

EXTRACTION OIL & GAS

Weld County

Sec 32-T6N-R65W

WS-SUNRISE 5-5-5

ORIGINAL WELLBORE

Plan: PROPOSAL 1

Standard Planning Report

18 September, 2017



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

+N/-S	+E/-W	Northing	Easting	4641.00	Latitude	Longitude	Slot
0.00	0.00	1403151.08	3227245.16		40° 26' 13.848 N	104° 41' 0.996 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	500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	
3	1051.63	11.03	102.52	1048.22	-11.47	51.69	2.00	102.52	19.99	
4	5830.49	11.03	102.52	5738.77	-209.68	944.46	0.00	0.00	365.35	
5	6382.11	0.00	0.00	6286.99	-221.15	996.15	2.00	180.00	385.35	
6	6412.11	0.00	0.00	6316.99	-221.15	996.15	0.00	0.00	385.35	
7	7312.24	90.00	180.79	6890.00	-794.15	988.20	10.00	180.79	948.86	WS-SUNRISE 5-5-5 LP
8	11942.92	90.00	180.79	6890.00	-5424.39	924.35	0.00	-130.94	5502.59	WS-SUNRISE 5-5-5 PBHL

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3586.00	3637.19	PARKMAN
4290.00	4354.44	SUSSEX
4835.00	4909.70	SHANNON
6710.00	6845.19	SHARON SPRINGS
6740.00	6887.96	NIOBRARA
6880.00	7204.99	NIO B TARGET

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSec	Departure	Annotation
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	BUILD 2°/100'
1051.63	11.03	102.52	1048.22	-11.47	51.69	19.99	52.94	HOLD 11.03° INC
5830.49	11.03	102.52	5738.77	-209.68	944.46	365.35	967.46	DROP 2°/100'
6382.11	0.00	0.00	6286.99	-221.15	996.15	385.35	1020.40	HOLD VERTICAL
6412.11	0.00	0.00	6316.99	-221.15	996.15	385.35	1020.40	KOP, BUILD 10°/100'
7312.24	90.00	180.79	6890.00	-794.15	988.20	948.86	1593.45	LP @ 90° INC, 180.79° AZM HOLD
11942.92	90.00	180.79	6890.00	-5424.39	924.35	5502.59	6224.14	TD at 11942.92' MD

