

EXTRACTION OIL & GAS

Weld County

Sec 32-T6N-R65W

WS-SUNRISE 1-5-5

ORIGINAL WELLBORE

Plan: PROPOSAL 1

Standard Planning Report

18 September, 2017



Project: Weld County
Site: Sec 32-T6N-R65W
Well: WS-SUNRISE 1-5-5
Wellbore: ORIGINAL WELLBORE
Design: PROPOSAL 1

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



Azimuths to True North
Magnetic North: 8.15°

Magnetic Field
Strength: 52394.6snT
Dip Angle: 66.89°
Date: 9/11/2017
Model: IGRF2015

WELL DETAILS: WS-SUNRISE 1-5-5

+N/-S	+E/-W	Northing	Easting	4641.00	Latitude	Longitude	Slot
0.00	0.00	1403154.05	3227172.76		40° 26' 13.884 N	104° 41' 1.932 W	

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	1300.00	0.00	0.00	1300.00	0.00	0.00	0.00	0.00	0.00	
3	1431.74	2.63	236.66	1431.69	-1.66	-2.53	2.00	236.66	1.79	
4	6160.30	2.63	236.66	6155.26	-121.14	-184.12	0.00	0.00	129.97	
5	6292.04	0.00	0.00	6286.95	-122.80	-186.65	2.00	180.00	131.75	
6	6322.04	0.00	0.00	6316.95	-122.80	-186.65	0.00	0.00	131.75	
7	7222.20	90.00	180.82	6890.00	-695.80	-194.86	10.00	180.82	704.48	WS- SUNRISE 1-5-5 LP
8	11889.35	90.00	180.82	6890.00	-5362.48	-261.71	0.00	0.00	5368.86	WS-SUNRISE 1-5-5 PBHL

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3586.00	3588.33	PARKMAN
4290.00	4293.07	SUSSEX
4835.00	4838.65	SHANNON
6710.00	6755.17	SHARON SPRINGS
6740.00	6797.94	NIOBRARA
6880.00	7114.97	NIO B TARGET

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSec	Departure	Annotation
1300.00	0.00	0.00	1300.00	0.00	0.00	0.00	0.00	BUILD 2°/100'
1431.74	2.63	236.66	1431.69	-1.66	-2.53	1.79	3.03	HOLD 2.63° INC
6160.30	2.63	236.66	6155.26	-121.14	-184.12	129.97	220.40	DROP 2°/100'
6292.04	0.00	0.00	6286.95	-122.80	-186.65	131.75	223.42	HOLD VERTICAL
6322.04	0.00	0.00	6316.95	-122.80	-186.65	131.75	223.42	KOP, BUILD 10°/100'
7222.20	90.00	180.82	6890.00	-695.80	-194.86	704.48	796.49	LP @ 90° INC, 180.82° AZM HOLD
11889.35	90.00	180.82	6889.90	-5362.48	-261.69	5368.86	5463.64	TD at 11889.35' MD

