

EXTRACTION OIL & GAS

Weld County

Sec 32-T6N-R65W

WS-SUNRISE 2-5-5

ORIGINAL WELLBORE

Plan: PROPOSAL 1

Standard Planning Report

18 September, 2017



Project: Weld County
Site: Sec 32-T6N-R65W
Well: WS-SUNRISE 2-5-5
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: 52394.6nT
Dip Angle: 66.89°
Date: 9/11/2017
Model: IGRF2015

WELL DETAILS: WS-SUNRISE 2-5-5

+N/-S	+E/-W	Northing	Easting	4641.00	Latitude	Longitude	Slot
0.00	0.00	1403154.21	3227189.46		40° 26' 13.884 N	104° 41' 1.716 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	1100.00	0.00	0.00	1100.00	0.00	0.00	0.00	0.00	0.00	
3	1188.84	1.78	156.17	1188.82	-1.26	0.56	2.00	156.17	1.26	
4	6200.58	1.78	156.17	6198.16	-143.40	63.34	0.00	0.00	143.27	
5	6289.42	0.00	0.00	6286.98	-144.66	63.90	2.00	180.00	144.53	
6	6319.42	0.00	0.00	6316.98	-144.66	63.90	0.00	0.00	144.53	
7	7219.56	90.00	180.82	6890.00	-717.66	55.67	10.00	180.82	717.55	WS-SUNRISE 2-5-5 LP
8	11879.42	90.00	180.82	6890.00	-5377.05	-11.14	0.00	-165.53	5377.06	WS-SUNRISE 2-5-5 PBHL

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3586.00	3587.17	PARKMAN
4290.00	4291.51	SUSSEX
4835.00	4836.77	SHANNON
6710.00	6752.51	SHARON SPRINGS
6740.00	6795.28	NIOBRARA
6880.00	7112.31	NIO B TARGET

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Vsect	Departure	Annotation
1100.00	0.00	0.00	1100.00	0.00	0.00	0.00	0.00	BUILD 2°/100'
1188.84	1.78	156.17	1188.82	-1.26	0.56	1.26	1.38	HOLD 1.78° INC
6200.58	1.78	156.17	6198.16	-143.40	63.34	143.27	156.77	DROP 2°/100'
6289.42	0.00	0.00	6286.98	-144.66	63.90	144.53	158.14	HOLD VERTICAL
6319.42	0.00	0.00	6316.98	-144.66	63.90	144.53	158.14	KOP, BUILD 10°/100'
7219.56	90.00	180.82	6890.00	-717.66	55.67	717.55	731.21	LP @ 90° INC, 180.82° AZM HOLD
11879.42	90.00	180.82	6890.00	-5377.05	-11.14	5377.06	5391.07	TD at 11879.42' MD