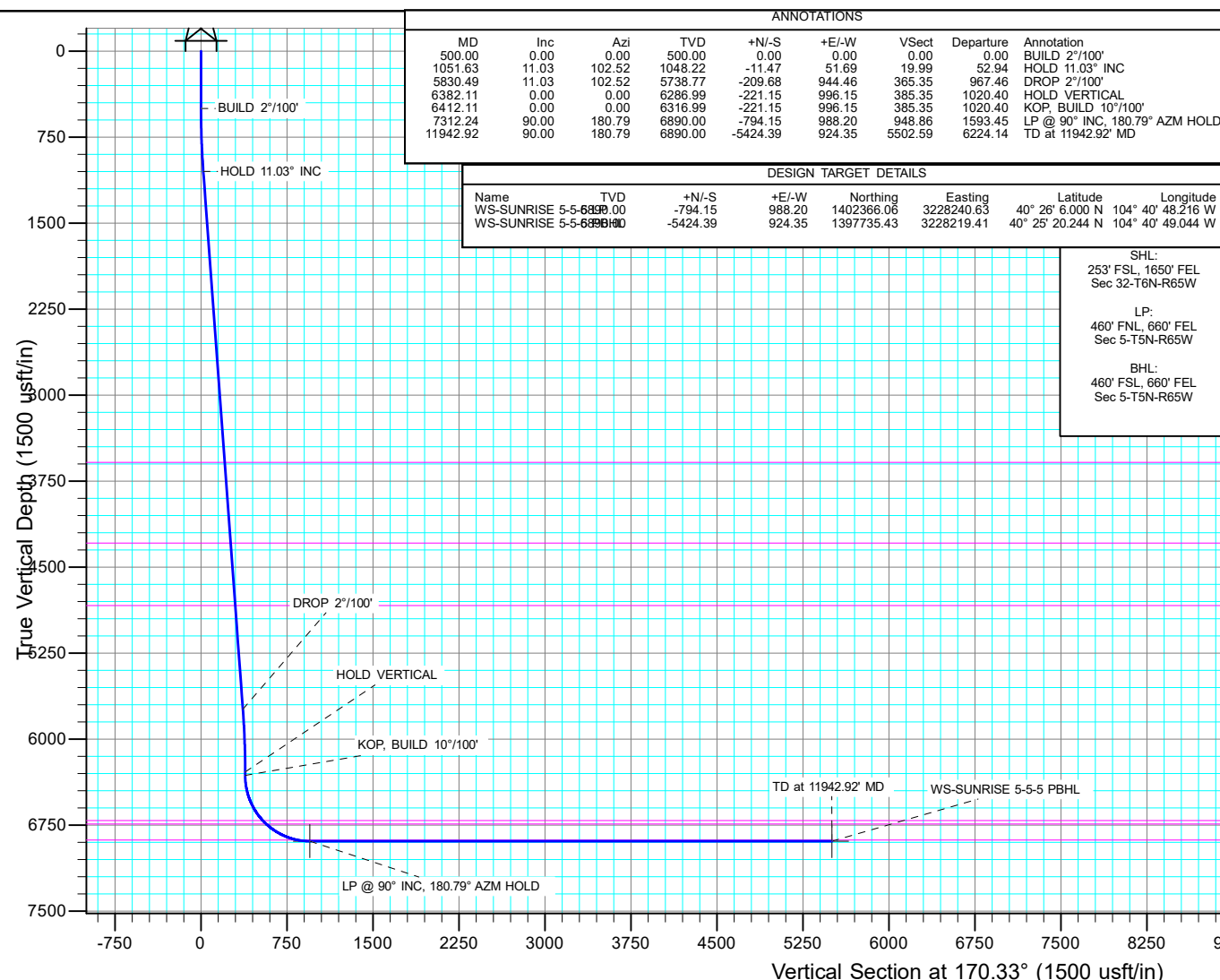
DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
WS-SUNRISE 5-5-5 FSL	0.00	-794.15	988.20	1402366.06	3228240.63	40° 26' 6.000 N	104° 40' 48.216 W
WS-SUNRISE 5-5-5 FNL	660.00	-794.15	988.20	1402366.06	3228240.63	40° 26' 6.000 N	104° 40' 48.216 W
WS-SUNRISE 5-5-5 FBL	660.00	-5424.39	924.35	1397735.43	3228219.41	40° 25' 20.244 N	104° 40' 49.044 W

