

ConocoPhillips RBU Gold Data

Niobrara - CO Central Zone

State La Plata Pad

State La Plata 5-65 13-15 3DH

State La Plata #3DH

Plan: State La Plata 5-65 13-15 3DH Rev A

Standard Planning Report

23 May, 2016

ConocoPhillips

Planning Report

Database:	EDM Central Planning	Local Co-ordinate Reference:	Well State La Plata 5-65 13-15 3DH
Company:	ConocoPhillips RBU Gold Data	TVD Reference:	RKB @ 5920.00ft (24' RKB)
Project:	Niobrara - CO Central Zone	MD Reference:	RKB @ 5920.00ft (24' RKB)
Site:	State La Plata Pad	North Reference:	Grid
Well:	State La Plata 5-65 13-15 3DH	Survey Calculation Method:	Minimum Curvature
Wellbore:	State La Plata #3DH		
Design:	State La Plata 5-65 13-15 3DH Rev A		

Project	Niobrara - CO Central Zone, Arapahoe, Douglas, Elbert County - Colorado, Definitive (Gold) Database		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		Using Well Reference Point
Map Zone:	Colorado Central Zone		Using geodetic scale factor

Site		State La Plata Pad, Section 13, T5S - R65W			
Site Position:		Northing:	1,649,372.058 usft	Latitude:	39° 36' 46.789 N
From:	Lat/Long	Easting:	3,248,820.387 usft	Longitude:	104° 37' 0.491 W
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.56 °

Well	State La Plata 5-65 13-15 3DH					
Well Position	+N/-S	0.00 ft	Northing:	1,649,372.049 usft	Latitude:	39° 36' 46.789 N
	+E/-W	0.00 ft	Easting:	3,248,820.387 usft	Longitude:	104° 37' 0.491 W
Position Uncertainty		2.00 ft	Wellhead Elevation:	5,896.00 ft	Ground Level:	5,896.00 ft

Wellbore	State La Plata #3DH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2016	5/17/2016	8.35	66.35	52,119

Design	State La Plata 5-65 13-15 3DH Rev A			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	269.54

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
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,326.65	9.40	89.51	3,323.84	0.43	51.29	1.50	1.50	0.00	89.51	
6,970.90	9.40	89.51	6,919.16	5.47	646.45	0.00	0.00	0.00	0.00	
7,440.88	0.00	269.54	7,387.04	5.80	684.91	2.00	-2.00	0.00	180.00	
8,340.88	90.00	269.54	7,960.00	1.18	111.97	10.00	10.00	0.00	-90.46	
17,992.01	90.00	269.54	7,960.00	-76.70	-9,538.84	0.00	0.00	0.00	0.00	State La Plata 3DH -

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Planning Report

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Company:	ConocoPhillips RBU Gold Data	TVD Reference:	RKB @ 5920.00ft (24' RKB)
Project:	Niobrara - CO Central Zone	MD Reference:	RKB @ 5920.00ft (24' RKB)
Site:	State La Plata Pad	North Reference:	Grid
Well:	State La Plata 5-65 13-15 3DH	Survey Calculation Method:	Minimum Curvature
Wellbore:	State La Plata #3DH		
Design:	State La Plata 5-65 13-15 3DH Rev A		

