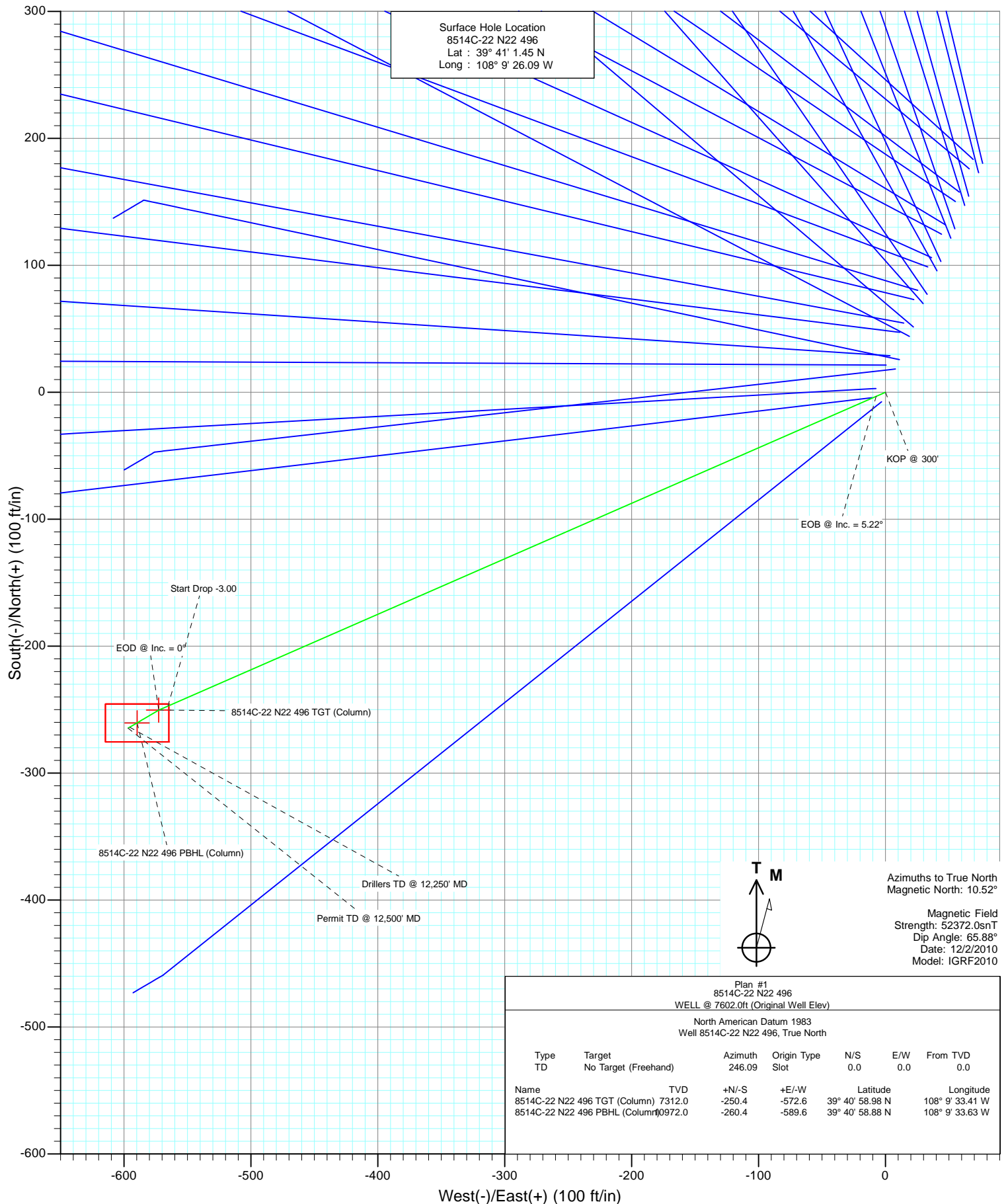
Azimuths to True North
Magnetic North: 10.52°

Magnetic Field
Strength: 52372.0snT
Dip Angle: 65.88°
Date: 12/2/2010
Model: IGRF2010

| Plan #1 8514C-22 N22 496 WELL @ 7602.0ft (Original Well Elev) | | | | | | |
|---|----------------------|---------|--------|----------|-----------------|-----------------|
| North American Datum 1983 Well 8514C-22 N22 496, True North | | | | | | |
| Type | Target | Azimuth | Origin | Type | N/S | E/W |
| TD | No Target (Freehand) | 246.09 | Slot | | 0.0 | 0.0 |
| | | | | From TVD | | 0.0 |
| Name | | TVD | +N/-S | +E/-W | Latitude | Longitude |
| 8514C-22 N22 496 TGT (Column) | | 7312.0 | -250.4 | -572.6 | 39° 40' 58.98 N | 108° 9' 33.41 W |
| 8514C-22 N22 496 PBHL (Column) | | 10972.0 | -260.4 | -589.6 | 39° 40' 58.88 N | 108° 9' 33.63 W |

