

EXTRACTION OIL & GAS

Weld County

Sec 7-T4N-R68W

BERTHOUD FARMS 8E-10-3C

ORIGINAL WELLBORE

Plan: PROPOSAL 1

Standard Planning Report

03 January, 2018



Project: Weld County
Site: Sec 7-T4N-R68W
Well: BERTHOUD FARMS 8E-10-3C
Wellbore: ORIGINAL WELLBORE
Design: PROPOSAL 1



Azimuths to True North
Magnetic North: 8.37°

Magnetic Field
Strength: 52345.2nT
Dip Angle: 66.76°
Date: 4/4/2017
Model: IGRF2015

WELL DETAILS: BERTHOUD FARMS 8E-10-3C

+N/-S	+E/-W	Northing	Easting	5035.00	Latitude	Longitude	Slot
0.00	0.00	1361363.29	3128245.85	40° 19' 27.948 N	105° 2' 24.144 W		

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	1857.97	33.16	14.08	1766.95	452.51	113.47	2.00	14.08	327.71	
4	6710.99	33.16	14.08	5829.67	3027.25	759.11	0.00	0.00	2192.34	
5	7528.77	90.00	88.92	6245.00	3299.80	1321.16	10.00	77.22	2814.90	BF 3 - LP
6	11940.45	90.00	88.92	6245.00	3382.76	5732.05	0.00	0.00	6655.78	BF 3 - PBHL

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSect	Departure	Annotation
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	BUILD 2°/100'
1857.97	33.16	14.08	1766.95	452.51	113.47	327.71	466.52	HOLD 33.16° INC
6710.99	33.16	14.08	5829.67	3027.25	759.11	2192.34	3120.98	KOP, BUILD 10°/100'
7528.77	90.00	88.92	6245.00	3299.80	1321.16	2814.90	3783.01	LP @ 90° INC, 88.92° AZM HOLD
11940.45	90.00	88.92	6245.00	3382.76	5732.05	6655.78	8194.69	TD at 11940.45' MD

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
BF 3 - LP	6245.00	3299.80	1321.16	1364669.90	3129549.87	40° 20' 0.557 N	105° 2' 7.084 W	Point
- plan hits target center								
BF 3 - PBHL	6245.00	3382.76	5732.05	1364775.74	3133960.27	40° 20' 1.370 N	105° 1' 10.124 W	Point
- plan hits target center								

