

ConocoPhillips RBU Gold Data

Niobrara Central Zone

Prosper Farms

Prosper Farms 4-65 11-12 3BH

Prosper Farms 4-65 11-12 3BH

Plan: Design B

Standard Planning Report

30 April, 2018



ConocoPhillips

Arapahoe County, Colorado

Prosper Farms 4-65 11-12 3BH

Design B

Casing Depths

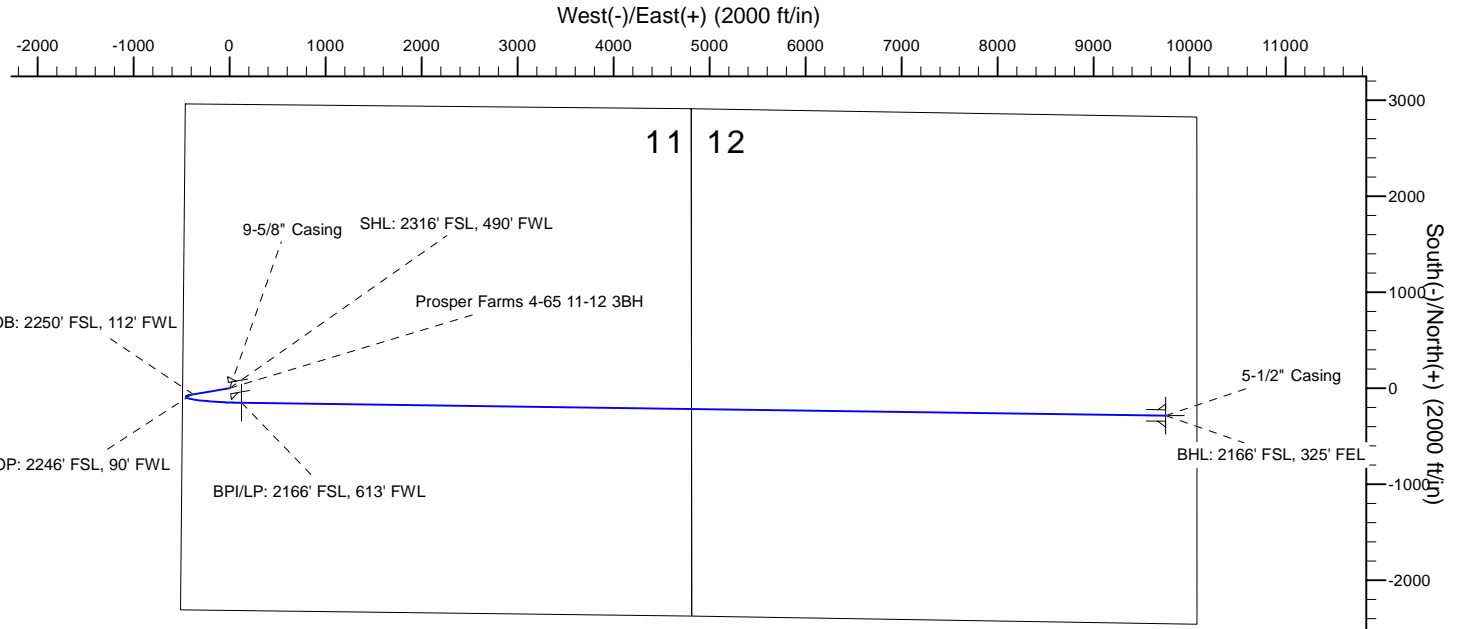
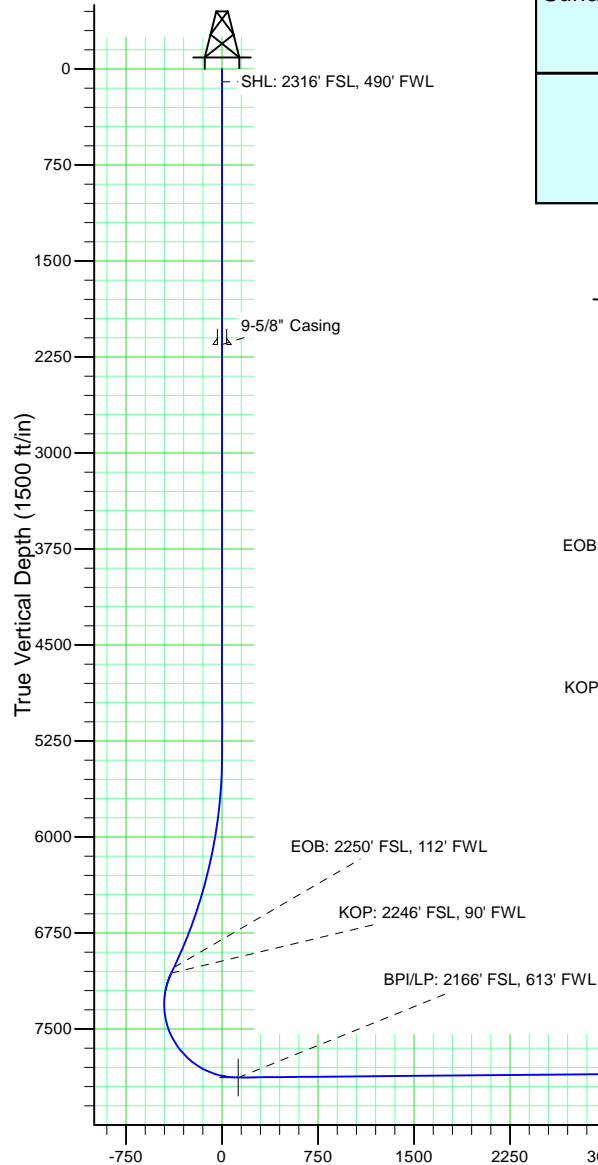
TVD	MD	Name	Size
2152.00	2152.00	9-5/8" Casing	9-5/8
7791.00	17916.31	5-1/2" Casing	5-1/2

