

EXTRACTION OIL & GAS

Weld County

Sec 35-T5N-R68W

JOHNSON CORNER EAST 2-C

ORIGINAL WELLBORE

Plan: PROPOSAL 1

Standard Planning Report

27 March, 2017



Project: Weld County
Site: Sec 35-T5N-R68W
Well: JOHNSON CORNER EAST 2-C
Wellbore: ORIGINAL WELLBORE
Design: PROPOSAL 1



Azimuths to True North
Magnetic North: 8.34°

Magnetic Field
Strength: 52373.9nT
Dip Angle: 66.79°
Date: 3/22/2017
Model: IGRF2015

WELL DETAILS: JOHNSON CORNER EAST 2-C

+N/-S	+E/-W	Northing	Easting	5009.0	Latitude	Longitude	Slot
0.0	0.0	1373588.98	3146750.84		40° 21' 27.745 N	104° 58' 24.283 W	

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	1000.0	0.00	0.00	1000.0	0.0	0.0	0.00	0.00	0.0	
3	2228.5	24.57	327.72	2191.2	219.3	-138.5	2.00	327.72	-109.2	
4	5725.8	24.57	327.72	5371.8	1448.8	-915.2	0.00	0.00	-721.7	
5	6954.3	0.00	0.00	6563.0	1668.1	-1053.7	2.00	180.00	-830.9	
6	6984.3	0.00	0.00	6593.0	1668.1	-1053.7	0.00	0.00	-830.9	
7	7884.4	90.00	90.00	7166.0	1668.1	-480.7	10.00	90.00	-262.7	
8	20971.7	90.00	90.32	7166.0	1631.3	12606.6	0.00	90.08	12711.7	

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Vsect	Departure	Annotation
1000.0	0.00	0.00	1000.0	0.0	0.0	0.0	0.0	Build 2°/100'
2228.5	24.57	327.72	2191.2	219.3	-138.5	-109.2	259.4	Hold 24.57° Inc
5725.8	24.57	327.72	5371.8	1448.8	-915.2	-721.7	1713.6	Drop 2°/100'
6954.3	0.00	0.00	6563.0	1668.1	-1053.7	-830.9	1973.0	Hold Vertical
6984.3	0.00	0.00	6593.0	1668.1	-1053.7	-830.9	1973.0	KOP, Build 10°/100'
7884.4	90.00	90.00	7166.0	1668.1	-480.7	-262.7	2546.0	LP @ 90° Inc
20971.7	90.00	90.32	7166.0	1631.3	12606.6	12711.7	15633.4	TD at 20971.7' MD

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
JCE 2- JCE 2-C - LP	7166.0	1668.1	-480.7	1375254.21	3146260.25	40° 21' 44.230 N	104° 58' 30.493 W	Point
JCE 2- JCE 2-C - PBHL	7166.0	1631.3	12606.6	1375295.07	3159347.49	40° 21' 43.834 N	104° 55' 41.423 W	Point