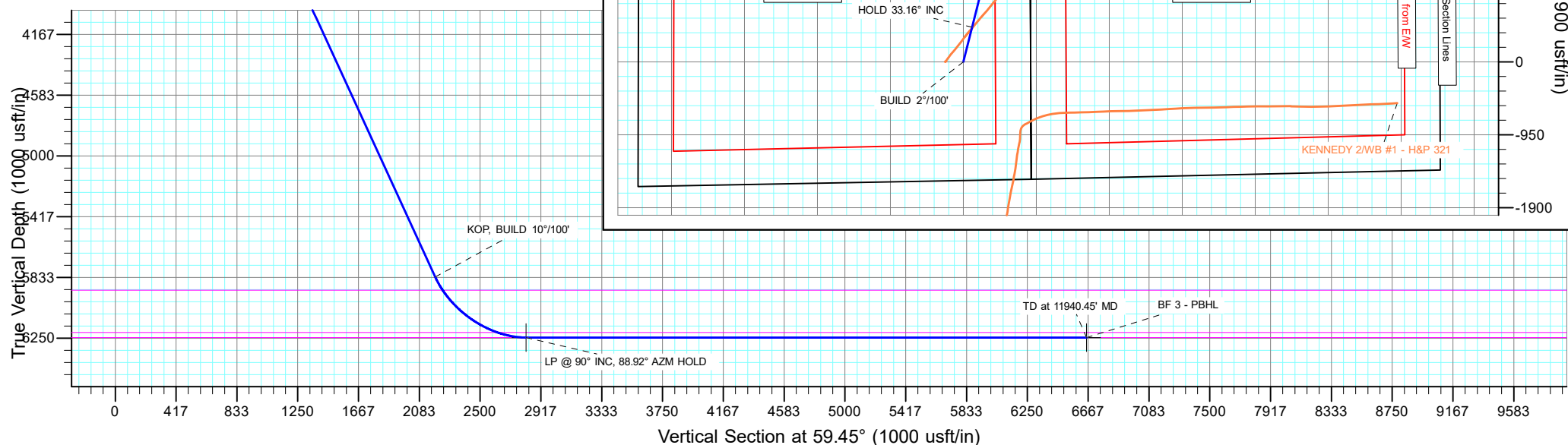
FORMATION TOP DETAILS

TVDPath	MDPath	Formation
2410.00	2626.11	PARKMAN
3010.00	3342.82	SUSSEX
3450.00	3868.41	SHANNON
5920.00	6821.09	NIOBRARA
6210.00	7309.69	FORT HAYS
6245.00	7528.77	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:
1545' FSL, 876' FEL
Sec 7-T4N-R68W
LP:
490' FNL, 460' FWL
Sec 8-T4N-R68W
BHL:
488' FNL, 460' FEL
Sec 8-T4N-R68W



Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well BERTHOUD FARMS 8E-10-3C
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 24' @ 5059.00usft
Project:	Weld County	MD Reference:	KB 24' @ 5059.00usft
Site:	Sec 7-T4N-R68W	North Reference:	True
Well:	BERTHOUD FARMS 8E-10-3C	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	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 7-T4N-R68W			
Site Position:		Northing:	1,359,838.99 usft	Latitude:	40° 19' 12.839 N
From:	Lat/Long	Easting:	3,129,136.57 usft	Longitude:	105° 2' 12.746 W
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence:	0.30 °

Well	BERTHOUD FARMS 8E-10-3C					
Well Position	+N/-S	1,528.93 usft	Northing:	1,361,363.29 usft	Latitude:	40° 19' 27.948 N
	+E/-W	-882.75 usft	Easting:	3,128,245.85 usft	Longitude:	105° 2' 24.144 W
Position Uncertainty		0.00 usft	Wellhead Elevation:		Ground Level:	5,035.00 usft

Wellbore	ORIGINAL WELLBORE				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	4/4/2017	8.37	66.76	52,345.15088827

Design	PROPOSAL 1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	59.45

Plan Survey Tool Program	Date	1/3/2018		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	11,940.45	PROPOSAL 1 (ORIGINAL WELL	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
0.00	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	
1,857.97	33.16	14.08	1,766.95	452.51	113.47	2.00	2.00	0.00	14.08	
6,710.99	33.16	14.08	5,829.67	3,027.25	759.11	0.00	0.00	0.00	0.00	
7,528.77	90.00	88.92	6,245.00	3,299.80	1,321.16	10.00	6.95	9.15	77.22	BF 3 - LP
11,940.45	90.00	88.92	6,245.00	3,382.76	5,732.05	0.00	0.00	0.00	0.00	BF 3 - PBHL