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)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
State La Plata - Mid Sec 14,15 - State La Plata - Sec 13,14,15 - State La Plata - Mid Sec 13,14									
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,911.00	0.00	0.00	1,911.00	0.00	0.00	0.00	0.00	0.00	0.00
Fox Hills									
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,135.00	0.00	0.00	2,135.00	0.00	0.00	0.00	0.00	0.00	0.00
Pierre Shale									
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,335.00	0.00	0.00	2,335.00	0.00	0.00	0.00	0.00	0.00	0.00
Surface Casing									
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	1.50	89.51	2,799.99	0.01	1.31	-1.31	1.50	1.50	0.00
2,900.00	3.00	89.51	2,899.91	0.04	5.23	-5.23	1.50	1.50	0.00
3,000.00	4.50	89.51	2,999.69	0.10	11.77	-11.77	1.50	1.50	0.00
3,100.00	6.00	89.51	3,099.27	0.18	20.92	-20.92	1.50	1.50	0.00
3,200.00	7.50	89.51	3,198.57	0.28	32.68	-32.68	1.50	1.50	0.00
3,300.00	9.00	89.51	3,297.54	0.40	47.03	-47.03	1.50	1.50	0.00
3,326.65	9.40	89.51	3,323.84	0.43	51.29	-51.29	1.50	1.50	0.00
3,400.00	9.40	89.51	3,396.21	0.54	63.27	-63.27	0.00	0.00	0.00
3,500.00	9.40	89.51	3,494.87	0.67	79.60	-79.60	0.00	0.00	0.00
3,600.00	9.40	89.51	3,593.52	0.81	95.93	-95.93	0.00	0.00	0.00
3,700.00	9.40	89.51	3,692.18	0.95	112.26	-112.26	0.00	0.00	0.00
3,800.00	9.40	89.51	3,790.84	1.09	128.59	-128.60	0.00	0.00	0.00
3,900.00	9.40	89.51	3,889.49	1.23	144.92	-144.93	0.00	0.00	0.00
4,000.00	9.40	89.51	3,988.15	1.37	161.25	-161.26	0.00	0.00	0.00
4,100.00	9.40	89.51	4,086.81	1.50	177.59	-177.59	0.00	0.00	0.00
4,200.00	9.40	89.51	4,185.47	1.64	193.92	-193.92	0.00	0.00	0.00
4,300.00	9.40	89.51	4,284.12	1.78	210.25	-210.26	0.00	0.00	0.00
4,400.00	9.40	89.51	4,382.78	1.92	226.58	-226.59	0.00	0.00	0.00

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Wellbore:	State La Plata #3DH		
Design:	State La Plata 5-65 13-15 3DH Rev A		