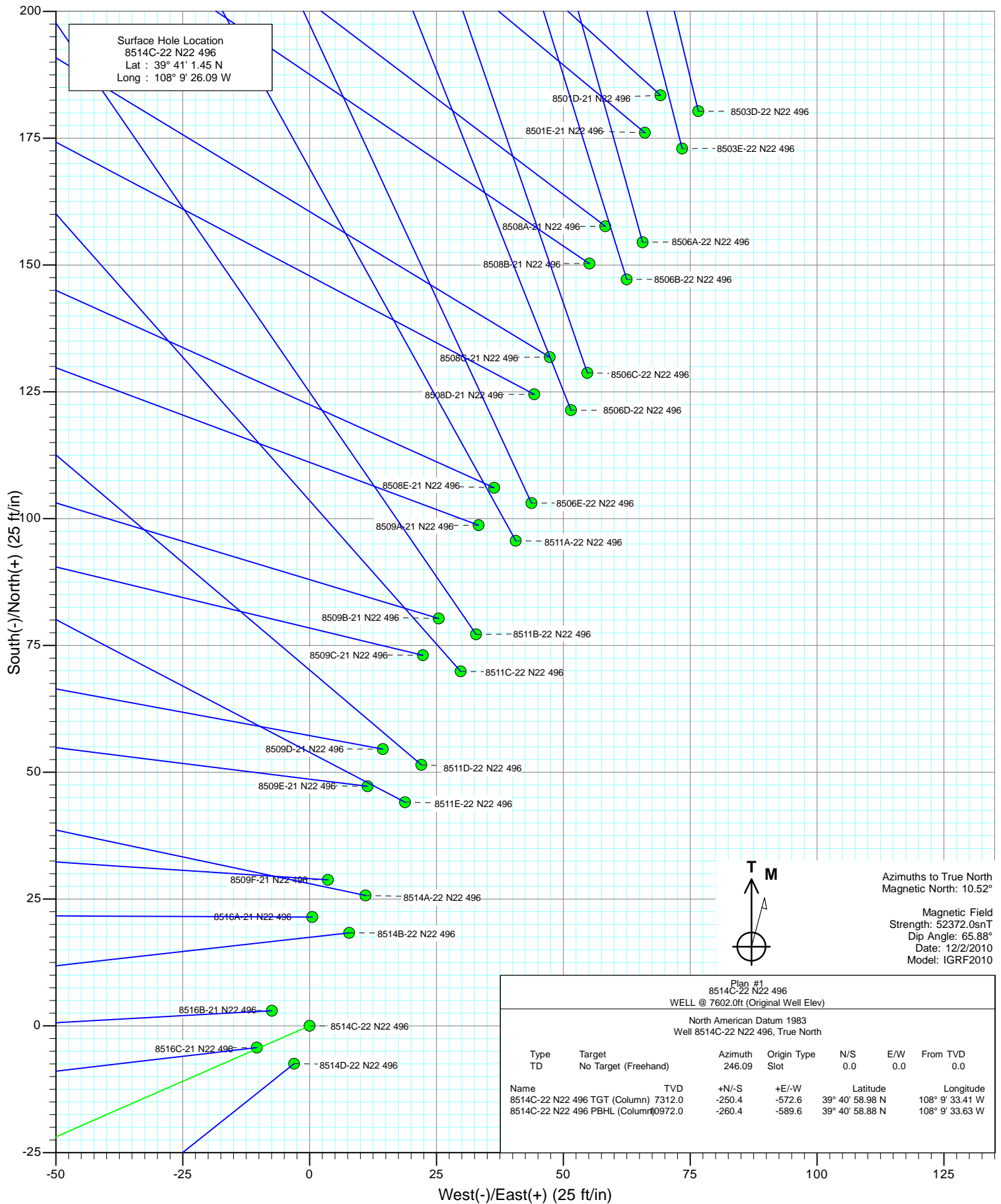


Project: Story Gulch
Site: S22-T4S-R96W (N22 496) (Column Pattern)
Well: 8514C-22 N22 496
Wellbore: DD
Design: Plan #1