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well BERTHOUD FARMS 8E-10-3C
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 24' @ 5059.00usft
Project:	Weld County	MD Reference:	KB 24' @ 5059.00usft
Site:	Sec 7-T4N-R68W	North Reference:	True
Well:	BERTHOUD FARMS 8E-10-3C	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	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)
0.00	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
BUILD 2°/100'									
300.00	2.00	14.08	299.98	1.69	0.42	1.23	2.00	2.00	0.00
400.00	4.00	14.08	399.84	6.77	1.70	4.90	2.00	2.00	0.00
500.00	6.00	14.08	499.45	15.22	3.82	11.02	2.00	2.00	0.00
600.00	8.00	14.08	598.70	27.04	6.78	19.58	2.00	2.00	0.00
700.00	10.00	14.08	697.47	42.22	10.59	30.57	2.00	2.00	0.00
800.00	12.00	14.08	795.62	60.72	15.23	43.98	2.00	2.00	0.00
900.00	14.00	14.08	893.06	82.54	20.70	59.78	2.00	2.00	0.00
1,000.00	16.00	14.08	989.64	107.64	26.99	77.96	2.00	2.00	0.00
1,100.00	18.00	14.08	1,085.27	136.00	34.10	98.49	2.00	2.00	0.00
1,200.00	20.00	14.08	1,179.82	167.58	42.02	121.36	2.00	2.00	0.00
1,300.00	22.00	14.08	1,273.17	202.34	50.74	146.53	2.00	2.00	0.00
1,400.00	24.00	14.08	1,365.21	240.24	60.24	173.98	2.00	2.00	0.00
1,500.00	26.00	14.08	1,455.84	281.23	70.52	203.67	2.00	2.00	0.00
1,600.00	28.00	14.08	1,544.94	325.26	81.56	235.55	2.00	2.00	0.00
1,700.00	30.00	14.08	1,632.39	372.28	93.35	269.61	2.00	2.00	0.00
1,800.00	32.00	14.08	1,718.11	422.24	105.88	305.79	2.00	2.00	0.00
1,857.97	33.16	14.08	1,766.95	452.51	113.47	327.71	2.00	2.00	0.00
HOLD 33.16° INC									
1,900.00	33.16	14.08	1,802.14	474.81	119.06	343.86	0.00	0.00	0.00
2,000.00	33.16	14.08	1,885.85	527.87	132.37	382.28	0.00	0.00	0.00
2,100.00	33.16	14.08	1,969.57	580.92	145.67	420.70	0.00	0.00	0.00
2,200.00	33.16	14.08	2,053.28	633.98	158.98	459.13	0.00	0.00	0.00
2,300.00	33.16	14.08	2,137.00	687.03	172.28	497.55	0.00	0.00	0.00
2,400.00	33.16	14.08	2,220.72	740.09	185.58	535.97	0.00	0.00	0.00
2,500.00	33.16	14.08	2,304.43	793.14	198.89	574.39	0.00	0.00	0.00
2,600.00	33.16	14.08	2,388.15	846.20	212.19	612.82	0.00	0.00	0.00
2,626.11	33.16	14.08	2,410.00	860.05	215.66	622.85	0.00	0.00	0.00
PARKMAN									
2,700.00	33.16	14.08	2,471.86	899.25	225.50	651.24	0.00	0.00	0.00
2,800.00	33.16	14.08	2,555.58	952.30	238.80	689.66	0.00	0.00	0.00
2,900.00	33.16	14.08	2,639.29	1,005.36	252.10	728.08	0.00	0.00	0.00
3,000.00	33.16	14.08	2,723.01	1,058.41	265.41	766.50	0.00	0.00	0.00
3,100.00	33.16	14.08	2,806.72	1,111.47	278.71	804.93	0.00	0.00	0.00
3,200.00	33.16	14.08	2,890.44	1,164.52	292.01	843.35	0.00	0.00	0.00
3,300.00	33.16	14.08	2,974.15	1,217.58	305.32	881.77	0.00	0.00	0.00
3,342.82	33.16	14.08	3,010.00	1,240.29	311.02	898.22	0.00	0.00	0.00
SUSSEX									
3,400.00	33.16	14.08	3,057.87	1,270.63	318.62	920.19	0.00	0.00	0.00
3,500.00	33.16	14.08	3,141.58	1,323.68	331.93	958.61	0.00	0.00	0.00
3,600.00	33.16	14.08	3,225.30	1,376.74	345.23	997.04	0.00	0.00	0.00
3,700.00	33.16	14.08	3,309.01	1,429.79	358.53	1,035.46	0.00	0.00	0.00
3,800.00	33.16	14.08	3,392.73	1,482.85	371.84	1,073.88	0.00	0.00	0.00
3,868.41	33.16	14.08	3,450.00	1,519.14	380.94	1,100.17	0.00	0.00	0.00
SHANNON									
3,900.00	33.16	14.08	3,476.44	1,535.90	385.14	1,112.30	0.00	0.00	0.00
4,000.00	33.16	14.08	3,560.16	1,588.96	398.45	1,150.72	0.00	0.00	0.00
4,100.00	33.16	14.08	3,643.87	1,642.01	411.75	1,189.15	0.00	0.00	0.00
4,200.00	33.16	14.08	3,727.59	1,695.07	425.05	1,227.57	0.00	0.00	0.00
4,300.00	33.16	14.08	3,811.30	1,748.12	438.36	1,265.99	0.00	0.00	0.00

