

# **EXTRACTION OIL & GAS**

**Weld County  
Sec 21-T5N-R65W  
AD-DAIRY C8-20-24**

**ORIGINAL WELLBORE**

**Plan: PROPOSAL #1**

## **Standard Planning Report**

**27 June, 2017**



Project: Weld County  
Site: Sec 21-T5N-R65W  
Well: AD-DAIRY C8-20-24  
Wellbore: ORIGINAL WELLBORE  
Design: PROPOSAL #1



Azimuths to True North  
Magnetic North: 8.28°  
Magnetic Field  
Strength: 52516.1nT  
Dip Angle: 66.88°  
Date: 5/22/2016  
Model: IGRF2015

#### WELL DETAILS: AD-DAIRY C8-20-24

+N/-S	+E/-W	Northing	Ground Level:	4639.0	Easting	Latitude	104° 22' 57.108 N	Longitude	104° 40' 35.364 W	Slot
0.0	0.0	1383261.39	3229411.87							

#### ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSect	Departure	Annotation
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.0	BUILD 2°/100'
921.9	12.44	190.68	917.0	-66.1	-12.5	18.8	67.2	HOLD 12.44° INC
6824.4	12.44	190.68	6681.0	-1315.4	-248.0	374.3	1338.6	KOP, BUILD 10°/100'