Ground Level: 5668.20
Surface Location Latitude: 39° 43' 2.990 N
Surface Location Longitude: 104° 38' 20.730 W
North Reference: True
27' RKB @ 5695.20ft (27' RKB)

North American Datum 1983
GRS 1980
US State Plane 1983
Colorado Central Zone

Well Profile Data

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	Vsect
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5350.20	0.00	0.00	5350.20	0.00	0.00	0.00	0.00
7077.10	25.90	260.07	7018.87	-66.15	-378.02	1.50	-375.90
7127.08	25.90	260.07	7063.83	-69.91	-399.52	0.00	-397.29
8286.06	90.52	90.81	7879.00	-151.76	121.90	10.00	126.32
17916.31	90.52	90.81	7791.00	-287.51	9750.79	0.00	9755.03



Wellbore Targets

Name	TVD	Latitude	Longitude
Prosper Farms 4-65 11-12 3BH BHL	7791.00	39° 43' 0.130 N	104° 36' 15.950 W
Prosper Farms 4-65 11-12 3BH BPI	7879.00	39° 43' 1.490 N	104° 38' 19.170 W

Vertical Section at 91.69° (1500 ft/in)

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Planning Report

Database:	EDT 14 Central Planning	Local Co-ordinate Reference:	Well Prosper Farms 4-65 11-12 3BH
Company:	ConocoPhillips RBU Gold Data	TVD Reference:	27' RKB @ 5695.20ft (27' RKB)
Project:	Niobrara Central Zone	MD Reference:	27' RKB @ 5695.20ft (27' RKB)
Site:	Prosper Farms	North Reference:	True
Well:	Prosper Farms 4-65 11-12 3BH	Survey Calculation Method:	Minimum Curvature
Wellbore:	Prosper Farms 4-65 11-12 3BH		
Design:	Design B		

Project	Niobrara Central Zone, Colorado Central Zone, FIPS Zone: 0502		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		Using geodetic scale factor

Site	Prosper Farms				
Site Position:		Northing:	1,695,525.074 usft	Latitude:	39° 44' 23.579 N
From:	Lat/Long	Easting:	3,241,656.328 usft	Longitude:	104° 38' 26.452 W
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.54 °

Well	Prosper Farms 4-65 11-12 3BH					
Well Position	+N-S	-8,154.46 ft	Northing:	1,687,375.242 usft	Latitude:	39° 43' 2.990 N
	+E-W	447.10 ft	Easting:	3,242,180.539 usft	Longitude:	104° 38' 20.730 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	5,668.20 ft	Ground Level:	5,668.20 ft

