

EXTRACTION OIL & GAS

Weld County

Sec 32-T6N-R65W

WS-SUNRISE C1-5-5

ORIGINAL WELLBORE

Plan: PROPOSAL 1

Standard Planning Report

18 September, 2017



Project: Weld County
Site: Sec 32-T6N-R65W
Well: WS-SUNRISE C1-5-5
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 C1-5-5

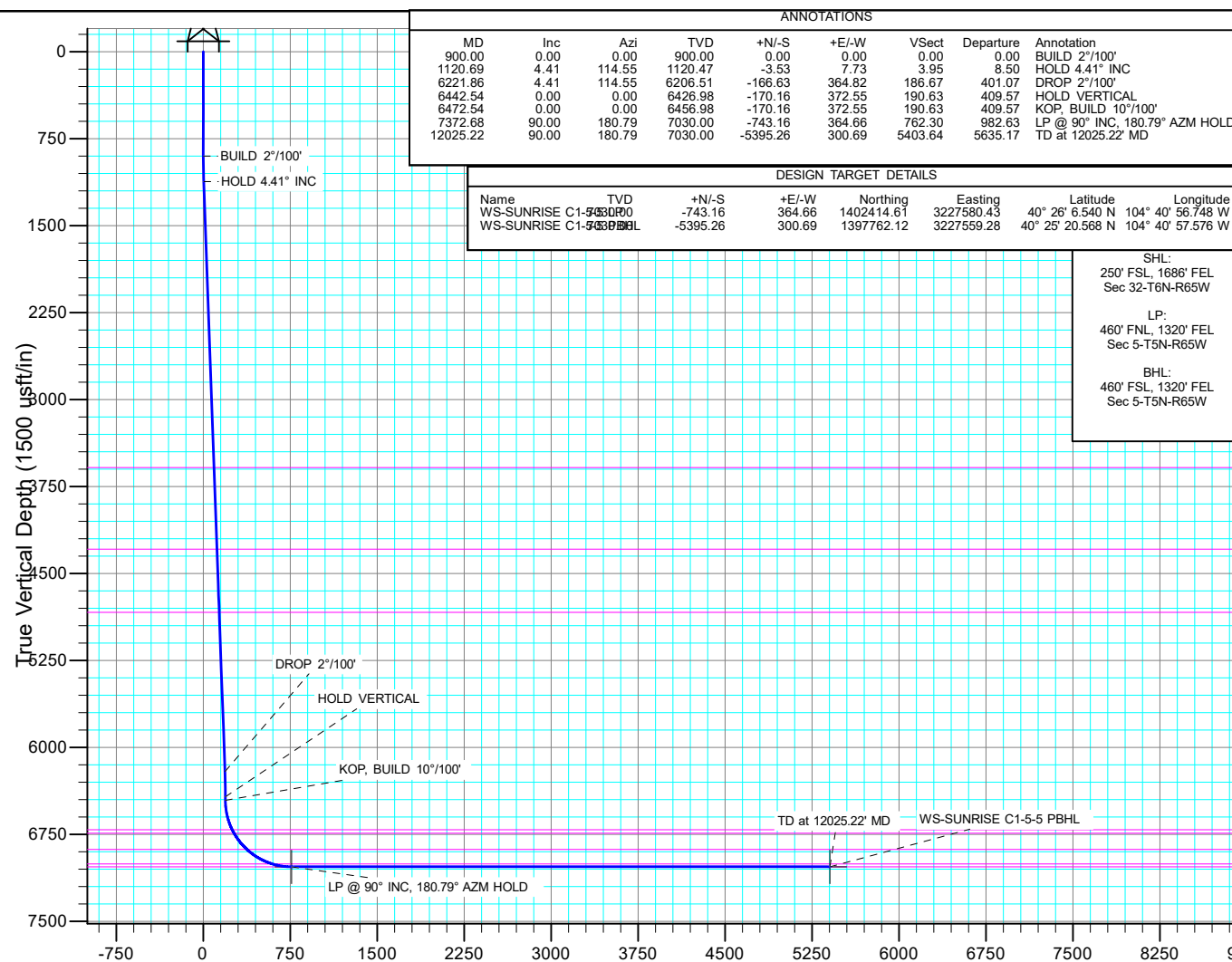
+N/-S	+E/-W	Northing	Easting	4641.00	Latitude	Longitude	Slot
0.00	0.00	1403154.39	3227208.94		40° 26' 13.884 N	104° 41' 1.464 W	