7703.0	90.00	270.68	7220.0	-1425.7	-821.9	956.2	1972.4	LP @ 90° INC, 270.68° AZM HOLD
20020.6	90.00	270.68	7220.0	-1280.0	-13138.6	13200.8	14290.0	TD at 20020.6' MD

#### SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	300.0	0.00	0.00	300.0	0.0	0.0	0.00	0.00	0.0	
3	921.9	12.44	190.68	917.0	-66.1	-12.5	2.00	190.68	18.8	
4	6824.4	12.44	190.68	6681.0	-1315.4	-248.0	0.00	0.00	374.3	
5	7703.0	90.00	270.68	7220.0	-1425.7	-821.9	10.00	80.23	956.2	HZ LANDING PNT -
6	20020.6	90.00	270.68	7220.0	-1280.0	-13138.6	0.00	0.00	13200.8	BHL - AD-DAIRY C8

#### DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
BHL - AD-DAIRY C8-20-24	7220.0	-1280.0	-13138.6	1381859.43	3216285.70	40° 22' 44.424 N	104° 43' 25.140 W	Point
- plan hits target center								

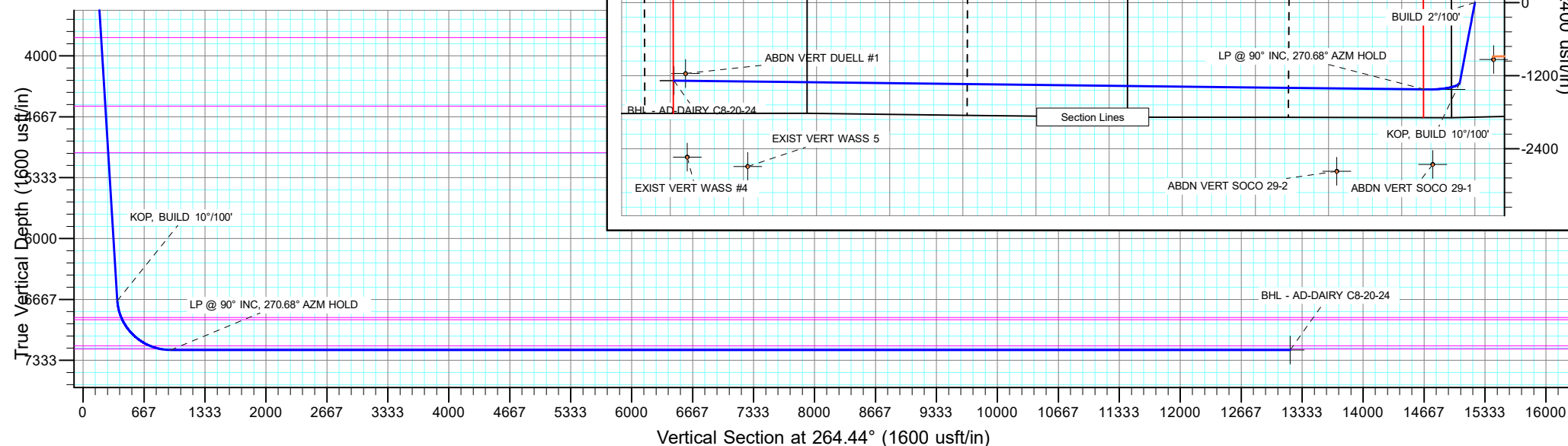
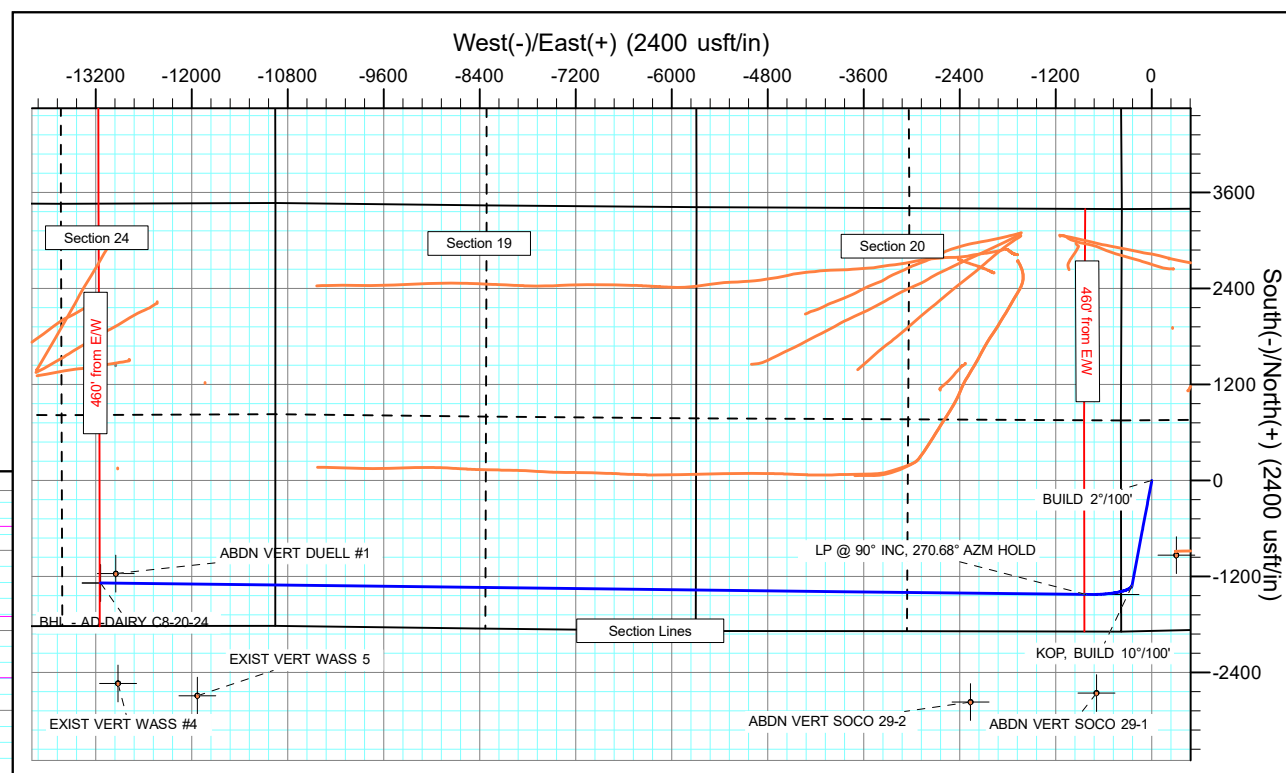
#### FORMATION TOP DETAILS