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)
4,500.00	9.40	89.51	4,481.44	2.06	242.91	-242.92	0.00	0.00	0.00
4,600.00	9.40	89.51	4,580.10	2.20	259.24	-259.25	0.00	0.00	0.00
4,700.00	9.40	89.51	4,678.75	2.33	275.57	-275.58	0.00	0.00	0.00
4,800.00	9.40	89.51	4,777.41	2.47	291.91	-291.92	0.00	0.00	0.00
4,900.00	9.40	89.51	4,876.07	2.61	308.24	-308.25	0.00	0.00	0.00
5,000.00	9.40	89.51	4,974.72	2.75	324.57	-324.58	0.00	0.00	0.00
5,100.00	9.40	89.51	5,073.38	2.89	340.90	-340.91	0.00	0.00	0.00
5,200.00	9.40	89.51	5,172.04	3.03	357.23	-357.24	0.00	0.00	0.00
5,300.00	9.40	89.51	5,270.70	3.16	373.56	-373.58	0.00	0.00	0.00
5,400.00	9.40	89.51	5,369.35	3.30	389.89	-389.91	0.00	0.00	0.00
5,500.00	9.40	89.51	5,468.01	3.44	406.23	-406.24	0.00	0.00	0.00
5,600.00	9.40	89.51	5,566.67	3.58	422.56	-422.57	0.00	0.00	0.00
5,700.00	9.40	89.51	5,665.33	3.72	438.89	-438.90	0.00	0.00	0.00
5,800.00	9.40	89.51	5,763.98	3.85	455.22	-455.24	0.00	0.00	0.00
5,900.00	9.40	89.51	5,862.64	3.99	471.55	-471.57	0.00	0.00	0.00
6,000.00	9.40	89.51	5,961.30	4.13	487.88	-487.90	0.00	0.00	0.00
6,100.00	9.40	89.51	6,059.96	4.27	504.22	-504.23	0.00	0.00	0.00
6,200.00	9.40	89.51	6,158.61	4.41	520.55	-520.57	0.00	0.00	0.00
6,300.00	9.40	89.51	6,257.27	4.55	536.88	-536.90	0.00	0.00	0.00
6,400.00	9.40	89.51	6,355.93	4.68	553.21	-553.23	0.00	0.00	0.00
6,500.00	9.40	89.51	6,454.58	4.82	569.54	-569.56	0.00	0.00	0.00
6,600.00	9.40	89.51	6,553.24	4.96	585.87	-585.89	0.00	0.00	0.00
6,700.00	9.40	89.51	6,651.90	5.10	602.20	-602.23	0.00	0.00	0.00
6,800.00	9.40	89.51	6,750.56	5.24	618.54	-618.56	0.00	0.00	0.00
6,900.00	9.40	89.51	6,849.21	5.38	634.87	-634.89	0.00	0.00	0.00
6,970.90	9.40	89.51	6,919.16	5.47	646.45	-646.47	0.00	0.00	0.00
7,000.00	8.82	89.51	6,947.89	5.51	651.05	-651.08	2.00	-2.00	0.00
7,100.00	6.82	89.51	7,046.96	5.63	664.65	-664.68	2.00	-2.00	0.00
7,200.00	4.82	89.51	7,146.44	5.71	674.79	-674.81	2.00	-2.00	0.00
7,300.00	2.82	89.51	7,246.21	5.77	681.45	-681.47	2.00	-2.00	0.00
7,400.00	0.82	89.51	7,346.16	5.80	684.62	-684.64	2.00	-2.00	0.00
7,440.88	0.00	269.54	7,387.04	5.80	684.91	-684.93	2.00	-2.00	0.00
7,500.00	5.91	269.54	7,446.05	5.78	681.86	-681.89	10.00	10.00	0.00
7,600.00	15.91	269.54	7,544.12	5.62	662.96	-662.98	10.00	10.00	0.00
7,700.00	25.91	269.54	7,637.41	5.34	627.31	-627.33	10.00	10.00	0.00
7,771.96	33.11	269.54	7,700.00	5.05	591.89	-591.91	10.00	10.00	0.00
Sharon Springs									
7,800.00	35.91	269.54	7,723.10	4.92	576.01	-576.03	10.00	10.00	0.00
7,900.00	45.91	269.54	7,798.58	4.39	510.60	-510.62	10.00	10.00	0.00
7,918.16	47.73	269.54	7,811.00	4.29	497.37	-497.38	10.00	10.00	0.00
Niobrara									
8,000.00	55.91	269.54	7,861.55	3.77	433.09	-433.10	10.00	10.00	0.00
8,100.00	65.91	269.54	7,910.10	3.06	345.81	-345.83	10.00	10.00	0.00
8,200.00	75.91	269.54	7,942.76	2.30	251.43	-251.45	10.00	10.00	0.00
8,300.00	85.91	269.54	7,958.54	1.51	152.82	-152.83	10.00	10.00	0.00
8,340.89	90.00	269.54	7,960.00	1.18	111.97	-111.98	10.00	10.00	0.00
State La Plata 3DH - BPI									
8,400.00	90.00	269.54	7,960.00	0.70	52.86	-52.86	0.00	0.00	0.00
8,500.00	90.00	269.54	7,960.00	-0.11	-47.14	47.14	0.00	0.00	0.00
8,600.00	90.00	269.54	7,960.00	-0.91	-147.14	147.14	0.00	0.00	0.00
8,700.00	90.00	269.54	7,960.00	-1.72	-247.13	247.14	0.00	0.00	0.00
8,800.00	90.00	269.54	7,960.00	-2.53	-347.13	347.14	0.00	0.00	0.00
8,900.00	90.00	269.54	7,960.00	-3.34	-447.13	447.14	0.00	0.00	0.00

