

EXTRACTION OIL & GAS

WELD COUNTY, COLORADO (NAD 83)

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

TC-COUNTRY CLUB WEST 5-9-11

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-COUNTRY CLUB WEST 5-9-11
Wellbore: ORIGINAL WELLBORE
Design: PROPOSAL #1

ANNOTATIONS													FORMATION TOP DETAILS		
TVD	MD	Inc	Azi	+N/-S	+E/-W	VSection	Dep	Annotation					TVDPath	MDPath	Formation
1000.0	1000.0	0.00	0.00	0.0	0.0	0.0	0.0	START NUDGE (2°/100ft BUR)					3680.0	3736.1	PARKMAN
1600.0	1604.5	12.09	65.65	26.2	57.9	58.7	63.5	9 5/8" SURFACE CASING					4410.0	4484.2	SUSSEX
1663.6	1669.5	12.09	65.65	31.8	70.3	71.3	77.2	START NUDGE (2°/100ft BUR)					4820.0	4904.4	SHANNON
1690.9	1697.5	12.65	65.65	34.3	75.8	76.9	83.2	EOB TO 12.65° INC					6940.0	7121.7	SHARON SPRINGS
6635.1	6764.7	12.65	65.65	491.8	1086.8	1102.5	1192.9	START BUILD & TURN					6972.0	7171.4	NIOBRARA
7092.0	7549.8	90.00	90.26	532.0	1648.4	1665.2	1757.6	LANDING PNT - TC-COUNTRY CLUB WEST 5-9-11					7092.0	7549.8	NIO B TARGET
7092.0	20186.3	90.00	90.26	474.1	14284.8	14292.6	14394.1	BHL - TC-COUNTRY CLUB WEST 5-9-11							

WELLBORE TARGET DETAILS (LAT/LONG)					
Name	TVD	+N/-S	+E/-W	Latitude	Longitude
LANDING PNT - TC-COUNTRY CLUB WEST 5-9-11	7092.0	532.0	1648.5	40.415930	-104.792760
BHL - TC-COUNTRY CLUB WEST 5-9-11	7092.0	474.1	14284.8	40.415760	-104.747380

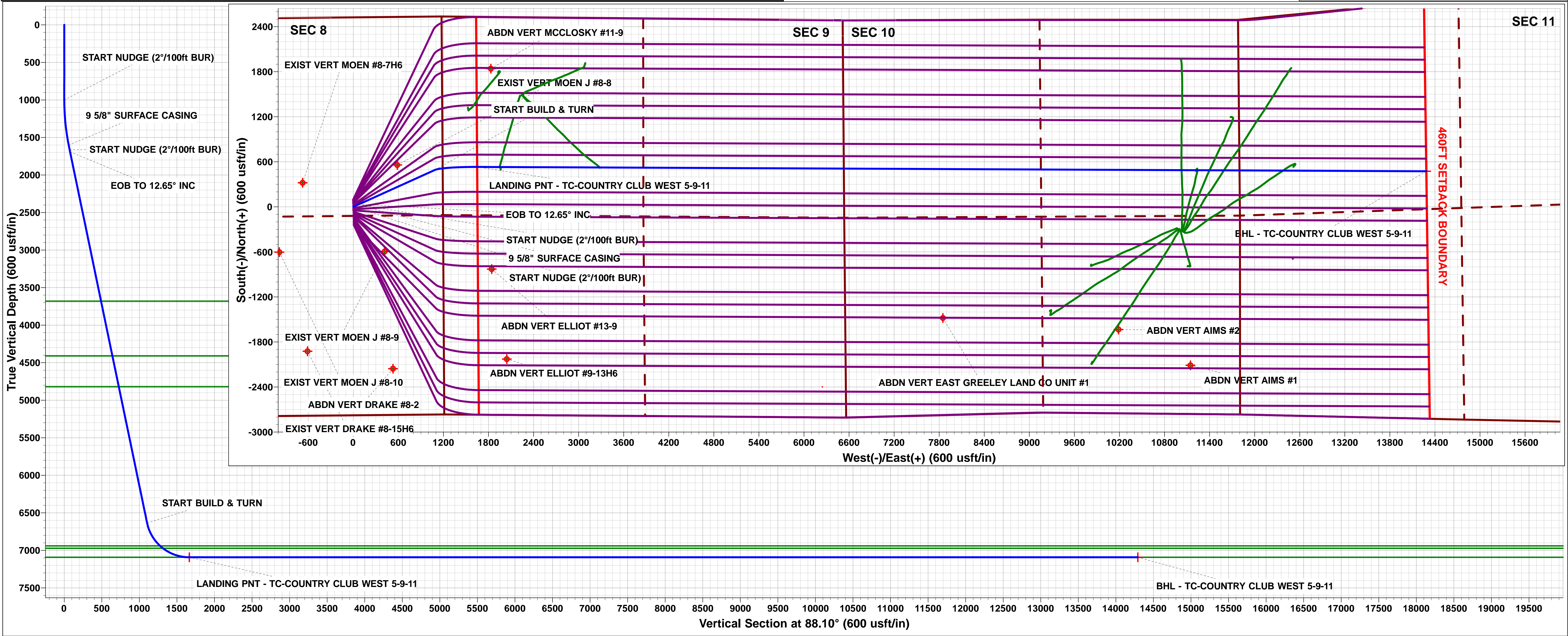
TC-MOISER HILL 2-9-7
TC-MOISER HILL 3-9-11
TC-COUNTRY CLUB WEST C1-9-11
TC-COUNTRY CLUB WEST 1-9-11
TC-COUNTRY CLUB WEST 2-9-11
TC-COUNTRY CLUB WEST C2-9-11
TC-COUNTRY CLUB WEST 3-9-11
TC-COUNTRY CLUB WEST 4-9-11
TC-COUNTRY CLUB WEST C3-9-11
TC-COUNTRY CLUB WEST 5-9-11
TC-AIMS 1-9-11
TC-AIMS C4-9-11
TC-AIMS 2-9-11
TC-AIMS 3-9-11
TC-AIMS C5-9-11
TC-AIMS 4-9-11
TC-HILAND KNOLLS 1-9-11
TC-HILAND KNOLLS C6-9-11