TVDPATH	MDPATH	FORMATION
3800.0	3874.2	PARKMAN
4550.0	4642.2	SUSSEX
5060.0	5164.5	SHANNON
6865.0	7017.7	SHARON SPRINGS
6890.0	7045.5	NIOBRARA
7175.0	7471.7	FORT HAYS
7210.0	7594.6	CODELL

#### PROJECT DETAILS: Weld County

Geodetic System: US State Plane 1983  
Datum: North American Datum 1983  
Ellipsoid: GRS 1980  
Zone: Colorado Northern Zone  
System Datum: Mean Sea Level

SHL:  
367' FWL, 1876' FSL  
Sec 21-T5N-R65W  
LP:  
465' FSL, 460' FEL  
Sec 20-T5N-R65W  
BHL:  
540' FSL, 2204' FEL  
Sec 24-T5N-R66W



## Planning Report

<b>Database:</b>	EDT_32Bit_ODBC	<b>Local Co-ordinate Reference:</b>	Well AD-DAIRY C8-20-24
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB-EST @ 4655.0usft (Original Well Elev)
<b>Project:</b>	Weld County	<b>MD Reference:</b>	KB-EST @ 4655.0usft (Original Well Elev)
<b>Site:</b>	Sec 21-T5N-R65W	<b>North Reference:</b>	True
<b>Well:</b>	AD-DAIRY C8-20-24	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	PROPOSAL #1		

Project	Weld County		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site		Sec 21-T5N-R65W			
Site Position:		Northing:	1,383,619.20 usft	Latitude:	40° 23' 0.636 N
From:	Lat/Long	Easting:	3,229,494.91 usft	Longitude:	104° 40' 34.248 W
Position Uncertainty:	0.0 usft	Slot Radius:	13.200 in	Grid Convergence:	0.53 °

Well	AD-DAIRY C8-20-24					
Well Position	+N/-S	-357.0 usft	Northing:	1,383,261.39 usft	Latitude:	40° 22' 57.108 N
	+E/-W	-86.4 usft	Easting:	3,229,411.87 usft	Longitude:	104° 40' 35.364 W
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	4,639.0 usft

Wellbore	ORIGINAL WELLBORE				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	5/22/2016	8.28	66.88	52,516.10448050

Design	PROPOSAL #1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	264.44

Plan Survey Tool Program			Date	6/27/2017	
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.0	20,020.5	PROPOSAL #1 (ORIGINAL WEL	MWD OWSG	
			OWSG MWD - Standard		