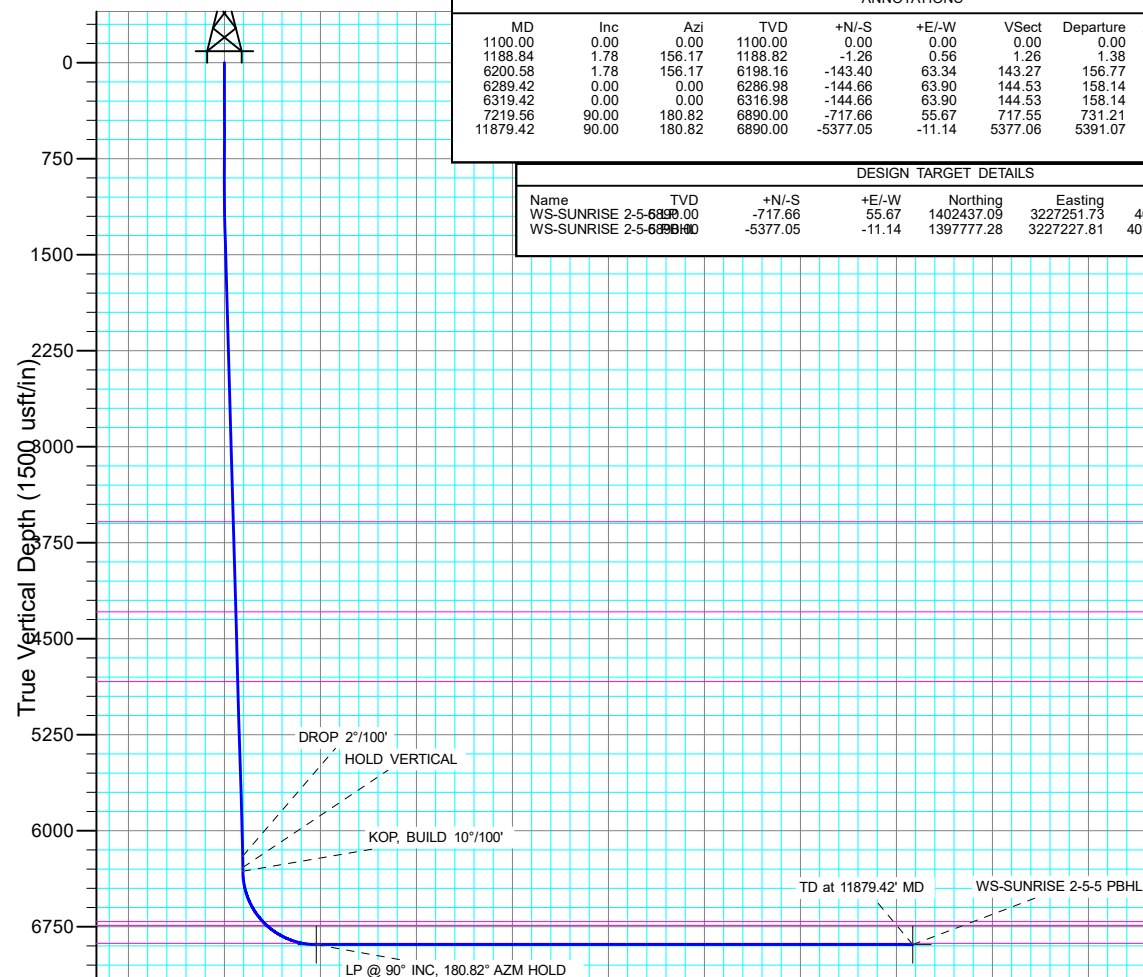
DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
WS-SUNRISE 2-5-5 SHL	1704	-717.66	55.67	1402437.09	3227251.73	40° 26' 6.792 N	104° 41' 0.996 W
WS-SUNRISE 2-5-5 LP	1650	-5377.05	-11.14	1397777.28	3227227.81	40° 25' 20.748 N	104° 41' 1.860 W