TC-HILAND KNOLLS 2-9-11
TC-HILAND KNOLLS 3-9-11
TC-HILAND KNOLLS C7-9-11
TC-HILAND KNOLLS 4-9-11
TC-PINNACLE PARK 1-9-11
TC-PINNACLE PARK C8-9-11
TC-PINNACLE PARK 2-9-11

T
M

Azimuths to True North
Magnetic North: 8.43°

Magnetic Field
Strength: 52613.6snT
Dip Angle: 66.91°
Date: 23/07/2015
Model: IGRF2015



Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well TC-COUNTRY CLUB WEST 5-9-11
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 4804.0usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4804.0usft (Original Well Elev)
Site:	NE SE SEC. 8 T5N R66W 6th P.M.	North Reference:	True
Well:	TC-COUNTRY CLUB WEST 5-9-11	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-COUNTRY CLUB WEST 5-9-11					
Well Position	+N/-S	240.4 usft	Northing:	1,394,604.00 usfi	Latitude:	40.414470
	+E/-W	-5.6 usft	Easting:	3,195,281.16 usfi	Longitude:	-104.798680
Position Uncertainty		0.0 usft	Wellhead Elevation:	usfi	Ground Level:	4,788.0 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	88.10	

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	-4,804.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,000.0	0.00	0.00	1,000.0	-3,804.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,604.5	12.09	65.65	1,600.0	-3,204.0	26.2	57.9	2.00	2.00	0.00	65.65	
1,669.5	12.09	65.65	1,663.6	-3,140.4	31.8	70.3	0.00	0.00	0.00	0.00	
1,697.5	12.65	65.65	1,690.9	-3,113.1	34.3	75.8	2.00	2.00	0.00	0.00	
1,697.5	12.65	65.65	1,690.9	-3,113.1	34.3	75.8	10.00	9.29	16.55	21.31	
6,764.7	12.65	65.65	6,635.1	1,831.1	491.8	1,086.8	0.00	0.00	0.00	0.00	
7,549.8	90.00	90.26	7,092.0	2,288.0	532.0	1,648.5	10.00	9.85	3.13	25.15	LANDING PNT - TC
20,186.3	90.00	90.26	7,092.0	2,288.0	474.1	14,284.8	0.00	0.00	0.00	0.00	BHL - TC-COUNTR