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
300.0	0.00	0.00	300.0	0.0	0.0	0.00	0.00	0.00	0.00	
921.9	12.44	190.68	917.0	-66.1	-12.5	2.00	2.00	0.00	190.68	
6,824.4	12.44	190.68	6,681.0	-1,315.4	-248.0	0.00	0.00	0.00	0.00	
7,703.0	90.00	270.68	7,220.0	-1,425.7	-821.9	10.00	8.83	9.11	80.23	HZ LANDING PNT - /
20,020.6	90.00	270.68	7,220.0	-1,280.0	-13,138.6	0.00	0.00	0.00	0.00	BHL - AD-DAIRY C8-

# Planning Report

<b>Database:</b>	EDT_32Bit_ODBC	<b>Local Co-ordinate Reference:</b>	Well AD-DAIRY C8-20-24
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB-EST @ 4655.0usft (Original Well Elev)
<b>Project:</b>	Weld County	<b>MD Reference:</b>	KB-EST @ 4655.0usft (Original Well Elev)
<b>Site:</b>	Sec 21-T5N-R65W	<b>North Reference:</b>	True
<b>Well:</b>	AD-DAIRY C8-20-24	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	PROPOSAL #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
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
<b>BUILD 2°/100'</b>									
400.0	2.00	190.68	400.0	-1.7	-0.3	0.5	2.00	2.00	0.00
500.0	4.00	190.68	499.8	-6.9	-1.3	2.0	2.00	2.00	0.00
600.0	6.00	190.68	599.5	-15.4	-2.9	4.4	2.00	2.00	0.00
700.0	8.00	190.68	698.7	-27.4	-5.2	7.8	2.00	2.00	0.00
800.0	10.00	190.68	797.5	-42.8	-8.1	12.2	2.00	2.00	0.00
900.0	12.00	190.68	895.6	-61.5	-11.6	17.5	2.00	2.00	0.00
921.9	12.44	190.68	917.0	-66.1	-12.5	18.8	2.00	2.00	0.00
<b>HOLD 12.44° INC</b>									
1,000.0	12.44	190.68	993.3	-82.6	-15.6	23.5	0.00	0.00	0.00
1,100.0	12.44	190.68	1,090.9	-103.8	-19.6	29.5	0.00	0.00	0.00
1,200.0	12.44	190.68	1,188.6	-124.9	-23.6	35.6	0.00	0.00	0.00
1,300.0	12.44	190.68	1,286.3	-146.1	-27.5	41.6	0.00	0.00	0.00
1,400.0	12.44	190.68	1,383.9	-167.3	-31.5	47.6	0.00	0.00	0.00
1,500.0	12.44	190.68	1,481.6	-188.4	-35.5	53.6	0.00	0.00	0.00
1,600.0	12.44	190.68	1,579.2	-209.6	-39.5	59.6	0.00	0.00	0.00
1,700.0	12.44	190.68	1,676.9	-230.8	-43.5	65.7	0.00	0.00	0.00
1,800.0	12.44	190.68	1,774.5	-251.9	-47.5	71.7	0.00	0.00	0.00
1,900.0	12.44	190.68	1,872.2	-273.1	-51.5	77.7	0.00	0.00	0.00
2,000.0	12.44	190.68	1,969.8	-294.3	-55.5	83.7	0.00	0.00	0.00
2,100.0	12.44	190.68	2,067.5	-315.4	-59.5	89.8	0.00	0.00	0.00
2,200.0	12.44	190.68	2,165.1	-336.6	-63.5	95.8	0.00	0.00	0.00
2,300.0	12.44	190.68	2,262.8	-357.8	-67.4	101.8	0.00	0.00	0.00
2,400.0	12.44	190.68	2,360.4	-378.9	-71.4	107.8	0.00	0.00	0.00
2,500.0	12.44	190.68	2,458.1	-400.1	-75.4	113.9	0.00	0.00	0.00
2,600.0	12.44	190.68	2,555.7	-421.3	-79.4	119.9	0.00	0.00	0.00
2,700.0	12.44	190.68	2,653.4	-442.4	-83.4	125.9	0.00	0.00	0.00
2,800.0	12.44	190.68	2,751.0	-463.6	-87.4	131.9	0.00	0.00	0.00
2,900.0	12.44	190.68	2,848.7	-484.8	-91.4	138.0	0.00	0.00	0.00
3,000.0	12.44	190.68	2,946.4	-505.9	-95.4	144.0	0.00	0.00	0.00
3,100.0	12.44	190.68	3,044.0	-527.1	-99.4	150.0	0.00	0.00	0.00
3,200.0	12.44	190.68	3,141.7	-548.3	-103.4	156.0	0.00	0.00	0.00
3,300.0	12.44	190.68	3,239.3	-569.4	-107.3	162.0	0.00	0.00	0.00
3,400.0	12.44	190.68	3,337.0	-590.6	-111.3	168.1	0.00	0.00	0.00
3,500.0	12.44	190.68	3,434.6	-611.8	-115.3	174.1	0.00	0.00	0.00
3,600.0	12.44	190.68	3,532.3	-632.9	-119.3	180.1	0.00	0.00	0.00
3,700.0	12.44	190.68	3,629.9	-654.1	-123.3	186.1	0.00	0.00	0.00
3,800.0	12.44	190.68	3,727.6	-675.3	-127.3	192.2	0.00	0.00	0.00
3,874.2	12.44	190.68	3,800.0	-691.0	-130.2	196.6	0.00	0.00	0.00
<b>PARKMAN</b>									
3,900.0	12.44	190.68	3,825.2	-696.4	-131.3	198.2	0.00	0.00	0.00
4,000.0	12.44	190.68	3,922.9	-717.6	-135.3	204.2	0.00	0.00	0.00
4,100.0	12.44	190.68	4,020.5	-738.8	-139.3	210.2	0.00	0.00	0.00
4,200.0	12.44	190.68	4,118.2	-759.9	-143.2	216.3	0.00	0.00	0.00
4,300.0	12.44	190.68	4,215.8	-781.1	-147.2	222.3	0.00	0.00	0.00
4,400.0	12.44	190.68	4,313.5	-802.2	-151.2	228.3	0.00	0.00	0.00
4,500.0	12.44	190.68	4,411.1	-823.4	-155.2	234.3	0.00	0.00	0.00
4,600.0	12.44	190.68	4,508.8	-844.6	-159.2	240.4	0.00	0.00	0.00
4,642.2	12.44	190.68	4,550.0	-853.5	-160.9	242.9	0.00	0.00	0.00