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	900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	
3	1120.69	4.41	114.55	1120.47	-3.53	7.73	2.00	114.55	3.95	
4	6221.86	4.41	114.55	6206.51	-166.63	364.82	0.00	0.00	186.67	
5	6442.54	0.00	0.00	6426.98	-170.16	372.55	2.00	180.00	190.63	
6	6472.54	0.00	0.00	6456.98	-170.16	372.55	0.00	0.00	190.63	
7	7372.68	90.00	180.79	7030.00	-743.16	364.66	10.00	180.79	762.30	WS-SUNRISE C1-5-5 LP
8	12025.22	90.00	180.79	7030.00	-5395.26	300.69	0.00	-161.59	5403.64	WS-SUNRISE C1-5-5 PBHL

FORMATION TOP DETAILS

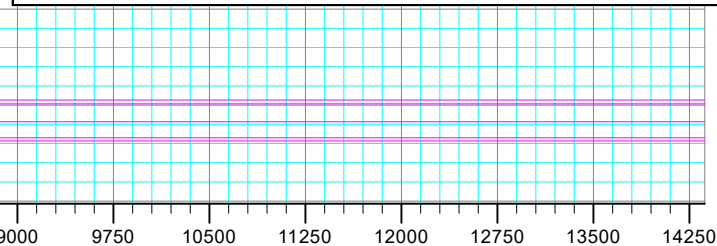
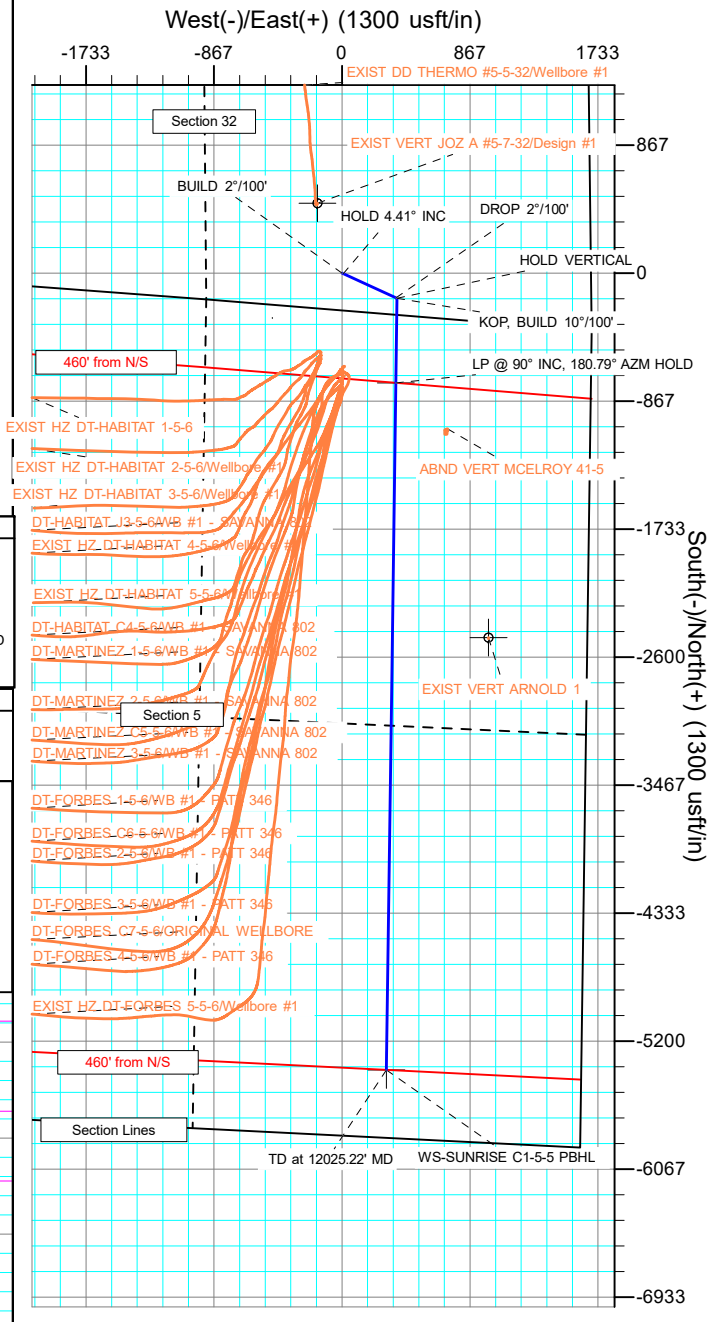
TVDPth	MDPath	Formation
3586.00	3593.55	PARKMAN
4290.00	4299.65	SUSSEX
4835.00	4846.27	SHANNON
6710.00	6734.60	SHARON SPRINGS
6740.00	6788.56	NIOBRARA
6880.00	6948.40	NIO B TARGET
7005.00	7202.76	FORT HAYS
7030.00	7372.68	CODELL



