

SRC ENERGY

WELD COUNTY (NAD83, TRUE NORTH)

5N-66W-29 SANFORD 21-29 PAD

SANFORD 8N-27B-XR

Wellbore #1

Plan: Design #1

Standard Planning Report

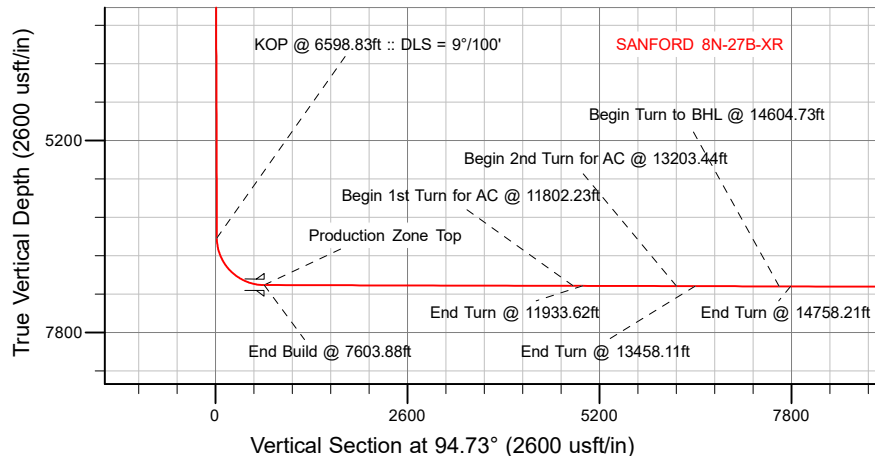
25 October, 2018

Project: WELD COUNTY (NAD83, TRUE NORTH)
Site: 5N-66W-29 SANFORD 21-29 PAD
Well: SANFORD 8N-27B-XR
Wellbore: Wellbore #1
Design: Design #1

SRC ENERGY

CASING DETAILS

TVD	MD	Name
1800.00	1816.24	9 5/8"
7158.97	7603.88	Production Zone Top



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	
3	650.50	9.01	183.65	648.65	-35.28	-2.25	2.00	183.65	0.67	
4	6598.83	9.01	183.65	6523.58	-964.94	-61.55	0.00	0.00	18.28	
5	7603.88	89.85	89.83	7158.97	-1063.34	573.73	9.00	-93.79	659.51	
6	11802.23	89.85	89.83	7169.60	-1050.98	4772.05	0.00	0.00	4842.50	Sanford 8N-27B-XR_target
7	11933.62	89.85	92.46	7169.93	-1053.61	4903.40	2.00	90.03	4973.62	
8	13203.44	89.85	92.46	7173.17	-1108.09	6172.05	0.00	0.00	6242.44	Sanford 8N-27B-XR_target2
9	13458.11	89.85	87.37	7173.82	-1107.70	6426.64	2.00	-90.00	6496.12	
10	14604.73	89.85	87.37	7176.72	-1055.00	7572.04	0.00	0.00	7633.27	Sanford 8N-27B-XR_target3
11	14758.21	89.85	90.44	7177.11	-1052.06	7725.47	2.00	90.01	7785.94	
12	20242.44	89.85	90.44	7191.00	-1093.71	13209.53	0.00	0.00	13254.73	Sanford 8N-27B-XR_BHL

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
Sanford 8N-27B-XR_BPZ	0.00	-1093.40	13109.50	40.372515	-104.757858
Sanford 8N-27B-XR_SHL	0.00	0.00	0.00	40.375526	-104.804909
Sanford 8N-27B-XR_BHL	7191.00	-1093.71	13209.53	40.372514	-104.757499

WELL DETAILS: SANFORD 8N-27B-XR

GL = 4905'

RKB = 4' @ 4909.00usft (RIG)

Plan: Design #1 (SANFORD 8N-27B-XR/Wellbore #1)