# Planning Report

<b>Database:</b>	EDT_32Bit_ODBC	<b>Local Co-ordinate Reference:</b>	Well AD-DAIRY C8-20-24
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB-EST @ 4655.0usft (Original Well Elev)
<b>Project:</b>	Weld County	<b>MD Reference:</b>	KB-EST @ 4655.0usft (Original Well Elev)
<b>Site:</b>	Sec 21-T5N-R65W	<b>North Reference:</b>	True
<b>Well:</b>	AD-DAIRY C8-20-24	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	PROPOSAL #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
<b>SUSSEX</b>									
4,700.0	12.44	190.68	4,606.4	-865.7	-163.2	246.4	0.00	0.00	0.00
4,800.0	12.44	190.68	4,704.1	-886.9	-167.2	252.4	0.00	0.00	0.00
4,900.0	12.44	190.68	4,801.8	-908.1	-171.2	258.4	0.00	0.00	0.00
5,000.0	12.44	190.68	4,899.4	-929.2	-175.2	264.4	0.00	0.00	0.00
5,100.0	12.44	190.68	4,997.1	-950.4	-179.2	270.5	0.00	0.00	0.00
5,164.5	12.44	190.68	5,060.0	-964.1	-181.7	274.4	0.00	0.00	0.00
<b>SHANNON</b>									
5,200.0	12.44	190.68	5,094.7	-971.6	-183.1	276.5	0.00	0.00	0.00
5,300.0	12.44	190.68	5,192.4	-992.7	-187.1	282.5	0.00	0.00	0.00
5,400.0	12.44	190.68	5,290.0	-1,013.9	-191.1	288.5	0.00	0.00	0.00
5,500.0	12.44	190.68	5,387.7	-1,035.1	-195.1	294.6	0.00	0.00	0.00
5,600.0	12.44	190.68	5,485.3	-1,056.2	-199.1	300.6	0.00	0.00	0.00
5,700.0	12.44	190.68	5,583.0	-1,077.4	-203.1	306.6	0.00	0.00	0.00
5,800.0	12.44	190.68	5,680.6	-1,098.6	-207.1	312.6	0.00	0.00	0.00
5,900.0	12.44	190.68	5,778.3	-1,119.7	-211.1	318.7	0.00	0.00	0.00
6,000.0	12.44	190.68	5,875.9	-1,140.9	-215.1	324.7	0.00	0.00	0.00
6,100.0	12.44	190.68	5,973.6	-1,162.1	-219.1	330.7	0.00	0.00	0.00
6,200.0	12.44	190.68	6,071.2	-1,183.2	-223.0	336.7	0.00	0.00	0.00
6,300.0	12.44	190.68	6,168.9	-1,204.4	-227.0	342.8	0.00	0.00	0.00
6,400.0	12.44	190.68	6,266.5	-1,225.6	-231.0	348.8	0.00	0.00	0.00
6,500.0	12.44	190.68	6,364.2	-1,246.7	-235.0	354.8	0.00	0.00	0.00
6,600.0	12.44	190.68	6,461.9	-1,267.9	-239.0	360.8	0.00	0.00	0.00
6,700.0	12.44	190.68	6,559.5	-1,289.1	-243.0	366.8	0.00	0.00	0.00
6,800.0	12.44	190.68	6,657.2	-1,310.2	-247.0	372.9	0.00	0.00	0.00
6,824.4	12.44	190.68	6,681.0	-1,315.4	-248.0	374.3	0.00	0.00	0.00
<b>KOP, BUILD 10°/100'</b>									
6,850.0	13.11	201.84	6,706.0	-1,320.8	-249.6	376.4	10.00	2.64	43.70
6,900.0	15.58	219.52	6,754.4	-1,331.3	-255.9	383.8	10.00	4.94	35.35
6,950.0	19.05	231.70	6,802.2	-1,341.5	-266.6	395.4	10.00	6.94	24.36
7,000.0	23.07	240.01	6,848.8	-1,351.5	-281.5	411.2	10.00	8.04	16.63
7,017.7	24.57	242.32	6,865.0	-1,354.9	-287.8	417.8	10.00	8.51	13.03
<b>SHARON SPRINGS</b>									
7,045.5	27.00	245.44	6,890.0	-1,360.2	-298.6	429.1	10.00	8.72	11.25
<b>NIOBRARA</b>									
7,050.0	27.40	245.90	6,894.0	-1,361.1	-300.5	431.1	10.00	8.86	10.16
7,100.0	31.91	250.26	6,937.5	-1,370.2	-323.5	454.8	10.00	9.03	8.72
7,150.0	36.54	253.63	6,978.8	-1,378.9	-350.2	482.3	10.00	9.26	6.74
7,200.0	41.25	256.33	7,017.7	-1,387.0	-380.5	513.2	10.00	9.41	5.40
7,250.0	46.00	258.57	7,053.9	-1,394.4	-414.2	547.5	10.00	9.51	4.47
7,300.0	50.80	260.47	7,087.1	-1,401.2	-451.0	584.7	10.00	9.59	3.80
7,350.0	55.62	262.13	7,117.0	-1,407.3	-490.5	624.7	10.00	9.64	3.32
7,400.0	60.46	263.61	7,143.5	-1,412.5	-532.6	667.1	10.00	9.68	2.95
7,450.0	65.31	264.95	7,166.3	-1,416.9	-576.9	711.5	10.00	9.71	2.68
7,471.7	67.43	265.50	7,175.0	-1,418.6	-596.7	731.5	10.00	9.73	2.53
<b>FORT HAYS</b>									
7,500.0	70.18	266.19	7,185.2	-1,420.5	-623.0	757.8	10.00	9.74	2.44
7,550.0	75.05	267.35	7,200.2	-1,423.2	-670.6	805.5	10.00	9.75	2.33
7,594.6	79.41	268.35	7,210.0	-1,424.8	-714.0	848.8	10.00	9.76	2.23
<b>CODELL</b>									
7,600.0	79.94	268.47	7,211.0	-1,425.0	-719.4	854.2	10.00	9.76	2.19
7,650.0	84.82	269.55	7,217.6	-1,425.8	-768.9	903.5	10.00	9.77	2.16
7,703.0	90.00	270.68	7,220.0	-1,425.7	-821.9	956.2	10.00	9.77	2.13