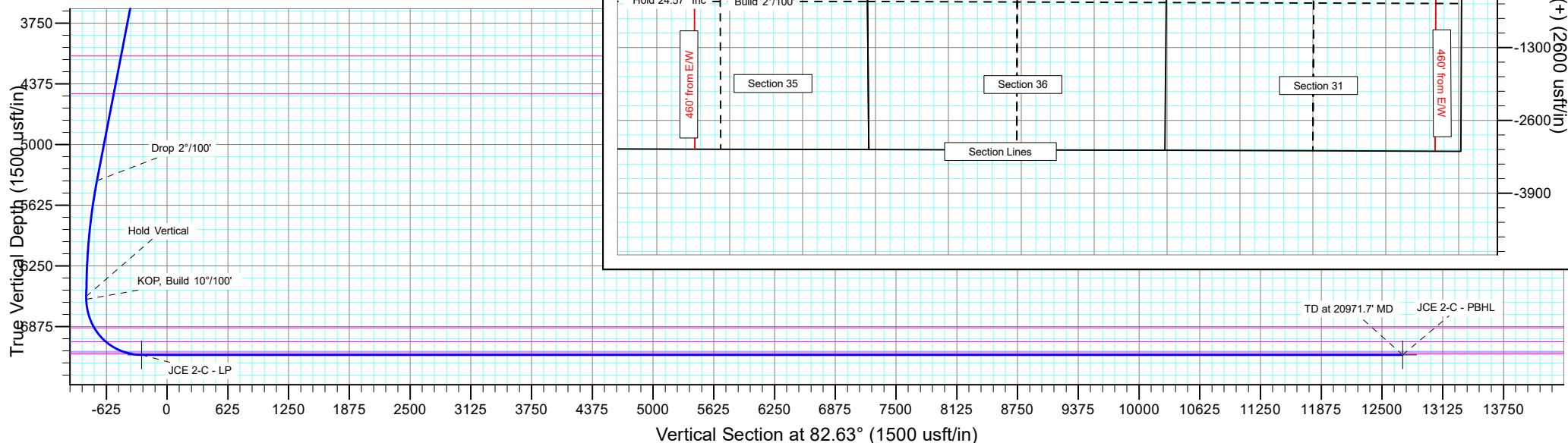
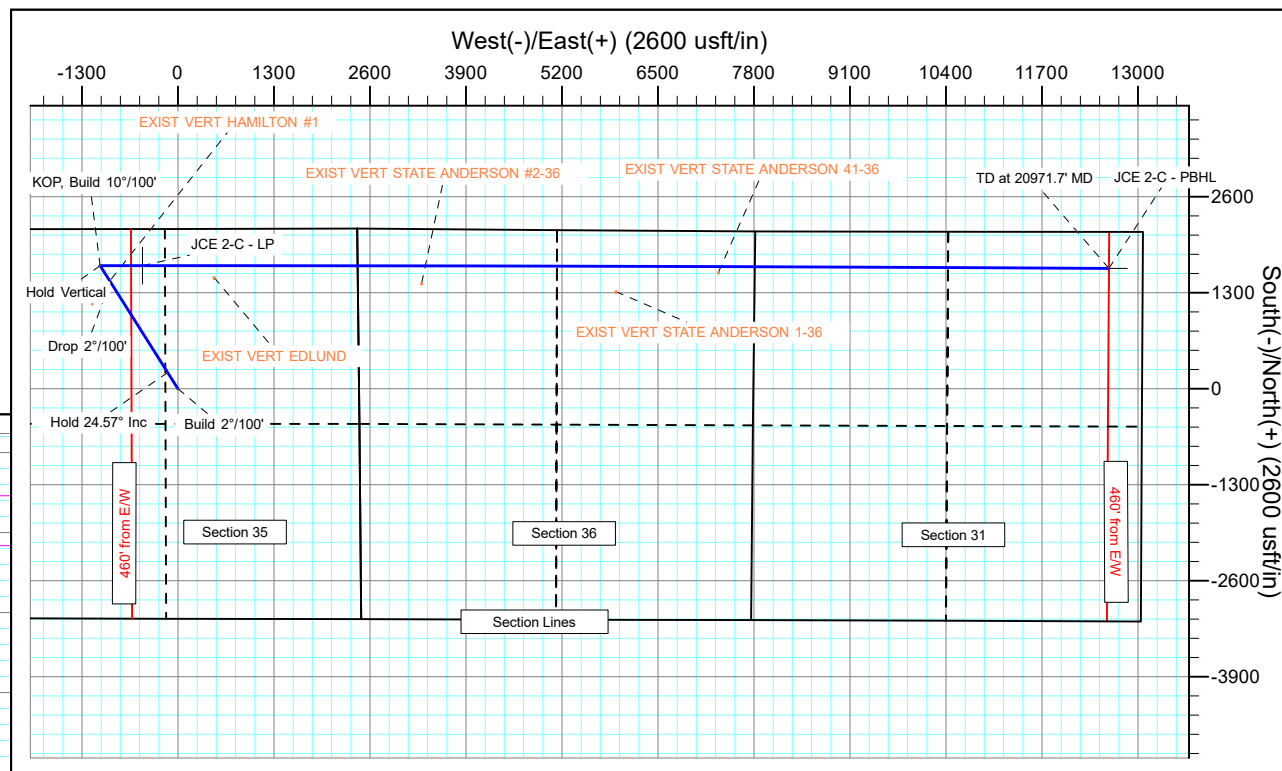
FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3360.0	3513.7	PARKMAN
4087.0	4313.1	SUSSEX
4477.0	4741.9	SHANNON
6887.0	7293.0	NIOBRARA
7029.0	7479.8	NIO B TARGET
7136.0	7698.1	FORT HAYS
7156.0	7777.2	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:
2164' FNL, 2452' FEL
Sec 35-T5N-R68W
LP:
495' FNL, 2320' FWL
Sec 35-T5N-R68W
BHL:
495' FNL, 460' FEL
Sec 31-T5N-R67W



Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well JOHNSON CORNER EAST 2-C
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 24' @ 5033.0usft
Project:	Weld County	MD Reference:	KB 24' @ 5033.0usft
Site:	Sec 35-T5N-R68W	North Reference:	True
Well:	JOHNSON CORNER EAST 2-C	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 35-T5N-R68W			
Site Position:		Northing:	1,373,645.09 usft	Latitude:	40° 21' 28.300 N
From:	Lat/Long	Easting:	3,146,750.79 usft	Longitude:	104° 58' 24.280 W
Position Uncertainty:	0.0 usft	Slot Radius:	13.200 in	Grid Convergence:	0.34 °

Well	JOHNSON CORNER EAST 2-C					
Well Position	+N/-S	-56.1 usft	Northing:	1,373,588.98 usft	Latitude:	40° 21' 27.745 N
	+E/-W	-0.3 usft	Easting:	3,146,750.84 usft	Longitude:	104° 58' 24.283 W
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	5,009.0 usft

Wellbore	ORIGINAL WELLBORE				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	3/22/2017	8.34	66.79	52,373.87087674

