

EXTRACTION OIL & GAS

WELD COUNTY, COLORADO (NAD 83)

NE SE SEC. 8 T5N R66W 6th P.M.

TC-AIMS 1-9-11

ORIGINAL WELLBORE

23 July, 2015

Plan: PROPOSAL #1

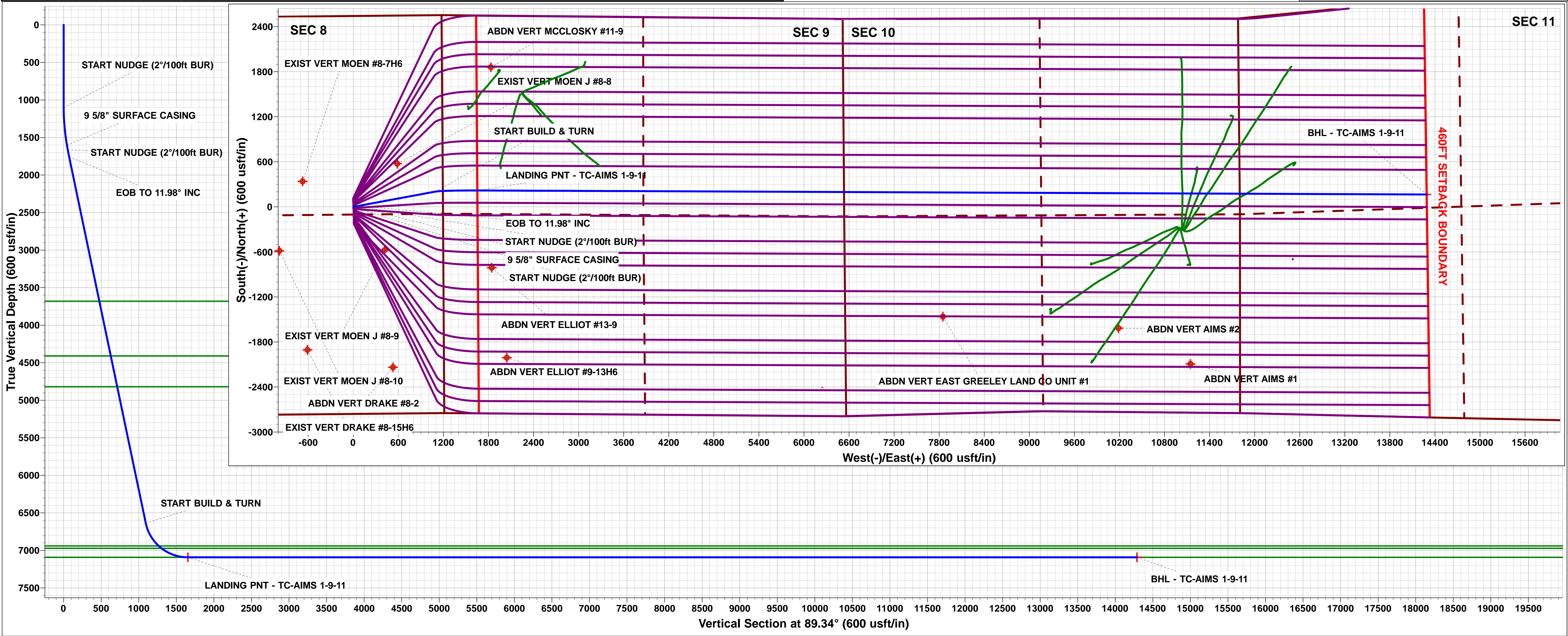
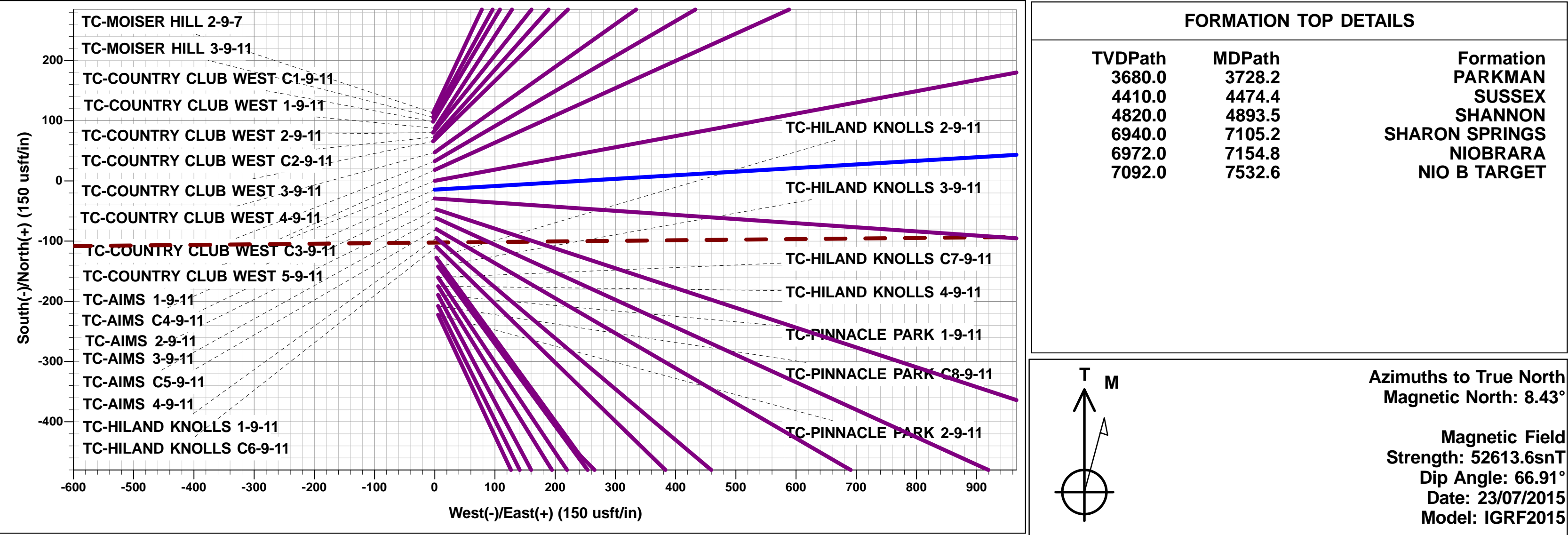