# Planning Report

<b>Database:</b>	EDT_32Bit_ODBC	<b>Local Co-ordinate Reference:</b>	Well AD-DAIRY C8-20-24
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB-EST @ 4655.0usft (Original Well Elev)
<b>Project:</b>	Weld County	<b>MD Reference:</b>	KB-EST @ 4655.0usft (Original Well Elev)
<b>Site:</b>	Sec 21-T5N-R65W	<b>North Reference:</b>	True
<b>Well:</b>	AD-DAIRY C8-20-24	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	PROPOSAL #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
LP @ 90° INC, 270.68° AZM HOLD									
7,800.0	90.00	270.68	7,220.0	-1,424.6	-918.8	1,052.6	0.00	0.00	0.00
7,900.0	90.00	270.68	7,220.0	-1,423.4	-1,018.8	1,152.0	0.00	0.00	0.00
8,000.0	90.00	270.68	7,220.0	-1,422.2	-1,118.8	1,251.5	0.00	0.00	0.00
8,100.0	90.00	270.68	7,220.0	-1,421.0	-1,218.8	1,350.9	0.00	0.00	0.00
8,200.0	90.00	270.68	7,220.0	-1,419.8	-1,318.8	1,450.3	0.00	0.00	0.00
8,300.0	90.00	270.68	7,220.0	-1,418.6	-1,418.8	1,549.7	0.00	0.00	0.00
8,400.0	90.00	270.68	7,220.0	-1,417.5	-1,518.8	1,649.1	0.00	0.00	0.00
8,500.0	90.00	270.68	7,220.0	-1,416.3	-1,618.8	1,748.5	0.00	0.00	0.00
8,600.0	90.00	270.68	7,220.0	-1,415.1	-1,718.8	1,847.9	0.00	0.00	0.00
8,700.0	90.00	270.68	7,220.0	-1,413.9	-1,818.8	1,947.3	0.00	0.00	0.00
8,800.0	90.00	270.68	7,220.0	-1,412.7	-1,918.8	2,046.7	0.00	0.00	0.00
8,900.0	90.00	270.68	7,220.0	-1,411.5	-2,018.8	2,146.1	0.00	0.00	0.00
9,000.0	90.00	270.68	7,220.0	-1,410.4	-2,118.8	2,245.5	0.00	0.00	0.00
9,100.0	90.00	270.68	7,220.0	-1,409.2	-2,218.7	2,344.9	0.00	0.00	0.00
9,200.0	90.00	270.68	7,220.0	-1,408.0	-2,318.7	2,444.3	0.00	0.00	0.00
9,300.0	90.00	270.68	7,220.0	-1,406.8	-2,418.7	2,543.7	0.00	0.00	0.00
9,400.0	90.00	270.68	7,220.0	-1,405.6	-2,518.7	2,643.2	0.00	0.00	0.00
9,500.0	90.00	270.68	7,220.0	-1,404.4	-2,618.7	2,742.6	0.00	0.00	0.00
9,600.0	90.00	270.68	7,220.0	-1,403.3	-2,718.7	2,842.0	0.00	0.00	0.00
9,700.0	90.00	270.68	7,220.0	-1,402.1	-2,818.7	2,941.4	0.00	0.00	0.00
9,800.0	90.00	270.68	7,220.0	-1,400.9	-2,918.7	3,040.8	0.00	0.00	0.00
9,900.0	90.00	270.68	7,220.0	-1,399.7	-3,018.7	3,140.2	0.00	0.00	0.00
10,000.0	90.00	270.68	7,220.0	-1,398.5	-3,118.7	3,239.6	0.00	0.00	0.00
10,100.0	90.00	270.68	7,220.0	-1,397.3	-3,218.7	3,339.0	0.00	0.00	0.00
10,200.0	90.00	270.68	7,220.0	-1,396.2	-3,318.7	3,438.4	0.00	0.00	0.00
10,300.0	90.00	270.68	7,220.0	-1,395.0	-3,418.7	3,537.8	0.00	0.00	0.00
10,400.0	90.00	270.68	7,220.0	-1,393.8	-3,518.7	3,637.2	0.00	0.00	0.00
10,500.0	90.00	270.68	7,220.0	-1,392.6	-3,618.6	3,736.6	0.00	0.00	0.00
10,600.0	90.00	270.68	7,220.0	-1,391.4	-3,718.6	3,836.0	0.00	0.00	0.00
10,700.0	90.00	270.68	7,220.0	-1,390.2	-3,818.6	3,935.4	0.00	0.00	0.00
10,800.0	90.00	270.68	7,220.0	-1,389.1	-3,918.6	4,034.9	0.00	0.00	0.00
10,900.0	90.00	270.68	7,220.0	-1,387.9	-4,018.6	4,134.3	0.00	0.00	0.00
11,000.0	90.00	270.68	7,220.0	-1,386.7	-4,118.6	4,233.7	0.00	0.00	0.00
11,100.0	90.00	270.68	7,220.0	-1,385.5	-4,218.6	4,333.1	0.00	0.00	0.00
11,200.0	90.00	270.68	7,220.0	-1,384.3	-4,318.6	4,432.5	0.00	0.00	0.00
11,300.0	90.00	270.68	7,220.0	-1,383.2	-4,418.6	4,531.9	0.00	0.00	0.00
11,400.0	90.00	270.68	7,220.0	-1,382.0	-4,518.6	4,631.3	0.00	0.00	0.00
11,500.0	90.00	270.68	7,220.0	-1,380.8	-4,618.6	4,730.7	0.00	0.00	0.00
11,600.0	90.00	270.68	7,220.0	-1,379.6	-4,718.6	4,830.1	0.00	0.00	0.00
11,700.0	90.00	270.68	7,220.0	-1,378.4	-4,818.6	4,929.5	0.00	0.00	0.00
11,800.0	90.00	270.68	7,220.0	-1,377.2	-4,918.6	5,028.9	0.00	0.00	0.00
11,900.0	90.00	270.68	7,220.0	-1,376.1	-5,018.6	5,128.3	0.00	0.00	0.00
12,000.0	90.00	270.68	7,220.0	-1,374.9	-5,118.5	5,227.7	0.00	0.00	0.00
12,100.0	90.00	270.68	7,220.0	-1,373.7	-5,218.5	5,327.1	0.00	0.00	0.00
12,200.0	90.00	270.68	7,220.0	-1,372.5	-5,318.5	5,426.6	0.00	0.00	0.00
12,300.0	90.00	270.68	7,220.0	-1,371.3	-5,418.5	5,526.0	0.00	0.00	0.00
12,400.0	90.00	270.68	7,220.0	-1,370.1	-5,518.5	5,625.4	0.00	0.00	0.00
12,500.0	90.00	270.68	7,220.0	-1,369.0	-5,618.5	5,724.8	0.00	0.00	0.00
12,600.0	90.00	270.68	7,220.0	-1,367.8	-5,718.5	5,824.2	0.00	0.00	0.00
12,700.0	90.00	270.68	7,220.0	-1,366.6	-5,818.5	5,923.6	0.00	0.00	0.00
12,800.0	90.00	270.68	7,220.0	-1,365.4	-5,918.5	6,023.0	0.00	0.00	0.00
12,900.0	90.00	270.68	7,220.0	-1,364.2	-6,018.5	6,122.4	0.00	0.00	0.00
13,000.0	90.00	270.68	7,220.0	-1,363.0	-6,118.5	6,221.8	0.00	0.00	0.00