Date: 10/25/2015

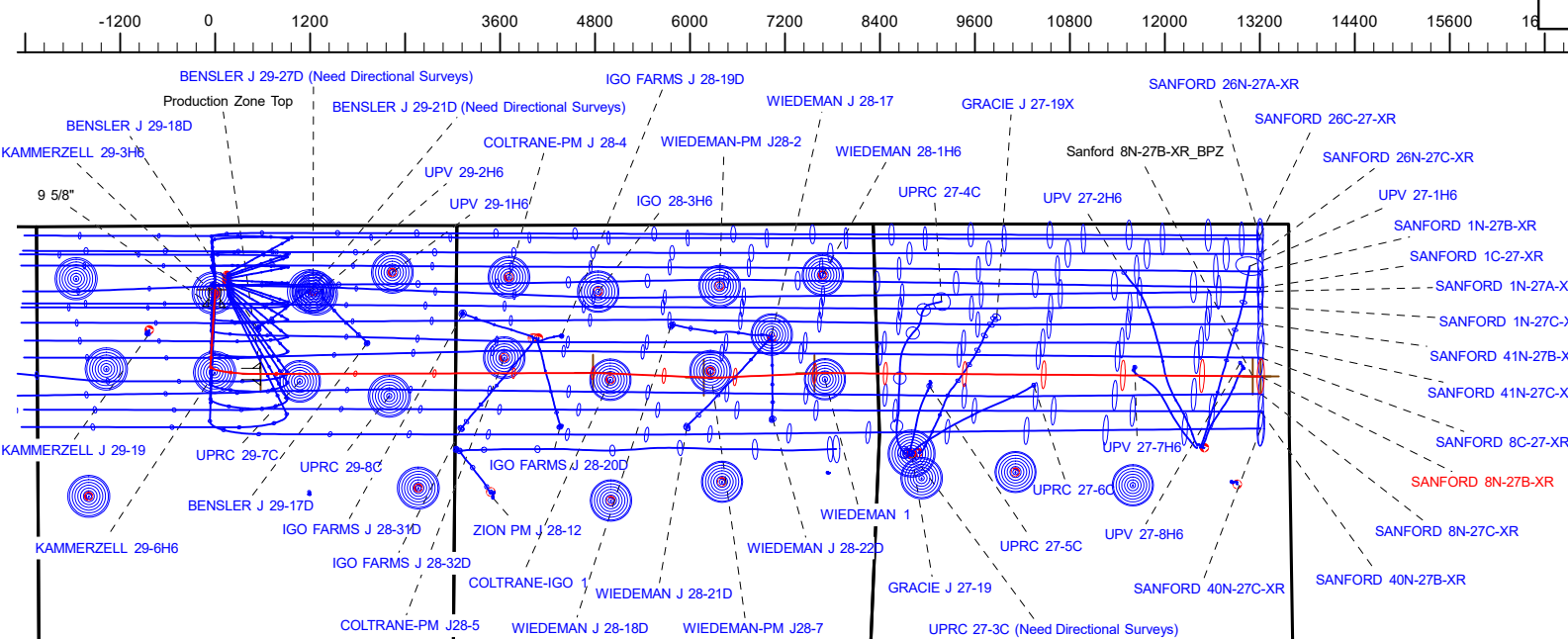
SHL
811' FNL
2243' FWL

LP
1877' FNL
2464' FEL
40.372608° Lat
-104.802851° Long

BPZ
1924' FNL
460' FEL

BHL
1924' FNL
360' FEL

West(-)/East(+) (2400 usft/in)



Hewlett-Packard

Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well SANFORD 8N-27B-XR
Company:	SRC ENERGY	TVD Reference:	RKB = 4' @ 4909.00usft (RIG)
Project:	WELD COUNTY (NAD83, TRUE NORTH)	MD Reference:	RKB = 4' @ 4909.00usft (RIG)
Site:	5N-66W-29 SANFORD 21-29 PAD	North Reference:	True
Well:	SANFORD 8N-27B-XR	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Project	WELD COUNTY (NAD83, TRUE NORTH)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site	5N-66W-29 SANFORD 21-29 PAD			
Site Position:		Northing:	1,380,603.61 usft	Latitude: 40.376075
From:	Lat/Long	Easting:	3,193,654.99 usft	Longitude: -104.804914
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence: 0.45 °

Well	SANFORD 8N-27B-XR			
Well Position	+N/-S	-200.01 usft	Northing:	1,380,403.61 usft
	+E/-W	1.39 usft	Easting:	3,193,657.95 usft
Position Uncertainty		3.28 usft	Wellhead Elevation:	Latitude: 40.375526
				Longitude: -104.804909
				Ground Level: 4,905.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	10/20/2018	8.09	66.79	52,221.72719133

Design	Design #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	94.73

Plan Survey Tool Program	Date	10/25/2018		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	1,800.00	Design #1 (Wellbore #1)	SRC Energy_ISCWSA REV 2
				Fixed:v2:crustal field declinatio
2	1,800.00	20,242.44	Design #1 (Wellbore #1)	SRC Energy_ISCWSA REV 2
				Fixed:v2:Rockies, crustal dec +

Hewlett-Packard

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Wellbore:	Wellbore #1		
Design:	Design #1		

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	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	
650.50	9.01	183.65	648.65	-35.28	-2.25	2.00	2.00	0.00	183.65	
6,598.83	9.01	183.65	6,523.58	-964.94	-61.55	0.00	0.00	0.00	0.00	
7,603.88	89.85	89.83	7,158.97	-1,063.34	573.73	9.00	8.04	-9.33	-93.79	
11,802.23	89.85	89.83	7,169.60	-1,050.98	4,772.05	0.00	0.00	0.00	0.00	Sanford 8N-27B-XR_1
11,933.62	89.85	92.46	7,169.93	-1,053.61	4,903.40	2.00	0.00	2.00	90.03	
13,203.44	89.85	92.46	7,173.17	-1,108.09	6,172.05	0.00	0.00	0.00	0.00	Sanford 8N-27B-XR_1
13,458.11	89.85	87.37	7,173.82	-1,107.70	6,426.64	2.00	0.00	-2.00	-90.00	
14,604.73	89.85	87.37	7,176.72	-1,055.00	7,572.04	0.00	0.00	0.00	0.00	Sanford 8N-27B-XR_1
14,758.21	89.85	90.44	7,177.11	-1,052.06	7,725.47	2.00	0.00	2.00	90.01	
20,242.44	89.85	90.44	7,191.00	-1,093.71	13,209.53	0.00	0.00	0.00	0.00	Sanford 8N-27B-XR_1