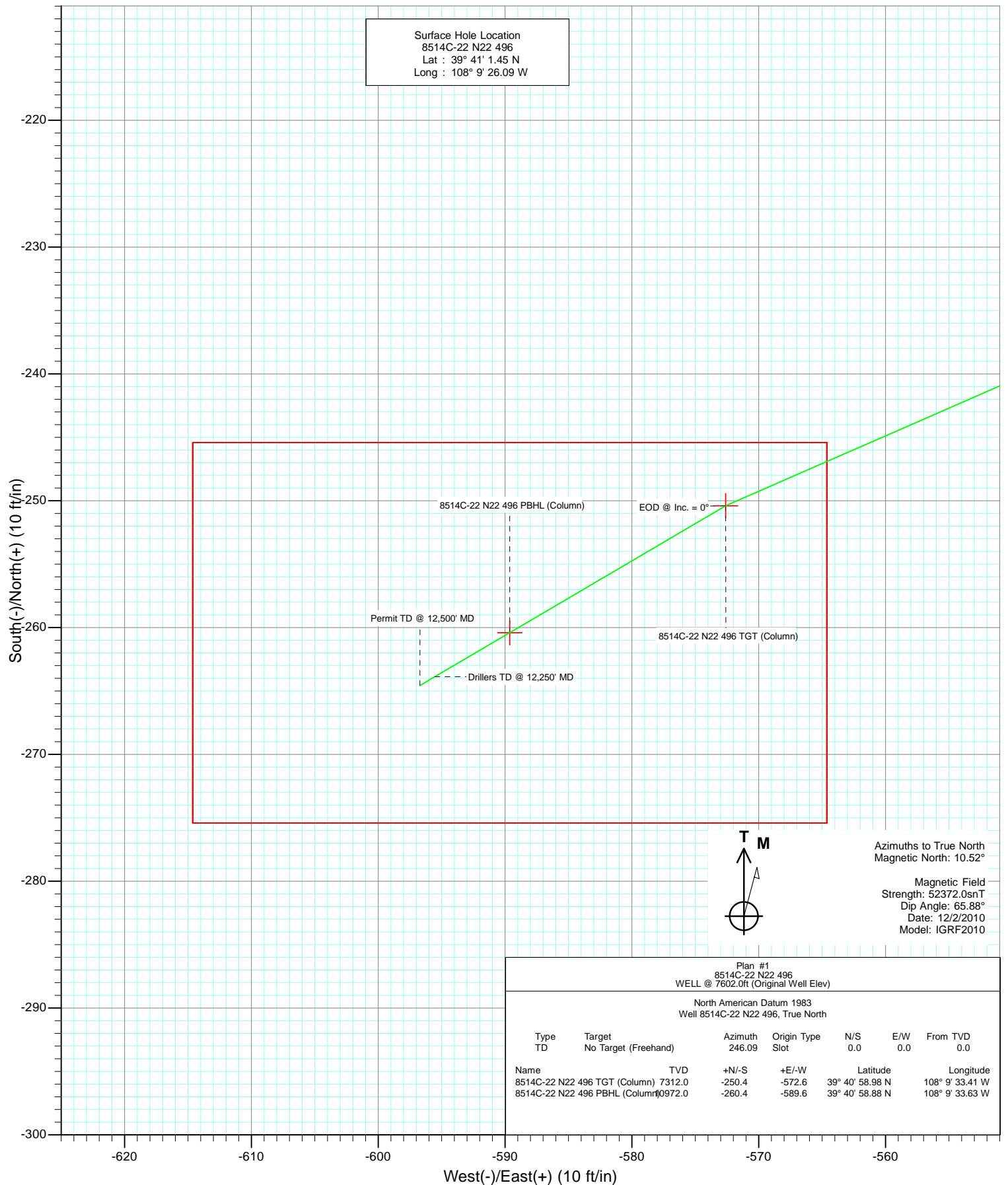


Project: Story Gulch
Site: S22-T4S-R96W (N22 496) (Column Pattern)
Well: 8514C-22 N22 496
Wellbore: DD
Design: Plan #1





Project: Story Gulch
 Site: S22-T4S-R96W (N22 496) (Column Pattern)
 Well: 8514C-22 N22 496
 Wellbore: DD
 Design: Plan #1



Cathedral Energy

Planning Report

| | | | |
|------------------|---|-------------------------------------|--------------------------------------|
| Database: | EDM 5000.1 US Multi Users DB | Local Co-ordinate Reference: | Well 8514C-22 N22 496 |
| Company: | EnCana Oil & Gas (USA) Inc | TVD Reference: | WELL @ 7602.0ft (Original Well Elev) |
| Project: | Story Gulch | MD Reference: | WELL @ 7602.0ft (Original Well Elev) |
| Site: | S22-T4S-R96W (N22 496) (Column Pattern) | North Reference: | True |
| Well: | 8514C-22 N22 496 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | DD | | |
| Design: | Plan #1 | | |

| | | | |
|--------------------|---------------------------|----------------------|----------------|
| Project | Story Gulch | | |
| Map System: | US State Plane 1983 | System Datum: | Mean Sea Level |
| Geo Datum: | North American Datum 1983 | | |
| Map Zone: | Colorado Central Zone | | |

| Site | | S22-T4S-R96W (N22 496) (Column Pattern) | | | |
|-----------------------|----------|---|-----------------|-------------------|-----------------|
| Site Position: | | Northing: | 1,685,048.56 ft | Latitude: | 39° 41' 3.24 N |
| From: | Lat/Long | Easting: | 2,252,316.79 ft | Longitude: | 108° 9' 25.11 W |
| Position Uncertainty: | 0.0 ft | Slot Radius: | 13.200 in | Grid Convergence: | -1.68 ° |

| | | | | | | |
|----------------------|------------------|--------|---------------------|-----------------|---------------|-----------------|
| Well | 8514C-22 N22 496 | | | | | |
| Well Position | +N/-S | 0.0 ft | Northing: | 1,684,870.53 ft | Latitude: | 39° 41' 1.45 N |
| | +E/-W | 0.0 ft | Easting: | 2,252,234.93 ft | Longitude: | 108° 9' 26.09 W |
| Position Uncertainty | | 0.0 ft | Wellhead Elevation: | ft | Ground Level: | 7,569.0 ft |

| | | | | | |
|------------------|-------------------|--------------------|----------------------------|--------------------------|--------------------------------|
| Wellbore | DD | | | | |
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
| | IGRF2010 | 12/2/2010 | 10.52 | 65.88 | 52,372 |

| | | | | | |
|--------------------------|----------------------------------|-----------------------|-----------------------|--------------------------|-----|
| Design | Plan #1 | | | | |
| Audit Notes: | | | | | |
| Version: | Phase: | PLAN | | Tie On Depth: | 0.0 |
| Vertical Section: | Depth From (TVD) (ft) | +N/-S (ft) | +E/-W (ft) | Direction (°) | |
| | 0.0 | 0.0 | 0.0 | 246.09 | |

| 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 | |
| 300.0 | 0.00 | 0.00 | 300.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 474.1 | 5.22 | 246.38 | 473.8 | -3.2 | -7.3 | 3.00 | 3.00 | 0.00 | 246.38 | |
| 7,166.2 | 5.22 | 246.38 | 7,138.2 | -247.2 | -565.3 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 7,340.3 | 0.00 | 0.00 | 7,312.0 | -250.4 | -572.6 | 3.00 | -3.00 | 0.00 | 180.00 | 8514C-22 N22 496 TC |
| 7,466.0 | 0.31 | 239.55 | 7,437.8 | -250.6 | -572.9 | 0.25 | 0.25 | -95.75 | 239.55 | |
| 11,000.3 | 0.31 | 239.55 | 10,972.0 | -260.4 | -589.6 | 0.00 | 0.00 | 0.00 | 0.00 | 8514C-22 N22 496 PI |
| 12,250.3 | 0.31 | 239.55 | 12,222.0 | -263.9 | -595.5 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 12,500.3 | 0.31 | 239.55 | 12,472.0 | -264.6 | -596.7 | 0.00 | 0.00 | 0.00 | 0.00 | |

