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RCVD DEC 6 '12  
OIL CONS. DIV.  
DIST. 3

## **ConocoPhillips SJB**

San Juan Basin - New Mexico Central Wells

San Juan 29 Wells

San Juan 29-7 Unit 93C

Principal Wellbore

Plan: Design #1

## **Standard Planning Report**

20 September, 2012

# ConocoPhillips

## Planning Report

|           |                                           |                              |                                       |
|-----------|-------------------------------------------|------------------------------|---------------------------------------|
| Database: | EDM Central Planning                      | Local Co-ordinate Reference: | Well San Juan 29-7 Unit 93C           |
| Company:  | ConocoPhillips SJBU                       | TVD Reference:               | RKB @ 6847.0usft (Original Well Elev) |
| Project:  | San Juan Basin - New Mexico Central Wells | MD Reference:                | RKB @ 6847.0usft (Original Well Elev) |
| Site:     | San Juan 29 Wells                         | North Reference:             | True                                  |
| Well:     | San Juan 29-7 Unit 93C                    | Survey Calculation Method:   | Minimum Curvature                     |
| Wellbore: | Principal Wellbore                        |                              |                                       |
| Design:   | Design #1                                 |                              |                                       |

|             |                                                                        |               |                             |
|-------------|------------------------------------------------------------------------|---------------|-----------------------------|
| Project     | San Juan Basin - New Mexico Central Wells, New Mexico, Directional "S" |               |                             |
| Map System: | US State Plane 1927 (Exact solution)                                   | System Datum: | Mean Sea Level              |
| Geo Datum:  | NAD 1927 (NADCON CONUS)                                                |               |                             |
| Map Zone:   | New Mexico Central 3002                                                |               | Using geodetic scale factor |

|                       |                                |              |                   |                   |                   |
|-----------------------|--------------------------------|--------------|-------------------|-------------------|-------------------|
| Site                  | San Juan 29 Wells, Township 29 |              |                   |                   |                   |
| Site Position:        |                                | Northing:    | 2,076,530.52 usft | Latitude:         | 36° 41' 58.902 N  |
| From:                 | Lat/Long                       | Easting:     | 116,124.83 usft   | Longitude:        | 107° 33' 33.948 W |
| Position Uncertainty: | 3.5 usft                       | Slot Radius: | 6-1/8"            | Grid Convergence: | -0.78 °           |

|                      |                        |          |                     |                   |               |                   |
|----------------------|------------------------|----------|---------------------|-------------------|---------------|-------------------|
| Well                 | San Juan 29-7 Unit 93C |          |                     |                   |               |                   |
| Well Position        | +N/-S                  | 0.0 usft | Northing:           | 2,096,482.12 usft | Latitude:     | 36° 45' 17.025 N  |
|                      | +E/-W                  | 0.0 usft | Easting:            | 122,618.55 usft   | Longitude:    | 107° 32' 17.518 W |
| Position Uncertainty |                        | 0.0 usft | Wellhead Elevation: | usft              | Ground Level: | 6,832.0 usft      |

|           |                    |             |                    |                  |                        |
|-----------|--------------------|-------------|--------------------|------------------|------------------------|
| Wellbore  | Principal Wellbore |             |                    |                  |                        |
| Magnetics | Model Name         | Sample Date | Declination<br>(°) | Dip Angle<br>(°) | Field Strength<br>(nT) |
|           | BGGM2012           | 9/20/2012   | 9.65               | 63.47            | 50,598                 |

|                   |                            |                 |                 |                  |
|-------------------|----------------------------|-----------------|-----------------|------------------|
| Design            | Design #1                  |                 |                 |                  |
| Audit Notes:      |                            |                 |                 |                  |
| Version:          | Phase:                     | PROTOTYPE       | Tie On Depth:   | 0.0              |
| Vertical Section: | Depth From (TVD)<br>(usft) | +N/-S<br>(usft) | +E/-W<br>(usft) | Direction<br>(°) |
|                   | 0.0                        | 0.0             | 0.0             | 298.07           |

| Plan Sections               |                    |                |                             |                 |                 |                               |                              |                             |            |                      |
|-----------------------------|--------------------|----------------|-----------------------------|-----------------|-----------------|-------------------------------|------------------------------|-----------------------------|------------|----------------------|
| Measured<br>Depth<br>(usft) | Inclination<br>(°) | Azimuth<br>(°) | Vertical<br>Depth<br>(usft) | +N/-S<br>(usft) | +E/-W<br>(usft) | Dogleg<br>Rate<br>(°/100usft) | Build<br>Rate<br>(°/100usft) | Turn<br>Rate<br>(°/100usft) | TFO<br>(°) | Target               |
| 0.0                         | 0.00               | 0.00           | 0.0                         | 0.0             | 0.0             | 0.00                          | 0.00                         | 0.00                        | 0.00       |                      |
| 320.0                       | 0.00               | 0.00           | 320.0                       | 0.0             | 0.0             | 0.00                          | 0.00                         | 0.00                        | 0.00       |                      |
| 1,398.7                     | 21.57              | 298.07         | 1,373.4                     | 94.4            | -177.1          | 2.00                          | 2.00                         | 0.00                        | 298.07     |                      |
| 4,005.7                     | 21.57              | 298.07         | 3,797.8                     | 545.5           | -1,022.9        | 0.00                          | 0.00                         | 0.00                        | 0.00       |                      |
| 4,724.8                     | 0.00               | 0.00           | 4,500.0                     | 608.5           | -1,141.0        | 3.00                          | -3.00                        | 0.00                        | 180.00     | SJ 29-7 Unit 93C ICP |
| 8,417.8                     | 0.00               | 0.00           | 8,193.0                     | 608.5           | -1,141.0        | 0.00                          | 0.00                         | 0.00                        | 0.00       | SJ 29-7 Unit 93C PCF |