ANNOTATIONS								
MD	Inc	Azi	TVD	+N/-S	+E/-W	VSect	Departure	Annotation
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	BUILD 2°/100'
1120.69	4.41	114.55	1120.47	-3.53	7.73	3.95	8.50	HOLD 4.41° INC
6221.86	4.41	114.55	6206.51	-166.63	364.82	186.67	401.07	DROP 2°/100'
6442.54	0.00	0.00	6426.98	-170.16	372.55	190.63	409.57	HOLD VERTICAL
6472.54	0.00	0.00	6456.98	-170.16	372.55	190.63	409.57	KOP, BUILD 10°/100'
7372.68	90.00	180.79	7030.00	-743.16	364.66	762.30	982.63	LP @ 90° INC, 180.79° AZM HOLD
12025.22	90.00	180.79	7030.00	-5395.26	300.69	5403.64	5635.17	TD at 12025.22' MD

DESIGN TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
WS-SUNRISE C1-5-5 KOP	6426.98	-170.16	364.66	1402414.61	3227580.43	40° 26' 6.540 N	104° 40' 56.748 W
WS-SUNRISE C1-5-5 PBHL	6456.98	-170.16	300.69	1397762.12	3227559.28	40° 25' 20.568 N	104° 40' 57.576 W

SHL:
250' FSL, 1686' FEL
Sec 32-T6N-R65W
LP:
460' FNL, 1320' FEL
Sec 5-T5N-R65W
BHL:
460' FSL, 1320' FEL
Sec 5-T5N-R65W



Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well WS-SUNRISE C1-5-5
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 C1-5-5	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 C1-5-5					
Well Position	+N/-S	-2,338.81 usft	Northing:	1,403,154.39 usft	Latitude:	40° 26' 13.884 N
	+E/-W	512.18 usft	Easting:	3,227,208.94 usft	Longitude:	104° 41' 1.464 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	52,394.59787806

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	176.81

Plan Survey Tool Program	Date	9/18/2017		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	12,025.22	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	
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,120.69	4.41	114.55	1,120.47	-3.53	7.73	2.00	2.00	0.00	114.55	
6,221.86	4.41	114.55	6,206.51	-166.63	364.82	0.00	0.00	0.00	0.00	
6,442.55	0.00	0.00	6,426.98	-170.16	372.55	2.00	-2.00	0.00	180.00	
6,472.55	0.00	0.00	6,456.98	-170.16	372.55	0.00	0.00	0.00	0.00	
7,372.68	90.00	180.79	7,030.00	-743.16	364.66	10.00	10.00	-19.91	180.79	WS-SUNRISE C1-5-5
12,025.22	90.00	180.79	7,030.00	-5,395.26	300.69	0.00	0.00	0.00	-161.59	WS-SUNRISE C1-5-5