Cathedral Energy

Planning Report

| | | | |
|------------------|---|-------------------------------------|--------------------------------------|
| Database: | EDM 5000.1 US Multi Users DB | Local Co-ordinate Reference: | Well 8514C-22 N22 496 |
| Company: | EnCana Oil & Gas (USA) Inc | TVD Reference: | WELL @ 7602.0ft (Original Well Elev) |
| Project: | Story Gulch | MD Reference: | WELL @ 7602.0ft (Original Well Elev) |
| Site: | S22-T4S-R96W (N22 496) (Column Pattern) | North Reference: | True |
| Well: | 8514C-22 N22 496 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | DD | | |
| Design: | Plan #1 | | |

| 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) | Comments / Formations |
| 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | |
| 100.0 | 0.00 | 0.00 | 100.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | |
| 200.0 | 0.00 | 0.00 | 200.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | |
| 272.0 | 0.00 | 0.00 | 272.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | Para Creek (TVD) |
| 300.0 | 0.00 | 0.00 | 300.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | KOP @ 300' |
| 400.0 | 3.00 | 246.38 | 400.0 | -1.0 | -2.4 | 2.6 | 3.00 | 3.00 | |
| 474.1 | 5.22 | 246.38 | 473.8 | -3.2 | -7.3 | 7.9 | 3.00 | 3.00 | EOB @ Inc. = 5.22° |
| 500.0 | 5.22 | 246.38 | 499.7 | -4.1 | -9.4 | 10.3 | 0.00 | 0.00 | |
| 572.7 | 5.22 | 246.38 | 572.0 | -6.8 | -15.5 | 16.9 | 0.00 | 0.00 | Mahog Bench (TVD) |
| 600.0 | 5.22 | 246.38 | 599.2 | -7.8 | -17.8 | 19.4 | 0.00 | 0.00 | |
| 632.9 | 5.22 | 246.38 | 632.0 | -9.0 | -20.5 | 22.4 | 0.00 | 0.00 | Base B Groove (TVD) |
| 700.0 | 5.22 | 246.38 | 698.8 | -11.4 | -26.1 | 28.5 | 0.00 | 0.00 | |
| 800.0 | 5.22 | 246.38 | 798.4 | -15.1 | -34.4 | 37.6 | 0.00 | 0.00 | |
| 900.0 | 5.22 | 246.38 | 898.0 | -18.7 | -42.8 | 46.7 | 0.00 | 0.00 | |
| 1,000.0 | 5.22 | 246.38 | 997.6 | -22.4 | -51.1 | 55.8 | 0.00 | 0.00 | |
| 1,100.0 | 5.22 | 246.38 | 1,097.2 | -26.0 | -59.5 | 64.9 | 0.00 | 0.00 | |
| 1,200.0 | 5.22 | 246.38 | 1,196.7 | -29.6 | -67.8 | 74.0 | 0.00 | 0.00 | |
| 1,300.0 | 5.22 | 246.38 | 1,296.3 | -33.3 | -76.1 | 83.1 | 0.00 | 0.00 | |
| 1,400.0 | 5.22 | 246.38 | 1,395.9 | -36.9 | -84.5 | 92.2 | 0.00 | 0.00 | |
| 1,500.0 | 5.22 | 246.38 | 1,495.5 | -40.6 | -92.8 | 101.3 | 0.00 | 0.00 | |
| 1,600.0 | 5.22 | 246.38 | 1,595.1 | -44.2 | -101.2 | 110.4 | 0.00 | 0.00 | |
| 1,700.0 | 5.22 | 246.38 | 1,694.7 | -47.9 | -109.5 | 119.5 | 0.00 | 0.00 | |
| 1,800.0 | 5.22 | 246.38 | 1,794.3 | -51.5 | -117.8 | 128.6 | 0.00 | 0.00 | |
| 1,900.0 | 5.22 | 246.38 | 1,893.8 | -55.2 | -126.2 | 137.7 | 0.00 | 0.00 | |
| 2,000.0 | 5.22 | 246.38 | 1,993.4 | -58.8 | -134.5 | 146.8 | 0.00 | 0.00 | |
| 2,100.0 | 5.22 | 246.38 | 2,093.0 | -62.5 | -142.9 | 155.9 | 0.00 | 0.00 | |
| 2,200.0 | 5.22 | 246.38 | 2,192.6 | -66.1 | -151.2 | 165.0 | 0.00 | 0.00 | |
| 2,300.0 | 5.22 | 246.38 | 2,292.2 | -69.8 | -159.5 | 174.1 | 0.00 | 0.00 | |
| 2,400.0 | 5.22 | 246.38 | 2,391.8 | -73.4 | -167.9 | 183.2 | 0.00 | 0.00 | |
| 2,500.0 | 5.22 | 246.38 | 2,491.4 | -77.1 | -176.2 | 192.3 | 0.00 | 0.00 | |
| 2,600.0 | 5.22 | 246.38 | 2,590.9 | -80.7 | -184.6 | 201.4 | 0.00 | 0.00 | |
| 2,700.0 | 5.22 | 246.38 | 2,690.5 | -84.3 | -192.9 | 210.5 | 0.00 | 0.00 | |
| 2,800.0 | 5.22 | 246.38 | 2,790.1 | -88.0 | -201.2 | 219.6 | 0.00 | 0.00 | |
| 2,900.0 | 5.22 | 246.38 | 2,889.7 | -91.6 | -209.6 | 228.7 | 0.00 | 0.00 | |
| 3,000.0 | 5.22 | 246.38 | 2,989.3 | -95.3 | -217.9 | 237.8 | 0.00 | 0.00 | |
| 3,100.0 | 5.22 | 246.38 | 3,088.9 | -98.9 | -226.2 | 246.9 | 0.00 | 0.00 | |
| 3,200.0 | 5.22 | 246.38 | 3,188.4 | -102.6 | -234.6 | 256.0 | 0.00 | 0.00 | |
| 3,300.0 | 5.22 | 246.38 | 3,288.0 | -106.2 | -242.9 | 265.1 | 0.00 | 0.00 | |
| 3,400.0 | 5.22 | 246.38 | 3,387.6 | -109.9 | -251.3 | 274.2 | 0.00 | 0.00 | |
| 3,500.0 | 5.22 | 246.38 | 3,487.2 | -113.5 | -259.6 | 283.3 | 0.00 | 0.00 | |
| 3,600.0 | 5.22 | 246.38 | 3,586.8 | -117.2 | -267.9 | 292.4 | 0.00 | 0.00 | |
| 3,700.0 | 5.22 | 246.38 | 3,686.4 | -120.8 | -276.3 | 301.5 | 0.00 | 0.00 | |
| 3,800.0 | 5.22 | 246.38 | 3,786.0 | -124.5 | -284.6 | 310.6 | 0.00 | 0.00 | |
| 3,900.0 | 5.22 | 246.38 | 3,885.5 | -128.1 | -293.0 | 319.7 | 0.00 | 0.00 | |
| 4,000.0 | 5.22 | 246.38 | 3,985.1 | -131.8 | -301.3 | 328.8 | 0.00 | 0.00 | |
| 4,100.0 | 5.22 | 246.38 | 4,084.7 | -135.4 | -309.6 | 337.9 | 0.00 | 0.00 | |
| 4,187.7 | 5.22 | 246.38 | 4,172.0 | -138.6 | -316.9 | 345.9 | 0.00 | 0.00 | Was G (TVD) |
| 4,200.0 | 5.22 | 246.38 | 4,184.3 | -139.1 | -318.0 | 347.0 | 0.00 | 0.00 | |
| 4,300.0 | 5.22 | 246.38 | 4,283.9 | -142.7 | -326.3 | 356.1 | 0.00 | 0.00 | |
| 4,400.0 | 5.22 | 246.38 | 4,383.5 | -146.3 | -334.7 | 365.3 | 0.00 | 0.00 | |
| 4,500.0 | 5.22 | 246.38 | 4,483.0 | -150.0 | -343.0 | 374.4 | 0.00 | 0.00 | |
| 4,600.0 | 5.22 | 246.38 | 4,582.6 | -153.6 | -351.3 | 383.5 | 0.00 | 0.00 | |