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Site:	5N-66W-29 SANFORD 21-29 PAD	North Reference:	True
Well:	SANFORD 8N-27B-XR	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
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)
0.00	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
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
Begin Nudge @ 200.00ft									
300.00	2.00	183.65	299.98	-1.74	-0.11	0.03	2.00	2.00	0.00
400.00	4.00	183.65	399.84	-6.96	-0.44	0.13	2.00	2.00	0.00
500.00	6.00	183.65	499.45	-15.66	-1.00	0.30	2.00	2.00	0.00
600.00	8.00	183.65	598.70	-27.82	-1.77	0.53	2.00	2.00	0.00
650.50	9.01	183.65	648.65	-35.28	-2.25	0.67	2.00	2.00	0.00
Hold Tangent @ 650.50ft									
700.00	9.01	183.65	697.53	-43.01	-2.74	0.81	0.00	0.00	0.00
800.00	9.01	183.65	796.30	-58.64	-3.74	1.11	0.00	0.00	0.00
900.00	9.01	183.65	895.07	-74.27	-4.74	1.41	0.00	0.00	0.00
1,000.00	9.01	183.65	993.83	-89.90	-5.73	1.70	0.00	0.00	0.00
1,100.00	9.01	183.65	1,092.60	-105.53	-6.73	2.00	0.00	0.00	0.00
1,200.00	9.01	183.65	1,191.37	-121.16	-7.73	2.29	0.00	0.00	0.00
1,300.00	9.01	183.65	1,290.13	-136.79	-8.73	2.59	0.00	0.00	0.00
1,400.00	9.01	183.65	1,388.90	-152.42	-9.72	2.89	0.00	0.00	0.00
1,500.00	9.01	183.65	1,487.66	-168.04	-10.72	3.18	0.00	0.00	0.00
1,600.00	9.01	183.65	1,586.43	-183.67	-11.72	3.48	0.00	0.00	0.00
1,700.00	9.01	183.65	1,685.20	-199.30	-12.71	3.77	0.00	0.00	0.00
1,800.00	9.01	183.65	1,783.96	-214.93	-13.71	4.07	0.00	0.00	0.00
1,816.24	9.01	183.65	1,800.00	-217.47	-13.87	4.12	0.00	0.00	0.00
9 5/8"									
1,900.00	9.01	183.65	1,882.73	-230.56	-14.71	4.37	0.00	0.00	0.00
2,000.00	9.01	183.65	1,981.49	-246.19	-15.70	4.66	0.00	0.00	0.00
2,100.00	9.01	183.65	2,080.26	-261.82	-16.70	4.96	0.00	0.00	0.00
2,200.00	9.01	183.65	2,179.03	-277.45	-17.70	5.25	0.00	0.00	0.00
2,300.00	9.01	183.65	2,277.79	-293.08	-18.70	5.55	0.00	0.00	0.00
2,400.00	9.01	183.65	2,376.56	-308.70	-19.69	5.85	0.00	0.00	0.00
2,500.00	9.01	183.65	2,475.32	-324.33	-20.69	6.14	0.00	0.00	0.00
2,600.00	9.01	183.65	2,574.09	-339.96	-21.69	6.44	0.00	0.00	0.00
2,700.00	9.01	183.65	2,672.86	-355.59	-22.68	6.73	0.00	0.00	0.00
2,800.00	9.01	183.65	2,771.62	-371.22	-23.68	7.03	0.00	0.00	0.00
2,900.00	9.01	183.65	2,870.39	-386.85	-24.68	7.33	0.00	0.00	0.00
3,000.00	9.01	183.65	2,969.16	-402.48	-25.67	7.62	0.00	0.00	0.00
3,100.00	9.01	183.65	3,067.92	-418.11	-26.67	7.92	0.00	0.00	0.00
3,200.00	9.01	183.65	3,166.69	-433.74	-27.67	8.21	0.00	0.00	0.00
3,300.00	9.01	183.65	3,265.45	-449.37	-28.67	8.51	0.00	0.00	0.00
3,400.00	9.01	183.65	3,364.22	-464.99	-29.66	8.81	0.00	0.00	0.00
3,500.00	9.01	183.65	3,462.99	-480.62	-30.66	9.10	0.00	0.00	0.00
3,600.00	9.01	183.65	3,561.75	-496.25	-31.66	9.40	0.00	0.00	0.00
3,700.00	9.01	183.65	3,660.52	-511.88	-32.65	9.69	0.00	0.00	0.00
3,800.00	9.01	183.65	3,759.28	-527.51	-33.65	9.99	0.00	0.00	0.00
3,900.00	9.01	183.65	3,858.05	-543.14	-34.65	10.29	0.00	0.00	0.00
4,000.00	9.01	183.65	3,956.82	-558.77	-35.64	10.58	0.00	0.00	0.00
4,100.00	9.01	183.65	4,055.58	-574.40	-36.64	10.88	0.00	0.00	0.00
4,200.00	9.01	183.65	4,154.35	-590.03	-37.64	11.17	0.00	0.00	0.00
4,300.00	9.01	183.65	4,253.11	-605.65	-38.64	11.47	0.00	0.00	0.00
4,400.00	9.01	183.65	4,351.88	-621.28	-39.63	11.77	0.00	0.00	0.00
4,500.00	9.01	183.65	4,450.65	-636.91	-40.63	12.06	0.00	0.00	0.00
4,600.00	9.01	183.65	4,549.41	-652.54	-41.63	12.36	0.00	0.00	0.00
4,700.00	9.01	183.65	4,648.18	-668.17	-42.62	12.65	0.00	0.00	0.00