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well WS-SUNRISE C1-5-5
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 C1-5-5	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
BUILD 2°/100'									
1,000.00	2.00	114.55	999.98	-0.73	1.59	0.81	2.00	2.00	0.00
1,100.00	4.00	114.55	1,099.84	-2.90	6.35	3.25	2.00	2.00	0.00
1,120.69	4.41	114.55	1,120.47	-3.53	7.73	3.95	2.00	2.00	0.00
HOLD 4.41° INC									
1,200.00	4.41	114.55	1,199.55	-6.07	13.28	6.80	0.00	0.00	0.00
1,300.00	4.41	114.55	1,299.25	-9.26	20.28	10.38	0.00	0.00	0.00
1,400.00	4.41	114.55	1,398.95	-12.46	27.28	13.96	0.00	0.00	0.00
1,500.00	4.41	114.55	1,498.66	-15.66	34.28	17.54	0.00	0.00	0.00
1,600.00	4.41	114.55	1,598.36	-18.85	41.28	21.12	0.00	0.00	0.00
1,700.00	4.41	114.55	1,698.06	-22.05	48.28	24.70	0.00	0.00	0.00
1,800.00	4.41	114.55	1,797.77	-25.25	55.28	28.29	0.00	0.00	0.00
1,900.00	4.41	114.55	1,897.47	-28.45	62.28	31.87	0.00	0.00	0.00
2,000.00	4.41	114.55	1,997.17	-31.64	69.28	35.45	0.00	0.00	0.00
2,100.00	4.41	114.55	2,096.88	-34.84	76.28	39.03	0.00	0.00	0.00
2,200.00	4.41	114.55	2,196.58	-38.04	83.28	42.61	0.00	0.00	0.00
2,300.00	4.41	114.55	2,296.28	-41.24	90.28	46.20	0.00	0.00	0.00
2,400.00	4.41	114.55	2,395.99	-44.43	97.28	49.78	0.00	0.00	0.00
2,500.00	4.41	114.55	2,495.69	-47.63	104.28	53.36	0.00	0.00	0.00
2,600.00	4.41	114.55	2,595.39	-50.83	111.28	56.94	0.00	0.00	0.00
2,700.00	4.41	114.55	2,695.10	-54.03	118.28	60.52	0.00	0.00	0.00
2,800.00	4.41	114.55	2,794.80	-57.22	125.28	64.11	0.00	0.00	0.00
2,900.00	4.41	114.55	2,894.50	-60.42	132.28	67.69	0.00	0.00	0.00
3,000.00	4.41	114.55	2,994.21	-63.62	139.28	71.27	0.00	0.00	0.00
3,100.00	4.41	114.55	3,093.91	-66.81	146.28	74.85	0.00	0.00	0.00
3,200.00	4.41	114.55	3,193.62	-70.01	153.28	78.43	0.00	0.00	0.00
3,300.00	4.41	114.55	3,293.32	-73.21	160.29	82.02	0.00	0.00	0.00
3,400.00	4.41	114.55	3,393.02	-76.41	167.29	85.60	0.00	0.00	0.00
3,500.00	4.41	114.55	3,492.73	-79.60	174.29	89.18	0.00	0.00	0.00
3,593.55	4.41	114.55	3,586.00	-82.60	180.83	92.53	0.00	0.00	0.00
PARKMAN									
3,600.00	4.41	114.55	3,592.43	-82.80	181.29	92.76	0.00	0.00	0.00
3,700.00	4.41	114.55	3,692.13	-86.00	188.29	96.34	0.00	0.00	0.00
3,800.00	4.41	114.55	3,791.84	-89.20	195.29	99.92	0.00	0.00	0.00
3,900.00	4.41	114.55	3,891.54	-92.39	202.29	103.51	0.00	0.00	0.00
4,000.00	4.41	114.55	3,991.24	-95.59	209.29	107.09	0.00	0.00	0.00
4,100.00	4.41	114.55	4,090.95	-98.79	216.29	110.67	0.00	0.00	0.00
4,200.00	4.41	114.55	4,190.65	-101.99	223.29	114.25	0.00	0.00	0.00
4,299.65	4.41	114.55	4,290.00	-105.17	230.26	117.82	0.00	0.00	0.00
SUSSEX									
4,300.00	4.41	114.55	4,290.35	-105.18	230.29	117.83	0.00	0.00	0.00
4,400.00	4.41	114.55	4,390.06	-108.38	237.29	121.42	0.00	0.00	0.00
4,500.00	4.41	114.55	4,489.76	-111.58	244.29	125.00	0.00	0.00	0.00