Cathedral Energy

Planning Report

| | | | |
|------------------|---|-------------------------------------|--------------------------------------|
| Database: | EDM 5000.1 US Multi Users DB | Local Co-ordinate Reference: | Well 8514C-22 N22 496 |
| Company: | EnCana Oil & Gas (USA) Inc | TVD Reference: | WELL @ 7602.0ft (Original Well Elev) |
| Project: | Story Gulch | MD Reference: | WELL @ 7602.0ft (Original Well Elev) |
| Site: | S22-T4S-R96W (N22 496) (Column Pattern) | North Reference: | True |
| Well: | 8514C-22 N22 496 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | DD | | |
| Design: | Plan #1 | | |

| 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) | Comments / Formations |
| 4,700.0 | 5.22 | 246.38 | 4,682.2 | -157.3 | -359.7 | 392.6 | 0.00 | 0.00 | |
| 4,800.0 | 5.22 | 246.38 | 4,781.8 | -160.9 | -368.0 | 401.7 | 0.00 | 0.00 | |
| 4,900.0 | 5.22 | 246.38 | 4,881.4 | -164.6 | -376.4 | 410.8 | 0.00 | 0.00 | |
| 5,000.0 | 5.22 | 246.38 | 4,981.0 | -168.2 | -384.7 | 419.9 | 0.00 | 0.00 | |
| 5,100.0 | 5.22 | 246.38 | 5,080.6 | -171.9 | -393.0 | 429.0 | 0.00 | 0.00 | |
| 5,200.0 | 5.22 | 246.38 | 5,180.1 | -175.5 | -401.4 | 438.1 | 0.00 | 0.00 | |
| 5,300.0 | 5.22 | 246.38 | 5,279.7 | -179.2 | -409.7 | 447.2 | 0.00 | 0.00 | |
| 5,400.0 | 5.22 | 246.38 | 5,379.3 | -182.8 | -418.0 | 456.3 | 0.00 | 0.00 | |
| 5,500.0 | 5.22 | 246.38 | 5,478.9 | -186.5 | -426.4 | 465.4 | 0.00 | 0.00 | |
| 5,600.0 | 5.22 | 246.38 | 5,578.5 | -190.1 | -434.7 | 474.5 | 0.00 | 0.00 | |
| 5,700.0 | 5.22 | 246.38 | 5,678.1 | -193.8 | -443.1 | 483.6 | 0.00 | 0.00 | |
| 5,800.0 | 5.22 | 246.38 | 5,777.7 | -197.4 | -451.4 | 492.7 | 0.00 | 0.00 | |
| 5,900.0 | 5.22 | 246.38 | 5,877.2 | -201.0 | -459.7 | 501.8 | 0.00 | 0.00 | |
| 6,000.0 | 5.22 | 246.38 | 5,976.8 | -204.7 | -468.1 | 510.9 | 0.00 | 0.00 | |
| 6,100.0 | 5.22 | 246.38 | 6,076.4 | -208.3 | -476.4 | 520.0 | 0.00 | 0.00 | |
| 6,200.0 | 5.22 | 246.38 | 6,176.0 | -212.0 | -484.8 | 529.1 | 0.00 | 0.00 | |
| 6,300.0 | 5.22 | 246.38 | 6,275.6 | -215.6 | -493.1 | 538.2 | 0.00 | 0.00 | |
| 6,400.0 | 5.22 | 246.38 | 6,375.2 | -219.3 | -501.4 | 547.3 | 0.00 | 0.00 | |
| 6,500.0 | 5.22 | 246.38 | 6,474.7 | -222.9 | -509.8 | 556.4 | 0.00 | 0.00 | |
| 6,600.0 | 5.22 | 246.38 | 6,574.3 | -226.6 | -518.1 | 565.5 | 0.00 | 0.00 | |
| 6,700.0 | 5.22 | 246.38 | 6,673.9 | -230.2 | -526.5 | 574.6 | 0.00 | 0.00 | |
| 6,800.0 | 5.22 | 246.38 | 6,773.5 | -233.9 | -534.8 | 583.7 | 0.00 | 0.00 | |