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	82.63

Plan Survey Tool Program	Date	3/27/2017			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.0	20,971.7	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
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,228.5	24.57	327.72	2,191.2	219.3	-138.5	2.00	2.00	0.00	327.72	
5,725.8	24.57	327.72	5,371.8	1,448.8	-915.2	0.00	0.00	0.00	0.00	
6,954.3	0.00	0.00	6,563.0	1,668.1	-1,053.7	2.00	-2.00	0.00	180.00	
6,984.3	0.00	0.00	6,593.0	1,668.1	-1,053.7	0.00	0.00	0.00	0.00	
7,884.4	90.00	90.00	7,166.0	1,668.1	-480.7	10.00	10.00	10.00	90.00	JCE 2-C - LP
20,971.7	90.00	90.32	7,166.0	1,631.3	12,606.6	0.00	0.00	0.00	90.08	JCE 2-C - PBHL

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well JOHNSON CORNER EAST 2-C
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 24' @ 5033.0usft
Project:	Weld County	MD Reference:	KB 24' @ 5033.0usft
Site:	Sec 35-T5N-R68W	North Reference:	True
Well:	JOHNSON CORNER EAST 2-C	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)
0.0	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
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
Build 2°/100'									
1,100.0	2.00	327.72	1,100.0	1.5	-0.9	-0.7	2.00	2.00	0.00
1,200.0	4.00	327.72	1,199.8	5.9	-3.7	-2.9	2.00	2.00	0.00
1,300.0	6.00	327.72	1,299.5	13.3	-8.4	-6.6	2.00	2.00	0.00
1,400.0	8.00	327.72	1,398.7	23.6	-14.9	-11.7	2.00	2.00	0.00
1,500.0	10.00	327.72	1,497.5	36.8	-23.2	-18.3	2.00	2.00	0.00
1,600.0	12.00	327.72	1,595.6	52.9	-33.4	-26.4	2.00	2.00	0.00
1,700.0	14.00	327.72	1,693.1	71.9	-45.4	-35.8	2.00	2.00	0.00
1,800.0	16.00	327.72	1,789.6	93.8	-59.3	-46.7	2.00	2.00	0.00
1,900.0	18.00	327.72	1,885.3	118.5	-74.9	-59.0	2.00	2.00	0.00
2,000.0	20.00	327.72	1,979.8	146.1	-92.3	-72.8	2.00	2.00	0.00
2,100.0	22.00	327.72	2,073.2	176.4	-111.4	-87.9	2.00	2.00	0.00
2,200.0	24.00	327.72	2,165.2	209.4	-132.3	-104.3	2.00	2.00	0.00
2,228.5	24.57	327.72	2,191.2	219.3	-138.5	-109.2	2.00	2.00	0.00
Hold 24.57° Inc									
2,300.0	24.57	327.72	2,256.2	244.4	-154.4	-121.8	0.00	0.00	0.00
2,400.0	24.57	327.72	2,347.2	279.6	-176.6	-139.3	0.00	0.00	0.00
2,500.0	24.57	327.72	2,438.1	314.8	-198.8	-156.8	0.00	0.00	0.00
2,600.0	24.57	327.72	2,529.1	349.9	-221.0	-174.3	0.00	0.00	0.00
2,700.0	24.57	327.72	2,620.0	385.1	-243.2	-191.8	0.00	0.00	0.00
2,800.0	24.57	327.72	2,710.9	420.2	-265.4	-209.3	0.00	0.00	0.00
2,900.0	24.57	327.72	2,801.9	455.4	-287.6	-226.8	0.00	0.00	0.00
3,000.0	24.57	327.72	2,892.8	490.5	-309.9	-244.3	0.00	0.00	0.00
3,100.0	24.57	327.72	2,983.8	525.7	-332.1	-261.9	0.00	0.00	0.00
3,200.0	24.57	327.72	3,074.7	560.8	-354.3	-279.4	0.00	0.00	0.00
3,300.0	24.57	327.72	3,165.7	596.0	-376.5	-296.9	0.00	0.00	0.00
3,400.0	24.57	327.72	3,256.6	631.2	-398.7	-314.4	0.00	0.00	0.00
3,500.0	24.57	327.72	3,347.6	666.3	-420.9	-331.9	0.00	0.00	0.00
3,513.7	24.57	327.72	3,360.0	671.1	-423.9	-334.3	0.00	0.00	0.00
PARKMAN									
3,600.0	24.57	327.72	3,438.5	701.5	-443.1	-349.4	0.00	0.00	0.00
3,700.0	24.57	327.72	3,529.4	736.6	-465.3	-366.9	0.00	0.00	0.00
3,800.0	24.57	327.72	3,620.4	771.8	-487.5	-384.4	0.00	0.00	0.00
3,900.0	24.57	327.72	3,711.3	806.9	-509.7	-402.0	0.00	0.00	0.00
4,000.0	24.57	327.72	3,802.3	842.1	-531.9	-419.5	0.00	0.00	0.00
4,100.0	24.57	327.72	3,893.2	877.2	-554.1	-437.0	0.00	0.00	0.00
4,200.0	24.57	327.72	3,984.2	912.4	-576.3	-454.5	0.00	0.00	0.00
4,300.0	24.57	327.72	4,075.1	947.6	-598.5	-472.0	0.00	0.00	0.00
4,313.1	24.57	327.72	4,087.0	952.2	-601.4	-474.3	0.00	0.00	0.00
SUSSEX									
4,400.0	24.57	327.72	4,166.1	982.7	-620.8	-489.5	0.00	0.00	0.00
4,500.0	24.57	327.72	4,257.0	1,017.9	-643.0	-507.0	0.00	0.00	0.00