# ConocoPhillips

## Planning Report

|           |                                           |                              |                                       |
|-----------|-------------------------------------------|------------------------------|---------------------------------------|
| Database: | EDM Central Planning                      | Local Co-ordinate Reference: | Well San Juan 29-7 Unit 93C           |
| Company:  | ConocoPhillips SJB                        | TVD Reference:               | RKB @ 6847.0usft (Original Well Elev) |
| Project:  | San Juan Basin - New Mexico Central Wells | MD Reference:                | RKB @ 6847.0usft (Original Well Elev) |
| Site:     | San Juan 29 Wells                         | North Reference:             | True                                  |
| Well:     | San Juan 29-7 Unit 93C                    | Survey Calculation Method:   | Minimum Curvature                     |
| Wellbore: | Principal Wellbore                        |                              |                                       |
| Design:   | Design #1                                 |                              |                                       |

### Planned Survey

| Measured Depth (usft)  | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
|------------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| 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                  |
| 300.0                  | 0.00            | 0.00        | 300.0                 | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 320.0                  | 0.00            | 0.00        | 320.0                 | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 400.0                  | 1.60            | 298.07      | 400.0                 | 0.5          | -1.0         | 1.1                     | 2.00                    | 2.00                   | 0.00                  |
| 500.0                  | 3.60            | 298.07      | 499.9                 | 2.7          | -5.0         | 5.7                     | 2.00                    | 2.00                   | 0.00                  |
| 600.0                  | 5.60            | 298.07      | 599.6                 | 6.4          | -12.1        | 13.7                    | 2.00                    | 2.00                   | 0.00                  |
| 700.0                  | 7.60            | 298.07      | 698.9                 | 11.8         | -22.2        | 25.2                    | 2.00                    | 2.00                   | 0.00                  |
| 800.0                  | 9.60            | 298.07      | 797.8                 | 18.9         | -35.4        | 40.1                    | 2.00                    | 2.00                   | 0.00                  |
| 900.0                  | 11.60           | 298.07      | 896.0                 | 27.5         | -51.6        | 58.5                    | 2.00                    | 2.00                   | 0.00                  |
| 1,000.0                | 13.60           | 298.07      | 993.6                 | 37.8         | -70.9        | 80.3                    | 2.00                    | 2.00                   | 0.00                  |
| 1,100.0                | 15.60           | 298.07      | 1,090.4               | 49.7         | -93.1        | 105.5                   | 2.00                    | 2.00                   | 0.00                  |
| 1,200.0                | 17.60           | 298.07      | 1,186.2               | 63.1         | -118.3       | 134.1                   | 2.00                    | 2.00                   | 0.00                  |
| 1,300.0                | 19.60           | 298.07      | 1,281.0               | 78.1         | -146.5       | 166.0                   | 2.00                    | 2.00                   | 0.00                  |
| 1,372.5                | 21.05           | 298.07      | 1,349.0               | 90.0         | -168.7       | 191.2                   | 2.00                    | 2.00                   | 0.00                  |
| <b>Nacimiento</b>      |                 |             |                       |              |              |                         |                         |                        |                       |
| 1,398.7                | 21.57           | 298.07      | 1,373.4               | 94.4         | -177.1       | 200.7                   | 2.00                    | 2.00                   | 0.00                  |
| 1,400.0                | 21.57           | 298.07      | 1,374.6               | 94.7         | -177.5       | 201.2                   | 0.00                    | 0.00                   | 0.00                  |
| 1,500.0                | 21.57           | 298.07      | 1,467.6               | 112.0        | -210.0       | 237.9                   | 0.00                    | 0.00                   | 0.00                  |
| 1,600.0                | 21.57           | 298.07      | 1,560.6               | 129.3        | -242.4       | 274.7                   | 0.00                    | 0.00                   | 0.00                  |
| 1,700.0                | 21.57           | 298.07      | 1,653.6               | 146.6        | -274.8       | 311.5                   | 0.00                    | 0.00                   | 0.00                  |
| 1,800.0                | 21.57           | 298.07      | 1,746.6               | 163.9        | -307.3       | 348.3                   | 0.00                    | 0.00                   | 0.00                  |
| 1,900.0                | 21.57           | 298.07      | 1,839.6               | 181.2        | -339.7       | 385.0                   | 0.00                    | 0.00                   | 0.00                  |
| 2,000.0                | 21.57           | 298.07      | 1,932.6               | 198.5        | -372.2       | 421.8                   | 0.00                    | 0.00                   | 0.00                  |