Project: WELD COUNTY, COLORADO (NAD 83)
Site: NE SE SEC. 8 T5N R66W 6th P.M.
Well: TC-AIMS 1-9-11
Wellbore: ORIGINAL WELLBORE
Design: PROPOSAL #1

ANNOTATIONS									
TVD	MD	Inc	Azi	+N/-S	+E/-W	VSect	Dep	Annotation	
1100.0	1100.0	0.00	0.00	0.0	0.0	0.0	0.0	START NUDGE (2°/100ft BUR)	
1600.0	1602.6	10.05	79.46	8.0	43.2	43.3	44.0	9 5/8" SURFACE CASING	
1664.0	1667.6	10.05	79.46	10.1	54.4	54.5	55.3	START NUDGE (2°/100ft BUR)	
1758.6	1764.0	11.98	79.46	13.5	72.5	72.6	73.7	EOB TO 11.98° INC	
6636.3	6750.3	11.98	79.46	202.9	1090.3	1092.5	1109.0	START BUILD & TURN	
7092.0	7532.6	90.00	90.25	218.7	1651.3	1653.7	1670.5	LANDING PNT - TC-AIMS 1-9-11	
7092.0	20169.2	90.00	90.25	164.4	14287.8	14288.7	14307.1	BHL - TC-AIMS 1-9-11	

WELLBORE TARGET DETAILS (LAT/LONG)					
Name	TVD	+N/-S	+E/-W	Latitude	Longitude
LANDING PNT - TC-AIMS 1-9-11	7092.0	218.7	1651.3	40.415020	-104.792750
BHL - TC-AIMS 1-9-11	7092.0	164.4	14287.8	40.414860	-104.747370



Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well TC-AIMS 1-9-11
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 4805.0usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4805.0usft (Original Well Elev)
Site:	NE SE SEC. 8 T5N R66W 6th P.M.	North Reference:	True
Well:	TC-AIMS 1-9-11	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #1		

Project	WELD COUNTY, COLORADO (NAD 83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site	NE SE SEC. 8 T5N R66W 6th P.M.		
Site Position:		Northing:	1,394,363.62 usft
From:	Lat/Long	Easting:	3,195,288.63 usft
Position Uncertainty:	0.0 usft	Slot Radius:	1.10000ft
		Latitude:	40.413810
		Longitude:	-104.798660
		Grid Convergence:	0.45 °

Well	TC-AIMS 1-9-11		
Well Position	+N-S	222.2 usft	Northing: 1,394,585.79 usfi
	+E-W	-5.6 usft	Easting: 3,195,281.30 usfi
Position Uncertainty		0.0 usft	Wellhead Elevation: usfi
			Latitude: 40.414420
			Longitude: -104.798680
			Ground Level: 4,789.0 usft

Wellbore	ORIGINAL WELLBORE				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	23/07/2015	8.43	66.91	52,614

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 (°)
	7,092.0	0.0	0.0	89.34

Plan Sections											
MD (usft)	Inc (°)	Azi (°)	Vertical Depth	SS (usft)	+N-S (usft)	+E-W (usft)	Dogleg Rate (°/100usf)	Build Rate (°/100usf)	Turn Rate (°/100usf)	TFO (°)	Target
0.0	0.00	0.00	0.0	-4,805.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,100.0	0.00	0.00	1,100.0	-3,705.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,602.6	10.05	79.46	1,600.0	-3,205.0	8.0	43.2	2.00	2.00	0.00	79.46	
1,667.6	10.05	79.46	1,664.0	-3,141.0	10.1	54.4	0.00	0.00	0.00	0.00	
1,764.0	11.98	79.46	1,758.6	-3,046.4	13.5	72.5	2.00	2.00	0.00	0.00	
1,764.0	11.98	79.46	1,758.7	-3,046.3	13.5	72.5	10.00	9.52	-14.75	-17.84	
6,750.3	11.98	79.46	6,636.3	1,831.3	202.9	1,090.3	0.00	0.00	0.00	0.00	
7,532.6	90.00	90.25	7,092.0	2,287.0	218.7	1,651.3	10.00	9.97	1.38	11.03	LANDING PNT - TC
20,169.2	90.00	90.25	7,092.0	2,287.0	164.4	14,287.8	0.00	0.00	0.00	0.00	BHL - TC-AIMS 1-9