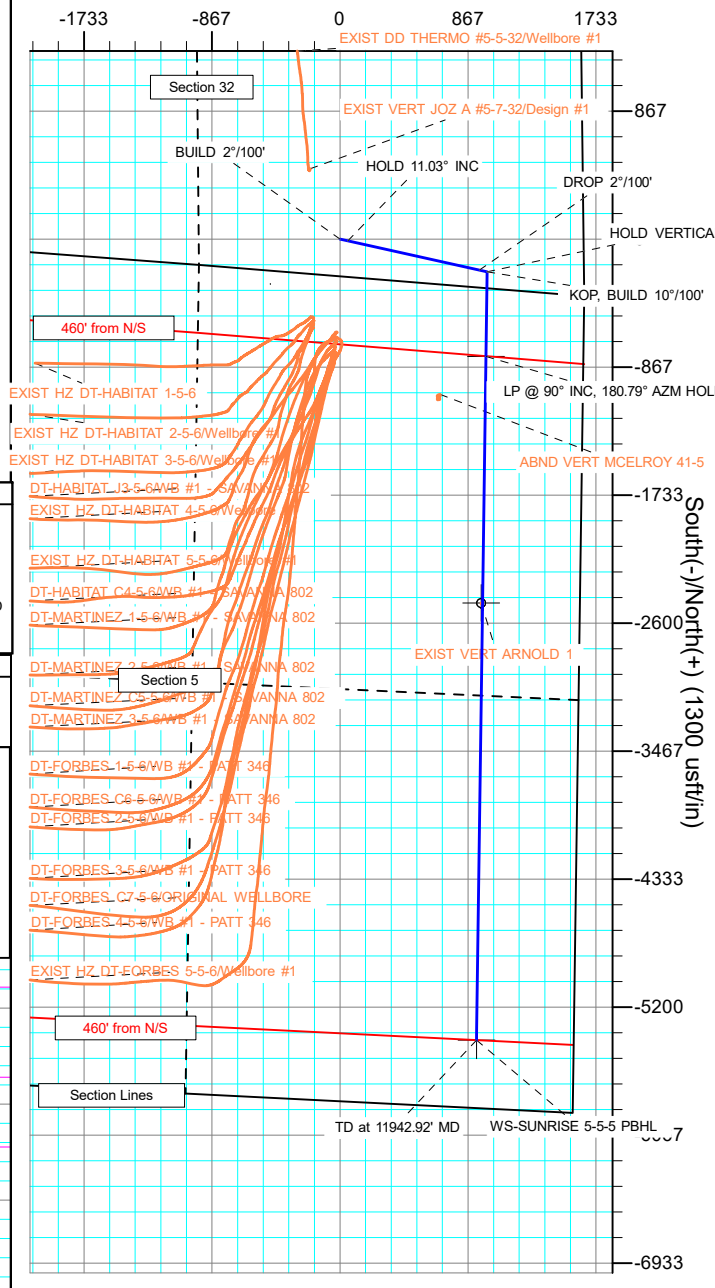
SHL:
253' FSL, 1650' FEL
Sec 32-T6N-R65W

LP:
460' FNL, 660' FEL
Sec 5-T5N-R65W

BHL:
460' FSL, 660' FEL
Sec 5-T5N-R65W



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



Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well WS-SUNRISE 5-5-5
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 5-5-5	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 5-5-5					
Well Position	+N/-S	-2,342.45 usft	Northing:	1,403,151.08 usft	Latitude:	40° 26' 13.848 N
	+E/-W	548.36 usft	Easting:	3,227,245.16 usft	Longitude:	104° 41' 0.996 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	52,394.60626484

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	170.33

Plan Survey Tool Program	Date	9/18/2017		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	11,942.92	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	
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,051.63	11.03	102.52	1,048.22	-11.47	51.69	2.00	2.00	0.00	102.52	
5,830.49	11.03	102.52	5,738.77	-209.68	944.46	0.00	0.00	0.00	0.00	
6,382.11	0.00	0.00	6,286.99	-221.15	996.15	2.00	-2.00	0.00	180.00	
6,412.11	0.00	0.00	6,316.99	-221.15	996.15	0.00	0.00	0.00	0.00	
7,312.24	90.00	180.79	6,890.00	-794.15	988.20	10.00	10.00	-19.91	180.79	WS-SUNRISE 5-5-5 L
11,942.92	90.00	180.79	6,890.00	-5,424.39	924.35	0.00	0.00	0.00	-130.94	WS-SUNRISE 5-5-5 F