| 2,100.0                | 21.57           | 298.07      | 2,025.6               | 215.8        | -404.6       | 458.6                   | 0.00                    | 0.00                   | 0.00                  |
| 2,200.0                | 21.57           | 298.07      | 2,118.6               | 233.1        | -437.1       | 495.3                   | 0.00                    | 0.00                   | 0.00                  |
| 2,300.0                | 21.57           | 298.07      | 2,211.6               | 250.4        | -469.5       | 532.1                   | 0.00                    | 0.00                   | 0.00                  |
| 2,400.0                | 21.57           | 298.07      | 2,304.5               | 267.7        | -502.0       | 568.9                   | 0.00                    | 0.00                   | 0.00                  |
| 2,500.0                | 21.57           | 298.07      | 2,397.5               | 285.0        | -534.4       | 605.6                   | 0.00                    | 0.00                   | 0.00                  |
| 2,600.0                | 21.57           | 298.07      | 2,490.5               | 302.3        | -566.8       | 642.4                   | 0.00                    | 0.00                   | 0.00                  |
| 2,700.0                | 21.57           | 298.07      | 2,583.5               | 319.6        | -599.3       | 679.2                   | 0.00                    | 0.00                   | 0.00                  |
| 2,800.0                | 21.57           | 298.07      | 2,676.5               | 336.9        | -631.7       | 715.9                   | 0.00                    | 0.00                   | 0.00                  |
| 2,900.0                | 21.57           | 298.07      | 2,769.5               | 354.2        | -664.2       | 752.7                   | 0.00                    | 0.00                   | 0.00                  |
| 2,923.1                | 21.57           | 298.07      | 2,791.0               | 358.2        | -671.7       | 761.2                   | 0.00                    | 0.00                   | 0.00                  |
| <b>Ojo Alamo</b>       |                 |             |                       |              |              |                         |                         |                        |                       |
| 3,000.0                | 21.57           | 298.07      | 2,862.5               | 371.5        | -696.6       | 789.5                   | 0.00                    | 0.00                   | 0.00                  |
| 3,054.3                | 21.57           | 298.07      | 2,913.0               | 380.9        | -714.2       | 809.4                   | 0.00                    | 0.00                   | 0.00                  |
| <b>Kirtland</b>        |                 |             |                       |              |              |                         |                         |                        |                       |
| 3,100.0                | 21.57           | 298.07      | 2,955.5               | 388.8        | -729.1       | 826.3                   | 0.00                    | 0.00                   | 0.00                  |
| 3,200.0                | 21.57           | 298.07      | 3,048.5               | 406.1        | -761.5       | 863.0                   | 0.00                    | 0.00                   | 0.00                  |
| 3,300.0                | 21.57           | 298.07      | 3,141.5               | 423.4        | -794.0       | 899.8                   | 0.00                    | 0.00                   | 0.00                  |
| 3,400.0                | 21.57           | 298.07      | 3,234.5               | 440.7        | -826.4       | 936.6                   | 0.00                    | 0.00                   | 0.00                  |
| 3,409.1                | 21.57           | 298.07      | 3,243.0               | 442.3        | -829.4       | 939.9                   | 0.00                    | 0.00                   | 0.00                  |
| <b>Fruitland Coal</b>  |                 |             |                       |              |              |                         |                         |                        |                       |
| 3,500.0                | 21.57           | 298.07      | 3,327.5               | 458.0        | -858.8       | 973.3                   | 0.00                    | 0.00                   | 0.00                  |
| 3,600.0                | 21.57           | 298.07      | 3,420.5               | 475.3        | -891.3       | 1,010.1                 | 0.00                    | 0.00                   | 0.00                  |
| 3,700.0                | 21.57           | 298.07      | 3,513.5               | 492.6        | -923.7       | 1,046.9                 | 0.00                    | 0.00                   | 0.00                  |
| 3,800.0                | 21.57           | 298.07      | 3,606.5               | 509.9        | -956.2       | 1,083.6                 | 0.00                    | 0.00                   | 0.00                  |
| 3,900.0                | 21.57           | 298.07      | 3,699.5               | 527.2        | -988.6       | 1,120.4                 | 0.00                    | 0.00                   | 0.00                  |
| 3,925.3                | 21.57           | 298.07      | 3,723.0               | 531.6        | -996.8       | 1,129.7                 | 0.00                    | 0.00                   | 0.00                  |
| <b>Pictured Cliffs</b> |                 |             |                       |              |              |                         |                         |                        |                       |
| 4,000.0                | 21.57           | 298.07      | 3,792.5               | 544.5        | -1,021.1     | 1,157.2                 | 0.00                    | 0.00                   | 0.00                  |