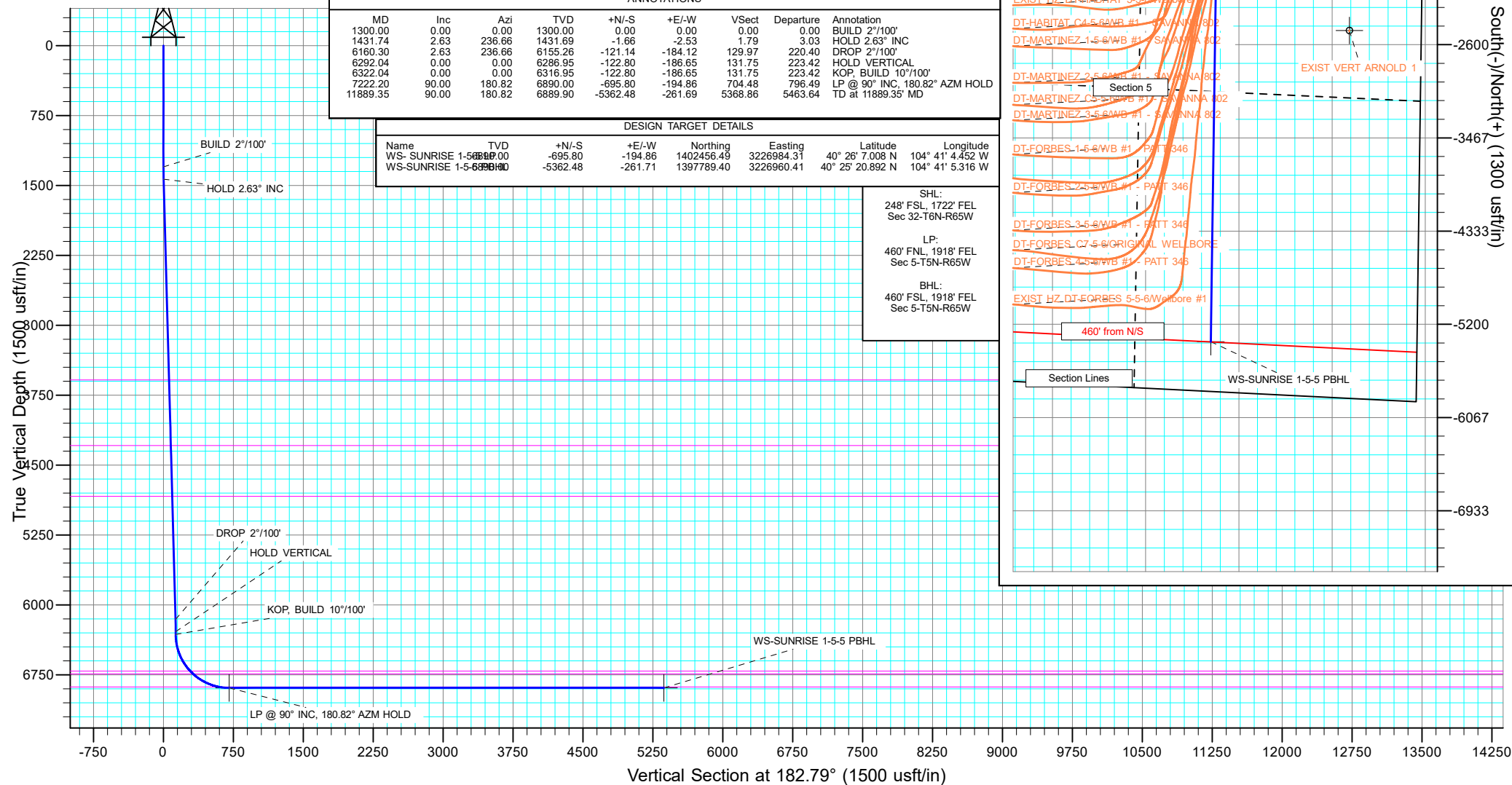
DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
WS- SUNRISE 1-5-5 SHL	1722' FEL	-695.80	-194.86	1402456.49	3226984.31	40° 26' 7.008 N	104° 41' 4.452 W
WS-SUNRISE 1-5-5 LP	1918' FEL	-5362.48	-261.71	1397789.40	3226960.41	40° 25' 20.892 N	104° 41' 5.316 W