Wellbore	Prosper Farms 4-65 11-12 3BH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2017	12/1/2018	8.14	66.31	51,861.50177384

Design	Design B				
Audit Notes:					
Version:	0	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N-S (ft)	+E-W (ft)	Direction (°)	
	0.00	0.00	0.00	91.69	

Plan Survey Tool Program		Date	4/30/2018		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.00	2,152.00	Design B (Prosper Farms 4-65 1' Gyro-BM-MS	Gyro - bat/mem drop m/s	
2	2,152.00	5,350.20	Design B (Prosper Farms 4-65 1' MWD+IFR_No SAG	MWD + IFR (No SAG) corre	
3	5,350.20	7,077.10	Design B (Prosper Farms 4-65 1' MWD+IFR_No SAG	MWD + IFR (No SAG) corre	
4	7,077.10	7,127.08	Design B (Prosper Farms 4-65 1' MWD+IFR_No SAG	MWD + IFR (No SAG) corre	
5	7,127.08	8,286.06	Design B (Prosper Farms 4-65 1' MWD+IFR_No SAG	MWD + IFR (No SAG) corre	
6	8,286.06	17,916.31	Design B (Prosper Farms 4-65 1' MWD+IFR_No SAG	MWD + IFR (No SAG) corre	

ConocoPhillips

Planning Report

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Company:	ConocoPhillips RBU Gold Data	TVD Reference:	27' RKB @ 5695.20ft (27' RKB)
Project:	Niobrara Central Zone	MD Reference:	27' RKB @ 5695.20ft (27' RKB)
Site:	Prosper Farms	North Reference:	True
Well:	Prosper Farms 4-65 11-12 3BH	Survey Calculation Method:	Minimum Curvature
Wellbore:	Prosper Farms 4-65 11-12 3BH		
Design:	Design B		

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	
5,350.20	0.00	0.00	5,350.20	0.00	0.00	0.00	0.00	0.00	0.00	
7,077.10	25.90	260.07	7,018.87	-66.15	-378.02	1.50	1.50	0.00	260.07	
7,127.08	25.90	260.07	7,063.83	-69.91	-399.52	0.00	0.00	0.00	0.00	
8,286.07	90.52	90.81	7,879.00	-151.76	121.90	10.00	5.58	-14.60	-168.05	Prosper Farms 4-65
17,916.31	90.52	90.81	7,791.00	-287.51	9,750.79	0.00	0.00	0.00	0.00	Prosper Farms 4-65

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Project:	Niobrara Central Zone	MD Reference:	27' RKB @ 5695.20ft (27' RKB)
Site:	Prosper Farms	North Reference:	True
Well:	Prosper Farms 4-65 11-12 3BH	Survey Calculation Method:	Minimum Curvature
Wellbore:	Prosper Farms 4-65 11-12 3BH		
Design:	Design B		

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
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
SHL: 2316' FSL, 490' FWL									
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
1,745.00	0.00	0.00	1,745.00	0.00	0.00	0.00	0.00	0.00	0.00
Fox Hills Top									
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
1,952.00	0.00	0.00	1,952.00	0.00	0.00	0.00	0.00	0.00	0.00
Pierre Top - Fox Hills Base									
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
2,152.00	0.00	0.00	2,152.00	0.00	0.00	0.00	0.00	0.00	0.00
Surface Casing - 9-5/8" Casing									
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
2,400.00	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	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00

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Planning Report

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Company:	ConocoPhillips RBU Gold Data	TVD Reference:	27' RKB @ 5695.20ft (27' RKB)
Project:	Niobrara Central Zone	MD Reference:	27' RKB @ 5695.20ft (27' RKB)
Site:	Prosper Farms	North Reference:	True
Well:	Prosper Farms 4-65 11-12 3BH	Survey Calculation Method:	Minimum Curvature
Wellbore:	Prosper Farms 4-65 11-12 3BH		
Design:	Design B		