SHL:
249' FSL, 1704' FEL
Sec 32-T6N-R65W

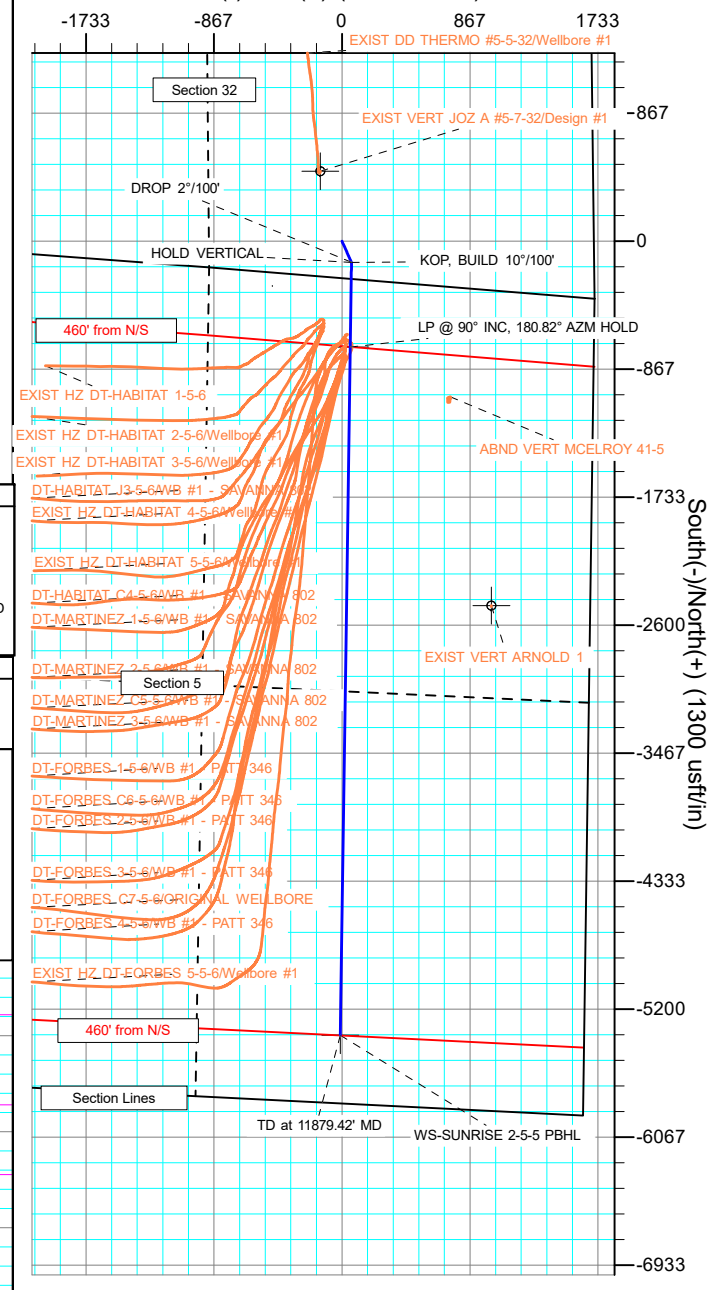
LP:
460' FNL, 1650' FEL
Sec 5-T5N-R65W

BHL:
460' FSL, 1650' FEL
Sec 5-T5N-R65W



Vertical Section at 180.12° (1500 usft/in)

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



South(-)/North(+) (1300 usft/in)

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well WS-SUNRISE 2-5-5
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 2-5-5	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 2-5-5					
Well Position	+N/-S	-2,338.81 usft	Northing:	1,403,154.21 usft	Latitude:	40° 26' 13.884 N
	+E/-W	492.69 usft	Easting:	3,227,189.46 usft	Longitude:	104° 41' 1.716 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	52,394.59057245

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	180.12

Plan Survey Tool Program	Date	9/18/2017		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	11,879.38	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	
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,188.84	1.78	156.17	1,188.82	-1.26	0.56	2.00	2.00	0.00	156.17	
6,200.58	1.78	156.17	6,198.16	-143.40	63.34	0.00	0.00	0.00	0.00	
6,289.42	0.00	0.00	6,286.98	-144.66	63.90	2.00	-2.00	0.00	180.00	
6,319.42	0.00	0.00	6,316.98	-144.66	63.90	0.00	0.00	0.00	0.00	
7,219.56	90.00	180.82	6,890.00	-717.66	55.67	10.00	10.00	-19.91	180.82	WS-SUNRISE 2-5-5 L
11,879.42	90.00	180.82	6,890.00	-5,377.05	-11.14	0.00	0.00	0.00	-165.53	WS-SUNRISE 2-5-5 F