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Project:	Weld County	MD Reference:	KB 24' @ 5033.0usft
Site:	Sec 35-T5N-R68W	North Reference:	True
Well:	JOHNSON CORNER EAST 2-C	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)
4,600.0	24.57	327.72	4,347.9	1,053.0	-665.2	-524.5	0.00	0.00	0.00
4,700.0	24.57	327.72	4,438.9	1,088.2	-687.4	-542.0	0.00	0.00	0.00
4,741.9	24.57	327.72	4,477.0	1,102.9	-696.7	-549.4	0.00	0.00	0.00
SHANNON									
4,800.0	24.57	327.72	4,529.8	1,123.3	-709.6	-559.6	0.00	0.00	0.00
4,900.0	24.57	327.72	4,620.8	1,158.5	-731.8	-577.1	0.00	0.00	0.00
5,000.0	24.57	327.72	4,711.7	1,193.6	-754.0	-594.6	0.00	0.00	0.00
5,100.0	24.57	327.72	4,802.7	1,228.8	-776.2	-612.1	0.00	0.00	0.00
5,200.0	24.57	327.72	4,893.6	1,264.0	-798.4	-629.6	0.00	0.00	0.00
5,300.0	24.57	327.72	4,984.6	1,299.1	-820.6	-647.1	0.00	0.00	0.00
5,400.0	24.57	327.72	5,075.5	1,334.3	-842.8	-664.6	0.00	0.00	0.00
5,500.0	24.57	327.72	5,166.4	1,369.4	-865.0	-682.1	0.00	0.00	0.00
5,600.0	24.57	327.72	5,257.4	1,404.6	-887.2	-699.7	0.00	0.00	0.00
5,700.0	24.57	327.72	5,348.3	1,439.7	-909.4	-717.2	0.00	0.00	0.00
5,725.8	24.57	327.72	5,371.8	1,448.8	-915.2	-721.7	0.00	0.00	0.00
Drop 2°/100'									
5,800.0	23.09	327.72	5,439.7	1,474.1	-931.2	-734.3	2.00	-2.00	0.00
5,900.0	21.09	327.72	5,532.3	1,505.9	-951.3	-750.1	2.00	-2.00	0.00
6,000.0	19.09	327.72	5,626.2	1,535.0	-969.6	-764.6	2.00	-2.00	0.00
6,100.0	17.09	327.72	5,721.3	1,561.2	-986.2	-777.7	2.00	-2.00	0.00
6,200.0	15.09	327.72	5,817.4	1,584.6	-1,001.0	-789.3	2.00	-2.00	0.00
6,300.0	13.09	327.72	5,914.4	1,605.2	-1,014.0	-799.6	2.00	-2.00	0.00
6,400.0	11.09	327.72	6,012.1	1,622.9	-1,025.2	-808.4	2.00	-2.00	0.00
6,500.0	9.09	327.72	6,110.6	1,637.7	-1,034.5	-815.8	2.00	-2.00	0.00
6,600.0	7.09	327.72	6,209.6	1,649.6	-1,042.0	-821.7	2.00	-2.00	0.00
6,700.0	5.09	327.72	6,309.0	1,658.6	-1,047.7	-826.2	2.00	-2.00	0.00
6,800.0	3.09	327.72	6,408.8	1,664.6	-1,051.5	-829.2	2.00	-2.00	0.00
6,900.0	1.09	327.72	6,508.7	1,667.7	-1,053.4	-830.7	2.00	-2.00	0.00
6,954.3	0.00	0.00	6,563.0	1,668.1	-1,053.7	-830.9	2.00	-2.00	0.00
Hold Vertical									
6,984.3	0.00	0.00	6,593.0	1,668.1	-1,053.7	-830.9	0.00	0.00	0.00
KOP, Build 10°/100'									
7,000.0	1.57	90.00	6,608.7	1,668.1	-1,053.5	-830.7	10.00	10.00	0.00
7,050.0	6.57	90.00	6,658.5	1,668.1	-1,049.9	-827.2	10.00	10.00	0.00
7,100.0	11.57	90.00	6,707.9	1,668.1	-1,042.1	-819.4	10.00	10.00	0.00
7,150.0	16.57	90.00	6,756.4	1,668.1	-1,029.9	-807.3	10.00	10.00	0.00
7,200.0	21.57	90.00	6,803.6	1,668.1	-1,013.6	-791.1	10.00	10.00	0.00
7,250.0	26.57	90.00	6,849.3	1,668.1	-993.2	-770.9	10.00	10.00	0.00
7,293.0	30.87	90.00	6,887.0	1,668.1	-972.5	-750.4	10.00	10.00	0.00
NIOBRARA									
7,300.0	31.57	90.00	6,893.0	1,668.1	-968.9	-746.8	10.00	10.00	0.00
7,350.0	36.57	90.00	6,934.4	1,668.1	-940.9	-719.1	10.00	10.00	0.00
7,400.0	41.57	90.00	6,973.2	1,668.1	-909.4	-687.8	10.00	10.00	0.00
7,450.0	46.57	90.00	7,009.1	1,668.1	-874.6	-653.4	10.00	10.00	0.00
7,479.8	49.54	90.00	7,029.0	1,668.1	-852.5	-631.4	10.00	10.00	0.00
NIO B TARGET									
7,500.0	51.57	90.00	7,041.8	1,668.1	-836.9	-615.9	10.00	10.00	0.00
7,550.0	56.57	90.00	7,071.2	1,668.1	-796.4	-575.8	10.00	10.00	0.00
7,600.0	61.56	90.00	7,096.9	1,668.1	-753.5	-533.2	10.00	10.00	0.00
7,650.0	66.56	90.00	7,118.7	1,668.1	-708.6	-488.7	10.00	10.00	0.00
7,698.1	71.38	90.00	7,136.0	1,668.1	-663.7	-444.1	10.00	10.00	0.00
FORT HAYS									
7,700.0	71.56	90.00	7,136.6	1,668.1	-661.9	-442.4	10.00	10.00	0.00