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 5-5-5	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
BUILD 2°/100'									
600.00	2.00	102.52	599.98	-0.38	1.70	0.66	2.00	2.00	0.00
700.00	4.00	102.52	699.84	-1.51	6.81	2.64	2.00	2.00	0.00
800.00	6.00	102.52	799.45	-3.40	15.32	5.93	2.00	2.00	0.00
900.00	8.00	102.52	898.70	-6.04	27.22	10.53	2.00	2.00	0.00
1,000.00	10.00	102.52	997.47	-9.43	42.49	16.44	2.00	2.00	0.00
1,051.63	11.03	102.52	1,048.22	-11.47	51.69	19.99	2.00	2.00	0.00
HOLD 11.03° INC									
1,100.00	11.03	102.52	1,095.70	-13.48	60.72	23.49	0.00	0.00	0.00
1,200.00	11.03	102.52	1,193.86	-17.63	79.41	30.72	0.00	0.00	0.00
1,300.00	11.03	102.52	1,292.01	-21.78	98.09	37.94	0.00	0.00	0.00
1,400.00	11.03	102.52	1,390.16	-25.92	116.77	45.17	0.00	0.00	0.00
1,500.00	11.03	102.52	1,488.31	-30.07	135.45	52.40	0.00	0.00	0.00
1,600.00	11.03	102.52	1,586.46	-34.22	154.13	59.62	0.00	0.00	0.00
1,700.00	11.03	102.52	1,684.61	-38.37	172.81	66.85	0.00	0.00	0.00
1,800.00	11.03	102.52	1,782.77	-42.51	191.50	74.08	0.00	0.00	0.00
1,900.00	11.03	102.52	1,880.92	-46.66	210.18	81.30	0.00	0.00	0.00
2,000.00	11.03	102.52	1,979.07	-50.81	228.86	88.53	0.00	0.00	0.00
2,100.00	11.03	102.52	2,077.22	-54.96	247.54	95.76	0.00	0.00	0.00
2,200.00	11.03	102.52	2,175.37	-59.10	266.22	102.98	0.00	0.00	0.00
2,300.00	11.03	102.52	2,273.53	-63.25	284.91	110.21	0.00	0.00	0.00
2,400.00	11.03	102.52	2,371.68	-67.40	303.59	117.44	0.00	0.00	0.00
2,500.00	11.03	102.52	2,469.83	-71.55	322.27	124.66	0.00	0.00	0.00
2,600.00	11.03	102.52	2,567.98	-75.69	340.95	131.89	0.00	0.00	0.00
2,700.00	11.03	102.52	2,666.13	-79.84	359.63	139.12	0.00	0.00	0.00
2,800.00	11.03	102.52	2,764.29	-83.99	378.31	146.35	0.00	0.00	0.00
2,900.00	11.03	102.52	2,862.44	-88.13	397.00	153.57	0.00	0.00	0.00
3,000.00	11.03	102.52	2,960.59	-92.28	415.68	160.80	0.00	0.00	0.00
3,100.00	11.03	102.52	3,058.74	-96.43	434.36	168.03	0.00	0.00	0.00
3,200.00	11.03	102.52	3,156.89	-100.58	453.04	175.25	0.00	0.00	0.00
3,300.00	11.03	102.52	3,255.04	-104.72	471.72	182.48	0.00	0.00	0.00
3,400.00	11.03	102.52	3,353.20	-108.87	490.40	189.71	0.00	0.00	0.00
3,500.00	11.03	102.52	3,451.35	-113.02	509.09	196.93	0.00	0.00	0.00
3,600.00	11.03	102.52	3,549.50	-117.17	527.77	204.16	0.00	0.00	0.00
3,637.19	11.03	102.52	3,586.00	-118.71	534.72	206.85	0.00	0.00	0.00
PARKMAN									
3,700.00	11.03	102.52	3,647.65	-121.31	546.45	211.39	0.00	0.00	0.00
3,800.00	11.03	102.52	3,745.80	-125.46	565.13	218.61	0.00	0.00	0.00
3,900.00	11.03	102.52	3,843.96	-129.61	583.81	225.84	0.00	0.00	0.00
4,000.00	11.03	102.52	3,942.11	-133.76	602.50	233.07	0.00	0.00	0.00
4,100.00	11.03	102.52	4,040.26	-137.90	621.18	240.29	0.00	0.00	0.00
4,200.00	11.03	102.52	4,138.41	-142.05	639.86	247.52	0.00	0.00	0.00
4,300.00	11.03	102.52	4,236.56	-146.20	658.54	254.75	0.00	0.00	0.00
4,354.44	11.03	102.52	4,290.00	-148.46	668.71	258.68	0.00	0.00	0.00
SUSSEX									
4,400.00	11.03	102.52	4,334.72	-150.35	677.22	261.97	0.00	0.00	0.00
4,500.00	11.03	102.52	4,432.87	-154.49	695.90	269.20	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 5-5-5	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	11.03	102.52	4,531.02	-158.64	714.59	276.43	0.00	0.00	0.00