| 6,900.0 | 5.22 | 246.38 | 6,873.1 | -237.5 | -543.1 | 592.8 | 0.00 | 0.00 | |
| 7,000.0 | 5.22 | 246.38 | 6,972.7 | -241.2 | -551.5 | 601.9 | 0.00 | 0.00 | |
| 7,100.0 | 5.22 | 246.38 | 7,072.3 | -244.8 | -559.8 | 611.0 | 0.00 | 0.00 | |
| 7,166.2 | 5.22 | 246.38 | 7,138.2 | -247.2 | -565.3 | 617.0 | 0.00 | 0.00 | Start Drop -3.00 |
| 7,200.0 | 4.21 | 246.38 | 7,171.9 | -248.3 | -567.9 | 619.8 | 3.00 | -3.00 | |
| 7,300.0 | 1.21 | 246.38 | 7,271.7 | -250.2 | -572.2 | 624.5 | 3.00 | -3.00 | |
| 7,300.3 | 1.20 | 246.38 | 7,272.0 | -250.2 | -572.2 | 624.5 | 3.00 | -3.00 | WF (TVD) |
| 7,340.3 | 0.00 | 0.00 | 7,312.0 | -250.4 | -572.6 | 624.9 | 3.00 | -3.00 | EOD @ Inc. = 0° - TOG (TVD) - 8514C-22 N22 |
| 7,400.0 | 0.15 | 239.55 | 7,371.7 | -250.4 | -572.7 | 625.0 | 0.25 | 0.25 | |
| 7,466.0 | 0.31 | 239.55 | 7,437.8 | -250.6 | -572.9 | 625.3 | 0.25 | 0.25 | |
| 7,500.0 | 0.31 | 239.55 | 7,471.7 | -250.7 | -573.1 | 625.5 | 0.00 | 0.00 | |
| 7,600.0 | 0.31 | 239.55 | 7,571.7 | -250.9 | -573.5 | 626.0 | 0.00 | 0.00 | |
| 7,700.0 | 0.31 | 239.55 | 7,671.7 | -251.2 | -574.0 | 626.6 | 0.00 | 0.00 | |
| 7,800.0 | 0.31 | 239.55 | 7,771.7 | -251.5 | -574.5 | 627.1 | 0.00 | 0.00 | |
| 7,900.0 | 0.31 | 239.55 | 7,871.7 | -251.8 | -575.0 | 627.7 | 0.00 | 0.00 | |
| 8,000.0 | 0.31 | 239.55 | 7,971.7 | -252.1 | -575.4 | 628.2 | 0.00 | 0.00 | |
| 8,100.0 | 0.31 | 239.55 | 8,071.7 | -252.3 | -575.9 | 628.7 | 0.00 | 0.00 | |
| 8,200.0 | 0.31 | 239.55 | 8,171.7 | -252.6 | -576.4 | 629.3 | 0.00 | 0.00 | |
| 8,300.0 | 0.31 | 239.55 | 8,271.7 | -252.9 | -576.8 | 629.8 | 0.00 | 0.00 | |
| 8,400.0 | 0.31 | 239.55 | 8,371.7 | -253.2 | -577.3 | 630.4 | 0.00 | 0.00 | |
| 8,500.0 | 0.31 | 239.55 | 8,471.7 | -253.4 | -577.8 | 630.9 | 0.00 | 0.00 | |
| 8,600.0 | 0.31 | 239.55 | 8,571.7 | -253.7 | -578.3 | 631.5 | 0.00 | 0.00 | |
| 8,700.0 | 0.31 | 239.55 | 8,671.7 | -254.0 | -578.7 | 632.0 | 0.00 | 0.00 | |
| 8,800.0 | 0.31 | 239.55 | 8,771.7 | -254.3 | -579.2 | 632.6 | 0.00 | 0.00 | |
| 8,900.0 | 0.31 | 239.55 | 8,871.7 | -254.6 | -579.7 | 633.1 | 0.00 | 0.00 | |
| 9,000.0 | 0.31 | 239.55 | 8,971.7 | -254.8 | -580.2 | 633.7 | 0.00 | 0.00 | |
| 9,100.0 | 0.31 | 239.55 | 9,071.7 | -255.1 | -580.6 | 634.2 | 0.00 | 0.00 | |
| 9,200.0 | 0.31 | 239.55 | 9,171.7 | -255.4 | -581.1 | 634.7 | 0.00 | 0.00 | |
| 9,300.0 | 0.31 | 239.55 | 9,271.7 | -255.7 | -581.6 | 635.3 | 0.00 | 0.00 | |
| 9,400.0 | 0.31 | 239.55 | 9,371.7 | -255.9 | -582.0 | 635.8 | 0.00 | 0.00 | |