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well WS-SUNRISE 2-5-5
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 2-5-5	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
BUILD 2°/100'									
1,188.84	1.78	156.17	1,188.82	-1.26	0.56	1.26	2.00	2.00	0.00
HOLD 1.78° INC									
1,200.00	1.78	156.17	1,199.98	-1.58	0.70	1.58	0.00	0.00	0.00
1,300.00	1.78	156.17	1,299.93	-4.41	1.95	4.41	0.00	0.00	0.00
1,400.00	1.78	156.17	1,399.88	-7.25	3.20	7.24	0.00	0.00	0.00
1,500.00	1.78	156.17	1,499.84	-10.08	4.45	10.08	0.00	0.00	0.00
1,600.00	1.78	156.17	1,599.79	-12.92	5.71	12.91	0.00	0.00	0.00
1,700.00	1.78	156.17	1,699.74	-15.76	6.96	15.74	0.00	0.00	0.00
1,800.00	1.78	156.17	1,799.69	-18.59	8.21	18.58	0.00	0.00	0.00
1,900.00	1.78	156.17	1,899.64	-21.43	9.47	21.41	0.00	0.00	0.00
2,000.00	1.78	156.17	1,999.60	-24.27	10.72	24.24	0.00	0.00	0.00
2,100.00	1.78	156.17	2,099.55	-27.10	11.97	27.08	0.00	0.00	0.00
2,200.00	1.78	156.17	2,199.50	-29.94	13.22	29.91	0.00	0.00	0.00
2,300.00	1.78	156.17	2,299.45	-32.77	14.48	32.74	0.00	0.00	0.00
2,400.00	1.78	156.17	2,399.40	-35.61	15.73	35.58	0.00	0.00	0.00
2,500.00	1.78	156.17	2,499.36	-38.45	16.98	38.41	0.00	0.00	0.00
2,600.00	1.78	156.17	2,599.31	-41.28	18.24	41.24	0.00	0.00	0.00
2,700.00	1.78	156.17	2,699.26	-44.12	19.49	44.08	0.00	0.00	0.00
2,800.00	1.78	156.17	2,799.21	-46.95	20.74	46.91	0.00	0.00	0.00
2,900.00	1.78	156.17	2,899.16	-49.79	21.99	49.75	0.00	0.00	0.00
3,000.00	1.78	156.17	2,999.12	-52.63	23.25	52.58	0.00	0.00	0.00
3,100.00	1.78	156.17	3,099.07	-55.46	24.50	55.41	0.00	0.00	0.00
3,200.00	1.78	156.17	3,199.02	-58.30	25.75	58.25	0.00	0.00	0.00
3,300.00	1.78	156.17	3,298.97	-61.14	27.01	61.08	0.00	0.00	0.00
3,400.00	1.78	156.17	3,398.92	-63.97	28.26	63.91	0.00	0.00	0.00
3,500.00	1.78	156.17	3,498.87	-66.81	29.51	66.75	0.00	0.00	0.00
3,587.17	1.78	156.17	3,586.00	-69.28	30.60	69.22	0.00	0.00	0.00
PARKMAN									
3,600.00	1.78	156.17	3,598.83	-69.64	30.76	69.58	0.00	0.00	0.00
3,700.00	1.78	156.17	3,698.78	-72.48	32.02	72.41	0.00	0.00	0.00
3,800.00	1.78	156.17	3,798.73	-75.32	33.27	75.25	0.00	0.00	0.00
3,900.00	1.78	156.17	3,898.68	-78.15	34.52	78.08	0.00	0.00	0.00
4,000.00	1.78	156.17	3,998.63	-80.99	35.77	80.91	0.00	0.00	0.00
4,100.00	1.78	156.17	4,098.59	-83.82	37.03	83.75	0.00	0.00	0.00
4,200.00	1.78	156.17	4,198.54	-86.66	38.28	86.58	0.00	0.00	0.00
4,291.51	1.78	156.17	4,290.00	-89.26	39.43	89.17	0.00	0.00	0.00
SUSSEX									
4,300.00	1.78	156.17	4,298.49	-89.50	39.53	89.41	0.00	0.00	0.00
4,400.00	1.78	156.17	4,398.44	-92.33	40.79	92.25	0.00	0.00	0.00
4,500.00	1.78	156.17	4,498.39	-95.17	42.04	95.08	0.00	0.00	0.00