4,700.00	11.03	102.52	4,629.17	-162.79	733.27	283.65	0.00	0.00	0.00
4,800.00	11.03	102.52	4,727.32	-166.94	751.95	290.88	0.00	0.00	0.00
4,900.00	11.03	102.52	4,825.47	-171.08	770.63	298.11	0.00	0.00	0.00
4,909.70	11.03	102.52	4,835.00	-171.49	772.44	298.81	0.00	0.00	0.00
SHANNON									
5,000.00	11.03	102.52	4,923.63	-175.23	789.31	305.33	0.00	0.00	0.00
5,100.00	11.03	102.52	5,021.78	-179.38	808.00	312.56	0.00	0.00	0.00
5,200.00	11.03	102.52	5,119.93	-183.53	826.68	319.79	0.00	0.00	0.00
5,300.00	11.03	102.52	5,218.08	-187.67	845.36	327.01	0.00	0.00	0.00
5,400.00	11.03	102.52	5,316.23	-191.82	864.04	334.24	0.00	0.00	0.00
5,500.00	11.03	102.52	5,414.39	-195.97	882.72	341.47	0.00	0.00	0.00
5,600.00	11.03	102.52	5,512.54	-200.12	901.40	348.69	0.00	0.00	0.00
5,700.00	11.03	102.52	5,610.69	-204.26	920.09	355.92	0.00	0.00	0.00
5,800.00	11.03	102.52	5,708.84	-208.41	938.77	363.15	0.00	0.00	0.00
5,830.49	11.03	102.52	5,738.77	-209.68	944.46	365.35	0.00	0.00	0.00
DROP 2°/100'									
5,900.00	9.64	102.52	5,807.15	-212.38	956.64	370.06	2.00	-2.00	0.00
6,000.00	7.64	102.52	5,906.01	-215.64	971.31	375.74	2.00	-2.00	0.00
6,100.00	5.64	102.52	6,005.33	-218.14	982.60	380.10	2.00	-2.00	0.00
6,200.00	3.64	102.52	6,105.00	-219.90	990.50	383.16	2.00	-2.00	0.00
6,300.00	1.64	102.52	6,204.89	-220.89	995.00	384.90	2.00	-2.00	0.00
6,382.11	0.00	0.00	6,286.99	-221.15	996.15	385.35	2.00	-2.00	0.00
HOLD VERTICAL									
6,400.00	0.00	0.00	6,304.88	-221.15	996.15	385.35	0.00	0.00	0.00
6,412.11	0.00	0.00	6,316.99	-221.15	996.15	385.35	0.00	0.00	0.00
KOP, BUILD 10°/100'									
6,450.00	3.79	180.79	6,354.85	-222.40	996.13	386.58	10.00	10.00	0.00
6,500.00	8.79	180.79	6,404.53	-227.88	996.06	391.96	10.00	10.00	0.00
6,550.00	13.79	180.79	6,453.55	-237.66	995.92	401.58	10.00	10.00	0.00
6,600.00	18.79	180.79	6,501.53	-251.68	995.73	415.37	10.00	10.00	0.00
6,650.00	23.79	180.79	6,548.10	-269.82	995.47	433.21	10.00	10.00	0.00
6,700.00	28.79	180.79	6,592.92	-291.95	995.17	454.98	10.00	10.00	0.00
6,750.00	33.79	180.79	6,635.63	-317.91	994.81	480.50	10.00	10.00	0.00
6,800.00	38.79	180.79	6,675.92	-347.49	994.40	509.59	10.00	10.00	0.00
6,845.19	43.30	180.79	6,710.00	-377.15	993.99	538.77	10.00	10.00	0.00
SHARON SPRINGS									
6,850.00	43.78	180.79	6,713.48	-380.46	993.94	542.02	10.00	10.00	0.00
6,887.96	47.58	180.79	6,740.00	-407.62	993.56	568.73	10.00	10.00	0.00
NIOBRARA									
6,900.00	48.78	180.79	6,748.03	-416.59	993.44	577.55	10.00	10.00	0.00
6,950.00	53.78	180.79	6,779.29	-455.58	992.90	615.90	10.00	10.00	0.00
7,000.00	58.78	180.79	6,807.04	-497.16	992.32	656.79	10.00	10.00	0.00
7,050.00	63.78	180.79	6,831.05	-540.99	991.71	699.89	10.00	10.00	0.00
7,100.00	68.78	180.79	6,851.16	-586.75	991.08	744.89	10.00	10.00	0.00
7,150.00	73.78	180.79	6,867.20	-634.08	990.42	791.45	10.00	10.00	0.00
7,200.00	78.78	180.79	6,879.05	-682.63	989.75	839.20	10.00	10.00	0.00
7,204.99	79.28	180.79	6,880.00	-687.53	989.68	844.01	10.00	10.00	0.00
NIO B TARGET									
7,250.00	83.78	180.79	6,886.63	-732.04	989.06	887.78	10.00	10.00	0.00
7,300.00	88.78	180.79	6,889.87	-781.91	988.37	936.83	10.00	10.00	0.00
7,312.24	90.00	180.79	6,890.00	-794.15	988.20	948.86	10.00	10.00	0.00
LP @ 90° INC, 180.79° AZM HOLD									