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)
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	0.00	0.00
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.00	0.00	0.00
5,350.20	0.00	0.00	5,350.20	0.00	0.00	0.00	0.00	0.00	0.00
5,400.00	0.75	260.07	5,400.00	-0.06	-0.32	-0.32	1.50	1.50	0.00
5,500.00	2.25	260.07	5,499.96	-0.51	-2.89	-2.88	1.50	1.50	0.00
5,600.00	3.75	260.07	5,599.82	-1.41	-8.04	-8.00	1.50	1.50	0.00
5,700.00	5.25	260.07	5,699.51	-2.76	-15.77	-15.68	1.50	1.50	0.00
5,800.00	6.75	260.07	5,798.96	-4.56	-26.06	-25.91	1.50	1.50	0.00
5,900.00	8.25	260.07	5,898.10	-6.81	-38.91	-38.69	1.50	1.50	0.00
6,000.00	9.75	260.07	5,996.87	-9.50	-54.31	-54.01	1.50	1.50	0.00
6,100.00	11.25	260.07	6,095.19	-12.64	-72.26	-71.85	1.50	1.50	0.00
6,200.00	12.75	260.07	6,193.01	-16.23	-92.73	-92.21	1.50	1.50	0.00
6,300.00	14.25	260.07	6,290.24	-20.25	-115.72	-115.07	1.50	1.50	0.00
6,400.00	15.75	260.07	6,386.83	-24.71	-141.21	-140.42	1.50	1.50	0.00
6,500.00	17.25	260.07	6,482.71	-29.61	-169.18	-168.23	1.50	1.50	0.00
6,600.00	18.75	260.07	6,577.82	-34.93	-199.61	-198.50	1.50	1.50	0.00
6,700.00	20.25	260.07	6,672.08	-40.68	-232.49	-231.19	1.50	1.50	0.00
6,800.00	21.75	260.07	6,765.44	-46.86	-267.78	-266.29	1.50	1.50	0.00
6,900.00	23.25	260.07	6,857.83	-53.46	-305.47	-303.77	1.50	1.50	0.00
7,000.00	24.75	260.07	6,949.18	-60.47	-345.53	-343.60	1.50	1.50	0.00
7,077.10	25.90	260.07	7,018.87	-66.15	-378.02	-375.90	1.50	1.50	0.00
EOB: 2250' FSL, 112' FWL									
7,100.00	25.90	260.07	7,039.47	-67.88	-387.87	-385.70	0.00	0.00	0.00
7,127.08	25.90	260.07	7,063.83	-69.91	-399.53	-397.29	0.00	0.00	0.00
KOP: 2246' FSL, 90' FWL									
7,150.00	23.66	258.89	7,084.64	-71.66	-408.97	-406.68	10.01	-9.77	-5.16
7,200.00	18.82	255.40	7,131.23	-75.63	-426.64	-424.22	10.00	-9.68	-6.98
7,250.00	14.09	249.64	7,179.17	-79.79	-440.16	-437.61	10.00	-9.47	-11.53
7,300.00	9.62	238.46	7,228.10	-84.09	-449.43	-446.76	10.00	-8.93	-22.35
7,350.00	6.05	211.87	7,277.64	-88.52	-454.39	-451.58	10.00	-7.15	-53.18
7,400.00	5.52	160.83	7,327.41	-93.03	-454.99	-452.05	10.00	-1.06	-102.07
7,450.00	8.62	127.68	7,377.04	-97.60	-451.23	-448.16	10.00	6.19	-66.31
7,500.00	12.96	114.10	7,426.16	-102.18	-443.14	-439.94	10.00	8.68	-27.15
7,550.00	17.65	107.44	7,474.37	-106.75	-430.78	-427.45	10.00	9.38	-13.32
7,600.00	22.47	103.54	7,521.33	-111.26	-414.25	-410.79	10.00	9.64	-7.80
7,650.00	27.36	100.97	7,566.66	-115.69	-393.67	-390.09	10.00	9.77	-5.15
7,700.00	32.27	99.13	7,610.03	-119.99	-369.19	-365.50	10.00	9.84	-3.68
7,750.00	37.21	97.73	7,651.10	-124.14	-341.01	-337.21	10.00	9.88	-2.80
7,784.58	40.64	96.93	7,678.00	-126.91	-319.47	-315.59	10.00	9.90	-2.30
Niobrara Top									
7,800.00	42.16	96.61	7,689.57	-128.11	-309.34	-305.43	10.00	9.91	-2.07
7,850.00	47.12	95.69	7,725.13	-131.87	-274.42	-270.41	10.00	9.92	-1.84
7,900.00	52.09	94.91	7,757.53	-135.37	-236.51	-232.42	10.00	9.93	-1.56
7,950.00	57.06	94.23	7,786.50	-138.61	-195.91	-191.74	10.00	9.94	-1.37
8,000.00	62.03	93.62	7,811.83	-141.56	-152.92	-148.69	10.00	9.95	-1.22
8,050.00	67.01	93.06	7,833.33	-144.18	-107.88	-103.58	10.00	9.95	-1.11
8,100.00	71.99	92.55	7,850.84	-146.47	-61.11	-56.77	10.00	9.96	-1.03
8,150.00	76.97	92.06	7,864.21	-148.40	-12.99	-8.61	10.00	9.96	-0.98