Planning Report

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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 C1-5-5	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	4.41	114.55	4,589.46	-114.77	251.29	128.58	0.00	0.00	0.00
4,700.00	4.41	114.55	4,689.17	-117.97	258.29	132.16	0.00	0.00	0.00
4,800.00	4.41	114.55	4,788.87	-121.17	265.29	135.74	0.00	0.00	0.00
4,846.27	4.41	114.55	4,835.00	-122.65	268.53	137.40	0.00	0.00	0.00
SHANNON									
4,900.00	4.41	114.55	4,888.57	-124.37	272.29	139.33	0.00	0.00	0.00
5,000.00	4.41	114.55	4,988.28	-127.56	279.29	142.91	0.00	0.00	0.00
5,100.00	4.41	114.55	5,087.98	-130.76	286.29	146.49	0.00	0.00	0.00
5,200.00	4.41	114.55	5,187.68	-133.96	293.29	150.07	0.00	0.00	0.00
5,300.00	4.41	114.55	5,287.39	-137.16	300.29	153.65	0.00	0.00	0.00
5,400.00	4.41	114.55	5,387.09	-140.35	307.29	157.23	0.00	0.00	0.00
5,500.00	4.41	114.55	5,486.79	-143.55	314.29	160.82	0.00	0.00	0.00
5,600.00	4.41	114.55	5,586.50	-146.75	321.29	164.40	0.00	0.00	0.00
5,700.00	4.41	114.55	5,686.20	-149.94	328.29	167.98	0.00	0.00	0.00
5,800.00	4.41	114.55	5,785.90	-153.14	335.29	171.56	0.00	0.00	0.00
5,900.00	4.41	114.55	5,885.61	-156.34	342.29	175.14	0.00	0.00	0.00
6,000.00	4.41	114.55	5,985.31	-159.54	349.29	178.73	0.00	0.00	0.00
6,100.00	4.41	114.55	6,085.01	-162.73	356.29	182.31	0.00	0.00	0.00
6,200.00	4.41	114.55	6,184.72	-165.93	363.29	185.89	0.00	0.00	0.00
6,221.86	4.41	114.55	6,206.51	-166.63	364.82	186.67	0.00	0.00	0.00
DROP 2°/100'									
6,300.00	2.85	114.55	6,284.49	-168.69	369.32	188.98	2.00	-2.00	0.00
6,400.00	0.85	114.55	6,384.44	-170.03	372.26	190.48	2.00	-2.00	0.00
6,442.55	0.00	0.00	6,426.98	-170.16	372.55	190.63	2.00	-2.00	0.00
HOLD VERTICAL									
6,472.55	0.00	0.00	6,456.98	-170.16	372.55	190.63	0.00	0.00	0.00
KOP, BUILD 10°/100'									
6,500.00	2.75	180.79	6,484.42	-170.82	372.54	191.28	10.00	10.00	0.00
6,550.00	7.74	180.79	6,534.20	-175.39	372.48	195.84	10.00	10.00	0.00
6,600.00	12.74	180.79	6,583.39	-184.28	372.36	204.71	10.00	10.00	0.00
6,650.00	17.74	180.79	6,631.61	-197.42	372.17	217.82	10.00	10.00	0.00
6,700.00	22.74	180.79	6,678.51	-214.71	371.94	235.07	10.00	10.00	0.00
6,734.61	26.20	180.79	6,710.00	-229.04	371.74	249.37	10.00	10.00	0.00
SHARON SPRINGS									
6,750.00	27.74	180.79	6,723.72	-236.02	371.64	256.34	10.00	10.00	0.00
6,768.56	29.60	180.79	6,740.00	-244.92	371.52	265.22	10.00	10.00	0.00
NIOBARRA									
6,800.00	32.74	180.79	6,766.90	-261.20	371.30	281.45	10.00	10.00	0.00
6,850.00	37.74	180.79	6,807.72	-290.04	370.90	310.22	10.00	10.00	0.00
6,900.00	42.74	180.79	6,845.88	-322.32	370.45	342.44	10.00	10.00	0.00
6,948.40	47.58	180.79	6,880.00	-356.63	369.98	376.67	10.00	10.00	0.00
NIO B TARGET									
6,950.00	47.74	180.79	6,881.07	-357.81	369.97	377.84	10.00	10.00	0.00
7,000.00	52.74	180.79	6,913.04	-396.23	369.44	416.18	10.00	10.00	0.00
7,050.00	57.74	180.79	6,941.54	-437.29	368.87	457.14	10.00	10.00	0.00
7,100.00	62.74	180.79	6,966.35	-480.68	368.27	500.43	10.00	10.00	0.00
7,150.00	67.74	180.79	6,987.29	-526.06	367.65	545.71	10.00	10.00	0.00
7,200.00	72.74	180.79	7,004.19	-573.10	367.00	592.63	10.00	10.00	0.00
7,202.76	73.01	180.79	7,005.00	-575.73	366.97	595.26	10.00	10.00	0.00
FORT HAYS									
7,250.00	77.74	180.79	7,016.93	-621.43	366.34	640.85	10.00	10.00	0.00
7,300.00	82.74	180.79	7,025.40	-670.68	365.66	689.99	10.00	10.00	0.00
7,350.00	87.74	180.79	7,029.55	-720.49	364.97	739.68	10.00	10.00	0.00