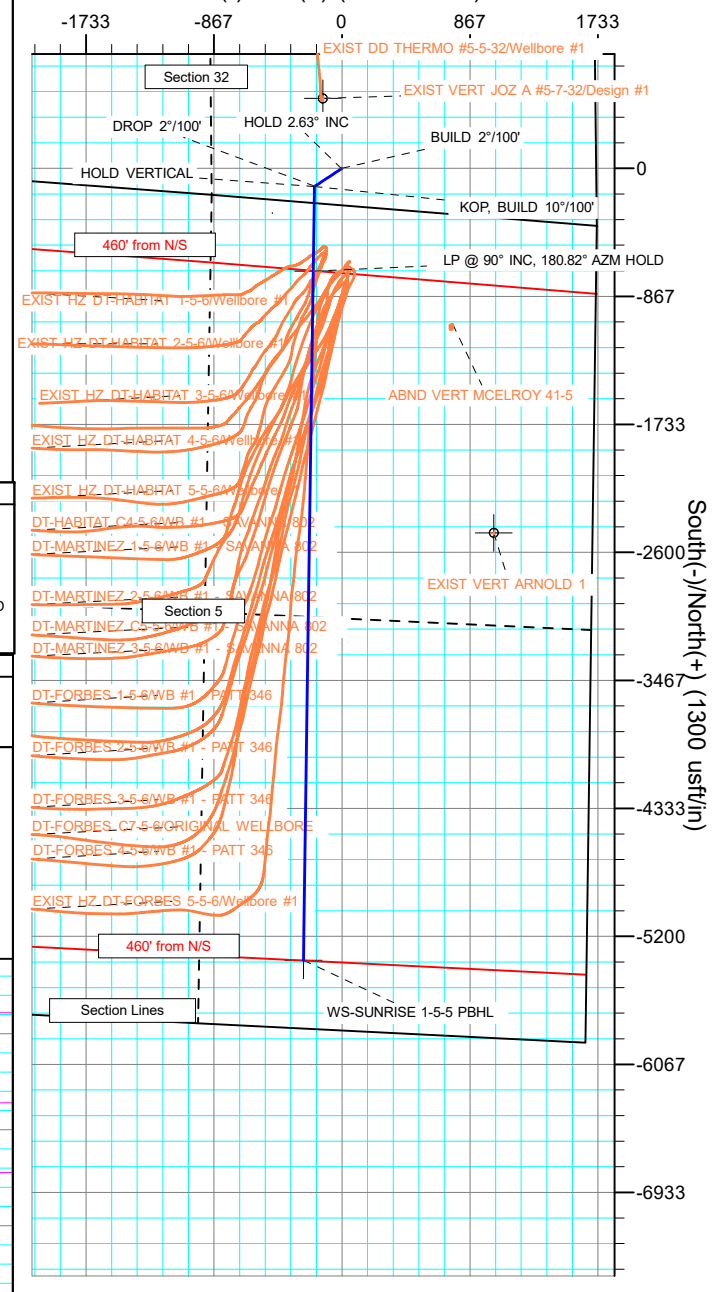
SHL:
248' FSL, 1722' FEL
Sec 32-T6N-R65W

LP:
460' FNL, 1918' FEL
Sec 5-T5N-R65W

BHL:
460' FSL, 1918' FEL
Sec 5-T5N-R65W



West(-)/East(+) (1300 usft/in)



Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well WS-SUNRISE 1-5-5
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 25' @ 4666.00usft
Project:	Weld County	MD Reference:	KB 25' @ 4666.00usft
Site:	Sec 32-T6N-R65W	North Reference:	True
Well:	WS-SUNRISE 1-5-5	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 32-T6N-R65W			
Site Position:		Northing:	1,405,488.40 usft	Latitude:	40° 26' 36.996 N
From:	Lat/Long	Easting:	3,226,675.31 usft	Longitude:	104° 41' 8.088 W
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence:	0.53 °

Well	WS-SUNRISE 1-5-5					
Well Position	+N/-S	-2,338.81 usft	Northing:	1,403,154.06 usft	Latitude:	40° 26' 13.884 N
	+E/-W	475.99 usft	Easting:	3,227,172.76 usft	Longitude:	104° 41' 1.932 W
Position Uncertainty	0.00 usft		Wellhead Elevation:		Ground Level:	4,641.00 usft