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## Planning Report

|                  |                                           |                                     |                                       |
|------------------|-------------------------------------------|-------------------------------------|---------------------------------------|
| <b>Database:</b> | EDM Central Planning                      | <b>Local Co-ordinate Reference:</b> | Well San Juan 29-7 Unit 93C           |
| <b>Company:</b>  | ConocoPhillips SJB                        | <b>TVD Reference:</b>               | RKB @ 6847.0usft (Original Well Elev) |
| <b>Project:</b>  | San Juan Basin - New Mexico Central Wells | <b>MD Reference:</b>                | RKB @ 6847.0usft (Original Well Elev) |
| <b>Site:</b>     | San Juan 29 Wells                         | <b>North Reference:</b>             | True                                  |
| <b>Well:</b>     | San Juan 29-7 Unit 93C                    | <b>Survey Calculation Method:</b>   | Minimum Curvature                     |
| <b>Wellbore:</b> | Principal Wellbore                        |                                     |                                       |
| <b>Design:</b>   | Design #1                                 |                                     |                                       |

### Planned Survey

| Measured<br>Depth<br>(usft) | Inclination<br>(°) | Azimuth<br>(°) | Vertical<br>Depth<br>(usft) | +N/-S<br>(usft) | +E/-W<br>(usft) | Vertical<br>Section<br>(usft) | Dogleg<br>Rate<br>(°/100usft) | Build<br>Rate<br>(°/100usft) | Turn<br>Rate<br>(°/100usft) |
|-----------------------------|--------------------|----------------|-----------------------------|-----------------|-----------------|-------------------------------|-------------------------------|------------------------------|-----------------------------|
| 4,005.7                     | 21.57              | 298.07         | 3,797.8                     | 545.5           | -1,022.9        | 1,159.3                       | 0.00                          | 0.00                         | 0.00                        |
| 4,063.7                     | 19.83              | 298.07         | 3,852.0                     | 555.1           | -1,041.0        | 1,179.8                       | 3.00                          | -3.00                        | 0.00                        |
| <b>Lewis</b>                |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 4,100.0                     | 18.74              | 298.07         | 3,886.3                     | 560.8           | -1,051.6        | 1,191.8                       | 3.00                          | -3.00                        | 0.00                        |
| 4,200.0                     | 15.74              | 298.07         | 3,981.8                     | 574.7           | -1,077.7        | 1,221.4                       | 3.00                          | -3.00                        | 0.00                        |
| 4,300.0                     | 12.74              | 298.07         | 4,078.7                     | 586.3           | -1,099.5        | 1,246.0                       | 3.00                          | -3.00                        | 0.00                        |
| 4,400.0                     | 9.74               | 298.07         | 4,176.8                     | 595.5           | -1,116.7        | 1,265.5                       | 3.00                          | -3.00                        | 0.00                        |
| 4,500.0                     | 6.74               | 298.07         | 4,275.7                     | 602.2           | -1,129.3        | 1,279.9                       | 3.00                          | -3.00                        | 0.00                        |
| 4,600.0                     | 3.74               | 298.07         | 4,375.3                     | 606.5           | -1,137.4        | 1,289.0                       | 3.00                          | -3.00                        | 0.00                        |
| 4,681.8                     | 1.29               | 298.07         | 4,457.0                     | 608.2           | -1,140.5        | 1,292.6                       | 3.00                          | -3.00                        | 0.00                        |
| <b>Huerfano Bentonite</b>   |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 4,700.0                     | 0.74               | 298.07         | 4,475.2                     | 608.4           | -1,140.8        | 1,292.9                       | 3.00                          | -3.00                        | 0.00                        |
| 4,724.8                     | 0.00               | 0.00           | 4,500.0                     | 608.5           | -1,141.0        | 1,293.1                       | 3.00                          | -3.00                        | 0.00                        |
| 4,800.0                     | 0.00               | 0.00           | 4,575.2                     | 608.5           | -1,141.0        | 1,293.1                       | 0.00                          | 0.00                         | 0.00                        |
| 4,900.0                     | 0.00               | 0.00           | 4,675.2                     | 608.5           | -1,141.0        | 1,293.1                       | 0.00                          | 0.00                         | 0.00                        |
| 4,949.8                     | 0.00               | 0.00           | 4,725.0                     | 608.5           | -1,141.0        | 1,293.1                       | 0.00                          | 0.00                         | 0.00                        |
| <b>Chacra</b>               |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 5,000.0                     | 0.00               | 0.00           | 4,775.2                     | 608.5           | -1,141.0        | 1,293.1                       | 0.00                          | 0.00                         | 0.00                        |
| 5,100.0                     | 0.00               | 0.00           | 4,875.2                     | 608.5           | -1,141.0        | 1,293.1                       | 0.00                          | 0.00                         | 0.00                        |
| 5,200.0                     | 0.00               | 0.00           | 4,975.2                     | 608.5           | -1,141.0        | 1,293.1                       | 0.00                          | 0.00                         | 0.00                        |
| 5,300.0                     | 0.00               | 0.00           | 5,075.2                     | 608.5           | -1,141.0        | 1,293.1                       | 0.00                          | 0.00                         | 0.00                        |
| 5,400.0                     | 0.00               | 0.00           | 5,175.2                     | 608.5           | -1,141.0        | 1,293.1                       | 0.00                          | 0.00                         | 0.00                        |