Cathedral Energy

Planning Report

| | | | |
|------------------|---|-------------------------------------|--------------------------------------|
| Database: | EDM 5000.1 US Multi Users DB | Local Co-ordinate Reference: | Well 8514C-22 N22 496 |
| Company: | EnCana Oil & Gas (USA) Inc | TVD Reference: | WELL @ 7602.0ft (Original Well Elev) |
| Project: | Story Gulch | MD Reference: | WELL @ 7602.0ft (Original Well Elev) |
| Site: | S22-T4S-R96W (N22 496) (Column Pattern) | North Reference: | True |
| Well: | 8514C-22 N22 496 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | DD | | |
| Design: | Plan #1 | | |

| 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) | Comments / Formations |
| 9,500.0 | 0.31 | 239.55 | 9,471.7 | -256.2 | -582.5 | 636.4 | 0.00 | 0.00 | |
| 9,600.0 | 0.31 | 239.55 | 9,571.7 | -256.5 | -583.0 | 636.9 | 0.00 | 0.00 | |
| 9,700.0 | 0.31 | 239.55 | 9,671.7 | -256.8 | -583.5 | 637.5 | 0.00 | 0.00 | |
| 9,800.0 | 0.31 | 239.55 | 9,771.7 | -257.1 | -583.9 | 638.0 | 0.00 | 0.00 | |
| 9,900.0 | 0.31 | 239.55 | 9,871.7 | -257.3 | -584.4 | 638.6 | 0.00 | 0.00 | |
| 10,000.0 | 0.31 | 239.55 | 9,971.7 | -257.6 | -584.9 | 639.1 | 0.00 | 0.00 | |
| 10,100.0 | 0.31 | 239.55 | 10,071.7 | -257.9 | -585.4 | 639.7 | 0.00 | 0.00 | |
| 10,200.0 | 0.31 | 239.55 | 10,171.7 | -258.2 | -585.8 | 640.2 | 0.00 | 0.00 | |
| 10,300.0 | 0.31 | 239.55 | 10,271.7 | -258.5 | -586.3 | 640.7 | 0.00 | 0.00 | |
| 10,400.0 | 0.31 | 239.55 | 10,371.7 | -258.7 | -586.8 | 641.3 | 0.00 | 0.00 | |
| 10,500.0 | 0.31 | 239.55 | 10,471.7 | -259.0 | -587.3 | 641.8 | 0.00 | 0.00 | |
| 10,600.0 | 0.31 | 239.55 | 10,571.7 | -259.3 | -587.7 | 642.4 | 0.00 | 0.00 | |
| 10,700.0 | 0.31 | 239.55 | 10,671.7 | -259.6 | -588.2 | 642.9 | 0.00 | 0.00 | |
| 10,800.0 | 0.31 | 239.55 | 10,771.7 | -259.8 | -588.7 | 643.5 | 0.00 | 0.00 | |
| 10,900.0 | 0.31 | 239.55 | 10,871.7 | -260.1 | -589.1 | 644.0 | 0.00 | 0.00 | |
| 11,000.0 | 0.31 | 239.55 | 10,971.7 | -260.4 | -589.6 | 644.6 | 0.00 | 0.00 | |
| 11,000.3 | 0.31 | 239.55 | 10,972.0 | -260.4 | -589.6 | 644.6 | 0.00 | 0.00 | Rins (TVD) - 8514C-22 N22 496 PBHL (Column |
| 11,100.0 | 0.31 | 239.55 | 11,071.7 | -260.7 | -590.1 | 645.1 | 0.00 | 0.00 | |
| 11,200.0 | 0.31 | 239.55 | 11,171.7 | -261.0 | -590.6 | 645.7 | 0.00 | 0.00 | |
| 11,300.0 | 0.31 | 239.55 | 11,271.7 | -261.2 | -591.0 | 646.2 | 0.00 | 0.00 | |
| 11,330.3 | 0.31 | 239.55 | 11,302.0 | -261.3 | -591.2 | 646.4 | 0.00 | 0.00 | Cozz (TVD) |
| 11,400.0 | 0.31 | 239.55 | 11,371.7 | -261.5 | -591.5 | 646.7 | 0.00 | 0.00 | |
| 11,500.0 | 0.31 | 239.55 | 11,471.7 | -261.8 | -592.0 | 647.3 | 0.00 | 0.00 | |
| 11,520.3 | 0.31 | 239.55 | 11,492.0 | -261.8 | -592.1 | 647.4 | 0.00 | 0.00 | Corc (TVD) |
| 11,600.0 | 0.31 | 239.55 | 11,571.7 | -262.1 | -592.5 | 647.8 | 0.00 | 0.00 | |
| 11,700.0 | 0.31 | 239.55 | 11,671.7 | -262.3 | -592.9 | 648.4 | 0.00 | 0.00 | |
| 11,800.0 | 0.31 | 239.55 | 11,771.7 | -262.6 | -593.4 | 648.9 | 0.00 | 0.00 | |
| 11,800.3 | 0.31 | 239.55 | 11,772.0 | -262.6 | -593.4 | 648.9 | 0.00 | 0.00 | Sego (TVD) |
| 11,900.0 | 0.31 | 239.55 | 11,871.7 | -262.9 | -593.9 | 649.5 | 0.00 | 0.00 | |
| 12,000.0 | 0.31 | 239.55 | 11,971.7 | -263.2 | -594.4 | 650.0 | 0.00 | 0.00 | |
| 12,000.3 | 0.31 | 239.55 | 11,972.0 | -263.2 | -594.4 | 650.0 | 0.00 | 0.00 | L Sego (TVD) |
| 12,100.0 | 0.31 | 239.55 | 12,071.7 | -263.5 | -594.8 | 650.6 | 0.00 | 0.00 | |
| 12,200.0 | 0.31 | 239.55 | 12,171.7 | -263.7 | -595.3 | 651.1 | 0.00 | 0.00 | |
| 12,250.3 | 0.31 | 239.55 | 12,222.0 | -263.9 | -595.5 | 651.4 | 0.00 | 0.00 | Drillers TD @ 12,250' MD |
| 12,300.0 | 0.31 | 239.55 | 12,271.7 | -264.0 | -595.8 | 651.6 | 0.00 | 0.00 | |
| 12,400.0 | 0.31 | 239.55 | 12,371.7 | -264.3 | -596.2 | 652.2 | 0.00 | 0.00 | |
| 12,500.0 | 0.31 | 239.55 | 12,471.7 | -264.6 | -596.7 | 652.7 | 0.00 | 0.00 | |
| 12,500.3 | 0.31 | 239.55 | 12,472.0 | -264.6 | -596.7 | 652.7 | 0.00 | 0.00 | Permit TD @ 12,500' MD |