Wellbore	ORIGINAL WELLBORE				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	9/11/2017	8.15	66.89	52,394.58431048

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	182.79

Plan Survey Tool Program	Date	9/18/2017		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	11,888.79	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	
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,431.74	2.63	236.66	1,431.69	-1.66	-2.53	2.00	2.00	0.00	236.66	
6,160.30	2.63	236.66	6,155.26	-121.14	-184.12	0.00	0.00	0.00	0.00	
6,292.04	0.00	0.00	6,286.95	-122.80	-186.65	2.00	-2.00	0.00	180.00	
6,322.04	0.00	0.00	6,316.95	-122.80	-186.65	0.00	0.00	0.00	0.00	
7,222.20	90.00	180.82	6,890.00	-695.80	-194.86	10.00	10.00	-19.91	180.82	WS- SUNRISE 1-5-5
11,889.35	90.00	180.82	6,890.00	-5,362.48	-261.71	0.00	0.00	0.00	0.00	WS-SUNRISE 1-5-5 F

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well WS-SUNRISE 1-5-5
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 25' @ 4666.00usft
Project:	Weld County	MD Reference:	KB 25' @ 4666.00usft
Site:	Sec 32-T6N-R65W	North Reference:	True
Well:	WS-SUNRISE 1-5-5	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
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
BUILD 2°/100'									
1,400.00	2.00	236.66	1,399.98	-0.96	-1.46	1.03	2.00	2.00	0.00
1,431.74	2.63	236.66	1,431.69	-1.66	-2.53	1.79	2.00	2.00	0.00
HOLD 2.63° INC									
1,500.00	2.63	236.66	1,499.88	-3.39	-5.15	3.64	0.00	0.00	0.00
1,600.00	2.63	236.66	1,599.78	-5.92	-8.99	6.35	0.00	0.00	0.00
1,700.00	2.63	236.66	1,699.67	-8.44	-12.83	9.06	0.00	0.00	0.00
1,800.00	2.63	236.66	1,799.56	-10.97	-16.67	11.77	0.00	0.00	0.00
1,900.00	2.63	236.66	1,899.46	-13.50	-20.51	14.48	0.00	0.00	0.00
2,000.00	2.63	236.66	1,999.35	-16.02	-24.35	17.19	0.00	0.00	0.00
2,100.00	2.63	236.66	2,099.25	-18.55	-28.19	19.90	0.00	0.00	0.00
2,200.00	2.63	236.66	2,199.14	-21.08	-32.03	22.61	0.00	0.00	0.00
2,300.00	2.63	236.66	2,299.04	-23.60	-35.87	25.32	0.00	0.00	0.00
2,400.00	2.63	236.66	2,398.93	-26.13	-39.71	28.03	0.00	0.00	0.00
2,500.00	2.63	236.66	2,498.82	-28.66	-43.55	30.74	0.00	0.00	0.00
2,600.00	2.63	236.66	2,598.72	-31.18	-47.39	33.45	0.00	0.00	0.00
2,700.00	2.63	236.66	2,698.61	-33.71	-51.23	36.17	0.00	0.00	0.00
2,800.00	2.63	236.66	2,798.51	-36.23	-55.08	38.88	0.00	0.00	0.00
2,900.00	2.63	236.66	2,898.40	-38.76	-58.92	41.59	0.00	0.00	0.00
3,000.00	2.63	236.66	2,998.30	-41.29	-62.76	44.30	0.00	0.00	0.00
3,100.00	2.63	236.66	3,098.19	-43.81	-66.60	47.01	0.00	0.00	0.00
3,200.00	2.63	236.66	3,198.08	-46.34	-70.44	49.72	0.00	0.00	0.00
3,300.00	2.63	236.66	3,297.98	-48.87	-74.28	52.43	0.00	0.00	0.00
3,400.00	2.63	236.66	3,397.87	-51.39	-78.12	55.14	0.00	0.00	0.00
3,500.00	2.63	236.66	3,497.77	-53.92	-81.96	57.85	0.00	0.00	0.00
3,588.33	2.63	236.66	3,586.00	-56.15	-85.35	60.25	0.00	0.00	0.00
PARKMAN									
3,600.00	2.63	236.66	3,597.66	-56.45	-85.80	60.56	0.00	0.00	0.00
3,700.00	2.63	236.66	3,697.56	-58.97	-89.64	63.27	0.00	0.00	0.00
3,800.00	2.63	236.66	3,797.45	-61.50	-93.48	65.98	0.00	0.00	0.00
3,900.00	2.63	236.66	3,897.34	-64.03	-97.32	68.69	0.00	0.00	0.00
4,000.00	2.63	236.66	3,997.24	-66.55	-101.16	71.41	0.00	0.00	0.00
4,100.00	2.63	236.66	4,097.13	-69.08	-105.00	74.12	0.00	0.00	0.00
4,200.00	2.63	236.66	4,197.03	-71.61	-108.84	76.83	0.00	0.00	0.00
4,293.07	2.63	236.66	4,290.00	-73.96	-112.41	79.35	0.00	0.00	0.00
SUSSEX									
4,300.00	2.63	236.66	4,296.92	-74.13	-112.68	79.54	0.00	0.00	0.00
4,400.00	2.63	236.66	4,396.82	-76.66	-116.52	82.25	0.00	0.00	0.00
4,500.00	2.63	236.66	4,496.71	-79.19	-120.36	84.96	0.00	0.00	0.00