| 5,500.0                     | 0.00               | 0.00           | 5,275.2                     | 608.5           | -1,141.0        | 1,293.1                       | 0.00                          | 0.00                         | 0.00                        |
| 5,600.0                     | 0.00               | 0.00           | 5,375.2                     | 608.5           | -1,141.0        | 1,293.1                       | 0.00                          | 0.00                         | 0.00                        |
| 5,700.0                     | 0.00               | 0.00           | 5,475.2                     | 608.5           | -1,141.0        | 1,293.1                       | 0.00                          | 0.00                         | 0.00                        |
| 5,712.8                     | 0.00               | 0.00           | 5,488.0                     | 608.5           | -1,141.0        | 1,293.1                       | 0.00                          | 0.00                         | 0.00                        |
| <b>Massive Cliff House</b>  |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 5,797.8                     | 0.00               | 0.00           | 5,573.0                     | 608.5           | -1,141.0        | 1,293.1                       | 0.00                          | 0.00                         | 0.00                        |
| <b>Menefee</b>              |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 5,800.0                     | 0.00               | 0.00           | 5,575.2                     | 608.5           | -1,141.0        | 1,293.1                       | 0.00                          | 0.00                         | 0.00                        |
| 5,900.0                     | 0.00               | 0.00           | 5,675.2                     | 608.5           | -1,141.0        | 1,293.1                       | 0.00                          | 0.00                         | 0.00                        |
| 6,000.0                     | 0.00               | 0.00           | 5,775.2                     | 608.5           | -1,141.0        | 1,293.1                       | 0.00                          | 0.00                         | 0.00                        |
| 6,100.0                     | 0.00               | 0.00           | 5,875.2                     | 608.5           | -1,141.0        | 1,293.1                       | 0.00                          | 0.00                         | 0.00                        |
| 6,123.8                     | 0.00               | 0.00           | 5,899.0                     | 608.5           | -1,141.0        | 1,293.1                       | 0.00                          | 0.00                         | 0.00                        |
| <b>Point Lookout</b>        |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 6,200.0                     | 0.00               | 0.00           | 5,975.2                     | 608.5           | -1,141.0        | 1,293.1                       | 0.00                          | 0.00                         | 0.00                        |
| 6,300.0                     | 0.00               | 0.00           | 6,075.2                     | 608.5           | -1,141.0        | 1,293.1                       | 0.00                          | 0.00                         | 0.00                        |
| 6,400.0                     | 0.00               | 0.00           | 6,175.2                     | 608.5           | -1,141.0        | 1,293.1                       | 0.00                          | 0.00                         | 0.00                        |
| 6,492.8                     | 0.00               | 0.00           | 6,268.0                     | 608.5           | -1,141.0        | 1,293.1                       | 0.00                          | 0.00                         | 0.00                        |
| <b>Mancos</b>               |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 6,500.0                     | 0.00               | 0.00           | 6,275.2                     | 608.5           | -1,141.0        | 1,293.1                       | 0.00                          | 0.00                         | 0.00                        |
| 6,600.0                     | 0.00               | 0.00           | 6,375.2                     | 608.5           | -1,141.0        | 1,293.1                       | 0.00                          | 0.00                         | 0.00                        |
| 6,700.0                     | 0.00               | 0.00           | 6,475.2                     | 608.5           | -1,141.0        | 1,293.1                       | 0.00                          | 0.00                         | 0.00                        |
| 6,800.0                     | 0.00               | 0.00           | 6,575.2                     | 608.5           | -1,141.0        | 1,293.1                       | 0.00                          | 0.00                         | 0.00                        |
| 6,900.0                     | 0.00               | 0.00           | 6,675.2                     | 608.5           | -1,141.0        | 1,293.1                       | 0.00                          | 0.00                         | 0.00                        |
| 7,000.0                     | 0.00               | 0.00           | 6,775.2                     | 608.5           | -1,141.0        | 1,293.1                       | 0.00                          | 0.00                         | 0.00                        |
| 7,100.0                     | 0.00               | 0.00           | 6,875.2                     | 608.5           | -1,141.0        | 1,293.1                       | 0.00                          | 0.00                         | 0.00                        |
| 7,200.0                     | 0.00               | 0.00           | 6,975.2                     | 608.5           | -1,141.0        | 1,293.1                       | 0.00                          | 0.00                         | 0.00                        |
| 7,300.0                     | 0.00               | 0.00           | 7,075.2                     | 608.5           | -1,141.0        | 1,293.1                       | 0.00                          | 0.00                         | 0.00                        |
| 7,374.8                     | 0.00               | 0.00           | 7,150.0                     | 608.5           | -1,141.0        | 1,293.1                       | 0.00                          | 0.00                         | 0.00                        |
| <b>Gallup</b>               |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 7,400.0                     | 0.00               | 0.00           | 7,175.2                     | 608.5           | -1,141.0        | 1,293.1                       | 0.00                          | 0.00                         | 0.00                        |