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Project:	Niobrara Central Zone	MD Reference:	27' RKB @ 5695.20ft (27' RKB)
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Wellbore:	Prosper Farms 4-65 11-12 3BH		
Design:	Design B		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,173.27	79.29	91.84	7,869.00	-149.18	9.77	14.16	10.00	9.96	-0.95
D Chalk Top									
8,200.00	81.95	91.59	7,873.36	-149.97	36.12	40.53	10.00	9.96	-0.93
8,250.00	86.93	91.13	7,878.20	-151.15	85.86	90.28	10.00	9.96	-0.91
8,286.06	90.52	90.81	7,879.00	-151.76	121.90	126.32	10.00	9.96	-0.91
BPI/LP: 2166' FSL, 613' FWL									
8,300.00	90.52	90.81	7,878.87	-151.96	135.84	140.26	0.00	0.00	0.00
8,400.00	90.52	90.81	7,877.96	-153.37	235.82	240.24	0.00	0.00	0.00
8,500.00	90.52	90.81	7,877.05	-154.78	335.81	340.22	0.00	0.00	0.00
8,600.00	90.52	90.81	7,876.13	-156.19	435.79	440.21	0.00	0.00	0.00
8,700.00	90.52	90.81	7,875.22	-157.60	535.78	540.19	0.00	0.00	0.00
8,800.00	90.52	90.81	7,874.30	-159.01	635.77	640.18	0.00	0.00	0.00
8,900.00	90.52	90.81	7,873.39	-160.42	735.75	740.16	0.00	0.00	0.00
9,000.00	90.52	90.81	7,872.48	-161.83	835.74	840.14	0.00	0.00	0.00
9,100.00	90.52	90.81	7,871.56	-163.23	935.72	940.13	0.00	0.00	0.00
9,200.00	90.52	90.81	7,870.65	-164.64	1,035.71	1,040.11	0.00	0.00	0.00
9,300.00	90.52	90.81	7,869.73	-166.05	1,135.70	1,140.10	0.00	0.00	0.00
9,400.00	90.52	90.81	7,868.82	-167.46	1,235.68	1,240.08	0.00	0.00	0.00
9,500.00	90.52	90.81	7,867.91	-168.87	1,335.67	1,340.06	0.00	0.00	0.00
9,600.00	90.52	90.81	7,866.99	-170.28	1,435.65	1,440.05	0.00	0.00	0.00
9,700.00	90.52	90.81	7,866.08	-171.69	1,535.64	1,540.03	0.00	0.00	0.00
9,800.00	90.52	90.81	7,865.17	-173.10	1,635.63	1,640.02	0.00	0.00	0.00
9,900.00	90.52	90.81	7,864.25	-174.51	1,735.61	1,740.00	0.00	0.00	0.00
10,000.00	90.52	90.81	7,863.34	-175.92	1,835.60	1,839.98	0.00	0.00	0.00
10,100.00	90.52	90.81	7,862.42	-177.33	1,935.58	1,939.97	0.00	0.00	0.00
10,200.00	90.52	90.81	7,861.51	-178.74	2,035.57	2,039.95	0.00	0.00	0.00
10,300.00	90.52	90.81	7,860.60	-180.15	2,135.55	2,139.94	0.00	0.00	0.00
10,400.00	90.52	90.81	7,859.68	-181.56	2,235.54	2,239.92	0.00	0.00	0.00
10,500.00	90.52	90.81	7,858.77	-182.97	2,335.53	2,339.90	0.00	0.00	0.00
10,600.00	90.52	90.81	7,857.86	-184.38	2,435.51	2,439.89	0.00	0.00	0.00
10,700.00	90.52	90.81	7,856.94	-185.79	2,535.50	2,539.87	0.00	0.00	0.00
10,800.00	90.52	90.81	7,856.03	-187.20	2,635.48	2,639.86	0.00	0.00	0.00
10,900.00	90.52	90.81	7,855.11	-188.61	2,735.47	2,739.84	0.00	0.00	0.00
11,000.00	90.52	90.81	7,854.20	-190.02	2,835.46	2,839.82	0.00	0.00	0.00
11,100.00	90.52	90.81	7,853.29	-191.43	2,935.44	2,939.81	0.00	0.00	0.00
11,200.00	90.52	90.81	7,852.37	-192.84	3,035.43	3,039.79	0.00	0.00	0.00
11,300.00	90.52	90.81	7,851.46	-194.25	3,135.41	3,139.78	0.00	0.00	0.00
11,400.00	90.52	90.81	7,850.55	-195.66	3,235.40	3,239.76	0.00	0.00	0.00
11,500.00	90.52	90.81	7,849.63	-197.07	3,335.39	3,339.74	0.00	0.00	0.00
11,600.00	90.52	90.81	7,848.72	-198.48	3,435.37	3,439.73	0.00	0.00	0.00
11,700.00	90.52	90.81	7,847.80	-199.89	3,535.36	3,539.71	0.00	0.00	0.00
11,800.00	90.52	90.81	7,846.89	-201.30	3,635.34	3,639.70	0.00	0.00	0.00
11,900.00	90.52	90.81	7,845.98	-202.71	3,735.33	3,739.68	0.00	0.00	0.00
12,000.00	90.52	90.81	7,845.06	-204.11	3,835.31	3,839.66	0.00	0.00	0.00
12,100.00	90.52	90.81	7,844.15	-205.52	3,935.30	3,939.65	0.00	0.00	0.00
12,200.00	90.52	90.81	7,843.24	-206.93	4,035.29	4,039.63	0.00	0.00	0.00
12,300.00	90.52	90.81	7,842.32	-208.34	4,135.27	4,139.62	0.00	0.00	0.00
12,400.00	90.52	90.81	7,841.41	-209.75	4,235.26	4,239.60	0.00	0.00	0.00
12,500.00	90.52	90.81	7,840.49	-211.16	4,335.24	4,339.58	0.00	0.00	0.00
12,600.00	90.52	90.81	7,839.58	-212.57	4,435.23	4,439.57	0.00	0.00	0.00
12,700.00	90.52	90.81	7,838.67	-213.98	4,535.22	4,539.55	0.00	0.00	0.00
12,800.00	90.52	90.81	7,837.75	-215.39	4,635.20	4,639.54	0.00	0.00	0.00
12,900.00	90.52	90.81	7,836.84	-216.80	4,735.19	4,739.52	0.00	0.00	0.00
13,000.00	90.52	90.81	7,835.92	-218.21	4,835.17	4,839.50	0.00	0.00	0.00