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well JOHNSON CORNER EAST 2-C
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 24' @ 5033.0usft
Project:	Weld County	MD Reference:	KB 24' @ 5033.0usft
Site:	Sec 35-T5N-R68W	North Reference:	True
Well:	JOHNSON CORNER EAST 2-C	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)
7,750.0	76.56	90.00	7,150.3	1,668.1	-613.8	-394.7	10.00	10.00	0.00
7,777.2	79.28	90.00	7,156.0	1,668.1	-587.3	-368.4	10.00	10.00	0.00
CODELL									
7,800.0	81.56	90.00	7,159.8	1,668.1	-564.8	-346.0	10.00	10.00	0.00
7,850.0	86.56	90.00	7,165.0	1,668.1	-515.1	-296.7	10.00	10.00	0.00
7,884.4	90.00	90.00	7,166.0	1,668.1	-480.7	-262.7	10.00	10.00	0.00
LP @ 90° Inc									
7,900.0	90.00	90.00	7,166.0	1,668.1	-465.1	-247.2	0.00	0.00	0.00
8,000.0	90.00	90.00	7,166.0	1,668.1	-365.1	-148.0	0.00	0.00	0.00
8,100.0	90.00	90.01	7,166.0	1,668.1	-265.1	-48.8	0.00	0.00	0.00
8,200.0	90.00	90.01	7,166.0	1,668.1	-165.1	50.4	0.00	0.00	0.00
8,300.0	90.00	90.01	7,166.0	1,668.1	-65.1	149.5	0.00	0.00	0.00
8,400.0	90.00	90.01	7,166.0	1,668.1	34.9	248.7	0.00	0.00	0.00
8,500.0	90.00	90.02	7,166.0	1,668.0	134.9	347.9	0.00	0.00	0.00
8,600.0	90.00	90.02	7,166.0	1,668.0	234.9	447.0	0.00	0.00	0.00
8,700.0	90.00	90.02	7,166.0	1,668.0	334.9	546.2	0.00	0.00	0.00
8,800.0	90.00	90.02	7,166.0	1,667.9	434.9	645.4	0.00	0.00	0.00
8,900.0	90.00	90.03	7,166.0	1,667.9	534.9	744.5	0.00	0.00	0.00
9,000.0	90.00	90.03	7,166.0	1,667.8	634.9	843.7	0.00	0.00	0.00
9,100.0	90.00	90.03	7,166.0	1,667.8	734.9	942.9	0.00	0.00	0.00
9,200.0	90.00	90.03	7,166.0	1,667.7	834.9	1,042.0	0.00	0.00	0.00
9,300.0	90.00	90.03	7,166.0	1,667.7	934.9	1,141.2	0.00	0.00	0.00
9,400.0	90.00	90.04	7,166.0	1,667.6	1,034.9	1,240.4	0.00	0.00	0.00
9,500.0	90.00	90.04	7,166.0	1,667.6	1,134.9	1,339.5	0.00	0.00	0.00
9,600.0	90.00	90.04	7,166.0	1,667.5	1,234.9	1,438.7	0.00	0.00	0.00
9,700.0	90.00	90.04	7,166.0	1,667.4	1,334.9	1,537.9	0.00	0.00	0.00
9,800.0	90.00	90.05	7,166.0	1,667.3	1,434.9	1,637.0	0.00	0.00	0.00
9,900.0	90.00	90.05	7,166.0	1,667.2	1,534.9	1,736.2	0.00	0.00	0.00
10,000.0	90.00	90.05	7,166.0	1,667.2	1,634.9	1,835.4	0.00	0.00	0.00
10,100.0	90.00	90.05	7,166.0	1,667.1	1,734.9	1,934.5	0.00	0.00	0.00
10,200.0	90.00	90.06	7,166.0	1,667.0	1,834.9	2,033.7	0.00	0.00	0.00
10,300.0	90.00	90.06	7,166.0	1,666.9	1,934.9	2,132.8	0.00	0.00	0.00
10,400.0	90.00	90.06	7,166.0	1,666.8	2,034.9	2,232.0	0.00	0.00	0.00
10,500.0	90.00	90.06	7,166.0	1,666.6	2,134.9	2,331.2	0.00	0.00	0.00
10,600.0	90.00	90.07	7,166.0	1,666.5	2,234.9	2,430.3	0.00	0.00	0.00
10,700.0	90.00	90.07	7,166.0	1,666.4	2,334.9	2,529.5	0.00	0.00	0.00
10,800.0	90.00	90.07	7,166.0	1,666.3	2,434.9	2,628.6	0.00	0.00	0.00
10,900.0	90.00	90.07	7,166.0	1,666.2	2,534.9	2,727.8	0.00	0.00	0.00
11,000.0	90.00	90.08	7,166.0	1,666.0	2,634.9	2,826.9	0.00	0.00	0.00
11,100.0	90.00	90.08	7,166.0	1,665.9	2,734.9	2,926.1	0.00	0.00	0.00
11,200.0	90.00	90.08	7,166.0	1,665.7	2,834.9	3,025.2	0.00	0.00	0.00
11,300.0	90.00	90.08	7,166.0	1,665.6	2,934.9	3,124.4	0.00	0.00	0.00
11,400.0	90.00	90.09	7,166.0	1,665.5	3,034.9	3,223.6	0.00	0.00	0.00
11,500.0	90.00	90.09	7,166.0	1,665.3	3,134.9	3,322.7	0.00	0.00	0.00
11,600.0	90.00	90.09	7,166.0	1,665.1	3,234.9	3,421.9	0.00	0.00	0.00
11,700.0	90.00	90.09	7,166.0	1,665.0	3,334.9	3,521.0	0.00	0.00	0.00
11,800.0	90.00	90.10	7,166.0	1,664.8	3,434.9	3,620.2	0.00	0.00	0.00
11,900.0	90.00	90.10	7,166.0	1,664.6	3,534.9	3,719.3	0.00	0.00	0.00
12,000.0	90.00	90.10	7,166.0	1,664.5	3,634.9	3,818.5	0.00	0.00	0.00
12,100.0	90.00	90.10	7,166.0	1,664.3	3,734.9	3,917.6	0.00	0.00	0.00
12,200.0	90.00	90.11	7,166.0	1,664.1	3,834.9	4,016.8	0.00	0.00	0.00
12,300.0	90.00	90.11	7,166.0	1,663.9	3,934.9	4,115.9	0.00	0.00	0.00
12,400.0	90.00	90.11	7,166.0	1,663.7	4,034.9	4,215.1	0.00	0.00	0.00
12,500.0	90.00	90.11	7,166.0	1,663.5	4,134.9	4,314.2	0.00	0.00	0.00