Planning Report



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Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 4805.0usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4805.0usft (Original Well Elev)
Site:	NE SE SEC. 8 T5N R66W 6th P.M.	North Reference:	True
Well:	TC-AIMS 1-9-11	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #1		

Planned Survey

MD (usft)	Inc (°)	Azi (°)	TVD (usft)	SS (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	4,805.00	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	4,705.00	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	4,605.00	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	4,505.00	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	4,405.00	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	4,305.00	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	4,205.00	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	4,105.00	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	4,005.00	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	3,905.00	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	3,805.00	0.0	0.0	0.0	0.00	0.00	0.00
START NUDGE (2°/100ft BUR)										
1,100.0	0.00	0.00	1,100.0	3,705.00	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	2.00	79.46	1,200.0	3,605.02	0.3	1.7	1.7	2.00	2.00	0.00
1,300.0	4.00	79.46	1,299.8	3,505.16	1.3	6.9	6.9	2.00	2.00	0.00
1,400.0	6.00	79.46	1,399.5	3,405.55	2.9	15.4	15.5	2.00	2.00	0.00
1,500.0	8.00	79.46	1,498.7	3,306.30	5.1	27.4	27.5	2.00	2.00	0.00
1,600.0	10.00	79.46	1,597.5	3,207.53	8.0	42.8	42.9	2.00	2.00	0.00
9 5/8" SURFACE CASING										
1,602.6	10.05	79.46	1,600.0	3,204.97	8.0	43.2	43.3	1.98	1.98	0.00
START NUDGE (2°/100ft BUR)										
1,667.6	10.05	79.46	1,664.0	3,140.97	10.1	54.4	54.5	0.00	0.00	0.00
1,700.0	10.70	79.46	1,695.9	3,109.10	11.2	60.1	60.2	2.00	2.00	0.00
EOB TO 11.98° INC										
1,764.0	11.98	79.46	1,758.6	3,046.35	13.5	72.5	72.6	2.00	2.00	0.00
1,800.0	11.98	79.46	1,793.9	3,011.14	14.9	79.8	80.0	0.01	0.01	-0.01
1,900.0	11.98	79.46	1,891.7	2,913.32	18.7	100.3	100.5	0.00	0.00	0.00
2,000.0	11.98	79.46	1,989.5	2,815.50	22.5	120.7	120.9	0.00	0.00	0.00
2,100.0	11.98	79.46	2,087.3	2,717.67	26.3	141.1	141.4	0.00	0.00	0.00
2,200.0	11.98	79.46	2,185.1	2,619.85	30.1	161.5	161.8	0.00	0.00	0.00
2,300.0	11.98	79.46	2,283.0	2,522.03	33.9	181.9	182.3	0.00	0.00	0.00
2,400.0	11.98	79.46	2,380.8	2,424.21	37.7	202.3	202.7	0.00	0.00	0.00
2,500.0	11.98	79.46	2,478.6	2,326.39	41.5	222.7	223.2	0.00	0.00	0.00
2,600.0	11.98	79.46	2,576.4	2,228.57	45.3	243.1	243.6	0.00	0.00	0.00
2,700.0	11.98	79.46	2,674.3	2,130.75	49.1	263.5	264.1	0.00	0.00	0.00
2,800.0	11.98	79.46	2,772.1	2,032.93	52.9	284.0	284.6	0.00	0.00	0.00
2,900.0	11.98	79.46	2,869.9	1,935.11	56.7	304.4	305.0	0.00	0.00	0.00
3,000.0	11.98	79.46	2,967.7	1,837.29	60.5	324.8	325.5	0.00	0.00	0.00
3,100.0	11.98	79.46	3,065.5	1,739.47	64.3	345.2	345.9	0.00	0.00	0.00
3,200.0	11.98	79.46	3,163.4	1,641.64	68.1	365.6	366.4	0.00	0.00	0.00
3,300.0	11.98	79.46	3,261.2	1,543.82	71.9	386.0	386.8	0.00	0.00	0.00
3,400.0	11.98	79.46	3,359.0	1,446.00	75.7	406.4	407.3	0.00	0.00	0.00
3,500.0	11.98	79.46	3,456.8	1,348.18	79.4	426.8	427.7	0.00	0.00	0.00
3,600.0	11.98	79.46	3,554.6	1,250.36	83.2	447.3	448.2	0.00	0.00	0.00
3,700.0	11.98	79.46	3,652.5	1,152.54	87.0	467.7	468.6	0.00	0.00	0.00
PARKMAN										
3,728.2	11.98	79.46	3,680.0	1,125.00	88.1	473.4	474.4	0.00	0.00	0.00
3,800.0	11.98	79.46	3,750.3	1,054.72	90.8	488.1	489.1	0.00	0.00	0.00
3,900.0	11.98	79.46	3,848.1	956.90	94.6	508.5	509.5	0.00	0.00	0.00
4,000.0	11.98	79.46	3,945.9	859.08	98.4	528.9	530.0	0.00	0.00	0.00
4,100.0	11.98	79.46	4,043.7	761.26	102.2	549.3	550.5	0.00	0.00	0.00
4,200.0	11.98	79.46	4,141.6	663.44	106.0	569.7	570.9	0.00	0.00	0.00
4,300.0	11.98	79.46	4,239.4	565.62	109.8	590.1	591.4	0.00	0.00	0.00
4,400.0	11.98	79.46	4,337.2	467.79	113.6	610.5	611.8	0.00	0.00	0.00