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well WS-SUNRISE C1-5-5
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 C1-5-5	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)
7,372.68	90.00	180.79	7,030.00	-743.16	364.66	762.30	10.00	10.00	0.00
LP @ 90° INC, 180.79° AZM HOLD - CODELL									
7,400.00	90.00	180.79	7,030.00	-770.48	364.28	789.56	0.00	0.00	0.00
7,500.00	90.00	180.79	7,029.99	-870.47	362.91	889.32	0.00	0.00	0.00
7,600.00	90.00	180.79	7,029.99	-970.46	361.53	989.08	0.00	0.00	0.00
7,700.00	90.00	180.79	7,029.98	-1,070.45	360.15	1,088.83	0.00	0.00	0.00
7,800.00	90.00	180.79	7,029.98	-1,170.44	358.78	1,188.59	0.00	0.00	0.00
7,900.00	90.00	180.79	7,029.97	-1,270.43	357.40	1,288.35	0.00	0.00	0.00
8,000.00	90.00	180.79	7,029.97	-1,370.42	356.02	1,388.11	0.00	0.00	0.00
8,100.00	90.00	180.79	7,029.96	-1,470.41	354.65	1,487.87	0.00	0.00	0.00
8,200.00	90.00	180.79	7,029.96	-1,570.40	353.27	1,587.63	0.00	0.00	0.00
8,300.00	90.00	180.79	7,029.95	-1,670.40	351.89	1,687.39	0.00	0.00	0.00
8,400.00	90.00	180.79	7,029.95	-1,770.39	350.52	1,787.15	0.00	0.00	0.00
8,500.00	90.00	180.79	7,029.95	-1,870.38	349.14	1,886.91	0.00	0.00	0.00
8,600.00	90.00	180.79	7,029.94	-1,970.37	347.77	1,986.67	0.00	0.00	0.00
8,700.00	90.00	180.79	7,029.94	-2,070.36	346.39	2,086.42	0.00	0.00	0.00
8,800.00	90.00	180.79	7,029.94	-2,170.35	345.02	2,186.18	0.00	0.00	0.00
8,900.00	90.00	180.79	7,029.94	-2,270.34	343.64	2,285.94	0.00	0.00	0.00
9,000.00	90.00	180.79	7,029.94	-2,370.33	342.26	2,385.70	0.00	0.00	0.00
9,100.00	90.00	180.79	7,029.93	-2,470.32	340.89	2,485.46	0.00	0.00	0.00
9,200.00	90.00	180.79	7,029.93	-2,570.31	339.51	2,585.22	0.00	0.00	0.00
9,300.00	90.00	180.79	7,029.93	-2,670.30	338.14	2,684.98	0.00	0.00	0.00
9,400.00	90.00	180.79	7,029.93	-2,770.29	336.76	2,784.74	0.00	0.00	0.00
9,500.00	90.00	180.79	7,029.93	-2,870.28	335.39	2,884.50	0.00	0.00	0.00
9,600.00	90.00	180.79	7,029.93	-2,970.27	334.01	2,984.26	0.00	0.00	0.00
9,700.00	90.00	180.79	7,029.93	-3,070.26	332.64	3,084.02	0.00	0.00	0.00
9,800.00	90.00	180.79	7,029.93	-3,170.25	331.26	3,183.77	0.00	0.00	0.00
9,900.00	90.00	180.79	7,029.93	-3,270.24	329.89	3,283.53	0.00	0.00	0.00
10,000.00	90.00	180.79	7,029.93	-3,370.23	328.51	3,383.29	0.00	0.00	0.00
10,100.00	90.00	180.79	7,029.93	-3,470.22	327.14	3,483.05	0.00	0.00	0.00
10,200.00	90.00	180.79	7,029.93	-3,570.22	325.76	3,582.81	0.00	0.00	0.00
10,300.00	90.00	180.79	7,029.93	-3,670.21	324.39	3,682.57	0.00	0.00	0.00
10,400.00	90.00	180.79	7,029.94	-3,770.20	323.02	3,782.33	0.00	0.00	0.00
10,500.00	90.00	180.79	7,029.94	-3,870.19	321.64	3,882.09	0.00	0.00	0.00
10,600.00	90.00	180.79	7,029.94	-3,970.18	320.27	3,981.85	0.00	0.00	0.00
10,700.00	90.00	180.79	7,029.94	-4,070.17	318.89	4,081.61	0.00	0.00	0.00
10,800.00	90.00	180.79	7,029.94	-4,170.16	317.52	4,181.37	0.00	0.00	0.00
10,900.00	90.00	180.79	7,029.95	-4,270.15	316.15	4,281.13	0.00	0.00	0.00
11,000.00	90.00	180.79	7,029.95	-4,370.14	314.77	4,380.88	0.00	0.00	0.00
11,100.00	90.00	180.79	7,029.95	-4,470.13	313.40	4,480.64	0.00	0.00	0.00
11,200.00	90.00	180.79	7,029.96	-4,570.12	312.02	4,580.40	0.00	0.00	0.00
11,300.00	90.00	180.79	7,029.96	-4,670.11	310.65	4,680.16	0.00	0.00	0.00
11,400.00	90.00	180.79	7,029.97	-4,770.10	309.28	4,779.92	0.00	0.00	0.00
11,500.00	90.00	180.79	7,029.97	-4,870.09	307.90	4,879.68	0.00	0.00	0.00
11,600.00	90.00	180.79	7,029.98	-4,970.08	306.53	4,979.44	0.00	0.00	0.00
11,700.00	90.00	180.79	7,029.98	-5,070.07	305.16	5,079.20	0.00	0.00	0.00
11,800.00	90.00	180.79	7,029.99	-5,170.06	303.78	5,178.96	0.00	0.00	0.00
11,900.00	90.00	180.79	7,029.99	-5,270.06	302.41	5,278.72	0.00	0.00	0.00
12,000.00	90.00	180.79	7,030.00	-5,370.05	301.04	5,378.48	0.00	0.00	0.00
12,025.22	90.00	180.79	7,030.00	-5,395.26	300.69	5,403.64	0.00	0.00	0.00
TD at 12025.22' MD									