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well BERTHOUD FARMS 8E-10-3C
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 24' @ 5059.00usft
Project:	Weld County	MD Reference:	KB 24' @ 5059.00usft
Site:	Sec 7-T4N-R68W	North Reference:	True
Well:	BERTHOUD FARMS 8E-10-3C	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	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)
4,400.00	33.16	14.08	3,895.02	1,801.17	451.66	1,304.41	0.00	0.00	0.00
4,500.00	33.16	14.08	3,978.73	1,854.23	464.97	1,342.83	0.00	0.00	0.00
4,600.00	33.16	14.08	4,062.45	1,907.28	478.27	1,381.26	0.00	0.00	0.00
4,700.00	33.16	14.08	4,146.17	1,960.34	491.57	1,419.68	0.00	0.00	0.00
4,800.00	33.16	14.08	4,229.88	2,013.39	504.88	1,458.10	0.00	0.00	0.00
4,900.00	33.16	14.08	4,313.60	2,066.45	518.18	1,496.52	0.00	0.00	0.00
5,000.00	33.16	14.08	4,397.31	2,119.50	531.48	1,534.94	0.00	0.00	0.00
5,100.00	33.16	14.08	4,481.03	2,172.55	544.79	1,573.37	0.00	0.00	0.00
5,200.00	33.16	14.08	4,564.74	2,225.61	558.09	1,611.79	0.00	0.00	0.00
5,300.00	33.16	14.08	4,648.46	2,278.66	571.40	1,650.21	0.00	0.00	0.00
5,400.00	33.16	14.08	4,732.17	2,331.72	584.70	1,688.63	0.00	0.00	0.00
5,500.00	33.16	14.08	4,815.89	2,384.77	598.00	1,727.05	0.00	0.00	0.00
5,600.00	33.16	14.08	4,899.60	2,437.83	611.31	1,765.48	0.00	0.00	0.00
5,700.00	33.16	14.08	4,983.32	2,490.88	624.61	1,803.90	0.00	0.00	0.00
5,800.00	33.16	14.08	5,067.03	2,543.94	637.92	1,842.32	0.00	0.00	0.00
5,900.00	33.16	14.08	5,150.75	2,596.99	651.22	1,880.74	0.00	0.00	0.00
6,000.00	33.16	14.08	5,234.46	2,650.04	664.52	1,919.16	0.00	0.00	0.00
6,100.00	33.16	14.08	5,318.18	2,703.10	677.83	1,957.59	0.00	0.00	0.00
6,200.00	33.16	14.08	5,401.89	2,756.15	691.13	1,996.01	0.00	0.00	0.00
6,300.00	33.16	14.08	5,485.61	2,809.21	704.44	2,034.43	0.00	0.00	0.00
6,400.00	33.16	14.08	5,569.32	2,862.26	717.74	2,072.85	0.00	0.00	0.00
6,500.00	33.16	14.08	5,653.04	2,915.32	731.04	2,111.27	0.00	0.00	0.00
6,600.00	33.16	14.08	5,736.75	2,968.37	744.35	2,149.70	0.00	0.00	0.00
6,700.00	33.16	14.08	5,820.47	3,021.43	757.65	2,188.12	0.00	0.00	0.00
6,710.99	33.16	14.08	5,829.67	3,027.25	759.11	2,192.34	0.00	0.00	0.00
KOP, BUILD 10°/100°									
6,750.00	34.21	20.86	5,862.14	3,047.86	765.61	2,208.41	10.00	2.69	17.37
6,800.00	36.06	28.93	5,903.05	3,073.89	777.75	2,232.09	10.00	3.71	16.15
6,821.09	37.00	32.11	5,920.00	3,084.70	784.12	2,243.08	10.00	4.43	15.06
NIOBRARA									
6,850.00	38.41	36.23	5,942.87	3,099.32	794.06	2,259.06	10.00	4.88	14.27
6,900.00	41.16	42.76	5,981.31	3,123.94	814.42	2,289.12	10.00	5.51	13.06
6,950.00	44.25	48.57	6,018.06	3,147.58	838.69	2,322.03	10.00	6.16	11.62
7,000.00	47.59	53.75	6,052.85	3,170.05	866.67	2,357.55	10.00	6.69	10.36
7,050.00	51.14	58.39	6,085.42	3,191.19	898.15	2,395.40	10.00	7.11	9.28
7,100.00	54.86	62.57	6,115.51	3,210.82	932.90	2,435.31	10.00	7.44	8.37
7,150.00	58.71	66.39	6,142.90	3,228.81	970.65	2,476.96	10.00	7.70	7.63
7,200.00	62.67	69.90	6,167.38	3,245.01	1,011.10	2,520.03	10.00	7.91	7.02
7,250.00	66.70	73.17	6,188.76	3,259.30	1,053.97	2,564.21	10.00	8.07	6.53
7,300.00	70.80	76.24	6,206.88	3,271.57	1,098.90	2,609.15	10.00	8.20	6.14
7,309.69	71.60	76.81	6,210.00	3,273.71	1,107.82	2,617.91	10.00	8.26	5.95
FORT HAYS									
7,350.00	74.95	79.16	6,221.60	3,281.74	1,145.58	2,654.51	10.00	8.30	5.82
7,400.00	79.13	81.97	6,232.81	3,289.71	1,193.63	2,699.95	10.00	8.37	5.62
7,450.00	83.34	84.70	6,240.43	3,295.44	1,242.70	2,745.11	10.00	8.42	5.46
7,500.00	87.57	87.39	6,244.39	3,298.87	1,292.41	2,789.67	10.00	8.45	5.37
7,528.77	90.00	88.92	6,245.00	3,299.80	1,321.16	2,814.90	10.00	8.46	5.34
LP @ 90° INC, 88.92° AZM HOLD - CODELL									
7,600.00	90.00	88.92	6,245.00	3,301.14	1,392.37	2,876.91	0.00	0.00	0.00
7,700.00	90.00	88.92	6,245.00	3,303.02	1,492.35	2,963.97	0.00	0.00	0.00
7,800.00	90.00	88.92	6,245.00	3,304.90	1,592.33	3,051.03	0.00	0.00	0.00
7,900.00	90.00	88.92	6,245.00	3,306.78	1,692.32	3,138.10	0.00	0.00	0.00
8,000.00	90.00	88.92	6,245.00	3,308.66	1,792.30	3,225.16	0.00	0.00	0.00