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well WS-SUNRISE 5-5-5
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 5-5-5	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	180.79	6,889.99	-881.90	986.98	1,035.17	0.00	0.00	0.00
7,500.00	90.00	180.79	6,889.99	-981.89	985.60	1,133.50	0.00	0.00	0.00
7,600.00	90.00	180.79	6,889.98	-1,081.88	984.21	1,231.84	0.00	0.00	0.00
7,700.00	90.00	180.79	6,889.97	-1,181.87	982.83	1,330.18	0.00	0.00	0.00
7,800.00	90.00	180.79	6,889.97	-1,281.86	981.44	1,428.51	0.00	0.00	0.00
7,900.00	90.00	180.79	6,889.96	-1,381.85	980.05	1,526.85	0.00	0.00	0.00
8,000.00	90.00	180.79	6,889.96	-1,481.84	978.67	1,625.19	0.00	0.00	0.00
8,100.00	90.00	180.79	6,889.95	-1,581.83	977.29	1,723.52	0.00	0.00	0.00
8,200.00	90.00	180.79	6,889.95	-1,681.82	975.90	1,821.86	0.00	0.00	0.00
8,300.00	90.00	180.79	6,889.94	-1,781.81	974.52	1,920.20	0.00	0.00	0.00
8,400.00	90.00	180.79	6,889.94	-1,881.80	973.13	2,018.53	0.00	0.00	0.00
8,500.00	90.00	180.79	6,889.94	-1,981.79	971.75	2,116.87	0.00	0.00	0.00
8,600.00	90.00	180.79	6,889.93	-2,081.78	970.37	2,215.21	0.00	0.00	0.00
8,700.00	90.00	180.79	6,889.93	-2,181.78	968.99	2,313.55	0.00	0.00	0.00
8,800.00	90.00	180.79	6,889.93	-2,281.77	967.60	2,411.88	0.00	0.00	0.00
8,900.00	90.00	180.79	6,889.93	-2,381.76	966.22	2,510.22	0.00	0.00	0.00
9,000.00	90.00	180.79	6,889.92	-2,481.75	964.84	2,608.56	0.00	0.00	0.00
9,100.00	90.00	180.79	6,889.92	-2,581.74	963.46	2,706.90	0.00	0.00	0.00
9,200.00	90.00	180.79	6,889.92	-2,681.73	962.08	2,805.23	0.00	0.00	0.00
9,300.00	90.00	180.79	6,889.92	-2,781.72	960.70	2,903.57	0.00	0.00	0.00
9,400.00	90.00	180.79	6,889.92	-2,881.71	959.32	3,001.91	0.00	0.00	0.00
9,500.00	90.00	180.79	6,889.92	-2,981.70	957.94	3,100.25	0.00	0.00	0.00
9,600.00	90.00	180.79	6,889.92	-3,081.69	956.56	3,198.59	0.00	0.00	0.00
9,700.00	90.00	180.79	6,889.92	-3,181.68	955.18	3,296.92	0.00	0.00	0.00
9,800.00	90.00	180.79	6,889.92	-3,281.67	953.80	3,395.26	0.00	0.00	0.00
9,900.00	90.00	180.79	6,889.92	-3,381.66	952.43	3,493.60	0.00	0.00	0.00
10,000.00	90.00	180.79	6,889.92	-3,481.65	951.05	3,591.94	0.00	0.00	0.00
10,100.00	90.00	180.79	6,889.92	-3,581.64	949.67	3,690.28	0.00	0.00	0.00
10,200.00	90.00	180.79	6,889.92	-3,681.63	948.29	3,788.61	0.00	0.00	0.00
10,300.00	90.00	180.79	6,889.92	-3,781.62	946.92	3,886.95	0.00	0.00	0.00
10,400.00	90.00	180.79	6,889.93	-3,881.61	945.54	3,985.29	0.00	0.00	0.00
10,500.00	90.00	180.79	6,889.93	-3,981.60	944.16	4,083.63	0.00	0.00	0.00
10,600.00	90.00	180.79	6,889.93	-4,081.59	942.79	4,181.97	0.00	0.00	0.00
10,700.00	90.00	180.79	6,889.94	-4,181.59	941.41	4,280.31	0.00	0.00	0.00
10,800.00	90.00	180.79	6,889.94	-4,281.58	940.04	4,378.65	0.00	0.00	0.00
10,900.00	90.00	180.79	6,889.94	-4,381.57	938.66	4,476.98	0.00	0.00	0.00
11,000.00	90.00	180.79	6,889.95	-4,481.56	937.29	4,575.32	0.00	0.00	0.00
11,100.00	90.00	180.79	6,889.95	-4,581.55	935.92	4,673.66	0.00	0.00	0.00
11,200.00	90.00	180.79	6,889.96	-4,681.54	934.54	4,772.00	0.00	0.00	0.00
11,300.00	90.00	180.79	6,889.96	-4,781.53	933.17	4,870.34	0.00	0.00	0.00
11,400.00	90.00	180.79	6,889.97	-4,881.52	931.80	4,968.68	0.00	0.00	0.00
11,500.00	90.00	180.79	6,889.97	-4,981.51	930.42	5,067.02	0.00	0.00	0.00
11,600.00	90.00	180.79	6,889.98	-5,081.50	929.05	5,165.36	0.00	0.00	0.00
11,700.00	90.00	180.79	6,889.98	-5,181.49	927.68	5,263.70	0.00	0.00	0.00
11,800.00	90.00	180.79	6,889.99	-5,281.48	926.31	5,362.04	0.00	0.00	0.00
11,900.00	90.00	180.79	6,890.00	-5,381.47	924.94	5,460.37	0.00	0.00	0.00
11,942.92	90.00	180.79	6,890.00	-5,424.39	924.35	5,502.59	0.00	0.00	0.00
TD at 11942.92' MD									