ConocoPhillips

Planning Report

Database:	EDT 14 Central Planning	Local Co-ordinate Reference:	Well Prosper Farms 4-65 11-12 3BH
Company:	ConocoPhillips RBU Gold Data	TVD Reference:	27' RKB @ 5695.20ft (27' RKB)
Project:	Niobrara Central Zone	MD Reference:	27' RKB @ 5695.20ft (27' RKB)
Site:	Prosper Farms	North Reference:	True
Well:	Prosper Farms 4-65 11-12 3BH	Survey Calculation Method:	Minimum Curvature
Wellbore:	Prosper Farms 4-65 11-12 3BH		
Design:	Design B		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
13,100.00	90.52	90.81	7,835.01	-219.62	4,935.16	4,939.49	0.00	0.00	0.00	
13,200.00	90.52	90.81	7,834.10	-221.03	5,035.15	5,039.47	0.00	0.00	0.00	
13,300.00	90.52	90.81	7,833.18	-222.44	5,135.13	5,139.46	0.00	0.00	0.00	
13,400.00	90.52	90.81	7,832.27	-223.85	5,235.12	5,239.44	0.00	0.00	0.00	
13,500.00	90.52	90.81	7,831.36	-225.26	5,335.10	5,339.42	0.00	0.00	0.00	
13,600.00	90.52	90.81	7,830.44	-226.67	5,435.09	5,439.41	0.00	0.00	0.00	
13,700.00	90.52	90.81	7,829.53	-228.08	5,535.08	5,539.39	0.00	0.00	0.00	
13,800.00	90.52	90.81	7,828.61	-229.49	5,635.06	5,639.38	0.00	0.00	0.00	
13,900.00	90.52	90.81	7,827.70	-230.90	5,735.05	5,739.36	0.00	0.00	0.00	
14,000.00	90.52	90.81	7,826.79	-232.31	5,835.03	5,839.34	0.00	0.00	0.00	
14,100.00	90.52	90.81	7,825.87	-233.72	5,935.02	5,939.33	0.00	0.00	0.00	
14,200.00	90.52	90.81	7,824.96	-235.13	6,035.00	6,039.31	0.00	0.00	0.00	
14,300.00	90.52	90.81	7,824.05	-236.54	6,134.99	6,139.30	0.00	0.00	0.00	
14,400.00	90.52	90.81	7,823.13	-237.95	6,234.98	6,239.28	0.00	0.00	0.00	
14,500.00	90.52	90.81	7,822.22	-239.36	6,334.96	6,339.26	0.00	0.00	0.00	
14,600.00	90.52	90.81	7,821.30	-240.77	6,434.95	6,439.25	0.00	0.00	0.00	
14,700.00	90.52	90.81	7,820.39	-242.18	6,534.93	6,539.23	0.00	0.00	0.00	
14,800.00	90.52	90.81	7,819.48	-243.58	6,634.92	6,639.22	0.00	0.00	0.00	
14,900.00	90.52	90.81	7,818.56	-244.99	6,734.91	6,739.20	0.00	0.00	0.00	
15,000.00	90.52	90.81	7,817.65	-246.40	6,834.89	6,839.18	0.00	0.00	0.00	
15,100.00	90.52	90.81	7,816.74	-247.81	6,934.88	6,939.17	0.00	0.00	0.00	
15,200.00	90.52	90.81	7,815.82	-249.22	7,034.86	7,039.15	0.00	0.00	0.00	