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well WS-SUNRISE 1-5-5
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 25' @ 4666.00usft
Project:	Weld County	MD Reference:	KB 25' @ 4666.00usft
Site:	Sec 32-T6N-R65W	North Reference:	True
Well:	WS-SUNRISE 1-5-5	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)
4,600.00	2.63	236.66	4,596.60	-81.71	-124.20	87.67	0.00	0.00	0.00
4,700.00	2.63	236.66	4,696.50	-84.24	-128.04	90.38	0.00	0.00	0.00
4,800.00	2.63	236.66	4,796.39	-86.77	-131.88	93.09	0.00	0.00	0.00
4,838.65	2.63	236.66	4,835.00	-87.74	-133.36	94.14	0.00	0.00	0.00
SHANNON									
4,900.00	2.63	236.66	4,896.29	-89.29	-135.72	95.80	0.00	0.00	0.00
5,000.00	2.63	236.66	4,996.18	-91.82	-139.56	98.51	0.00	0.00	0.00
5,100.00	2.63	236.66	5,096.08	-94.35	-143.40	101.22	0.00	0.00	0.00
5,200.00	2.63	236.66	5,195.97	-96.87	-147.24	103.93	0.00	0.00	0.00
5,300.00	2.63	236.66	5,295.86	-99.40	-151.08	106.65	0.00	0.00	0.00
5,400.00	2.63	236.66	5,395.76	-101.93	-154.92	109.36	0.00	0.00	0.00
5,500.00	2.63	236.66	5,495.65	-104.45	-158.76	112.07	0.00	0.00	0.00
5,600.00	2.63	236.66	5,595.55	-106.98	-162.60	114.78	0.00	0.00	0.00
5,700.00	2.63	236.66	5,695.44	-109.51	-166.44	117.49	0.00	0.00	0.00
5,800.00	2.63	236.66	5,795.34	-112.03	-170.28	120.20	0.00	0.00	0.00
5,900.00	2.63	236.66	5,895.23	-114.56	-174.12	122.91	0.00	0.00	0.00
6,000.00	2.63	236.66	5,995.12	-117.09	-177.96	125.62	0.00	0.00	0.00
6,100.00	2.63	236.66	6,095.02	-119.61	-181.80	128.33	0.00	0.00	0.00
6,160.30	2.63	236.66	6,155.26	-121.14	-184.12	129.97	0.00	0.00	0.00
DROP 2°/100'									
6,200.00	1.84	236.66	6,194.92	-121.99	-185.41	130.88	2.00	-2.00	0.00
6,292.04	0.00	0.00	6,286.95	-122.80	-186.65	131.75	2.00	-2.00	0.00
HOLD VERTICAL									
6,300.00	0.00	0.00	6,294.91	-122.80	-186.65	131.75	0.00	0.00	0.00
6,322.04	0.00	0.00	6,316.95	-122.80	-186.65	131.75	0.00	0.00	0.00
KOP, BUILD 10°/100'									
6,350.00	2.80	180.82	6,344.90	-123.48	-186.66	132.43	10.00	10.00	0.00
6,400.00	7.79	180.82	6,394.67	-128.09	-186.73	137.04	10.00	10.00	0.00
6,450.00	12.79	180.82	6,443.85	-137.03	-186.85	145.97	10.00	10.00	0.00
6,500.00	17.79	180.82	6,492.06	-150.21	-187.04	159.15	10.00	10.00	0.00
6,550.00	22.79	180.82	6,538.94	-167.54	-187.29	176.47	10.00	10.00	0.00
6,600.00	27.79	180.82	6,584.14	-188.89	-187.60	197.81	10.00	10.00	0.00
6,650.00	32.79	180.82	6,627.30	-214.10	-187.96	223.01	10.00	10.00	0.00
6,700.00	37.79	180.82	6,668.10	-242.98	-188.37	251.87	10.00	10.00	0.00
6,750.00	42.79	180.82	6,706.22	-275.30	-188.83	284.17	10.00	10.00	0.00
6,755.17	43.31	180.82	6,710.00	-278.82	-188.88	287.70	10.00	10.00	0.00
SHARON SPRINGS									
6,797.94	47.58	180.82	6,740.00	-309.29	-189.32	318.15	10.00	10.00	0.00
NIOBRARA									
6,800.00	47.79	180.82	6,741.39	-310.81	-189.34	319.67	10.00	10.00	0.00
6,850.00	52.79	180.82	6,773.33	-349.26	-189.89	358.10	10.00	10.00	0.00
6,900.00	57.79	180.82	6,801.79	-390.34	-190.48	399.17	10.00	10.00	0.00
6,950.00	62.79	180.82	6,826.57	-433.75	-191.10	442.55	10.00	10.00	0.00
7,000.00	67.78	180.82	6,847.46	-479.15	-191.75	487.93	10.00	10.00	0.00
7,050.00	72.78	180.82	6,864.33	-526.20	-192.43	534.96	10.00	10.00	0.00
7,100.00	77.78	180.82	6,877.02	-574.54	-193.12	583.27	10.00	10.00	0.00
7,114.97	79.28	180.82	6,880.00	-589.21	-193.33	597.94	10.00	10.00	0.00
NIO B TARGET									
7,150.00	82.78	180.82	6,885.46	-623.80	-193.82	632.51	10.00	10.00	0.00
7,200.00	87.78	180.82	6,889.57	-673.61	-194.54	682.29	10.00	10.00	0.00
7,222.20	90.00	180.82	6,890.00	-695.80	-194.86	704.48	10.00	10.00	0.00
LP @ 90° INC, 180.82° AZM HOLD									
7,300.00	90.00	180.82	6,890.00	-773.60	-195.97	782.23	0.00	0.00	0.00