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well WS-SUNRISE 5-5-5
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 5-5-5	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 5-5-5 PBI	0.00	0.00	6,890.00	-5,424.39	924.35	1,397,735.43	3,228,219.41	40° 25' 20.244 N	104° 40' 49.044 W
- plan hits target center									
- Point									
WS-SUNRISE 5-5-5 LP	0.00	0.00	6,890.00	-794.15	988.20	1,402,366.06	3,228,240.63	40° 26' 6.000 N	104° 40' 48.216 W
- plan hits target center									
- Point									

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(usft)	(usft)			(°)	(°)	
3,637.19	3,586.00	PARKMAN				
4,354.44	4,290.00	SUSSEX				
4,909.70	4,835.00	SHANNON				
6,845.19	6,710.00	SHARON SPRINGS				
6,887.96	6,740.00	NIOBRARA				
7,204.99	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)	
500.00	500.00	0.00	0.00	BUILD 2°/100'
1,051.63	1,048.22	-11.47	51.69	HOLD 11.03° INC
5,830.49	5,738.77	-209.68	944.46	DROP 2°/100'
6,382.11	6,286.99	-221.15	996.15	HOLD VERTICAL
6,412.11	6,316.99	-221.15	996.15	KOP, BUILD 10°/100'
7,312.24	6,890.00	-794.15	988.20	LP @ 90° INC, 180.79° AZM HOLD
11,942.92	6,890.00	-5,424.39	924.35	TD at 11942.92' MD