Hewlett-Packard

Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well SANFORD 8N-27B-XR
Company:	SRC ENERGY	TVD Reference:	RKB = 4' @ 4909.00usft (RIG)
Project:	WELD COUNTY (NAD83, TRUE NORTH)	MD Reference:	RKB = 4' @ 4909.00usft (RIG)
Site:	5N-66W-29 SANFORD 21-29 PAD	North Reference:	True
Well:	SANFORD 8N-27B-XR	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
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)
4,800.00	9.01	183.65	4,746.95	-683.80	-43.62	12.95	0.00	0.00	0.00
4,900.00	9.01	183.65	4,845.71	-699.43	-44.62	13.25	0.00	0.00	0.00
5,000.00	9.01	183.65	4,944.48	-715.06	-45.61	13.54	0.00	0.00	0.00
5,100.00	9.01	183.65	5,043.24	-730.69	-46.61	13.84	0.00	0.00	0.00
5,200.00	9.01	183.65	5,142.01	-746.31	-47.61	14.13	0.00	0.00	0.00
5,300.00	9.01	183.65	5,240.78	-761.94	-48.61	14.43	0.00	0.00	0.00
5,400.00	9.01	183.65	5,339.54	-777.57	-49.60	14.73	0.00	0.00	0.00
5,500.00	9.01	183.65	5,438.31	-793.20	-50.60	15.02	0.00	0.00	0.00
5,600.00	9.01	183.65	5,537.07	-808.83	-51.60	15.32	0.00	0.00	0.00
5,700.00	9.01	183.65	5,635.84	-824.46	-52.59	15.61	0.00	0.00	0.00
5,800.00	9.01	183.65	5,734.61	-840.09	-53.59	15.91	0.00	0.00	0.00
5,900.00	9.01	183.65	5,833.37	-855.72	-54.59	16.21	0.00	0.00	0.00
6,000.00	9.01	183.65	5,932.14	-871.35	-55.58	16.50	0.00	0.00	0.00
6,100.00	9.01	183.65	6,030.90	-886.97	-56.58	16.80	0.00	0.00	0.00
6,200.00	9.01	183.65	6,129.67	-902.60	-57.58	17.09	0.00	0.00	0.00
6,300.00	9.01	183.65	6,228.44	-918.23	-58.57	17.39	0.00	0.00	0.00
6,400.00	9.01	183.65	6,327.20	-933.86	-59.57	17.69	0.00	0.00	0.00
6,500.00	9.01	183.65	6,425.97	-949.49	-60.57	17.98	0.00	0.00	0.00
6,598.83	9.01	183.65	6,523.58	-964.94	-61.55	18.28	0.00	0.00	0.00
KOP @ 6598.83ft :: DLS = 9°/100'									
6,600.00	9.00	182.98	6,524.73	-965.12	-61.56	18.28	9.00	-0.54	-57.38
6,700.00	12.35	136.07	6,623.16	-980.67	-54.54	26.57	9.00	3.35	-46.91
6,800.00	19.61	116.17	6,719.30	-995.80	-32.01	50.27	9.00	7.26	-19.90
6,900.00	27.88	107.21	6,810.79	-1,010.15	5.47	88.80	9.00	8.27	-8.96
7,000.00	36.48	102.16	6,895.36	-1,023.36	56.97	141.22	9.00	8.60	-5.04
7,100.00	45.22	98.84	6,970.94	-1,035.10	121.23	206.22	9.00	8.74	-3.32
7,200.00	54.02	96.40	7,035.67	-1,045.09	196.66	282.22	9.00	8.81	-2.44
7,300.00	62.87	94.46	7,087.95	-1,053.08	281.41	367.34	9.00	8.85	-1.95
7,400.00	71.74	92.80	7,126.50	-1,058.87	373.39	459.49	9.00	8.87	-1.66
7,500.00	80.62	91.31	7,150.36	-1,062.32	470.33	556.38	9.00	8.88	-1.50
7,600.00	89.51	89.89	7,158.95	-1,063.35	569.85	655.65	9.00	8.89	-1.42
7,603.88	89.85	89.83	7,158.97	-1,063.34	573.73	659.52	9.00	8.89	-1.41
End Build @ 7603.88ft - Production Zone Top									
7,700.00	89.85	89.83	7,159.22	-1,063.05	669.85	755.28	0.00	0.00	0.00
7,800.00	89.85	89.83	7,159.47	-1,062.76	769.85	854.92	0.00	0.00	0.00
7,900.00	89.85	89.83	7,159.72	-1,062.47	869.85	954.55	0.00	0.00	0.00
8,000.00	89.85	89.83	7,159.98	-1,062.17	969.85	1,054.19	0.00	0.00	0.00
8,100.00	89.85	89.83	7,160.23	-1,061.88	1,069.85	1,153.82	0.00	0.00	0.00
8,200.00	89.85	89.83	7,160.48	-1,061.58	1,169.85	1,253.45	0.00	0.00	0.00
8,300.00	89.85	89.83	7,160.74	-1,061.29	1,269.85	1,353.09	0.00	0.00	0.00
8,400.00	89.85	89.83	7,160.99	-1,060.99	1,369.85	1,452.72	0.00	0.00	0.00
8,500.00	89.85	89.83	7,161.24	-1,060.70	1,469.85	1,552.36	0.00	0.00	0.00
8,600.00	89.85	89.83	7,161.50	-1,060.40	1,569.85	1,651.99	0.00	0.00	0.00
8,700.00	89.85	89.83	7,161.75	-1,060.11	1,669.85	1,751.62	0.00	0.00	0.00
8,800.00	89.85	89.83	7,162.00	-1,059.82	1,769.84	1,851.26	0.00	0.00	0.00
8,900.00	89.85	89.83	7,162.25	-1,059.52	1,869.84	1,950.89	0.00	0.00	0.00
9,000.00	89.85	89.83	7,162.51	-1,059.23	1,969.84	2,050.53	0.00	0.00	0.00
9,100.00	89.85	89.83	7,162.76	-1,058.93	2,069.84	2,150.16	0.00	0.00	0.00
9,200.00	89.85	89.83	7,163.01	-1,058.64	2,169.84	2,249.79	0.00	0.00	0.00
9,300.00	89.85	89.83	7,163.27	-1,058.34	2,269.84	2,349.43	0.00	0.00	0.00
9,400.00	89.85	89.83	7,163.52	-1,058.05	2,369.84	2,449.06	0.00	0.00	0.00
9,500.00	89.85	89.83	7,163.77	-1,057.76	2,469.84	2,548.70	0.00	0.00	0.00
9,600.00	89.85	89.83	7,164.03	-1,057.46	2,569.84	2,648.33	0.00	0.00	0.00
9,700.00	89.85	89.83	7,164.28	-1,057.17	2,669.84	2,747.96	0.00	0.00	0.00