# ConocoPhillips

## Planning Report

|           |                                           |                              |                                       |
|-----------|-------------------------------------------|------------------------------|---------------------------------------|
| Database: | EDM Central Planning                      | Local Co-ordinate Reference: | Well San Juan 29-7 Unit 93C           |
| Company:  | ConocoPhillips SJBU                       | TVD Reference:               | RKB @ 6847.0usft (Original Well Elev) |
| Project:  | San Juan Basin - New Mexico Central Wells | MD Reference:                | RKB @ 6847.0usft (Original Well Elev) |
| Site:     | San Juan 29 Wells                         | North Reference:             | True                                  |
| Well:     | San Juan 29-7 Unit 93C                    | Survey Calculation Method:   | Minimum Curvature                     |
| Wellbore: | Principal Wellbore                        |                              |                                       |
| Design:   | Design #1                                 |                              |                                       |

| Planned Survey        |                 |             |                       |              |              |                         |                         |                        |                       |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
| 7,500.0               | 0.00            | 0.00        | 7,275.2               | 608.5        | -1,141.0     | 1,293.1                 | 0.00                    | 0.00                   | 0.00                  |
| 7,600.0               | 0.00            | 0.00        | 7,375.2               | 608.5        | -1,141.0     | 1,293.1                 | 0.00                    | 0.00                   | 0.00                  |
| 7,700.0               | 0.00            | 0.00        | 7,475.2               | 608.5        | -1,141.0     | 1,293.1                 | 0.00                    | 0.00                   | 0.00                  |
| 7,800.0               | 0.00            | 0.00        | 7,575.2               | 608.5        | -1,141.0     | 1,293.1                 | 0.00                    | 0.00                   | 0.00                  |
| 7,900.0               | 0.00            | 0.00        | 7,675.2               | 608.5        | -1,141.0     | 1,293.1                 | 0.00                    | 0.00                   | 0.00                  |
| 8,000.0               | 0.00            | 0.00        | 7,775.2               | 608.5        | -1,141.0     | 1,293.1                 | 0.00                    | 0.00                   | 0.00                  |
| 8,100.0               | 0.00            | 0.00        | 7,875.2               | 608.5        | -1,141.0     | 1,293.1                 | 0.00                    | 0.00                   | 0.00                  |
| 8,122.8               | 0.00            | 0.00        | 7,898.0               | 608.5        | -1,141.0     | 1,293.1                 | 0.00                    | 0.00                   | 0.00                  |
| Greenhorn             |                 |             |                       |              |              |                         |                         |                        |                       |
| 8,179.8               | 0.00            | 0.00        | 7,955.0               | 608.5        | -1,141.0     | 1,293.1                 | 0.00                    | 0.00                   | 0.00                  |
| Graneros              |                 |             |                       |              |              |                         |                         |                        |                       |
| 8,200.0               | 0.00            | 0.00        | 7,975.2               | 608.5        | -1,141.0     | 1,293.1                 | 0.00                    | 0.00                   | 0.00                  |
| 8,240.8               | 0.00            | 0.00        | 8,016.0               | 608.5        | -1,141.0     | 1,293.1                 | 0.00                    | 0.00                   | 0.00                  |
| Two Wells             |                 |             |                       |              |              |                         |                         |                        |                       |
| 8,300.0               | 0.00            | 0.00        | 8,075.2               | 608.5        | -1,141.0     | 1,293.1                 | 0.00                    | 0.00                   | 0.00                  |
| 8,323.8               | 0.00            | 0.00        | 8,099.0               | 608.5        | -1,141.0     | 1,293.1                 | 0.00                    | 0.00                   | 0.00                  |
| Upper Cubero          |                 |             |                       |              |              |                         |                         |                        |                       |
| 8,349.8               | 0.00            | 0.00        | 8,125.0               | 608.5        | -1,141.0     | 1,293.1                 | 0.00                    | 0.00                   | 0.00                  |
| Lower Cubero          |                 |             |                       |              |              |                         |                         |                        |                       |
| 8,400.0               | 0.00            | 0.00        | 8,175.2               | 608.5        | -1,141.0     | 1,293.1                 | 0.00                    | 0.00                   | 0.00                  |
| 8,417.8               | 0.00            | 0.00        | 8,193.0               | 608.5        | -1,141.0     | 1,293.1                 | 0.00                    | 0.00                   | 0.00                  |
| Encinal               |                 |             |                       |              |              |                         |                         |                        |                       |