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Planning Report

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Design:	State La Plata 5-65 13-15 3DH Rev A		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
9,000.00	90.00	269.54	7,960.00	-4.14	-547.12	547.14	0.00	0.00	0.00
9,100.00	90.00	269.54	7,960.00	-4.95	-647.12	647.14	0.00	0.00	0.00
9,200.00	90.00	269.54	7,960.00	-5.76	-747.12	747.14	0.00	0.00	0.00
9,300.00	90.00	269.54	7,960.00	-6.56	-847.11	847.14	0.00	0.00	0.00
9,400.00	90.00	269.54	7,960.00	-7.37	-947.11	947.14	0.00	0.00	0.00
9,500.00	90.00	269.54	7,960.00	-8.18	-1,047.11	1,047.14	0.00	0.00	0.00
9,600.00	90.00	269.54	7,960.00	-8.98	-1,147.10	1,147.14	0.00	0.00	0.00
9,700.00	90.00	269.54	7,960.00	-9.79	-1,247.10	1,247.14	0.00	0.00	0.00
9,800.00	90.00	269.54	7,960.00	-10.60	-1,347.10	1,347.14	0.00	0.00	0.00
9,900.00	90.00	269.54	7,960.00	-11.41	-1,447.09	1,447.14	0.00	0.00	0.00
10,000.00	90.00	269.54	7,960.00	-12.21	-1,547.09	1,547.14	0.00	0.00	0.00
10,100.00	90.00	269.54	7,960.00	-13.02	-1,647.09	1,647.14	0.00	0.00	0.00
10,200.00	90.00	269.54	7,960.00	-13.83	-1,747.08	1,747.14	0.00	0.00	0.00
10,300.00	90.00	269.54	7,960.00	-14.63	-1,847.08	1,847.14	0.00	0.00	0.00
10,400.00	90.00	269.54	7,960.00	-15.44	-1,947.08	1,947.14	0.00	0.00	0.00
10,500.00	90.00	269.54	7,960.00	-16.25	-2,047.07	2,047.14	0.00	0.00	0.00
10,600.00	90.00	269.54	7,960.00	-17.05	-2,147.07	2,147.14	0.00	0.00	0.00
10,700.00	90.00	269.54	7,960.00	-17.86	-2,247.07	2,247.14	0.00	0.00	0.00
10,800.00	90.00	269.54	7,960.00	-18.67	-2,347.07	2,347.14	0.00	0.00	0.00
10,900.00	90.00	269.54	7,960.00	-19.48	-2,447.06	2,447.14	0.00	0.00	0.00
11,000.00	90.00	269.54	7,960.00	-20.28	-2,547.06	2,547.14	0.00	0.00	0.00
11,100.00	90.00	269.54	7,960.00	-21.09	-2,647.06	2,647.14	0.00	0.00	0.00
11,200.00	90.00	269.54	7,960.00	-21.90	-2,747.05	2,747.14	0.00	0.00	0.00
11,300.00	90.00	269.54	7,960.00	-22.70	-2,847.05	2,847.14	0.00	0.00	0.00
11,400.00	90.00	269.54	7,960.00	-23.51	-2,947.05	2,947.14	0.00	0.00	0.00