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well WS-SUNRISE 2-5-5
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 2-5-5	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	1.78	156.17	4,598.35	-98.01	43.29	97.92	0.00	0.00	0.00
4,700.00	1.78	156.17	4,698.30	-100.84	44.54	100.75	0.00	0.00	0.00
4,800.00	1.78	156.17	4,798.25	-103.68	45.80	103.58	0.00	0.00	0.00
4,836.77	1.78	156.17	4,835.00	-104.72	46.26	104.62	0.00	0.00	0.00
SHANNON									
4,900.00	1.78	156.17	4,898.20	-106.51	47.05	106.42	0.00	0.00	0.00
5,000.00	1.78	156.17	4,998.15	-109.35	48.30	109.25	0.00	0.00	0.00
5,100.00	1.78	156.17	5,098.11	-112.19	49.56	112.08	0.00	0.00	0.00
5,200.00	1.78	156.17	5,198.06	-115.02	50.81	114.92	0.00	0.00	0.00
5,300.00	1.78	156.17	5,298.01	-117.86	52.06	117.75	0.00	0.00	0.00
5,400.00	1.78	156.17	5,397.96	-120.69	53.31	120.58	0.00	0.00	0.00
5,500.00	1.78	156.17	5,497.91	-123.53	54.57	123.42	0.00	0.00	0.00
5,600.00	1.78	156.17	5,597.87	-126.37	55.82	126.25	0.00	0.00	0.00
5,700.00	1.78	156.17	5,697.82	-129.20	57.07	129.08	0.00	0.00	0.00
5,800.00	1.78	156.17	5,797.77	-132.04	58.33	131.92	0.00	0.00	0.00
5,900.00	1.78	156.17	5,897.72	-134.88	59.58	134.75	0.00	0.00	0.00
6,000.00	1.78	156.17	5,997.67	-137.71	60.83	137.59	0.00	0.00	0.00
6,100.00	1.78	156.17	6,097.62	-140.55	62.08	140.42	0.00	0.00	0.00
6,200.58	1.78	156.17	6,198.16	-143.40	63.34	143.27	0.00	0.00	0.00
DROP 2°/100'									
6,289.42	0.00	0.00	6,286.98	-144.66	63.90	144.53	2.00	-2.00	0.00
HOLD VERTICAL									
6,300.00	0.00	0.00	6,297.56	-144.66	63.90	144.53	0.00	0.00	0.00
6,319.42	0.00	0.00	6,316.98	-144.66	63.90	144.53	0.00	0.00	0.00
KOP, BUILD 10°/100'									
6,350.00	3.06	180.82	6,347.55	-145.48	63.89	145.34	10.00	10.00	0.00
6,400.00	8.06	180.82	6,397.30	-150.32	63.82	150.18	10.00	10.00	0.00
6,450.00	13.06	180.82	6,446.43	-159.47	63.69	159.34	10.00	10.00	0.00
6,500.00	18.06	180.82	6,494.59	-172.88	63.49	172.74	10.00	10.00	0.00
6,550.00	23.06	180.82	6,541.39	-190.43	63.24	190.29	10.00	10.00	0.00
6,600.00	28.06	180.82	6,586.48	-211.99	62.93	211.85	10.00	10.00	0.00
6,650.00	33.05	180.82	6,629.53	-237.39	62.57	237.26	10.00	10.00	0.00
6,700.00	38.05	180.82	6,670.19	-266.45	62.15	266.33	10.00	10.00	0.00
6,750.00	43.05	180.82	6,708.17	-298.95	61.68	298.82	10.00	10.00	0.00
6,752.51	43.30	180.82	6,710.00	-300.67	61.66	300.54	10.00	10.00	0.00
SHARON SPRINGS									
6,795.28	47.58	180.82	6,740.00	-331.13	61.22	331.00	10.00	10.00	0.00
NIOBRARA									
6,800.00	48.05	180.82	6,743.17	-334.63	61.17	334.50	10.00	10.00	0.00
6,850.00	53.05	180.82	6,774.93	-373.22	60.62	373.10	10.00	10.00	0.00
6,900.00	58.05	180.82	6,803.20	-414.44	60.03	414.31	10.00	10.00	0.00
6,950.00	63.05	180.82	6,827.78	-457.96	59.40	457.84	10.00	10.00	0.00
7,000.00	68.05	180.82	6,848.47	-503.46	58.75	503.33	10.00	10.00	0.00
7,050.00	73.05	180.82	6,865.11	-550.58	58.07	550.46	10.00	10.00	0.00
7,100.00	78.05	180.82	6,877.58	-598.98	57.38	598.86	10.00	10.00	0.00
7,112.31	79.28	180.82	6,880.00	-611.05	57.20	610.93	10.00	10.00	0.00
NIO B TARGET									
7,150.00	83.05	180.82	6,885.79	-648.28	56.67	648.16	10.00	10.00	0.00
7,200.00	88.05	180.82	6,889.67	-698.11	55.95	697.99	10.00	10.00	0.00
7,219.56	90.00	180.82	6,890.00	-717.66	55.67	717.55	10.00	10.00	0.00
LP @ 90° INC, 180.82° AZM HOLD									
7,300.00	90.00	180.82	6,889.99	-798.10	54.52	797.98	0.00	0.00	0.00
7,400.00	90.00	180.82	6,889.99	-898.09	53.08	897.97	0.00	0.00	0.00