# Planning Report

<b>Database:</b>	EDT_32Bit_ODBC	<b>Local Co-ordinate Reference:</b>	Well AD-DAIRY C8-20-24
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB-EST @ 4655.0usft (Original Well Elev)
<b>Project:</b>	Weld County	<b>MD Reference:</b>	KB-EST @ 4655.0usft (Original Well Elev)
<b>Site:</b>	Sec 21-T5N-R65W	<b>North Reference:</b>	True
<b>Well:</b>	AD-DAIRY C8-20-24	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	PROPOSAL #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
13,100.0	90.00	270.68	7,220.0	-1,361.9	-6,218.5	6,321.2	0.00	0.00	0.00
13,200.0	90.00	270.68	7,220.0	-1,360.7	-6,318.5	6,420.6	0.00	0.00	0.00
13,300.0	90.00	270.68	7,220.0	-1,359.5	-6,418.5	6,520.0	0.00	0.00	0.00
13,400.0	90.00	270.68	7,220.0	-1,358.3	-6,518.4	6,619.4	0.00	0.00	0.00
13,500.0	90.00	270.68	7,220.0	-1,357.1	-6,618.4	6,718.8	0.00	0.00	0.00
13,600.0	90.00	270.68	7,220.0	-1,355.9	-6,718.4	6,818.3	0.00	0.00	0.00
13,700.0	90.00	270.68	7,220.0	-1,354.8	-6,818.4	6,917.7	0.00	0.00	0.00
13,800.0	90.00	270.68	7,220.0	-1,353.6	-6,918.4	7,017.1	0.00	0.00	0.00
13,900.0	90.00	270.68	7,220.0	-1,352.4	-7,018.4	7,116.5	0.00	0.00	0.00
14,000.0	90.00	270.68	7,220.0	-1,351.2	-7,118.4	7,215.9	0.00	0.00	0.00
14,100.0	90.00	270.68	7,220.0	-1,350.0	-7,218.4	7,315.3	0.00	0.00	0.00
14,200.0	90.00	270.68	7,220.0	-1,348.8	-7,318.4	7,414.7	0.00	0.00	0.00
14,300.0	90.00	270.68	7,220.0	-1,347.7	-7,418.4	7,514.1	0.00	0.00	0.00
14,400.0	90.00	270.68	7,220.0	-1,346.5	-7,518.4	7,613.5	0.00	0.00	0.00
14,500.0	90.00	270.68	7,220.0	-1,345.3	-7,618.4	7,712.9	0.00	0.00	0.00
14,600.0	90.00	270.68	7,220.0	-1,344.1	-7,718.4	7,812.3	0.00	0.00	0.00
14,700.0	90.00	270.68	7,220.0	-1,342.9	-7,818.4	7,911.7	0.00	0.00	0.00
14,800.0	90.00	270.68	7,220.0	-1,341.8	-7,918.3	8,011.1	0.00	0.00	0.00
14,900.0	90.00	270.68	7,220.0	-1,340.6	-8,018.3	8,110.5	0.00	0.00	0.00
15,000.0	90.00	270.68	7,220.0	-1,339.4	-8,118.3	8,210.0	0.00	0.00	0.00
15,100.0	90.00	270.68	7,220.0	-1,338.2	-8,218.3	8,309.4	0.00	0.00	0.00
15,200.0	90.00	270.68	7,220.0	-1,337.0	-8,318.3	8,408.8	0.00	0.00	0.00
15,300.0	90.00	270.68	7,220.0	-1,335.8	-8,418.3	8,508.2	0.00	0.00	0.00
15,400.0	90.00	270.68	7,220.0	-1,334.7	-8,518.3	8,607.6	0.00	0.00	0.00
15,500.0	90.00	270.68	7,220.0	-1,333.5	-8,618.3	8,707.0	0.00	0.00	0.00
15,600.0	90.00	270.68	7,220.0	-1,332.3	-8,718.3	8,806.4	0.00	0.00	0.00
15,700.0	90.00	270.68	7,220.0	-1,331.1	-8,818.3	8,905.8	0.00	0.00	0.00
15,800.0	90.00	270.68	7,220.0	-1,329.9	-8,918.3	9,005.2	0.00	0.00	0.00
15,900.0	90.00	270.68	7,220.0	-1,328.7	-9,018.3	9,104.6	0.00	0.00	0.00
16,000.0	90.00	270.68	7,220.0	-1,327.6	-9,118.3	9,204.0	0.00	0.00	0.00
16,100.0	90.00	270.68	7,220.0	-1,326.4	-9,218.3	9,303.4	0.00	0.00	0.00
16,200.0	90.00	270.68	7,220.0	-1,325.2	-9,318.3	9,402.8	0.00	0.00	0.00
16,300.0	90.00	270.68	7,220.0	-1,324.0	-9,418.2	9,502.2	0.00	0.00	0.00
16,400.0	90.00	270.68	7,220.0	-1,322.8	-9,518.2	9,601.7	0.00	0.00	0.00
16,500.0	90.00	270.68	7,220.0	-1,321.6	-9,618.2	9,701.1	0.00	0.00	0.00
16,600.0	90.00	270.68	7,220.0	-1,320.5	-9,718.2	9,800.5	0.00	0.00	0.00
16,700.0	90.00	270.68	7,220.0	-1,319.3	-9,818.2	9,899.9	0.00	0.00	0.00
16,800.0	90.00	270.68	7,220.0	-1,318.1	-9,918.2	9,999.3	0.00	0.00	0.00
16,900.0	90.00	270.68	7,220.0	-1,316.9	-10,018.2	10,098.7	0.00	0.00	0.00
17,000.0	90.00	270.68	7,220.0	-1,315.7	-10,118.2	10,198.1	0.00	0.00	0.00
17,100.0	90.00	270.68	7,220.0	-1,314.5	-10,218.2	10,297.5	0.00	0.00	0.00
17,200.0	90.00	270.68	7,220.0	-1,313.4	-10,318.2	10,396.9	0.00	0.00	0.00
17,300.0	90.00	270.68	7,220.0	-1,312.2	-10,418.2	10,496.3	0.00	0.00	0.00
17,400.0	90.00	270.68	7,220.0	-1,311.0	-10,518.2	10,595.7	0.00	0.00	0.00
17,500.0	90.00	270.68	7,220.0	-1,309.8	-10,618.2	10,695.1	0.00	0.00	0.00
17,600.0	90.00	270.68	7,220.0	-1,308.6	-10,718.2	10,794.5	0.00	0.00	0.00
17,700.0	90.00	270.68	7,220.0	-1,307.4	-10,818.1	10,893.9	0.00	0.00	0.00
17,800.0	90.00	270.68	7,220.0	-1,306.3	-10,918.1	10,993.4	0.00	0.00	0.00
17,900.0	90.00	270.68	7,220.0	-1,305.1	-11,018.1	11,092.8	0.00	0.00	0.00
18,000.0	90.00	270.68	7,220.0	-1,303.9	-11,118.1	11,192.2	0.00	0.00	0.00
18,100.0	90.00	270.68	7,220.0	-1,302.7	-11,218.1	11,291.6	0.00	0.00	0.00
18,200.0	90.00	270.68	7,220.0	-1,301.5	-11,318.1	11,391.0	0.00	0.00	0.00
18,300.0	90.00	270.68	7,220.0	-1,300.4	-11,418.1	11,490.4	0.00	0.00	0.00
18,400.0	90.00	270.68	7,220.0	-1,299.2	-11,518.1	11,589.8	0.00	0.00	0.00