15,300.00	90.52	90.81	7,814.91	-250.63	7,134.85	7,139.14	0.00	0.00	0.00	
15,400.00	90.52	90.81	7,813.99	-252.04	7,234.84	7,239.12	0.00	0.00	0.00	
15,500.00	90.52	90.81	7,813.08	-253.45	7,334.82	7,339.10	0.00	0.00	0.00	
15,600.00	90.52	90.81	7,812.17	-254.86	7,434.81	7,439.09	0.00	0.00	0.00	
15,700.00	90.52	90.81	7,811.25	-256.27	7,534.79	7,539.07	0.00	0.00	0.00	
15,800.00	90.52	90.81	7,810.34	-257.68	7,634.78	7,639.06	0.00	0.00	0.00	
15,900.00	90.52	90.81	7,809.42	-259.09	7,734.76	7,739.04	0.00	0.00	0.00	
16,000.00	90.52	90.81	7,808.51	-260.50	7,834.75	7,839.02	0.00	0.00	0.00	
16,100.00	90.52	90.81	7,807.60	-261.91	7,934.74	7,939.01	0.00	0.00	0.00	
16,200.00	90.52	90.81	7,806.68	-263.32	8,034.72	8,038.99	0.00	0.00	0.00	
16,300.00	90.52	90.81	7,805.77	-264.73	8,134.71	8,138.98	0.00	0.00	0.00	
16,400.00	90.52	90.81	7,804.86	-266.14	8,234.69	8,238.96	0.00	0.00	0.00	
16,500.00	90.52	90.81	7,803.94	-267.55	8,334.68	8,338.94	0.00	0.00	0.00	
16,600.00	90.52	90.81	7,803.03	-268.96	8,434.67	8,438.93	0.00	0.00	0.00	
16,700.00	90.52	90.81	7,802.11	-270.37	8,534.65	8,538.91	0.00	0.00	0.00	
16,800.00	90.52	90.81	7,801.20	-271.78	8,634.64	8,638.90	0.00	0.00	0.00	
16,900.00	90.52	90.81	7,800.29	-273.19	8,734.62	8,738.88	0.00	0.00	0.00	
17,000.00	90.52	90.81	7,799.37	-274.60	8,834.61	8,838.86	0.00	0.00	0.00	
17,100.00	90.52	90.81	7,798.46	-276.01	8,934.60	8,938.85	0.00	0.00	0.00	
17,200.00	90.52	90.81	7,797.55	-277.42	9,034.58	9,038.83	0.00	0.00	0.00	
17,300.00	90.52	90.81	7,796.63	-278.83	9,134.57	9,138.82	0.00	0.00	0.00	
17,400.00	90.52	90.81	7,795.72	-280.24	9,234.55	9,238.80	0.00	0.00	0.00	
17,500.00	90.52	90.81	7,794.80	-281.65	9,334.54	9,338.78	0.00	0.00	0.00	
17,600.00	90.52	90.81	7,793.89	-283.06	9,434.52	9,438.77	0.00	0.00	0.00	
17,700.00	90.52	90.81	7,792.98	-284.46	9,534.51	9,538.75	0.00	0.00	0.00	
17,800.00	90.52	90.81	7,792.06	-285.87	9,634.50	9,638.74	0.00	0.00	0.00	
17,900.00	90.52	90.81	7,791.15	-287.28	9,734.48	9,738.72	0.00	0.00	0.00	
17,916.31	90.52	90.81	7,791.00	-287.51	9,750.79	9,755.03	0.00	0.00	0.00	
BHL: 2166' FSL, 325' FEL - 5-1/2" Casing										