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well BERTHOUD FARMS 8E-10-3C
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 24' @ 5059.00usft
Project:	Weld County	MD Reference:	KB 24' @ 5059.00usft
Site:	Sec 7-T4N-R68W	North Reference:	True
Well:	BERTHOUD FARMS 8E-10-3C	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	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)	
8,100.00	90.00	88.92	6,245.00	3,310.54	1,892.28	3,312.22	0.00	0.00	0.00	
8,200.00	90.00	88.92	6,245.00	3,312.42	1,992.26	3,399.28	0.00	0.00	0.00	
8,300.00	90.00	88.92	6,245.00	3,314.30	2,092.25	3,486.34	0.00	0.00	0.00	
8,400.00	90.00	88.92	6,245.00	3,316.18	2,192.23	3,573.40	0.00	0.00	0.00	
8,500.00	90.00	88.92	6,245.00	3,318.06	2,292.21	3,660.47	0.00	0.00	0.00	
8,600.00	90.00	88.92	6,245.00	3,319.94	2,392.19	3,747.53	0.00	0.00	0.00	
8,700.00	90.00	88.92	6,245.00	3,321.82	2,492.17	3,834.59	0.00	0.00	0.00	
8,800.00	90.00	88.92	6,245.00	3,323.70	2,592.16	3,921.65	0.00	0.00	0.00	
8,900.00	90.00	88.92	6,245.00	3,325.59	2,692.14	4,008.71	0.00	0.00	0.00	
9,000.00	90.00	88.92	6,245.00	3,327.47	2,792.12	4,095.78	0.00	0.00	0.00	
9,100.00	90.00	88.92	6,245.00	3,329.35	2,892.10	4,182.84	0.00	0.00	0.00	
9,200.00	90.00	88.92	6,245.00	3,331.23	2,992.09	4,269.90	0.00	0.00	0.00	
9,300.00	90.00	88.92	6,245.00	3,333.11	3,092.07	4,356.96	0.00	0.00	0.00	
9,400.00	90.00	88.92	6,245.00	3,334.99	3,192.05	4,444.02	0.00	0.00	0.00	
9,500.00	90.00	88.92	6,245.00	3,336.87	3,292.03	4,531.08	0.00	0.00	0.00	
9,600.00	90.00	88.92	6,245.00	3,338.75	3,392.02	4,618.15	0.00	0.00	0.00	
9,700.00	90.00	88.92	6,245.00	3,340.63	3,492.00	4,705.21	0.00	0.00	0.00	
9,800.00	90.00	88.92	6,245.00	3,342.51	3,591.98	4,792.27	0.00	0.00	0.00	
9,900.00	90.00	88.92	6,245.00	3,344.39	3,691.96	4,879.33	0.00	0.00	0.00	
10,000.00	90.00	88.92	6,245.00	3,346.27	3,791.94	4,966.39	0.00	0.00	0.00	
10,100.00	90.00	88.92	6,245.00	3,348.15	3,891.93	5,053.46	0.00	0.00	0.00	
10,200.00	90.00	88.92	6,245.00	3,350.03	3,991.91	5,140.52	0.00	0.00	0.00	
10,300.00	90.00	88.92	6,245.00	3,351.91	4,091.89	5,227.58	0.00	0.00	0.00	
10,400.00	90.00	88.92	6,245.00	3,353.79	4,191.87	5,314.64	0.00	0.00	0.00	
10,500.00	90.00	88.92	6,245.00	3,355.67	4,291.86	5,401.70	0.00	0.00	0.00	
10,600.00	90.00	88.92	6,245.00	3,357.55	4,391.84	5,488.76	0.00	0.00	0.00	
10,700.00	90.00	88.92	6,245.00	3,359.43	4,491.82	5,575.83	0.00	0.00	0.00	
10,800.00	90.00	88.92	6,245.00	3,361.31	4,591.80	5,662.89	0.00	0.00	0.00	
10,900.00	90.00	88.92	6,245.00	3,363.19	4,691.79	5,749.95	0.00	0.00	0.00	
11,000.00	90.00	88.92	6,245.00	3,365.07	4,791.77	5,837.01	0.00	0.00	0.00	
11,100.00	90.00	88.92	6,245.00	3,366.96	4,891.75	5,924.07	0.00	0.00	0.00	
11,200.00	90.00	88.92	6,245.00	3,368.84	4,991.73	6,011.14	0.00	0.00	0.00	
11,300.00	90.00	88.92	6,245.00	3,370.72	5,091.71	6,098.20	0.00	0.00	0.00	
11,400.00	90.00	88.92	6,245.00	3,372.60	5,191.70	6,185.26	0.00	0.00	0.00	
11,500.00	90.00	88.92	6,245.00	3,374.48	5,291.68	6,272.32	0.00	0.00	0.00	
11,600.00	90.00	88.92	6,245.00	3,376.36	5,391.66	6,359.38	0.00	0.00	0.00	
11,700.00	90.00	88.92	6,245.00	3,378.24	5,491.64	6,446.44	0.00	0.00	0.00	
11,800.00	90.00	88.92	6,245.00	3,380.12	5,591.63	6,533.51	0.00	0.00	0.00	
11,900.00	90.00	88.92	6,245.00	3,382.00	5,691.61	6,620.57	0.00	0.00	0.00	
11,940.45	90.00	88.92	6,245.00	3,382.76	5,732.05	6,655.78	0.00	0.00	0.00	
TD at 11940.45' MD										