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well JOHNSON CORNER EAST 2-C
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 24' @ 5033.0usft
Project:	Weld County	MD Reference:	KB 24' @ 5033.0usft
Site:	Sec 35-T5N-R68W	North Reference:	True
Well:	JOHNSON CORNER EAST 2-C	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)	
12,600.0	90.00	90.12	7,166.0	1,663.3	4,234.9	4,413.4	0.00	0.00	0.00	
12,700.0	90.00	90.12	7,166.0	1,663.1	4,334.9	4,512.5	0.00	0.00	0.00	
12,800.0	90.00	90.12	7,166.0	1,662.9	4,434.9	4,611.7	0.00	0.00	0.00	
12,900.0	90.00	90.12	7,166.0	1,662.7	4,534.9	4,710.8	0.00	0.00	0.00	
13,000.0	90.00	90.13	7,166.0	1,662.5	4,634.9	4,809.9	0.00	0.00	0.00	
13,100.0	90.00	90.13	7,166.0	1,662.3	4,734.9	4,909.1	0.00	0.00	0.00	
13,200.0	90.00	90.13	7,166.0	1,662.0	4,834.9	5,008.2	0.00	0.00	0.00	
13,300.0	90.00	90.13	7,166.0	1,661.8	4,934.9	5,107.4	0.00	0.00	0.00	
13,400.0	90.00	90.14	7,166.0	1,661.6	5,034.9	5,206.5	0.00	0.00	0.00	
13,500.0	90.00	90.14	7,166.0	1,661.3	5,134.9	5,305.7	0.00	0.00	0.00	
13,600.0	90.00	90.14	7,166.0	1,661.1	5,234.9	5,404.8	0.00	0.00	0.00	
13,700.0	90.00	90.14	7,166.0	1,660.8	5,334.9	5,503.9	0.00	0.00	0.00	
13,800.0	90.00	90.15	7,166.0	1,660.6	5,434.9	5,603.1	0.00	0.00	0.00	
13,900.0	90.00	90.15	7,166.0	1,660.3	5,534.9	5,702.2	0.00	0.00	0.00	
14,000.0	90.00	90.15	7,166.0	1,660.1	5,634.9	5,801.4	0.00	0.00	0.00	
14,100.0	90.00	90.15	7,166.0	1,659.8	5,734.9	5,900.5	0.00	0.00	0.00	
14,200.0	90.00	90.16	7,166.0	1,659.5	5,834.9	5,999.6	0.00	0.00	0.00	
14,300.0	90.00	90.16	7,166.0	1,659.3	5,934.9	6,098.8	0.00	0.00	0.00	
14,400.0	90.00	90.16	7,166.0	1,659.0	6,034.9	6,197.9	0.00	0.00	0.00	
14,500.0	90.00	90.16	7,166.0	1,658.7	6,134.9	6,297.0	0.00	0.00	0.00	
14,600.0	90.00	90.17	7,166.0	1,658.4	6,234.9	6,396.2	0.00	0.00	0.00	
14,700.0	90.00	90.17	7,166.0	1,658.1	6,334.9	6,495.3	0.00	0.00	0.00	
14,800.0	90.00	90.17	7,166.0	1,657.8	6,434.9	6,594.5	0.00	0.00	0.00	
14,900.0	90.00	90.17	7,166.0	1,657.5	6,534.9	6,693.6	0.00	0.00	0.00	
15,000.0	90.00	90.18	7,166.0	1,657.2	6,634.9	6,792.7	0.00	0.00	0.00	