11,500.00	90.00	269.54	7,960.00	-24.32	-3,047.04	3,047.14	0.00	0.00	0.00
11,600.00	90.00	269.54	7,960.00	-25.12	-3,147.04	3,147.14	0.00	0.00	0.00
11,700.00	90.00	269.54	7,960.00	-25.93	-3,247.04	3,247.14	0.00	0.00	0.00
11,800.00	90.00	269.54	7,960.00	-26.74	-3,347.03	3,347.14	0.00	0.00	0.00
11,900.00	90.00	269.54	7,960.00	-27.55	-3,447.03	3,447.14	0.00	0.00	0.00
12,000.00	90.00	269.54	7,960.00	-28.35	-3,547.03	3,547.14	0.00	0.00	0.00
12,100.00	90.00	269.54	7,960.00	-29.16	-3,647.02	3,647.14	0.00	0.00	0.00
12,200.00	90.00	269.54	7,960.00	-29.97	-3,747.02	3,747.14	0.00	0.00	0.00
12,300.00	90.00	269.54	7,960.00	-30.77	-3,847.02	3,847.14	0.00	0.00	0.00
12,400.00	90.00	269.54	7,960.00	-31.58	-3,947.01	3,947.14	0.00	0.00	0.00
12,500.00	90.00	269.54	7,960.00	-32.39	-4,047.01	4,047.14	0.00	0.00	0.00
12,600.00	90.00	269.54	7,960.00	-33.19	-4,147.01	4,147.14	0.00	0.00	0.00
12,700.00	90.00	269.54	7,960.00	-34.00	-4,247.00	4,247.14	0.00	0.00	0.00
12,800.00	90.00	269.54	7,960.00	-34.81	-4,347.00	4,347.14	0.00	0.00	0.00
12,900.00	90.00	269.54	7,960.00	-35.62	-4,447.00	4,447.14	0.00	0.00	0.00
13,000.00	90.00	269.54	7,960.00	-36.42	-4,546.99	4,547.14	0.00	0.00	0.00
13,100.00	90.00	269.54	7,960.00	-37.23	-4,646.99	4,647.14	0.00	0.00	0.00
13,200.00	90.00	269.54	7,960.00	-38.04	-4,746.99	4,747.14	0.00	0.00	0.00
13,300.00	90.00	269.54	7,960.00	-38.84	-4,846.98	4,847.14	0.00	0.00	0.00
13,400.00	90.00	269.54	7,960.00	-39.65	-4,946.98	4,947.14	0.00	0.00	0.00
13,500.00	90.00	269.54	7,960.00	-40.46	-5,046.98	5,047.14	0.00	0.00	0.00
13,600.00	90.00	269.54	7,960.00	-41.26	-5,146.97	5,147.14	0.00	0.00	0.00
13,700.00	90.00	269.54	7,960.00	-42.07	-5,246.97	5,247.14	0.00	0.00	0.00
13,800.00	90.00	269.54	7,960.00	-42.88	-5,346.97	5,347.14	0.00	0.00	0.00
13,900.00	90.00	269.54	7,960.00	-43.68	-5,446.96	5,447.14	0.00	0.00	0.00
14,000.00	90.00	269.54	7,960.00	-44.49	-5,546.96	5,547.14	0.00	0.00	0.00
14,100.00	90.00	269.54	7,960.00	-45.30	-5,646.96	5,647.14	0.00	0.00	0.00
14,200.00	90.00	269.54	7,960.00	-46.11	-5,746.95	5,747.14	0.00	0.00	0.00