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well BERTHOUD FARMS 8E-10-3C
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 24' @ 5059.00usft
Project:	Weld County	MD Reference:	KB 24' @ 5059.00usft
Site:	Sec 7-T4N-R68W	North Reference:	True
Well:	BERTHOUD FARMS 8E-10-3C	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL 1		

Design Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
BF 3 - LP	0.00	0.00	6,245.00	3,299.80	1,321.16	1,364,669.90	3,129,549.87	40° 20' 0.557 N	105° 2' 7.084 W
- plan hits target center									
- Point									
BF 3 - PBHL	0.00	0.00	6,245.00	3,382.76	5,732.05	1,364,775.74	3,133,960.27	40° 20' 1.370 N	105° 1' 10.124 W
- plan hits target center									
- Point									

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(usft)	(usft)			(°)	(°)	
2,626.11	2,410.00	PARKMAN				
3,342.82	3,010.00	SUSSEX				
3,868.41	3,450.00	SHANNON				
6,821.09	5,920.00	NIOBRARA				
7,309.69	6,210.00	FORT HAYS				
7,528.77	6,245.00	CODELL				

Plan Annotations				
Measured Depth	Vertical Depth	Local Coordinates		
(usft)	(usft)	+N/-S	+E/-W	Comment
(usft)	(usft)	(usft)	(usft)	
200.00	200.00	0.00	0.00	BUILD 2°/100'
1,857.97	1,766.95	452.51	113.47	HOLD 33.16° INC
6,710.99	5,829.67	3,027.25	759.11	KOP, BUILD 10°/100'
7,528.77	6,245.00	3,299.80	1,321.16	LP @ 90° INC, 88.92° AZM HOLD
11,940.45	6,245.00	3,382.76	5,732.05	TD at 11940.45' MD