15,100.0	90.00	90.18	7,166.0	1,656.9	6,734.9	6,891.9	0.00	0.00	0.00	
15,200.0	90.00	90.18	7,166.0	1,656.6	6,834.9	6,991.0	0.00	0.00	0.00	
15,300.0	90.00	90.18	7,166.0	1,656.3	6,934.9	7,090.1	0.00	0.00	0.00	
15,400.0	90.00	90.19	7,166.0	1,656.0	7,034.9	7,189.3	0.00	0.00	0.00	
15,500.0	90.00	90.19	7,166.0	1,655.6	7,134.9	7,288.4	0.00	0.00	0.00	
15,600.0	90.00	90.19	7,166.0	1,655.3	7,234.9	7,387.5	0.00	0.00	0.00	
15,700.0	90.00	90.19	7,166.0	1,655.0	7,334.9	7,486.6	0.00	0.00	0.00	
15,800.0	90.00	90.20	7,166.0	1,654.6	7,434.9	7,585.8	0.00	0.00	0.00	
15,900.0	90.00	90.20	7,166.0	1,654.3	7,534.9	7,684.9	0.00	0.00	0.00	
16,000.0	90.00	90.20	7,166.0	1,653.9	7,634.9	7,784.0	0.00	0.00	0.00	
16,100.0	90.00	90.20	7,166.0	1,653.6	7,734.9	7,883.2	0.00	0.00	0.00	
16,200.0	90.00	90.21	7,166.0	1,653.2	7,834.9	7,982.3	0.00	0.00	0.00	
16,300.0	90.00	90.21	7,166.0	1,652.9	7,934.9	8,081.4	0.00	0.00	0.00	
16,400.0	90.00	90.21	7,166.0	1,652.5	8,034.9	8,180.5	0.00	0.00	0.00	
16,500.0	90.00	90.21	7,166.0	1,652.1	8,134.9	8,279.7	0.00	0.00	0.00	
16,600.0	90.00	90.21	7,166.0	1,651.8	8,234.9	8,378.8	0.00	0.00	0.00	
16,700.0	90.00	90.22	7,166.0	1,651.4	8,334.9	8,477.9	0.00	0.00	0.00	
16,800.0	90.00	90.22	7,166.0	1,651.0	8,434.9	8,577.0	0.00	0.00	0.00	
16,900.0	90.00	90.22	7,166.0	1,650.6	8,534.9	8,676.2	0.00	0.00	0.00	
17,000.0	90.00	90.22	7,166.0	1,650.2	8,634.9	8,775.3	0.00	0.00	0.00	
17,100.0	90.00	90.23	7,166.0	1,649.8	8,734.9	8,874.4	0.00	0.00	0.00	
17,200.0	90.00	90.23	7,166.0	1,649.4	8,834.9	8,973.5	0.00	0.00	0.00	
17,300.0	90.00	90.23	7,166.0	1,649.0	8,934.9	9,072.6	0.00	0.00	0.00	
17,400.0	90.00	90.23	7,166.0	1,648.6	9,034.9	9,171.8	0.00	0.00	0.00	
17,500.0	90.00	90.24	7,166.0	1,648.2	9,134.9	9,270.9	0.00	0.00	0.00	
17,600.0	90.00	90.24	7,166.0	1,647.8	9,234.9	9,370.0	0.00	0.00	0.00	
17,700.0	90.00	90.24	7,166.0	1,647.4	9,334.9	9,469.1	0.00	0.00	0.00	
17,800.0	90.00	90.24	7,166.0	1,647.0	9,434.9	9,568.2	0.00	0.00	0.00	
17,900.0	90.00	90.25	7,166.0	1,646.5	9,534.9	9,667.4	0.00	0.00	0.00	