| Targets                   |               |              |            |              |              |                 |                |                  |                   |
|---------------------------|---------------|--------------|------------|--------------|--------------|-----------------|----------------|------------------|-------------------|
| Target Name               | Dip Angle (°) | Dip Dir. (°) | TVD (usft) | +N/-S (usft) | +E/-W (usft) | Northing (usft) | Easting (usft) | Latitude         | Longitude         |
| - hit/miss target         |               |              |            |              |              |                 |                |                  |                   |
| - Shape                   |               |              |            |              |              |                 |                |                  |                   |
| SJ 29-7 Unit 93C PCP      | 0.00          | 0.00         | 8,193.0    | 608.4        | -1,140.9     | 2,097,105.89    | 121,485.83     | 36° 45' 23.041 N | 107° 32' 31.538 W |
| - plan hits target center |               |              |            |              |              |                 |                |                  |                   |
| - Point                   |               |              |            |              |              |                 |                |                  |                   |
| SJ 29-7 Unit 93C ICP      | 0.00          | 0.00         | 4,500.0    | 608.5        | -1,141.0     | 2,097,105.92    | 121,485.80     | 36° 45' 23.041 N | 107° 32' 31.538 W |
| - plan hits target center |               |              |            |              |              |                 |                |                  |                   |
| - Point                   |               |              |            |              |              |                 |                |                  |                   |

# ConocoPhillips

## Planning Report

|           |                                           |                              |                                       |
|-----------|-------------------------------------------|------------------------------|---------------------------------------|
| Database: | EDM Central Planning                      | Local Co-ordinate Reference: | Well San Juan 29-7 Unit 93C           |
| Company:  | ConocoPhillips SJBU                       | TVD Reference:               | RKB @ 6847.0usft (Original Well Elev) |
| Project:  | San Juan Basin - New Mexico Central Wells | MD Reference:                | RKB @ 6847.0usft (Original Well Elev) |
| Site:     | San Juan 29 Wells                         | North Reference:             | True                                  |
| Well:     | San Juan 29-7 Unit 93C                    | Survey Calculation Method:   | Minimum Curvature                     |
| Wellbore: | Principal Wellbore                        |                              |                                       |
| Design:   | Design #1                                 |                              |                                       |

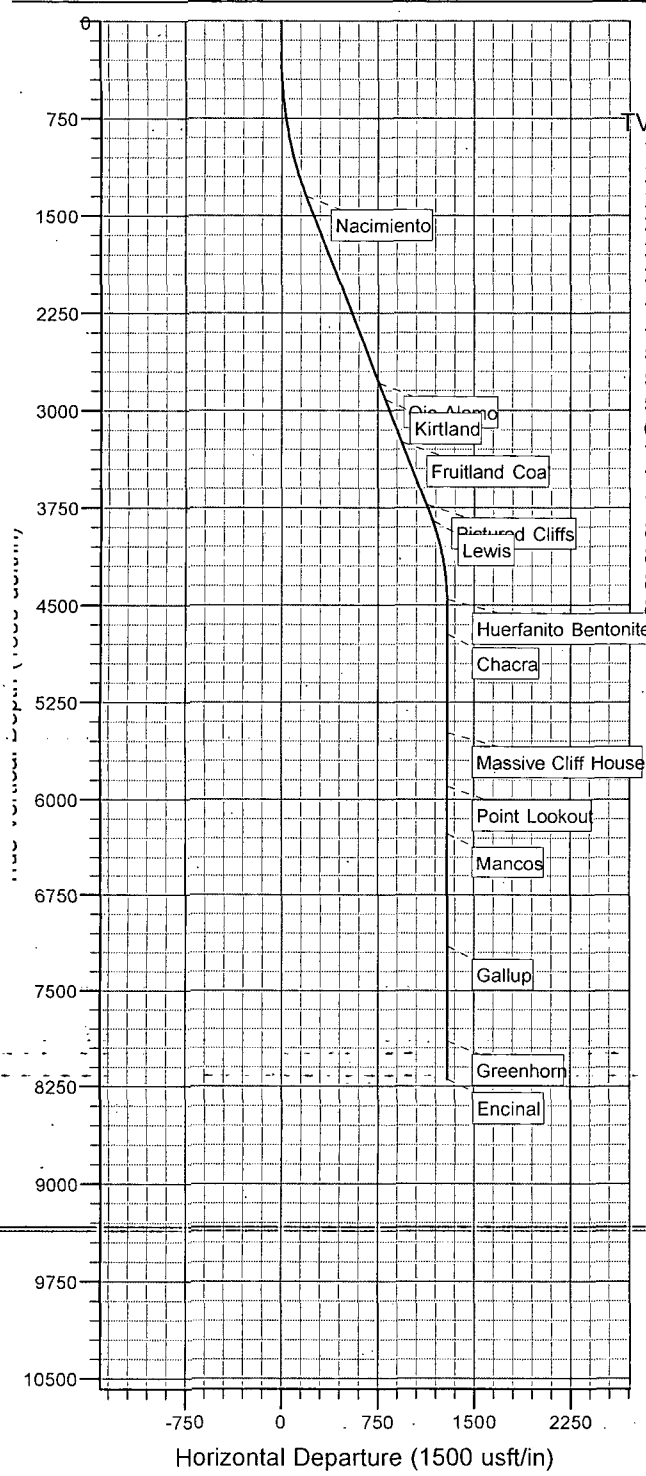
| Formations                  |                             |                      |           |            |                         |  |
|-----------------------------|-----------------------------|----------------------|-----------|------------|-------------------------|--|
| Measured<br>Depth<br>(usft) | Vertical<br>Depth<br>(usft) | Name                 | Lithology | Dip<br>(°) | Dip<br>Direction<br>(°) |  |
| 3,054.3                     | 2,913.0                     | Kirtland             |           | 0.00       |                         |  |
| 1,372.5                     | 1,349.0                     | Nacimiento           |           | 0.00       |                         |  |
| 8,323.8                     | 8,099.0                     | Upper Cubero         |           | 0.00       |                         |  |
| 6,123.8                     | 5,899.0                     | Point Lookout        |           | 0.00       |                         |  |
| 8,179.8                     | 7,955.0                     | Graneros             |           | 0.00       |                         |  |
| 3,925.3                     | 3,723.0                     | Pictured Cliffs      |           | 0.00       |                         |  |
| 2,923.1                     | 2,791.0                     | Ojo Alamo            |           | 0.00       |                         |  |
| 3,409.1                     | 3,243.0                     | Fruitland Coal       | COAL      | 0.00       |                         |  |
| 4,681.8                     | 4,457.0                     | Huerfanito Bentonite |           | 0.00       |                         |  |
| 8,417.8                     | 8,193.0                     | Encinal              |           | 0.00       |                         |  |
| 4,949.8                     | 4,725.0                     | Chacra               |           | 0.00       |                         |  |
| 6,492.8                     | 6,268.0                     | Mancos               |           | 0.00       |                         |  |
| 8,349.8                     | 8,125.0                     | Lower Cubero         |           | 0.00       |                         |  |
| 7,374.8                     | 7,150.0                     | Gallup               |           | 0.00       |                         |  |
| 8,240.8                     | 8,016.0                     | Two Wells            |           | 0.00       |                         |  |
| 5,712.8                     | 5,488.0                     | Massive Cliff House  |           | 0.00       |                         |  |
| 4,063.7                     | 3,852.0                     | Lewis                |           | 0.00       |                         |  |
| 5,797.8                     | 5,573.0                     | Menefee              |           | 0.00       |                         |  |
| 8,122.8                     | 7,898.0                     | Greenhorn            |           | 0.00       |                         |  |