Planning Report



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Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #1		

Planned Survey

MD (usft)	Inc (°)	Azi (°)	TVD (usft)	SS (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
SUSSEX										
4,474.4	11.98	79.46	4,410.0	395.00	116.5	625.7	627.0	0.00	0.00	0.00
4,500.0	11.98	79.46	4,435.0	369.97	117.4	631.0	632.3	0.00	0.00	0.00
4,600.0	11.98	79.46	4,532.8	272.15	121.2	651.4	652.7	0.00	0.00	0.00
4,700.0	11.98	79.46	4,630.7	174.33	125.0	671.8	673.2	0.00	0.00	0.00
4,800.0	11.98	79.46	4,728.5	76.51	128.8	692.2	693.6	0.00	0.00	0.00
SHANNON										
4,893.5	11.98	79.46	4,820.0	-15.00	132.4	711.3	712.8	0.00	0.00	0.00
4,900.0	11.98	79.46	4,826.3	-21.31	132.6	712.6	714.1	0.00	0.00	0.00
5,000.0	11.98	79.46	4,924.1	-119.13	136.4	733.0	734.5	0.00	0.00	0.00
5,100.0	11.98	79.46	5,022.0	-216.95	140.2	753.4	755.0	0.00	0.00	0.00
5,200.0	11.98	79.46	5,119.8	-314.77	144.0	773.8	775.4	0.00	0.00	0.00
5,300.0	11.98	79.46	5,217.6	-412.59	147.8	794.3	795.9	0.00	0.00	0.00
5,400.0	11.98	79.46	5,315.4	-510.41	151.6	814.7	816.4	0.00	0.00	0.00
5,500.0	11.98	79.46	5,413.2	-608.24	155.4	835.1	836.8	0.00	0.00	0.00
5,600.0	11.98	79.46	5,511.1	-706.06	159.2	855.5	857.3	0.00	0.00	0.00
5,700.0	11.98	79.46	5,608.9	-803.88	163.0	875.9	877.7	0.00	0.00	0.00
5,800.0	11.98	79.46	5,706.7	-901.70	166.8	896.3	898.2	0.00	0.00	0.00
5,900.0	11.98	79.46	5,804.5	-999.52	170.6	916.7	918.6	0.00	0.00	0.00
6,000.0	11.98	79.46	5,902.3	-1,097.34	174.4	937.1	939.1	0.00	0.00	0.00
6,100.0	11.98	79.46	6,000.2	-1,195.16	178.2	957.5	959.5	0.00	0.00	0.00
6,200.0	11.98	79.46	6,098.0	-1,292.98	182.0	978.0	980.0	0.00	0.00	0.00
6,300.0	11.98	79.46	6,195.8	-1,390.80	185.8	998.4	1,000.4	0.00	0.00	0.00
6,400.0	11.98	79.46	6,293.6	-1,488.62	189.6	1,018.8	1,020.9	0.00	0.00	0.00
6,500.0	11.98	79.46	6,391.4	-1,586.44	193.4	1,039.2	1,041.4	0.00	0.00	0.00
6,600.0	11.98	79.46	6,489.3	-1,684.27	197.2	1,059.6	1,061.8	0.00	0.00	0.00
6,700.0	11.98	79.46	6,587.1	-1,782.09	201.0	1,080.0	1,082.3	0.00	0.00	0.00
START BUILD & TURN										
6,750.3	11.98	79.46	6,636.3	-1,831.29	202.9	1,090.3	1,092.5	0.00	0.00	0.00
6,800.0	16.89	82.73	6,684.4	-1,879.41	204.8	1,102.5	1,104.8	10.01	9.88	6.58
6,900.0	26.83	85.74	6,777.1	-1,972.10	208.3	1,139.5	1,141.9	10.00	9.94	3.01
7,000.0	36.80	87.20	6,862.0	-2,056.97	211.5	1,192.1	1,194.4	10.00	9.97	1.46
7,100.0	46.78	88.11	6,936.4	-2,131.43	214.2	1,258.6	1,261.0	10.00	9.98	0.90
SHARON SPRINGS										
7,105.2	47.31	88.14	6,940.0	-2,135.00	214.3	1,262.4	1,264.8	10.00	9.99	0.74
NIOBRARA										
7,154.8	52.26	88.48	6,972.0	-2,167.00	215.4	1,300.3	1,302.6	10.00	9.99	0.68
7,200.0	56.77	88.75	6,998.2	-2,193.23	216.3	1,337.0	1,339.4	10.00	9.99	0.60
7,300.0	66.76	89.27	7,045.5	-2,240.47	217.8	1,425.0	1,427.4	10.00	9.99	0.51
7,400.0	76.75	89.71	7,076.7	-2,271.74	218.6	1,519.9	1,522.3	10.00	9.99	0.44
7,500.0	86.74	90.12	7,091.1	-2,286.07	218.8	1,618.7	1,621.1	10.00	9.99	0.41
LANDING PNT - TC-AIMS 1-9-11 - NIO B TARGET										
7,532.6	90.00	90.25	7,092.0	-2,287.00	218.7	1,651.3	1,653.7	10.00	9.99	0.40
7,600.0	90.00	90.25	7,092.0	-2,287.00	218.4	1,718.7	1,721.1	0.00	0.00	0.00
7,700.0	90.00	90.25	7,092.0	-2,287.00	217.9	1,818.7	1,821.1	0.00	0.00	0.00
7,800.0	90.00	90.25	7,092.0	-2,287.00	217.5	1,918.7	1,921.1	0.00	0.00	0.00
7,900.0	90.00	90.25	7,092.0	-2,287.00	217.1	2,018.7	2,021.0	0.00	0.00	0.00
8,000.0	90.00	90.25	7,092.0	-2,287.00	216.6	2,118.7	2,121.0	0.00	0.00	0.00
8,100.0	90.00	90.25	7,092.0	-2,287.00	216.2	2,218.7	2,221.0	0.00	0.00	0.00
8,200.0	90.00	90.25	7,092.0	-2,287.00	215.8	2,318.7	2,321.0	0.00	0.00	0.00
8,300.0	90.00	90.25	7,092.0	-2,287.00	215.4	2,418.7	2,421.0	0.00	0.00	0.00
8,400.0	90.00	90.25	7,092.0	-2,287.00	214.9	2,518.7	2,521.0	0.00	0.00	0.00
8,500.0	90.00	90.25	7,092.0	-2,287.00	214.5	2,618.7	2,621.0	0.00	0.00	0.00

Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well TC-AIMS 1-9-11
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 4805.0usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4805.0usft (Original Well Elev)
Site:	NE SE SEC. 8 T5N R66W 6th P.M.	North Reference:	True
Well:	TC-AIMS 1-9-11	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #1		

Planned Survey										
MD (usft)	Inc (°)	Azi (°)	TVD (usft)	SS (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,600.0	90.00	90.25	7,092.0	-2,287.00	214.1	2,718.7	2,721.0	0.00	0.00	0.00
8,700.0	90.00	90.25	7,092.0	-2,287.00	213.6	2,818.7	2,820.9	0.00	0.00	0.00
8,800.0	90.00	90.25	7,092.0	-2,287.00	213.2	2,918.7	2,920.9	0.00	0.00	0.00
8,900.0	90.00	90.25	7,092.0	-2,287.00	212.8	3,018.7	3,020.9	0.00	0.00	0.00
9,000.0	90.00	90.25	7,092.0	-2,287.00	212.4	3,118.7	3,120.9	0.00	0.00	0.00
9,100.0	90.00	90.25	7,092.0	-2,287.00	211.9	3,218.7	3,220.9	0.00	0.00	0.00
9,200.0	90.00	90.25	7,092.0	-2,287.00	211.5	3,318.7	3,320.9	0.00	0.00	0.00
9,300.0	90.00	90.25	7,092.0	-2,287.00	211.1	3,418.7	3,420.9	0.00	0.00	0.00
9,400.0	90.00	90.25	7,092.0	-2,287.00	210.6	3,518.7	3,520.9	0.00	0.00	0.00
9,500.0	90.00	90.25	7,092.0	-2,287.00	210.2	3,618.7	3,620.8	0.00	0.00	0.00
9,600.0	90.00	90.25	7,092.0	-2,287.00	209.8	3,718.7	3,720.8	0.00	0.00	0.00
9,700.0	90.00	90.25	7,092.0	-2,287.00	209.4	3,818.7	3,820.8	0.00	0.00	0.00
9,800.0	90.00	90.25	7,092.0	-2,287.00	208.9	3,918.7	3,920.8	0.00	0.00	0.00
9,900.0	90.00	90.25	7,092.0	-2,287.00	208.5	4,018.7	4,020.8	0.00	0.00	0.00
10,000.0	90.00	90.25	7,092.0	-2,287.00	208.1	4,118.7	4,120.8	0.00	0.00	0.00
10,100.0	90.00	90.25	7,092.0	-2,287.00	207.6	4,218.7	4,220.8	0.00	0.00	0.00
10,200.0	90.00	90.25	7,092.0	-2,287.00	207.2	4,318.7	4,320.8	0.00	0.00	0.00
10,300.0	90.00	90.25	7,092.0	-2,287.00	206.8	4,418.7	4,420.7	0.00	0.00	0.00
10,400.0	90.00	90.25	7,092.0	-2,287.00	206.3	4,518.7	4,520.7	0.00	0.00	0.00
10,500.0	90.00	90.25	7,092.0	-2,287.00	205.9	4,618.7	4,620.7	0.00	0.00	0.00
10,600.0	90.00	90.25	7,092.0	-2,287.00	205.5	4,718.7	4,720.7	0.00	0.00	0.00
10,700.0	90.00	90.25	7,092.0	-2,287.00	205.1	4,818.7	4,820.7	0.00	0.00	0.00
10,800.0	90.00	90.25	7,092.0	-2,287.00	204.6	4,918.6	4,920.7	0.00	0.00	0.00
10,900.0	90.00	90.25	7,092.0	-2,287.00	204.2	5,018.6	5,020.7	0.00	0.00	0.00
11,000.0	90.00	90.25	7,092.0	-2,287.00	203.8	5,118.6	5,120.7	0.00	0.00	0.00
11,100.0	90.00	90.25	7,092.0	-2,287.00	203.3	5,218.6	5,220.6	0.00	0.00	0.00