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well WS-SUNRISE 2-5-5
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 2-5-5	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)
7,500.00	90.00	180.82	6,889.98	-998.08	51.65	997.97	0.00	0.00	0.00
7,600.00	90.00	180.82	6,889.97	-1,098.07	50.21	1,097.96	0.00	0.00	0.00
7,700.00	90.00	180.82	6,889.97	-1,198.06	48.78	1,197.95	0.00	0.00	0.00
7,800.00	90.00	180.82	6,889.96	-1,298.05	47.34	1,297.94	0.00	0.00	0.00
7,900.00	90.00	180.82	6,889.96	-1,398.04	45.91	1,397.94	0.00	0.00	0.00
8,000.00	90.00	180.82	6,889.95	-1,498.02	44.47	1,497.93	0.00	0.00	0.00
8,100.00	90.00	180.82	6,889.95	-1,598.01	43.04	1,597.92	0.00	0.00	0.00
8,200.00	90.00	180.82	6,889.94	-1,698.00	41.60	1,697.91	0.00	0.00	0.00
8,300.00	90.00	180.82	6,889.94	-1,797.99	40.17	1,797.91	0.00	0.00	0.00
8,400.00	90.00	180.82	6,889.94	-1,897.98	38.73	1,897.90	0.00	0.00	0.00
8,500.00	90.00	180.82	6,889.93	-1,997.97	37.30	1,997.89	0.00	0.00	0.00
8,600.00	90.00	180.82	6,889.93	-2,097.96	35.86	2,097.88	0.00	0.00	0.00
8,700.00	90.00	180.82	6,889.93	-2,197.95	34.43	2,197.88	0.00	0.00	0.00
8,800.00	90.00	180.82	6,889.92	-2,297.94	32.99	2,297.87	0.00	0.00	0.00
8,900.00	90.00	180.82	6,889.92	-2,397.93	31.56	2,397.86	0.00	0.00	0.00
9,000.00	90.00	180.82	6,889.92	-2,497.92	30.13	2,497.85	0.00	0.00	0.00
9,100.00	90.00	180.82	6,889.92	-2,597.91	28.69	2,597.85	0.00	0.00	0.00
9,200.00	90.00	180.82	6,889.92	-2,697.90	27.26	2,697.84	0.00	0.00	0.00
9,300.00	90.00	180.82	6,889.92	-2,797.89	25.82	2,797.83	0.00	0.00	0.00
9,400.00	90.00	180.82	6,889.92	-2,897.88	24.39	2,897.82	0.00	0.00	0.00
9,500.00	90.00	180.82	6,889.92	-2,997.87	22.96	2,997.82	0.00	0.00	0.00
9,600.00	90.00	180.82	6,889.92	-3,097.86	21.52	3,097.81	0.00	0.00	0.00
9,700.00	90.00	180.82	6,889.92	-3,197.85	20.09	3,197.80	0.00	0.00	0.00
9,800.00	90.00	180.82	6,889.92	-3,297.84	18.66	3,297.79	0.00	0.00	0.00
9,900.00	90.00	180.82	6,889.92	-3,397.83	17.22	3,397.79	0.00	0.00	0.00
10,000.00	90.00	180.82	6,889.92	-3,497.82	15.79	3,497.78	0.00	0.00	0.00
10,100.00	90.00	180.82	6,889.92	-3,597.81	14.35	3,597.77	0.00	0.00	0.00
10,200.00	90.00	180.82	6,889.92	-3,697.80	12.92	3,697.76	0.00	0.00	0.00
10,300.00	90.00	180.82	6,889.92	-3,797.79	11.49	3,797.76	0.00	0.00	0.00
10,400.00	90.00	180.82	6,889.93	-3,897.78	10.06	3,897.75	0.00	0.00	0.00
10,500.00	90.00	180.82	6,889.93	-3,997.77	8.62	3,997.74	0.00	0.00	0.00
10,600.00	90.00	180.82	6,889.93	-4,097.76	7.19	4,097.73	0.00	0.00	0.00
10,700.00	90.00	180.82	6,889.94	-4,197.75	5.76	4,197.73	0.00	0.00	0.00
10,800.00	90.00	180.82	6,889.94	-4,297.74	4.32	4,297.72	0.00	0.00	0.00
10,900.00	90.00	180.82	6,889.94	-4,397.73	2.89	4,397.71	0.00	0.00	0.00
11,000.00	90.00	180.82	6,889.95	-4,497.72	1.46	4,497.70	0.00	0.00	0.00
11,100.00	90.00	180.82	6,889.95	-4,597.71	0.03	4,597.70	0.00	0.00	0.00
11,200.00	90.00	180.82	6,889.96	-4,697.70	-1.41	4,697.69	0.00	0.00	0.00
11,300.00	90.00	180.82	6,889.96	-4,797.69	-2.84	4,797.68	0.00	0.00	0.00
11,400.00	90.00	180.82	6,889.97	-4,897.68	-4.27	4,897.67	0.00	0.00	0.00
11,500.00	90.00	180.82	6,889.97	-4,997.67	-5.70	4,997.67	0.00	0.00	0.00
11,600.00	90.00	180.82	6,889.98	-5,097.66	-7.14	5,097.66	0.00	0.00	0.00
11,700.00	90.00	180.82	6,889.99	-5,197.64	-8.57	5,197.65	0.00	0.00	0.00
11,800.00	90.00	180.82	6,889.99	-5,297.63	-10.00	5,297.64	0.00	0.00	0.00
11,879.42	90.00	180.82	6,890.00	-5,377.05	-11.14	5,377.06	0.00	0.00	0.00
TD at 11879.42' MD									