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well WS-SUNRISE C1-5-5
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 C1-5-5	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 C1-5-5 LI - plan hits target center - Point	0.00	0.00	7,030.00	-743.16	364.66	1,402,414.62	3,227,580.43	40° 26' 6.540 N	104° 40' 56.748 W
WS-SUNRISE C1-5-5 PI - plan hits target center - Point	0.00	0.00	7,030.00	-5,395.26	300.69	1,397,762.12	3,227,559.29	40° 25' 20.568 N	104° 40' 57.576 W

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,593.55	3,586.00	PARKMAN				
4,299.65	4,290.00	SUSSEX				
4,846.27	4,835.00	SHANNON				
6,734.61	6,710.00	SHARON SPRINGS				
6,768.56	6,740.00	NIOBRARA				
6,948.40	6,880.00	NIO B TARGET				
7,202.76	7,005.00	FORT HAYS				
7,372.68	7,030.00	CODELL				

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
900.00	900.00	0.00	0.00	BUILD 2°/100'
1,120.69	1,120.47	-3.53	7.73	HOLD 4.41° INC
6,221.86	6,206.51	-166.63	364.82	DROP 2°/100'
6,442.55	6,426.98	-170.16	372.55	HOLD VERTICAL
6,472.55	6,456.98	-170.16	372.55	KOP, BUILD 10°/100'
7,372.68	7,030.00	-743.16	364.66	LP @ 90° INC, 180.79° AZM HOLD
12,025.22	7,030.00	-5,395.26	300.69	TD at 12025.22' MD