11,200.0	90.00	90.25	7,092.0	-2,287.00	202.9	5,318.6	5,320.6	0.00	0.00	0.00
11,300.0	90.00	90.25	7,092.0	-2,287.00	202.5	5,418.6	5,420.6	0.00	0.00	0.00
11,400.0	90.00	90.25	7,092.0	-2,287.00	202.1	5,518.6	5,520.6	0.00	0.00	0.00
11,500.0	90.00	90.25	7,092.0	-2,287.00	201.6	5,618.6	5,620.6	0.00	0.00	0.00
11,600.0	90.00	90.25	7,092.0	-2,287.00	201.2	5,718.6	5,720.6	0.00	0.00	0.00
11,700.0	90.00	90.25	7,092.0	-2,287.00	200.8	5,818.6	5,820.6	0.00	0.00	0.00
11,800.0	90.00	90.25	7,092.0	-2,287.00	200.3	5,918.6	5,920.6	0.00	0.00	0.00
11,900.0	90.00	90.25	7,092.0	-2,287.00	199.9	6,018.6	6,020.5	0.00	0.00	0.00
12,000.0	90.00	90.25	7,092.0	-2,287.00	199.5	6,118.6	6,120.5	0.00	0.00	0.00
12,100.0	90.00	90.25	7,092.0	-2,287.00	199.1	6,218.6	6,220.5	0.00	0.00	0.00
12,200.0	90.00	90.25	7,092.0	-2,287.00	198.6	6,318.6	6,320.5	0.00	0.00	0.00
12,300.0	90.00	90.25	7,092.0	-2,287.00	198.2	6,418.6	6,420.5	0.00	0.00	0.00
12,400.0	90.00	90.25	7,092.0	-2,287.00	197.8	6,518.6	6,520.5	0.00	0.00	0.00
12,500.0	90.00	90.25	7,092.0	-2,287.00	197.3	6,618.6	6,620.5	0.00	0.00	0.00
12,600.0	90.00	90.25	7,092.0	-2,287.00	196.9	6,718.6	6,720.5	0.00	0.00	0.00
12,700.0	90.00	90.25	7,092.0	-2,287.00	196.5	6,818.6	6,820.4	0.00	0.00	0.00
12,800.0	90.00	90.25	7,092.0	-2,287.00	196.1	6,918.6	6,920.4	0.00	0.00	0.00
12,900.0	90.00	90.25	7,092.0	-2,287.00	195.6	7,018.6	7,020.4	0.00	0.00	0.00
13,000.0	90.00	90.25	7,092.0	-2,287.00	195.2	7,118.6	7,120.4	0.00	0.00	0.00
13,100.0	90.00	90.25	7,092.0	-2,287.00	194.8	7,218.6	7,220.4	0.00	0.00	0.00
13,200.0	90.00	90.25	7,092.0	-2,287.00	194.3	7,318.6	7,320.4	0.00	0.00	0.00
13,300.0	90.00	90.25	7,092.0	-2,287.00	193.9	7,418.6	7,420.4	0.00	0.00	0.00
13,400.0	90.00	90.25	7,092.0	-2,287.00	193.5	7,518.6	7,520.4	0.00	0.00	0.00
13,500.0	90.00	90.25	7,092.0	-2,287.00	193.1	7,618.6	7,620.3	0.00	0.00	0.00
13,600.0	90.00	90.25	7,092.0	-2,287.00	192.6	7,718.6	7,720.3	0.00	0.00	0.00
13,700.0	90.00	90.25	7,092.0	-2,287.00	192.2	7,818.6	7,820.3	0.00	0.00	0.00
13,800.0	90.00	90.25	7,092.0	-2,287.00	191.8	7,918.6	7,920.3	0.00	0.00	0.00
13,900.0	90.00	90.25	7,092.0	-2,287.00	191.3	8,018.6	8,020.3	0.00	0.00	0.00

Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well TC-AIMS 1-9-11
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 4805.0usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4805.0usft (Original Well Elev)
Site:	NE SE SEC. 8 T5N R66W 6th P.M.	North Reference:	True
Well:	TC-AIMS 1-9-11	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #1		