## Planning Report

<b>Database:</b>	EDT_32Bit_ODBC	<b>Local Co-ordinate Reference:</b>	Well AD-DAIRY C8-20-24
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB-EST @ 4655.0usft (Original Well Elev)
<b>Project:</b>	Weld County	<b>MD Reference:</b>	KB-EST @ 4655.0usft (Original Well Elev)
<b>Site:</b>	Sec 21-T5N-R65W	<b>North Reference:</b>	True
<b>Well:</b>	AD-DAIRY C8-20-24	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	PROPOSAL #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
18,500.0	90.00	270.68	7,220.0	-1,298.0	-11,618.1	11,689.2	0.00	0.00	0.00	
18,600.0	90.00	270.68	7,220.0	-1,296.8	-11,718.1	11,788.6	0.00	0.00	0.00	
18,700.0	90.00	270.68	7,220.0	-1,295.6	-11,818.1	11,888.0	0.00	0.00	0.00	
18,800.0	90.00	270.68	7,220.0	-1,294.4	-11,918.1	11,987.4	0.00	0.00	0.00	
18,900.0	90.00	270.68	7,220.0	-1,293.3	-12,018.1	12,086.8	0.00	0.00	0.00	
19,000.0	90.00	270.68	7,220.0	-1,292.1	-12,118.1	12,186.2	0.00	0.00	0.00	
19,100.0	90.00	270.68	7,220.0	-1,290.9	-12,218.0	12,285.6	0.00	0.00	0.00	
19,200.0	90.00	270.68	7,220.0	-1,289.7	-12,318.0	12,385.1	0.00	0.00	0.00	
19,300.0	90.00	270.68	7,220.0	-1,288.5	-12,418.0	12,484.5	0.00	0.00	0.00	
19,400.0	90.00	270.68	7,220.0	-1,287.3	-12,518.0	12,583.9	0.00	0.00	0.00	
19,500.0	90.00	270.68	7,220.0	-1,286.2	-12,618.0	12,683.3	0.00	0.00	0.00	
19,600.0	90.00	270.68	7,220.0	-1,285.0	-12,718.0	12,782.7	0.00	0.00	0.00	
19,700.0	90.00	270.68	7,220.0	-1,283.8	-12,818.0	12,882.1	0.00	0.00	0.00	
19,800.0	90.00	270.68	7,220.0	-1,282.6	-12,918.0	12,981.5	0.00	0.00	0.00	
19,900.0	90.00	270.68	7,220.0	-1,281.4	-13,018.0	13,080.9	0.00	0.00	0.00	
20,000.0	90.00	270.68	7,220.0	-1,280.2	-13,118.0	13,180.3	0.00	0.00	0.00	
20,020.6	90.00	270.68	7,220.0	-1,280.0	-13,138.6	13,200.8	0.00	0.00	0.00	
TD at 20020.6' MD										

Design 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										
BHL - AD-DAIRY C8-20-	0.00	0.00	7,220.0	-1,280.0	-13,138.6	1,381,859.43	3,216,285.70	40° 22' 44.424 N		104° 43' 25.140 W
- plan hits target center										
- Point										

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,874.2	3,800.0	PARKMAN				
4,642.2	4,550.0	SUSSEX				
5,164.5	5,060.0	SHANNON				
7,017.7	6,865.0	SHARON SPRINGS				
7,045.5	6,890.0	NIOBRARA				
7,471.7	7,175.0	FORT HAYS				
7,594.6	7,210.0	CODELL				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
300.0	300.0	0.0	0.0	BUILD 2°/100'	
921.9	917.0	-66.1	-12.5	HOLD 12.44° INC	
6,824.4	6,681.0	-1,315.4	-248.0	KOP, BUILD 10°/100'	
7,703.0	7,220.0	-1,425.7	-821.9	LP @ 90° INC, 270.68° AZM HOLD	
20,020.6	7,220.0	-1,280.0	-13,138.6	TD at 20020.6' MD	