Hewlett-Packard

Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well SANFORD 8N-27B-XR
Company:	SRC ENERGY	TVD Reference:	RKB = 4' @ 4909.00usft (RIG)
Project:	WELD COUNTY (NAD83, TRUE NORTH)	MD Reference:	RKB = 4' @ 4909.00usft (RIG)
Site:	5N-66W-29 SANFORD 21-29 PAD	North Reference:	True
Well:	SANFORD 8N-27B-XR	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
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)	
9,800.00	89.85	89.83	7,164.53	-1,056.87	2,769.84	2,847.60	0.00	0.00	0.00	
9,900.00	89.85	89.83	7,164.79	-1,056.58	2,869.84	2,947.23	0.00	0.00	0.00	
10,000.00	89.85	89.83	7,165.04	-1,056.28	2,969.84	3,046.87	0.00	0.00	0.00	
10,100.00	89.85	89.83	7,165.29	-1,055.99	3,069.83	3,146.50	0.00	0.00	0.00	
10,200.00	89.85	89.83	7,165.54	-1,055.70	3,169.83	3,246.13	0.00	0.00	0.00	
10,300.00	89.85	89.83	7,165.80	-1,055.40	3,269.83	3,345.77	0.00	0.00	0.00	
10,400.00	89.85	89.83	7,166.05	-1,055.11	3,369.83	3,445.40	0.00	0.00	0.00	
10,500.00	89.85	89.83	7,166.30	-1,054.81	3,469.83	3,545.04	0.00	0.00	0.00	
10,600.00	89.85	89.83	7,166.56	-1,054.52	3,569.83	3,644.67	0.00	0.00	0.00	
10,700.00	89.85	89.83	7,166.81	-1,054.22	3,669.83	3,744.30	0.00	0.00	0.00	
10,800.00	89.85	89.83	7,167.06	-1,053.93	3,769.83	3,843.94	0.00	0.00	0.00	
10,900.00	89.85	89.83	7,167.32	-1,053.64	3,869.83	3,943.57	0.00	0.00	0.00	
11,000.00	89.85	89.83	7,167.57	-1,053.34	3,969.83	4,043.21	0.00	0.00	0.00	
11,100.00	89.85	89.83	7,167.82	-1,053.05	4,069.83	4,142.84	0.00	0.00	0.00	
11,200.00	89.85	89.83	7,168.08	-1,052.75	4,169.83	4,242.47	0.00	0.00	0.00	
11,300.00	89.85	89.83	7,168.33	-1,052.46	4,269.83	4,342.11	0.00	0.00	0.00	
11,400.00	89.85	89.83	7,168.58	-1,052.16	4,369.82	4,441.74	0.00	0.00	0.00	
11,500.00	89.85	89.83	7,168.84	-1,051.87	4,469.82	4,541.37	0.00	0.00	0.00	
11,600.00	89.85	89.83	7,169.09	-1,051.58	4,569.82	4,641.01	0.00	0.00	0.00	
11,700.00	89.85	89.83	7,169.34	-1,051.28	4,669.82	4,740.64	0.00	0.00	0.00	
11,800.00	89.85	89.83	7,169.59	-1,050.99	4,769.82	4,840.28	0.00	0.00	0.00	
11,802.23	89.85	89.83	7,169.60	-1,050.98	4,772.05	4,842.50	0.00	0.00	0.00	
Begin 1st Turn for AC @ 11802.23ft										
11,900.00	89.85	91.79	7,169.85	-1,052.36	4,869.81	4,940.03	2.00	0.00	2.00	
11,933.62	89.85	92.46	7,169.93	-1,053.61	4,903.40	4,973.62	2.00	0.00	2.00	
End Turn @ 11933.62ft										
12,000.00	89.85	92.46	7,170.10	-1,056.45	4,969.72	5,039.95	0.00	0.00	0.00	
12,100.00	89.85	92.46	7,170.36	-1,060.74	5,069.63	5,139.87	0.00	0.00	0.00	
12,200.00	89.85	92.46	7,170.61	-1,065.04	5,169.54	5,239.79	0.00	0.00	0.00	
12,300.00	89.85	92.46	7,170.87	-1,069.33	5,269.45	5,339.71	0.00	0.00	0.00	
12,400.00	89.85	92.46	7,171.12	-1,073.62	5,369.35	5,439.63	0.00	0.00	0.00	
12,500.00	89.85	92.46	7,171.38	-1,077.91	5,469.26	5,539.55	0.00	0.00	0.00	
12,600.00	89.85	92.46	7,171.63	-1,082.20	5,569.17	5,639.47	0.00	0.00	0.00	
12,700.00	89.85	92.46	7,171.89	-1,086.49	5,669.08	5,739.39	0.00	0.00	0.00	
12,800.00	89.85	92.46	7,172.14	-1,090.78	5,768.98	5,839.31	0.00	0.00	0.00	
12,900.00	89.85	92.46	7,172.40	-1,095.07	5,868.89	5,939.24	0.00	0.00	0.00	
13,000.00	89.85	92.46	7,172.65	-1,099.36	5,968.80	6,039.16	0.00	0.00	0.00	
13,100.00	89.85	92.46	7,172.91	-1,103.65	6,068.71	6,139.08	0.00	0.00	0.00	
13,200.00	89.85	92.46	7,173.16	-1,107.94	6,168.61	6,239.00	0.00	0.00	0.00	
13,203.44	89.85	92.46	7,173.17	-1,108.09	6,172.05	6,242.44	0.00	0.00	0.00	
Begin 2nd Turn for AC @ 13203.44ft										
13,300.00	89.85	90.53	7,173.42	-1,110.61	6,268.57	6,338.84	2.00	0.00	-2.00	
13,400.00	89.85	88.53	7,173.67	-1,109.78	6,368.56	6,438.42	2.00	0.00	-2.00	
13,458.11	89.85	87.37	7,173.82	-1,107.70	6,426.64	6,496.12	2.00	0.00	-2.00	
End Turn @ 13458.11ft										
13,500.00	89.85	87.37	7,173.92	-1,105.78	6,468.48	6,537.66	0.00	0.00	0.00	
13,600.00	89.85	87.37	7,174.18	-1,101.18	6,568.37	6,636.84	0.00	0.00	0.00	
13,700.00	89.85	87.37	7,174.43	-1,096.58	6,668.27	6,736.01	0.00	0.00	0.00	
13,800.00	89.85	87.37	7,174.68	-1,091.99	6,768.16	6,835.19	0.00	0.00	0.00	
13,900.00	89.85	87.37	7,174.94	-1,087.39	6,868.06	6,934.36	0.00	0.00	0.00	
14,000.00	89.85	87.37	7,175.19	-1,082.79	6,967.95	7,033.53	0.00	0.00	0.00	
14,100.00	89.85	87.37	7,175.44	-1,078.20	7,067.84	7,132.71	0.00	0.00	0.00	
14,200.00	89.85	87.37	7,175.70	-1,073.60	7,167.74	7,231.88	0.00	0.00	0.00	