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well WS-SUNRISE 1-5-5
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 25' @ 4666.00usft
Project:	Weld County	MD Reference:	KB 25' @ 4666.00usft
Site:	Sec 32-T6N-R65W	North Reference:	True
Well:	WS-SUNRISE 1-5-5	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)	
7,400.00	90.00	180.82	6,890.00	-873.59	-197.40	882.17	0.00	0.00	0.00	
7,500.00	90.00	180.82	6,889.99	-973.58	-198.83	982.11	0.00	0.00	0.00	
7,600.00	90.00	180.82	6,889.99	-1,073.57	-200.27	1,082.05	0.00	0.00	0.00	
7,700.00	90.00	180.82	6,889.99	-1,173.56	-201.70	1,181.99	0.00	0.00	0.00	
7,800.00	90.00	180.82	6,889.99	-1,273.55	-203.13	1,281.93	0.00	0.00	0.00	
7,900.00	90.00	180.82	6,889.99	-1,373.54	-204.56	1,381.87	0.00	0.00	0.00	
8,000.00	90.00	180.82	6,889.98	-1,473.53	-205.99	1,481.81	0.00	0.00	0.00	
8,100.00	90.00	180.82	6,889.98	-1,573.51	-207.43	1,581.76	0.00	0.00	0.00	
8,200.00	90.00	180.82	6,889.98	-1,673.50	-208.86	1,681.70	0.00	0.00	0.00	
8,300.00	90.00	180.82	6,889.98	-1,773.49	-210.29	1,781.64	0.00	0.00	0.00	
8,400.00	90.00	180.82	6,889.97	-1,873.48	-211.72	1,881.58	0.00	0.00	0.00	
8,500.00	90.00	180.82	6,889.97	-1,973.47	-213.15	1,981.52	0.00	0.00	0.00	
8,600.00	90.00	180.82	6,889.97	-2,073.46	-214.58	2,081.46	0.00	0.00	0.00	
8,700.00	90.00	180.82	6,889.97	-2,173.45	-216.02	2,181.40	0.00	0.00	0.00	
8,800.00	90.00	180.82	6,889.97	-2,273.44	-217.45	2,281.34	0.00	0.00	0.00	
8,900.00	90.00	180.82	6,889.96	-2,373.43	-218.88	2,381.28	0.00	0.00	0.00	
9,000.00	90.00	180.82	6,889.96	-2,473.42	-220.31	2,481.22	0.00	0.00	0.00	
9,100.00	90.00	180.82	6,889.96	-2,573.41	-221.74	2,581.16	0.00	0.00	0.00	
9,200.00	90.00	180.82	6,889.96	-2,673.40	-223.18	2,681.10	0.00	0.00	0.00	
9,300.00	90.00	180.82	6,889.95	-2,773.39	-224.61	2,781.04	0.00	0.00	0.00	
9,400.00	90.00	180.82	6,889.95	-2,873.38	-226.04	2,880.98	0.00	0.00	0.00	