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well WS-SUNRISE 2-5-5
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 2-5-5	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 2-5-5 PBI	0.00	0.00	6,890.00	-5,377.05	-11.14	1,397,777.29	3,227,227.82	40° 25' 20.748 N	104° 41' 1.860 W
- plan hits target center									
- Point									
WS-SUNRISE 2-5-5 LP	0.00	0.00	6,890.00	-717.66	55.67	1,402,437.09	3,227,251.74	40° 26' 6.792 N	104° 41' 0.996 W
- plan hits target center									
- Point									

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(usft)	(usft)			(°)	(°)	
3,587.17	3,586.00	PARKMAN				
4,291.51	4,290.00	SUSSEX				
4,836.77	4,835.00	SHANNON				
6,752.51	6,710.00	SHARON SPRINGS				
6,795.28	6,740.00	NIOBRARA				
7,112.31	6,880.00	NIO B TARGET				

Plan Annotations				
Measured Depth	Vertical Depth	Local Coordinates		
(usft)	(usft)	+N/-S	+E/-W	Comment
(usft)	(usft)	(usft)	(usft)	
1,100.00	1,100.00	0.00	0.00	BUILD 2°/100'
1,188.84	1,188.82	-1.26	0.56	HOLD 1.78° INC
6,200.58	6,198.16	-143.40	63.34	DROP 2°/100'
6,289.42	6,286.98	-144.66	63.90	HOLD VERTICAL
6,319.42	6,316.98	-144.66	63.90	KOP, BUILD 10°/100'
7,219.56	6,890.00	-717.66	55.67	LP @ 90° INC, 180.82° AZM HOLD
11,879.42	6,890.00	-5,377.05	-11.14	TD at 11879.42' MD