Hewlett-Packard

Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well SANFORD 8N-27B-XR
Company:	SRC ENERGY	TVD Reference:	RKB = 4' @ 4909.00usft (RIG)
Project:	WELD COUNTY (NAD83, TRUE NORTH)	MD Reference:	RKB = 4' @ 4909.00usft (RIG)
Site:	5N-66W-29 SANFORD 21-29 PAD	North Reference:	True
Well:	SANFORD 8N-27B-XR	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
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)	
14,300.00	89.85	87.37	7,175.95	-1,069.01	7,267.63	7,331.06	0.00	0.00	0.00	
14,400.00	89.85	87.37	7,176.20	-1,064.41	7,367.53	7,430.23	0.00	0.00	0.00	
14,500.00	89.85	87.37	7,176.46	-1,059.81	7,467.42	7,529.41	0.00	0.00	0.00	
14,600.00	89.85	87.37	7,176.71	-1,055.22	7,567.31	7,628.58	0.00	0.00	0.00	
14,604.73	89.85	87.37	7,176.72	-1,055.00	7,572.04	7,633.27	0.00	0.00	0.00	
Begin Turn to BHL @ 14604.73ft										
14,700.00	89.85	89.27	7,176.96	-1,052.20	7,667.26	7,727.94	2.00	0.00	2.00	
14,758.21	89.85	90.44	7,177.11	-1,052.06	7,725.47	7,785.94	2.00	0.00	2.00	
End Turn @ 14758.21ft										
14,800.00	89.85	90.44	7,177.21	-1,052.37	7,767.26	7,827.61	0.00	0.00	0.00	
14,900.00	89.85	90.44	7,177.47	-1,053.13	7,867.26	7,927.33	0.00	0.00	0.00	
15,000.00	89.85	90.44	7,177.72	-1,053.89	7,967.26	8,027.05	0.00	0.00	0.00	
15,100.00	89.85	90.44	7,177.97	-1,054.65	8,067.25	8,126.76	0.00	0.00	0.00	
15,200.00	89.85	90.44	7,178.23	-1,055.41	8,167.25	8,226.48	0.00	0.00	0.00	
15,300.00	89.85	90.44	7,178.48	-1,056.17	8,267.25	8,326.20	0.00	0.00	0.00	
15,400.00	89.85	90.44	7,178.73	-1,056.93	8,367.24	8,425.92	0.00	0.00	0.00	
15,500.00	89.85	90.44	7,178.99	-1,057.69	8,467.24	8,525.64	0.00	0.00	0.00	
15,600.00	89.85	90.44	7,179.24	-1,058.45	8,567.24	8,625.36	0.00	0.00	0.00	
15,700.00	89.85	90.44	7,179.49	-1,059.21	8,667.23	8,725.08	0.00	0.00	0.00	
15,800.00	89.85	90.44	7,179.75	-1,059.97	8,767.23	8,824.79	0.00	0.00	0.00	
15,900.00	89.85	90.44	7,180.00	-1,060.73	8,867.23	8,924.51	0.00	0.00	0.00	
16,000.00	89.85	90.44	7,180.25	-1,061.49	8,967.22	9,024.23	0.00	0.00	0.00	
16,100.00	89.85	90.44	7,180.51	-1,062.25	9,067.22	9,123.95	0.00	0.00	0.00	
16,200.00	89.85	90.44	7,180.76	-1,063.01	9,167.22	9,223.67	0.00	0.00	0.00	
16,300.00	89.85	90.44	7,181.01	-1,063.77	9,267.21	9,323.39	0.00	0.00	0.00	