ConocoPhillips

Planning Report

Database:	EDM Central Planning	Local Co-ordinate Reference:	Well State La Plata 5-65 13-15 3DH
Company:	ConocoPhillips RBU Gold Data	TVD Reference:	RKB @ 5920.00ft (24' RKB)
Project:	Niobrara - CO Central Zone	MD Reference:	RKB @ 5920.00ft (24' RKB)
Site:	State La Plata Pad	North Reference:	Grid
Well:	State La Plata 5-65 13-15 3DH	Survey Calculation Method:	Minimum Curvature
Wellbore:	State La Plata #3DH		
Design:	State La Plata 5-65 13-15 3DH Rev A		

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)
14,300.00	90.00	269.54	7,960.00	-46.91	-5,846.95	5,847.14	0.00	0.00	0.00
14,400.00	90.00	269.54	7,960.00	-47.72	-5,946.95	5,947.14	0.00	0.00	0.00
14,500.00	90.00	269.54	7,960.00	-48.53	-6,046.94	6,047.14	0.00	0.00	0.00
14,600.00	90.00	269.54	7,960.00	-49.33	-6,146.94	6,147.14	0.00	0.00	0.00
14,700.00	90.00	269.54	7,960.00	-50.14	-6,246.94	6,247.14	0.00	0.00	0.00
14,800.00	90.00	269.54	7,960.00	-50.95	-6,346.93	6,347.14	0.00	0.00	0.00
14,900.00	90.00	269.54	7,960.00	-51.75	-6,446.93	6,447.14	0.00	0.00	0.00
15,000.00	90.00	269.54	7,960.00	-52.56	-6,546.93	6,547.14	0.00	0.00	0.00
15,100.00	90.00	269.54	7,960.00	-53.37	-6,646.93	6,647.14	0.00	0.00	0.00
15,200.00	90.00	269.54	7,960.00	-54.18	-6,746.92	6,747.14	0.00	0.00	0.00
15,300.00	90.00	269.54	7,960.00	-54.98	-6,846.92	6,847.14	0.00	0.00	0.00
15,400.00	90.00	269.54	7,960.00	-55.79	-6,946.92	6,947.14	0.00	0.00	0.00
15,500.00	90.00	269.54	7,960.00	-56.60	-7,046.91	7,047.14	0.00	0.00	0.00
15,600.00	90.00	269.54	7,960.00	-57.40	-7,146.91	7,147.14	0.00	0.00	0.00
15,700.00	90.00	269.54	7,960.00	-58.21	-7,246.91	7,247.14	0.00	0.00	0.00
15,800.00	90.00	269.54	7,960.00	-59.02	-7,346.90	7,347.14	0.00	0.00	0.00
15,900.00	90.00	269.54	7,960.00	-59.82	-7,446.90	7,447.14	0.00	0.00	0.00
16,000.00	90.00	269.54	7,960.00	-60.63	-7,546.90	7,547.14	0.00	0.00	0.00
16,100.00	90.00	269.54	7,960.00	-61.44	-7,646.89	7,647.14	0.00	0.00	0.00
16,200.00	90.00	269.54	7,960.00	-62.25	-7,746.89	7,747.14	0.00	0.00	0.00
16,300.00	90.00	269.54	7,960.00	-63.05	-7,846.89	7,847.14	0.00	0.00	0.00
16,400.00	90.00	269.54	7,960.00	-63.86	-7,946.88	7,947.14	0.00	0.00	0.00
16,500.00	90.00	269.54	7,960.00	-64.67	-8,046.88	8,047.14	0.00	0.00	0.00
16,600.00	90.00	269.54	7,960.00	-65.47	-8,146.88	8,147.14	0.00	0.00	0.00
16,700.00	90.00	269.54	7,960.00	-66.28	-8,246.87	8,247.14	0.00	0.00	0.00
16,800.00	90.00	269.54	7,960.00	-67.09	-8,346.87	8,347.14	0.00	0.00	0.00
16,900.00	90.00	269.54	7,960.00	-67.89	-8,446.87	8,447.14	0.00	0.00	0.00
17,000.00	90.00	269.54	7,960.00	-68.70	-8,546.86	8,547.14	0.00	0.00	0.00
17,100.00	90.00	269.54	7,960.00	-69.51	-8,646.86	8,647.14	0.00	0.00	0.00
17,200.00	90.00	269.54	7,960.00	-70.32	-8,746.86	8,747.14	0.00	0.00	0.00
17,300.00	90.00	269.54	7,960.00	-71.12	-8,846.85	8,847.14	0.00	0.00	0.00
17,400.00	90.00	269.54	7,960.00	-71.93	-8,946.85	8,947.14	0.00	0.00	0.00
17,500.00	90.00	269.54	7,960.00	-72.74	-9,046.85	9,047.14	0.00	0.00	0.00
17,600.00	90.00	269.54	7,960.00	-73.54	-9,146.84	9,147.14	0.00	0.00	0.00
17,700.00	90.00	269.54	7,960.00	-74.35	-9,246.84	9,247.14	0.00	0.00	0.00
17,800.00	90.00	269.54	7,960.00	-75.16	-9,346.84	9,347.14	0.00	0.00	0.00
17,900.00	90.00	269.54	7,960.00	-75.96	-9,446.83	9,447.14	0.00	0.00	0.00
17,992.01	90.00	269.54	7,960.00	-76.71	-9,538.84	9,539.15	0.00	0.00	0.00
Production Casing - State La Plata 3DH - TBH									

ConocoPhillips

Planning Report

Database:	EDM Central Planning	Local Co-ordinate Reference:	Well State La Plata 5-65 13-15 3DH
Company:	ConocoPhillips RBU Gold Data	TVD Reference:	RKB @ 5920.00ft (24' RKB)
Project:	Niobrara - CO Central Zone	MD Reference:	RKB @ 5920.00ft (24' RKB)
Site:	State La Plata Pad	North Reference:	Grid
Well:	State La Plata 5-65 13-15 3DH	Survey Calculation Method:	Minimum Curvature
Wellbore:	State La Plata #3DH		
Design:	State La Plata 5-65 13-15 3DH Rev A		

Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(ft)	(ft)	(ft)	(usft)	(usft)		
- Shape									
State La Plata - Mid Sec	0.00	0.00	0.00	0.00	0.00	1,649,372.049	3,248,820.387	39° 36' 46.789 N	104° 37' 0.491 W
- plan hits target center									
- Polygon									
Point 1			0.00	-1,380.18	-7,062.87	1,647,991.91	3,241,757.70		
Point 2			0.00	3,897.25	-7,050.34	1,653,269.20	3,241,770.23		
State La Plata 3DH - TB	0.00	0.00	7,960.00	-76.70	-9,538.84	1,649,295.347	3,239,281.795	39° 36' 46.930 N	104° 39' 2.380 W
- plan hits target center									
- Point									
State La Plata 3DH - BP	0.00	0.00	7,960.00	1.18	111.97	1,649,373.228	3,248,932.354	39° 36' 46.790 N	104° 36' 59.060 W
- plan hits target center									
- Point									
State La Plata - Sec 13,	0.00	0.00	0.00	0.00	0.00	1,649,372.049	3,248,820.387	39° 36' 46.789 N	104° 37' 0.491 W
- plan hits target center									
- Polygon									
Point 1			0.00	-1,325.48	3,580.84	1,648,046.60	3,252,401.13		
Point 2			0.00	-1,335.59	-1,688.62	1,648,036.49	3,247,131.81		
Point 3			0.00	-1,380.18	-7,062.87	1,647,991.91	3,241,757.70		
Point 4			0.00	-1,415.99	-12,313.36	1,647,956.10	3,236,507.35		
Point 5			0.00	3,864.01	-12,323.15	1,653,235.96	3,236,497.56		
Point 6			0.00	3,897.25	-7,050.74	1,653,269.20	3,241,769.83		
Point 7			0.00	3,946.32	-1,685.52	1,653,318.27	3,247,134.91		
Point 8			0.00	3,987.51	3,579.78	1,653,359.45	3,252,400.07		
State La Plata - Mid Sec	0.00	0.00	0.00	0.00	0.00	1,649,372.049	3,248,820.387	39° 36' 46.789 N	104° 37' 0.491 W
- plan hits target center									
- Polygon									
Point 1			0.00	-1,335.59	-1,688.62	1,648,036.49	3,247,131.81		
Point 2			0.00	3,946.32	-1,685.52	1,653,318.27	3,247,134.91		

Casing Points					
Measured Depth	Vertical Depth	Name		Casing Diameter	Hole Diameter
(ft)	(ft)			(")	(")
17,992.01	7,960.00	Production Casing		5-1/2	8-3/4
2,335.00	2,335.00	Surface Casing		9-5/8	13-1/2

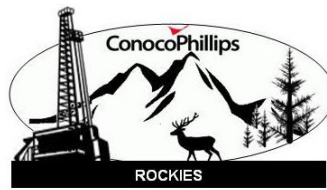
Formations						
Measured Depth	Vertical Depth	Name		Lithology	Dip	Dip Direction
(ft)	(ft)				(°)	(°)
7,918.16	7,811.00	Niobrara			0.00	
2,135.00	2,135.00	Pierre Shale			0.00	
1,911.00	1,911.00	Fox Hills			0.00	
7,771.96	7,700.00	Sharon Springs			0.00	

ConocoPhillips

Planning Report

Database:	EDM Central Planning	Local Co-ordinate Reference:	Well State La Plata 5-65 13-15 3DH
Company:	ConocoPhillips RBU Gold Data	TVD Reference:	RKB @ 5920.00ft (24' RKB)
Project:	Niobrara - CO Central Zone	MD Reference:	RKB @ 5920.00ft (24' RKB)
Site:	State La Plata Pad	North Reference:	Grid
Well:	State La Plata 5-65 13-15 3DH	Survey Calculation Method:	Minimum Curvature
Wellbore:	State La Plata #3DH		
Design:	State La Plata 5-65 13-15 3DH Rev A		

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
2,335.00	2,335.00	0.00	0.00	SHL: 1,320' FSL & 1,688' FWL
7,440.88	7,387.04	5.80	684.91	KOP: 1,320' FSL & 2,373' FWL
8,340.88	7,960.00	1.18	111.97	BPI: 1,320' FSL & 1,800' FWL
17,992.01	7,960.00	-76.71	-9,538.84	TBH: 1,320' FSL & 2,480' FEL



State La Plata 5-65 13-15 3DH
State La Plata 5-65 13-15 3DH Rev A
Arapahoe County, CO

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	2700.00	0.00	0.00	2700.00	0.00	0.00	0.00	0.00	0.00
3	3326.65	9.40	89.51	3323.84	0.43	51.29	1.50	89.51	-51.29
4	6970.90	9.40	89.51	6919.16	5.47	646.45	0.00	0.00	-646.47
5	7440.88	0.00	269.54	7387.04	5.80	684.91	2.00	180.00	-684.93
6	8340.88	90.00	269.54	7960.00	1.18	111.97	10.00	-90.46	-111.98
7	17992.01	90.00	269.54	7960.00	-76.70	-9538.84	0.00	0.00	9539.15