| Targets | | | | | | | | | |
|--------------------------------------|---------------|--------------|----------|------------|------------|---------------|--------------|-----------------|-----------------|
| Target Name | Dip Angle (°) | Dip Dir. (°) | TVD (ft) | +N/-S (ft) | +E/-W (ft) | Northing (ft) | Easting (ft) | Latitude | Longitude |
| - hit/miss target | | | | | | | | | |
| - Shape | | | | | | | | | |
| 8514C-22 N22 496 TGT | 0.00 | 0.00 | 7,312.0 | -250.4 | -572.6 | 1,684,636.99 | 2,251,655.25 | 39° 40' 58.98 N | 108° 9' 33.41 W |
| - plan hits target center | | | | | | | | | |
| - Point | | | | | | | | | |
| 8514C-22 N22 496 PBH | 0.00 | 0.00 | 10,972.0 | -260.4 | -589.6 | 1,684,627.49 | 2,251,637.95 | 39° 40' 58.88 N | 108° 9' 33.63 W |
| - plan hits target center | | | | | | | | | |
| - Rectangle (sides W30.0 H50.0 D0.0) | | | | | | | | | |

Cathedral Energy

Planning Report

| | | | |
|------------------|---|-------------------------------------|--------------------------------------|
| Database: | EDM 5000.1 US Multi Users DB | Local Co-ordinate Reference: | Well 8514C-22 N22 496 |
| Company: | EnCana Oil & Gas (USA) Inc | TVD Reference: | WELL @ 7602.0ft (Original Well Elev) |
| Project: | Story Gulch | MD Reference: | WELL @ 7602.0ft (Original Well Elev) |
| Site: | S22-T4S-R96W (N22 496) (Column Pattern) | North Reference: | True |
| Well: | 8514C-22 N22 496 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | DD | | |
| Design: | Plan #1 | | |

Formations

| Measured Depth (ft) | Vertical Depth (ft) | Name | Lithology | Dip (°) | Dip Direction (°) |
|---------------------|---------------------|---------------------|-----------|---------|-------------------|
| 272.0 | 272.0 | Para Creek (TVD) | | | |
| 572.7 | 572.0 | Mahog Bench (TVD) | | | |
| 632.9 | 632.0 | Base B Groove (TVD) | | | |
| 4,187.7 | 4,172.0 | Was G (TVD) | | | |
| 7,300.3 | 7,272.0 | WF (TVD) | | | |
| 7,340.3 | 7,312.0 | TOG (TVD) | | | |
| 11,000.3 | 10,972.0 | Rlns (TVD) | | | |
| 11,330.3 | 11,302.0 | Cozz (TVD) | | | |
| 11,520.3 | 11,492.0 | Corc (TVD) | | | |
| 11,800.3 | 11,772.0 | Sego (TVD) | | | |
| 12,000.3 | 11,972.0 | L Sego (TVD) | | | |

Plan Annotations

| Measured Depth (ft) | Vertical Depth (ft) | Local Coordinates | | Comment |
|---------------------|---------------------|-------------------|------------|--------------------------|
| | | +N/-S (ft) | +E/-W (ft) | |
| 300.0 | 300.0 | 0.0 | 0.0 | KOP @ 300' |
| 474.1 | 473.8 | -3.2 | -7.3 | EOB @ Inc. = 5.22° |
| 7,166.2 | 7,138.2 | -247.2 | -565.3 | Start Drop -3.00 |
| 7,340.3 | 7,312.0 | -250.4 | -572.6 | EOD @ Inc. = 0° |
| 12,250.3 | 12,222.0 | -250.6 | -572.9 | Drillers TD @ 12,250' MD |
| 12,500.3 | 12,472.0 | -260.4 | -589.6 | Permit TD @ 12,500' MD |