16,400.00	89.85	90.44	7,181.27	-1,064.53	9,367.21	9,423.11	0.00	0.00	0.00	
16,500.00	89.85	90.44	7,181.52	-1,065.29	9,467.21	9,522.82	0.00	0.00	0.00	
16,600.00	89.85	90.44	7,181.77	-1,066.05	9,567.20	9,622.54	0.00	0.00	0.00	
16,700.00	89.85	90.44	7,182.03	-1,066.80	9,667.20	9,722.26	0.00	0.00	0.00	
16,800.00	89.85	90.44	7,182.28	-1,067.56	9,767.20	9,821.98	0.00	0.00	0.00	
16,900.00	89.85	90.44	7,182.53	-1,068.32	9,867.19	9,921.70	0.00	0.00	0.00	
17,000.00	89.85	90.44	7,182.79	-1,069.08	9,967.19	10,021.42	0.00	0.00	0.00	
17,100.00	89.85	90.44	7,183.04	-1,069.84	10,067.19	10,121.13	0.00	0.00	0.00	
17,200.00	89.85	90.44	7,183.29	-1,070.60	10,167.18	10,220.85	0.00	0.00	0.00	
17,300.00	89.85	90.44	7,183.55	-1,071.36	10,267.18	10,320.57	0.00	0.00	0.00	
17,400.00	89.85	90.44	7,183.80	-1,072.12	10,367.18	10,420.29	0.00	0.00	0.00	
17,500.00	89.85	90.44	7,184.05	-1,072.88	10,467.17	10,520.01	0.00	0.00	0.00	
17,600.00	89.85	90.44	7,184.31	-1,073.64	10,567.17	10,619.73	0.00	0.00	0.00	
17,700.00	89.85	90.44	7,184.56	-1,074.40	10,667.17	10,719.45	0.00	0.00	0.00	
17,800.00	89.85	90.44	7,184.81	-1,075.16	10,767.17	10,819.16	0.00	0.00	0.00	
17,900.00	89.85	90.44	7,185.07	-1,075.92	10,867.16	10,918.88	0.00	0.00	0.00	
18,000.00	89.85	90.44	7,185.32	-1,076.68	10,967.16	11,018.60	0.00	0.00	0.00	
18,100.00	89.85	90.44	7,185.57	-1,077.44	11,067.16	11,118.32	0.00	0.00	0.00	
18,200.00	89.85	90.44	7,185.83	-1,078.20	11,167.15	11,218.04	0.00	0.00	0.00	
18,300.00	89.85	90.44	7,186.08	-1,078.96	11,267.15	11,317.76	0.00	0.00	0.00	
18,400.00	89.85	90.44	7,186.33	-1,079.72	11,367.15	11,417.47	0.00	0.00	0.00	
18,500.00	89.85	90.44	7,186.59	-1,080.48	11,467.14	11,517.19	0.00	0.00	0.00	
18,600.00	89.85	90.44	7,186.84	-1,081.24	11,567.14	11,616.91	0.00	0.00	0.00	
18,700.00	89.85	90.44	7,187.09	-1,082.00	11,667.14	11,716.63	0.00	0.00	0.00	
18,800.00	89.85	90.44	7,187.35	-1,082.76	11,767.13	11,816.35	0.00	0.00	0.00	
18,900.00	89.85	90.44	7,187.60	-1,083.52	11,867.13	11,916.07	0.00	0.00	0.00	
19,000.00	89.85	90.44	7,187.85	-1,084.28	11,967.13	12,015.79	0.00	0.00	0.00	
19,100.00	89.85	90.44	7,188.11	-1,085.03	12,067.12	12,115.50	0.00	0.00	0.00	
19,200.00	89.85	90.44	7,188.36	-1,085.79	12,167.12	12,215.22	0.00	0.00	0.00	