RKB @ 6847.0usft (Original Well Elev)  
 Ground Elevation 6832.0  
 Reference Lat: 36° 45' 17.025 N  
 Reference Long: 107° 32' 17.518 W

Project: San Juan Basin - New Mexico Central  
 Site: San Juan 29 Wells  
 Well: San Juan 29-7 Unit 93C  
 Wellbore: Principal Wellbore  
 Design: Design #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   | 320.0  | 0.00  | 0.00   | 320.0  | 0.0   | 0.0     | 0.00 | 0.00   | 0.0    |                      |
| 3   | 1398.7 | 21.57 | 298.07 | 1373.4 | 94.4  | -177.1  | 2.00 | 298.07 | 200.7  |                      |
| 4   | 4005.7 | 21.57 | 298.07 | 3797.8 | 545.5 | -1022.9 | 0.00 | 0.00   | 1159.3 |                      |
| 5   | 4724.8 | 0.00  | 0.00   | 4500.0 | 608.5 | -1141.0 | 3.00 | 180.00 | 1293.1 | SJ 29-7 Unit 93C ICP |
| 6   | 8417.8 | 0.00  | 0.00   | 8193.0 | 608.5 | -1141.0 | 0.00 | 0.00   | 1293.1 | SJ 29-7 Unit 93C PCP |



### FORMATION TOP DETAILS

| TVDPath | MDPath | Formation           | DipAngle |
|---------|--------|---------------------|----------|
| 1349.0  | 1372.5 | Nacimiento          | 0.00     |
| 2791.0  | 2923.1 | Ojo Alamo           | 0.00     |
| 2913.0  | 3054.3 | Kirtland            | 0.00     |
| 3243.0  | 3409.1 | Fruitland Coal      | 0.00     |
| 3723.0  | 3925.3 | Pictured Cliffs     | 0.00     |
| 3852.0  | 4063.7 | Lewis               | 0.00     |
| 4457.0  | 4661.8 | Huerfano Bentonite  | 0.00     |
| 4725.0  | 4949.8 | Chacra              | 0.00     |
| 5488.0  | 5718.5 | Massive Cliff House | 0.00     |
| 5573.0  | 5797.8 | Menefee             | 0.00     |
| 5899.0  | 6123.8 | Point Lookout       | 0.00     |
| 6268.0  | 6492.8 | Mancos              | 0.00     |
| 7150.0  | 7374.8 | Gallup              | 0.00     |
| 7898.0  | 8122.8 | Greenhorn           | 0.00     |
| 7955.0  | 8179.8 | Graneros            | 0.00     |
| 8016.0  | 8240.8 | Two Wells           | 0.00     |
| 8099.0  | 8323.8 | Upper Cubero        | 0.00     |
| 8125.0  | 8349.8 | Lower Cubero        | 0.00     |
| 8193.0  | 8417.8 | Encinal             | 0.00     |