Planned Survey										
MD (usft)	Inc (°)	Azi (°)	TVD (usft)	SS (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
14,000.0	90.00	90.25	7,092.0	-2,287.00	190.9	8,118.6	8,120.3	0.00	0.00	0.00
14,100.0	90.00	90.25	7,092.0	-2,287.00	190.5	8,218.6	8,220.3	0.00	0.00	0.00
14,200.0	90.00	90.25	7,092.0	-2,287.00	190.0	8,318.6	8,320.3	0.00	0.00	0.00
14,300.0	90.00	90.25	7,092.0	-2,287.00	189.6	8,418.6	8,420.2	0.00	0.00	0.00
14,400.0	90.00	90.25	7,092.0	-2,287.00	189.2	8,518.6	8,520.2	0.00	0.00	0.00
14,500.0	90.00	90.25	7,092.0	-2,287.00	188.8	8,618.6	8,620.2	0.00	0.00	0.00
14,600.0	90.00	90.25	7,092.0	-2,287.00	188.3	8,718.6	8,720.2	0.00	0.00	0.00
14,700.0	90.00	90.25	7,092.0	-2,287.00	187.9	8,818.6	8,820.2	0.00	0.00	0.00
14,800.0	90.00	90.25	7,092.0	-2,287.00	187.5	8,918.6	8,920.2	0.00	0.00	0.00
14,900.0	90.00	90.25	7,092.0	-2,287.00	187.0	9,018.6	9,020.2	0.00	0.00	0.00
15,000.0	90.00	90.25	7,092.0	-2,287.00	186.6	9,118.6	9,120.2	0.00	0.00	0.00
15,100.0	90.00	90.25	7,092.0	-2,287.00	186.2	9,218.6	9,220.1	0.00	0.00	0.00
15,200.0	90.00	90.25	7,092.0	-2,287.00	185.8	9,318.6	9,320.1	0.00	0.00	0.00
15,300.0	90.00	90.25	7,092.0	-2,287.00	185.3	9,418.6	9,420.1	0.00	0.00	0.00
15,400.0	90.00	90.25	7,092.0	-2,287.00	184.9	9,518.6	9,520.1	0.00	0.00	0.00
15,500.0	90.00	90.25	7,092.0	-2,287.00	184.5	9,618.6	9,620.1	0.00	0.00	0.00
15,600.0	90.00	90.25	7,092.0	-2,287.00	184.0	9,718.6	9,720.1	0.00	0.00	0.00
15,700.0	90.00	90.25	7,092.0	-2,287.00	183.6	9,818.6	9,820.1	0.00	0.00	0.00
15,800.0	90.00	90.25	7,092.0	-2,287.00	183.2	9,918.6	9,920.1	0.00	0.00	0.00
15,900.0	90.00	90.25	7,092.0	-2,287.00	182.8	10,018.6	10,020.0	0.00	0.00	0.00
16,000.0	90.00	90.25	7,092.0	-2,287.00	182.3	10,118.6	10,120.0	0.00	0.00	0.00
16,100.0	90.00	90.25	7,092.0	-2,287.00	181.9	10,218.6	10,220.0	0.00	0.00	0.00
16,200.0	90.00	90.25	7,092.0	-2,287.00	181.5	10,318.6	10,320.0	0.00	0.00	0.00
16,300.0	90.00	90.25	7,092.0	-2,287.00	181.0	10,418.6	10,420.0	0.00	0.00	0.00
16,400.0	90.00	90.25	7,092.0	-2,287.00	180.6	10,518.6	10,520.0	0.00	0.00	0.00
16,500.0	90.00	90.25	7,092.0	-2,287.00	180.2	10,618.6	10,620.0	0.00	0.00	0.00
16,600.0	90.00	90.25	7,092.0	-2,287.00	179.8	10,718.6	10,720.0	0.00	0.00	0.00
16,700.0	90.00	90.25	7,092.0	-2,287.00	179.3	10,818.6	10,819.9	0.00	0.00	0.00
16,800.0	90.00	90.25	7,092.0	-2,287.00	178.9	10,918.6	10,919.9	0.00	0.00	0.00
16,900.0	90.00	90.25	7,092.0	-2,287.00	178.5	11,018.6	11,019.9	0.00	0.00	0.00
17,000.0	90.00	90.25	7,092.0	-2,287.00	178.0	11,118.6	11,119.9	0.00	0.00	0.00
17,100.0	90.00	90.25	7,092.0	-2,287.00	177.6	11,218.6	11,219.9	0.00	0.00	0.00
17,200.0	90.00	90.25	7,092.0	-2,287.00	177.2	11,318.6	11,319.9	0.00	0.00	0.00
17,300.0	90.00	90.25	7,092.0	-2,287.00	176.7	11,418.6	11,419.9	0.00	0.00	0.00
17,400.0	90.00	90.25	7,092.0	-2,287.00	176.3	11,518.6	11,519.9	0.00	0.00	0.00
17,500.0	90.00	90.25	7,092.0	-2,287.00	175.9	11,618.6	11,619.8	0.00	0.00	0.00
17,600.0	90.00	90.25	7,092.0	-2,287.00	175.5	11,718.6	11,719.8	0.00	0.00	0.00
17,700.0	90.00	90.25	7,092.0	-2,287.00	175.0	11,818.6	11,819.8	0.00	0.00	0.00
17,800.0	90.00	90.25	7,092.0	-2,287.00	174.6	11,918.6	11,919.8	0.00	0.00	0.00
17,900.0	90.00	90.25	7,092.0	-2,287.00	174.2	12,018.6	12,019.8	0.00	0.00	0.00
18,000.0	90.00	90.25	7,092.0	-2,287.00	173.7	12,118.6	12,119.8	0.00	0.00	0.00
18,100.0	90.00	90.25	7,092.0	-2,287.00	173.3	12,218.6	12,219.8	0.00	0.00	0.00
18,200.0	90.00	90.25	7,092.0	-2,287.00	172.9	12,318.6	12,319.8	0.00	0.00	0.00
18,300.0	90.00	90.25	7,092.0	-2,287.00	172.5	12,418.6	12,419.7	0.00	0.00	0.00
18,400.0	90.00	90.25	7,092.0	-2,287.00	172.0	12,518.6	12,519.7	0.00	0.00	0.00
18,500.0	90.00	90.25	7,092.0	-2,287.00	171.6	12,618.6	12,619.7	0.00	0.00	0.00
18,600.0	90.00	90.25	7,092.0	-2,287.00	171.2	12,718.6	12,719.7	0.00	0.00	0.00
18,700.0	90.00	90.25	7,092.0	-2,287.00	170.7	12,818.6	12,819.7	0.00	0.00	0.00
18,800.0	90.00	90.25	7,092.0	-2,287.00	170.3	12,918.6	12,919.7	0.00	0.00	0.00
18,900.0	90.00	90.25	7,092.0	-2,287.00	169.9	13,018.6	13,019.7	0.00	0.00	0.00
19,000.0	90.00	90.25	7,092.0	-2,287.00	169.5	13,118.6	13,119.7	0.00	0.00	0.00
19,100.0	90.00	90.25	7,092.0	-2,287.00	169.0	13,218.6	13,219.6	0.00	0.00	0.00
19,200.0	90.00	90.25	7,092.0	-2,287.00	168.6	13,318.6	13,319.6	0.00	0.00	0.00
19,300.0	90.00	90.25	7,092.0	-2,287.00	168.2	13,418.6	13,419.6	0.00	0.00	0.00

Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well TC-AIMS 1-9-11
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 4805.0usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4805.0usft (Original Well Elev)
Site:	NE SE SEC. 8 T5N R66W 6th P.M.	North Reference:	True
Well:	TC-AIMS 1-9-11	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #1		

Planned Survey										
MD (usft)	Inc (°)	Azi (°)	TVD (usft)	SS (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
19,400.0	90.00	90.25	7,092.0	-2,287.00	167.7	13,518.6	13,519.6	0.00	0.00	0.00
19,500.0	90.00	90.25	7,092.0	-2,287.00	167.3	13,618.6	13,619.6	0.00	0.00	0.00
19,600.0	90.00	90.25	7,092.0	-2,287.00	166.9	13,718.6	13,719.6	0.00	0.00	0.00
19,700.0	90.00	90.25	7,092.0	-2,287.00	166.5	13,818.6	13,819.6	0.00	0.00	0.00
19,800.0	90.00	90.25	7,092.0	-2,287.00	166.0	13,918.6	13,919.6	0.00	0.00	0.00
19,900.0	90.00	90.25	7,092.0	-2,287.00	165.6	14,018.6	14,019.5	0.00	0.00	0.00
20,000.0	90.00	90.25	7,092.0	-2,287.00	165.2	14,118.6	14,119.5	0.00	0.00	0.00
20,100.0	90.00	90.25	7,092.0	-2,287.00	164.7	14,218.6	14,219.5	0.00	0.00	0.00
BHL - TC-AIMS 1-9-11										
20,169.2	90.00	90.25	7,092.0	-2,287.00	164.4	14,287.8	14,288.7	0.00	0.00	0.00

Formations						
MD (usft)	TVD (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,728.2	3,680.0	PARKMAN				
4,474.4	4,410.0	SUSSEX				
4,893.5	4,820.0	SHANNON				
7,105.2	6,940.0	SHARON SPRINGS				
7,154.8	6,972.0	NIOBRARA				
7,532.6	7,092.0	NIO B TARGET				

Plan Annotations					
MD (usft)	TVD (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
1,100.0	1,100.0	0.0	0.0	START NUDGE (2°/100ft BUR)	
1,602.6	1,600.0	8.0	43.2	9 5/8" SURFACE CASING	
1,667.6	1,664.0	10.1	54.4	START NUDGE (2°/100ft BUR)	
1,764.0	1,758.6	13.5	72.5	EOB TO 11.98° INC	
6,750.3	6,636.3	202.9	1,090.3	START BUILD & TURN	
7,532.6	7,092.0	218.7	1,651.3	LANDING PNT - TC-AIMS 1-9-11	
20,169.2	7,092.0	164.4	14,287.8	BHL - TC-AIMS 1-9-11	