9,500.00	90.00	180.82	6,889.95	-2,973.37	-227.47	2,980.93	0.00	0.00	0.00	
9,600.00	90.00	180.82	6,889.95	-3,073.36	-228.90	3,080.87	0.00	0.00	0.00	
9,700.00	90.00	180.82	6,889.95	-3,173.35	-230.34	3,180.81	0.00	0.00	0.00	
9,800.00	90.00	180.82	6,889.94	-3,273.34	-231.77	3,280.75	0.00	0.00	0.00	
9,900.00	90.00	180.82	6,889.94	-3,373.33	-233.20	3,380.69	0.00	0.00	0.00	
10,000.00	90.00	180.82	6,889.94	-3,473.32	-234.63	3,480.63	0.00	0.00	0.00	
10,100.00	90.00	180.82	6,889.94	-3,573.31	-236.06	3,580.57	0.00	0.00	0.00	
10,200.00	90.00	180.82	6,889.93	-3,673.30	-237.50	3,680.51	0.00	0.00	0.00	
10,300.00	90.00	180.82	6,889.93	-3,773.29	-238.93	3,780.45	0.00	0.00	0.00	
10,400.00	90.00	180.82	6,889.93	-3,873.28	-240.36	3,880.39	0.00	0.00	0.00	
10,500.00	90.00	180.82	6,889.93	-3,973.27	-241.79	3,980.33	0.00	0.00	0.00	
10,600.00	90.00	180.82	6,889.93	-4,073.26	-243.22	4,080.27	0.00	0.00	0.00	
10,700.00	90.00	180.82	6,889.92	-4,173.25	-244.66	4,180.21	0.00	0.00	0.00	
10,800.00	90.00	180.82	6,889.92	-4,273.24	-246.09	4,280.15	0.00	0.00	0.00	
10,900.00	90.00	180.82	6,889.92	-4,373.23	-247.52	4,380.09	0.00	0.00	0.00	
11,000.00	90.00	180.82	6,889.92	-4,473.22	-248.95	4,480.04	0.00	0.00	0.00	
11,100.00	90.00	180.82	6,889.92	-4,573.21	-250.38	4,579.98	0.00	0.00	0.00	
11,200.00	90.00	180.82	6,889.91	-4,673.20	-251.81	4,679.92	0.00	0.00	0.00	
11,300.00	90.00	180.82	6,889.91	-4,773.19	-253.25	4,779.86	0.00	0.00	0.00	
11,400.00	90.00	180.82	6,889.91	-4,873.18	-254.68	4,879.80	0.00	0.00	0.00	
11,500.00	90.00	180.82	6,889.91	-4,973.17	-256.11	4,979.74	0.00	0.00	0.00	
11,600.00	90.00	180.82	6,889.90	-5,073.16	-257.54	5,079.68	0.00	0.00	0.00	
11,700.00	90.00	180.82	6,889.90	-5,173.15	-258.97	5,179.62	0.00	0.00	0.00	
11,800.00	90.00	180.82	6,889.90	-5,273.14	-260.41	5,279.56	0.00	0.00	0.00	
11,889.35	90.00	180.82	6,890.00	-5,362.48	-261.71	5,368.86	0.00	0.00	0.00	
TD at 11889.35' MD										