Hewlett-Packard

Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well SANFORD 8N-27B-XR
Company:	SRC ENERGY	TVD Reference:	RKB = 4' @ 4909.00usft (RIG)
Project:	WELD COUNTY (NAD83, TRUE NORTH)	MD Reference:	RKB = 4' @ 4909.00usft (RIG)
Site:	5N-66W-29 SANFORD 21-29 PAD	North Reference:	True
Well:	SANFORD 8N-27B-XR	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
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)	
19,300.00	89.85	90.44	7,188.61	-1,086.55	12,267.12	12,314.94	0.00	0.00	0.00	
19,400.00	89.85	90.44	7,188.87	-1,087.31	12,367.11	12,414.66	0.00	0.00	0.00	
19,500.00	89.85	90.44	7,189.12	-1,088.07	12,467.11	12,514.38	0.00	0.00	0.00	
19,600.00	89.85	90.44	7,189.37	-1,088.83	12,567.11	12,614.10	0.00	0.00	0.00	
19,700.00	89.85	90.44	7,189.63	-1,089.59	12,667.10	12,713.81	0.00	0.00	0.00	
19,800.00	89.85	90.44	7,189.88	-1,090.35	12,767.10	12,813.53	0.00	0.00	0.00	
19,900.00	89.85	90.44	7,190.13	-1,091.11	12,867.10	12,913.25	0.00	0.00	0.00	
20,000.00	89.85	90.44	7,190.39	-1,091.87	12,967.09	13,012.97	0.00	0.00	0.00	
20,100.00	89.85	90.44	7,190.64	-1,092.63	13,067.09	13,112.69	0.00	0.00	0.00	
20,200.00	89.85	90.44	7,190.89	-1,093.39	13,167.09	13,212.41	0.00	0.00	0.00	
20,242.44	89.85	90.44	7,191.00	-1,093.71	13,209.53	13,254.73	0.00	0.00	0.00	
TD Well @ 20242.44ft										

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
1,816.24	1,800.00	9 5/8"	9-5/8	13-1/2	
7,603.88	7,158.97	Production Zone Top	5-1/2	8-1/2	

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
200.00	200.00	0.00	0.00	Begin Nudge @ 200.00ft	
650.50	648.65	-35.28	-2.25	Hold Tangent @ 650.50ft	
6,598.83	6,523.58	-964.94	-61.55	KOP @ 6598.83ft :: DLS = 9°/100'	
7,603.88	7,158.97	-1,063.34	573.73	End Build @ 7603.88ft	
11,802.23	7,169.60	-1,050.98	4,772.05	Begin 1st Turn for AC @ 11802.23ft	
11,933.62	7,169.93	-1,053.61	4,903.40	End Turn @ 11933.62ft	
13,203.44	7,173.17	-1,108.09	6,172.05	Begin 2nd Turn for AC @ 13203.44ft	
13,458.11	7,173.82	-1,107.70	6,426.64	End Turn @ 13458.11ft	
14,604.73	7,176.72	-1,055.00	7,572.04	Begin Turn to BHL @ 14604.73ft	
14,758.21	7,177.11	-1,052.06	7,725.47	End Turn @ 14758.21ft	
20,242.44	7,191.00	-1,093.71	13,209.53	TD Well @ 20242.44ft	