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well JOHNSON CORNER EAST 2-C
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 24' @ 5033.0usft
Project:	Weld County	MD Reference:	KB 24' @ 5033.0usft
Site:	Sec 35-T5N-R68W	North Reference:	True
Well:	JOHNSON CORNER EAST 2-C	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)	
18,000.0	90.00	90.25	7,166.0	1,646.1	9,634.9	9,766.5	0.00	0.00	0.00	
18,100.0	90.00	90.25	7,166.0	1,645.7	9,734.9	9,865.6	0.00	0.00	0.00	
18,200.0	90.00	90.25	7,166.0	1,645.2	9,834.9	9,964.7	0.00	0.00	0.00	
18,300.0	90.00	90.26	7,166.0	1,644.8	9,934.9	10,063.8	0.00	0.00	0.00	
18,400.0	90.00	90.26	7,166.0	1,644.3	10,034.9	10,162.9	0.00	0.00	0.00	
18,500.0	90.00	90.26	7,166.0	1,643.9	10,134.9	10,262.0	0.00	0.00	0.00	
18,600.0	90.00	90.26	7,166.0	1,643.4	10,234.9	10,361.2	0.00	0.00	0.00	
18,700.0	90.00	90.27	7,166.0	1,642.9	10,334.9	10,460.3	0.00	0.00	0.00	
18,800.0	90.00	90.27	7,166.0	1,642.5	10,434.9	10,559.4	0.00	0.00	0.00	
18,900.0	90.00	90.27	7,166.0	1,642.0	10,534.9	10,658.5	0.00	0.00	0.00	
19,000.0	90.00	90.27	7,166.0	1,641.5	10,634.9	10,757.6	0.00	0.00	0.00	
19,100.0	90.00	90.28	7,166.0	1,641.0	10,734.9	10,856.7	0.00	0.00	0.00	
19,200.0	90.00	90.28	7,166.0	1,640.6	10,834.9	10,955.8	0.00	0.00	0.00	
19,300.0	90.00	90.28	7,166.0	1,640.1	10,934.9	11,054.9	0.00	0.00	0.00	
19,400.0	90.00	90.28	7,166.0	1,639.6	11,034.9	11,154.0	0.00	0.00	0.00	
19,500.0	90.00	90.29	7,166.0	1,639.1	11,134.9	11,253.2	0.00	0.00	0.00	
19,600.0	90.00	90.29	7,166.0	1,638.6	11,234.9	11,352.3	0.00	0.00	0.00	
19,700.0	90.00	90.29	7,166.0	1,638.1	11,334.9	11,451.4	0.00	0.00	0.00	
19,800.0	90.00	90.29	7,166.0	1,637.6	11,434.9	11,550.5	0.00	0.00	0.00	
19,900.0	90.00	90.30	7,166.0	1,637.0	11,534.9	11,649.6	0.00	0.00	0.00	
20,000.0	90.00	90.30	7,166.0	1,636.5	11,634.9	11,748.7	0.00	0.00	0.00	
20,971.7	90.00	90.32	7,166.0	1,631.3	12,606.6	12,711.7	0.00	0.00	0.00	
TD at 20971.7' MD										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
JCE 2-C - LP	0.00	0.00	7,166.0	1,668.1	-480.7	1,375,254.21	3,146,260.25	40° 21' 44.230 N	104° 58' 30.493 W	
- hit/miss target										
- Shape										
- plan hits target center										
- Point										
JCE 2-C - PBHL	0.00	0.00	7,166.0	1,631.3	12,606.6	1,375,295.07	3,159,347.49	40° 21' 43.834 N	104° 55' 41.423 W	
- hit/miss target										
- Shape										
- plan hits target center										
- Point										

Formations							
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)		
3,513.7	3,360.0	PARKMAN					
4,313.1	4,087.0	SUSSEX					
4,741.9	4,477.0	SHANNON					
7,293.0	6,887.0	NIOBRARA					
7,479.8	7,029.0	NIO B TARGET					
7,698.1	7,136.0	FORT HAYS					
7,777.2	7,156.0	CODELL					

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well JOHNSON CORNER EAST 2-C
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 24' @ 5033.0usft
Project:	Weld County	MD Reference:	KB 24' @ 5033.0usft
Site:	Sec 35-T5N-R68W	North Reference:	True
Well:	JOHNSON CORNER EAST 2-C	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL 1		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,000.0	1,000.0	0.0	0.0	Build 2°/100'
2,228.5	2,191.2	219.3	-138.5	Hold 24.57° Inc
5,725.8	5,371.8	1,448.8	-915.2	Drop 2°/100'
6,954.3	6,563.0	1,668.1	-1,053.7	Hold Vertical
6,984.3	6,593.0	1,668.1	-1,053.7	KOP, Build 10°/100'
7,884.4	7,166.0	1,668.1	-480.7	LP @ 90° Inc
20,971.7	7,166.0	1,631.3	12,606.6	TD at 20971.7' MD