ConocoPhillips

Planning Report

Database:	EDT 14 Central Planning	Local Co-ordinate Reference:	Well Prosper Farms 4-65 11-12 3BH
Company:	ConocoPhillips RBU Gold Data	TVD Reference:	27' RKB @ 5695.20ft (27' RKB)
Project:	Niobrara Central Zone	MD Reference:	27' RKB @ 5695.20ft (27' RKB)
Site:	Prosper Farms	North Reference:	True
Well:	Prosper Farms 4-65 11-12 3BH	Survey Calculation Method:	Minimum Curvature
Wellbore:	Prosper Farms 4-65 11-12 3BH		
Design:	Design B		

Design Targets

Target Name

- hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Prosper Farms 4-65 1 - plan hits target center - Point	0.00	0.00	7,791.00	-287.51	9,750.79	1,687,180.145	3,251,933.535	39° 43' 0.130 N	104° 36' 15.950 W
Prosper Farms 4-65 1 - plan hits target center - Point	0.00	0.00	7,879.00	-151.76	121.90	1,687,224.644	3,242,303.874	39° 43' 1.490 N	104° 38' 19.170 W

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
2,152.00	2,152.00	9-5/8" Casing	9-5/8	12-1/4
17,916.31	7,791.00	5-1/2" Casing	5-1/2	8-1/2

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,745.00	1,745.00	Fox Hills Top		0.00	
1,952.00	1,952.00	Pierre Top - Fox Hills Base		0.00	
2,152.00	2,152.00	Surface Casing		0.00	
7,784.58	7,678.00	Niobrara Top		0.00	
8,173.27	7,869.00	D Chalk Top		0.00	

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
100.00	100.00	0.00	0.00	SHL: 2316' FSL, 490' FWL
7,077.10	7,018.87	-66.15	-378.02	EOB: 2250' FSL, 112' FWL
7,127.08	7,063.83	-69.91	-399.53	KOP: 2246' FSL, 90' FWL
8,286.06	7,879.00	-151.76	121.90	BPI/LP: 2166' FSL, 613' FWL
17,916.31	7,791.00	-287.51	9,750.79	BHL: 2166' FSL, 325' FEL