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well WS-SUNRISE 1-5-5
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 25' @ 4666.00usft
Project:	Weld County	MD Reference:	KB 25' @ 4666.00usft
Site:	Sec 32-T6N-R65W	North Reference:	True
Well:	WS-SUNRISE 1-5-5	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)		
WS- SUNRISE 1-5-5 LP	0.00	0.00	6,890.00	-695.80	-194.86	1,402,456.49	3,226,984.32	40° 26' 7.008 N	104° 41' 4.452 W
- plan hits target center									
- Point									
WS-SUNRISE 1-5-5 PBI	0.00	0.00	6,890.00	-5,362.48	-261.71	1,397,789.40	3,226,960.41	40° 25' 20.892 N	104° 41' 5.316 W
- plan hits target center									
- Point									

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(usft)	(usft)			(°)	(°)	
3,588.33	3,586.00	PARKMAN				
4,293.07	4,290.00	SUSSEX				
4,838.65	4,835.00	SHANNON				
6,755.17	6,710.00	SHARON SPRINGS				
6,797.94	6,740.00	NIOBRARA				
7,114.97	6,880.00	NIO B TARGET				

Plan Annotations				
Measured Depth	Vertical Depth	Local Coordinates		
(usft)	(usft)	+N/-S (usft)	+E/-W (usft)	Comment
1,300.00	1,300.00	0.00	0.00	BUILD 2°/100'
1,431.74	1,431.69	-1.66	-2.53	HOLD 2.63° INC
6,160.30	6,155.26	-121.14	-184.12	DROP 2°/100'
6,292.04	6,286.95	-122.80	-186.65	HOLD VERTICAL
6,322.04	6,316.95	-122.80	-186.65	KOP, BUILD 10°/100'
7,222.20	6,890.00	-695.80	-194.86	LP @ 90° INC, 180.82° AZM HOLD
11,889.35	6,890.00	-5,362.48	-261.71	TD at 11889.35' MD