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well TC-COUNTRY CLUB WEST 5-9-11
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 4804.0usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4804.0usft (Original Well Elev)
Site:	NE SE SEC. 8 T5N R66W 6th P.M.	North Reference:	True
Well:	TC-COUNTRY CLUB WEST 5-9-11	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	4,804.00	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	4,704.00	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	4,604.00	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	4,504.00	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	4,404.00	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	4,304.00	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	4,204.00	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	4,104.00	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	4,004.00	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	3,904.00	0.0	0.0	0.0	0.00	0.00	0.00
START NUDGE (2°/100ft BUR)										
1,000.0	0.00	0.00	1,000.0	3,804.00	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	2.00	65.65	1,100.0	3,704.02	0.7	1.6	1.6	2.00	2.00	0.00
1,200.0	4.00	65.65	1,199.8	3,604.16	2.9	6.4	6.4	2.00	2.00	0.00
1,300.0	6.00	65.65	1,299.5	3,504.55	6.5	14.3	14.5	2.00	2.00	0.00
1,400.0	8.00	65.65	1,398.7	3,405.30	11.5	25.4	25.8	2.00	2.00	0.00
1,500.0	10.00	65.65	1,497.5	3,306.53	17.9	39.7	40.2	2.00	2.00	0.00
1,600.0	12.00	65.65	1,595.6	3,208.38	25.8	57.0	57.9	2.00	2.00	0.00
9 5/8" SURFACE CASING										
1,604.5	12.09	65.65	1,600.0	3,204.00	26.2	57.9	58.7	2.00	2.00	0.00
START NUDGE (2°/100ft BUR)										
1,669.5	12.09	65.65	1,663.6	3,140.42	31.8	70.3	71.3	0.00	0.00	0.00
EOB TO 12.65° INC										
1,697.5	12.65	65.65	1,690.9	3,113.07	34.3	75.8	76.9	2.00	2.00	0.00
1,700.0	12.65	65.65	1,693.4	3,110.63	34.5	76.3	77.4	0.02	0.02	0.04
1,800.0	12.65	65.65	1,790.9	3,013.06	43.5	96.2	97.6	0.00	0.00	0.00
1,900.0	12.65	65.65	1,888.5	2,915.48	52.6	116.2	117.8	0.00	0.00	0.00
2,000.0	12.65	65.65	1,986.1	2,817.91	61.6	136.1	138.1	0.00	0.00	0.00
2,100.0	12.65	65.65	2,083.7	2,720.34	70.6	156.1	158.3	0.00	0.00	0.00
2,200.0	12.65	65.65	2,181.2	2,622.77	79.7	176.0	178.6	0.00	0.00	0.00
2,300.0	12.65	65.65	2,278.8	2,525.19	88.7	196.0	198.8	0.00	0.00	0.00
2,400.0	12.65	65.65	2,376.4	2,427.62	97.7	215.9	219.0	0.00	0.00	0.00
2,500.0	12.65	65.65	2,474.0	2,330.05	106.7	235.9	239.3	0.00	0.00	0.00
2,600.0	12.65	65.65	2,571.5	2,232.48	115.8	255.8	259.5	0.00	0.00	0.00
2,700.0	12.65	65.65	2,669.1	2,134.90	124.8	275.8	279.8	0.00	0.00	0.00
2,800.0	12.65	65.65	2,766.7	2,037.33	133.8	295.7	300.0	0.00	0.00	0.00
2,900.0	12.65	65.65	2,864.2	1,939.76	142.9	315.7	320.2	0.00	0.00	0.00
3,000.0	12.65	65.65	2,961.8	1,842.19	151.9	335.6	340.5	0.00	0.00	0.00
3,100.0	12.65	65.65	3,059.4	1,744.61	160.9	355.6	360.7	0.00	0.00	0.00
3,200.0	12.65	65.65	3,157.0	1,647.04	170.0	375.5	381.0	0.00	0.00	0.00
3,300.0	12.65	65.65	3,254.5	1,549.47	179.0	395.5	401.2	0.00	0.00	0.00
3,400.0	12.65	65.65	3,352.1	1,451.90	188.0	415.4	421.5	0.00	0.00	0.00
3,500.0	12.65	65.65	3,449.7	1,354.33	197.0	435.4	441.7	0.00	0.00	0.00
3,600.0	12.65	65.65	3,547.2	1,256.75	206.1	455.4	461.9	0.00	0.00	0.00
3,700.0	12.65	65.65	3,644.8	1,159.18	215.1	475.3	482.2	0.00	0.00	0.00
PARKMAN										
3,736.1	12.65	65.65	3,680.0	1,124.00	218.4	482.5	489.5	0.00	0.00	0.00
3,800.0	12.65	65.65	3,742.4	1,061.61	224.1	495.3	502.4	0.00	0.00	0.00
3,900.0	12.65	65.65	3,840.0	964.04	233.2	515.2	522.7	0.00	0.00	0.00
4,000.0	12.65	65.65	3,937.5	866.46	242.2	535.2	542.9	0.00	0.00	0.00
4,100.0	12.65	65.65	4,035.1	768.89	251.2	555.1	563.1	0.00	0.00	0.00
4,200.0	12.65	65.65	4,132.7	671.32	260.2	575.1	583.4	0.00	0.00	0.00
4,300.0	12.65	65.65	4,230.3	573.75	269.3	595.0	603.6	0.00	0.00	0.00
4,400.0	12.65	65.65	4,327.8	476.17	278.3	615.0	623.9	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well TC-COUNTRY CLUB WEST 5-9-11
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 4804.0usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4804.0usft (Original Well Elev)
Site:	NE SE SEC. 8 T5N R66W 6th P.M.	North Reference:	True
Well:	TC-COUNTRY CLUB WEST 5-9-11	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)
SUSSEX										
4,484.2	12.65	65.65	4,410.0	394.00	285.9	631.8	640.9	0.00	0.00	0.00
4,500.0	12.65	65.65	4,425.4	378.60	287.3	634.9	644.1	0.00	0.00	0.00
4,600.0	12.65	65.65	4,523.0	281.03	296.4	654.9	664.3	0.00	0.00	0.00
4,700.0	12.65	65.65	4,620.5	183.46	305.4	674.8	684.6	0.00	0.00	0.00
4,800.0	12.65	65.65	4,718.1	85.88	314.4	694.8	704.8	0.00	0.00	0.00
4,900.0	12.65	65.65	4,815.7	-11.69	323.5	714.7	725.1	0.00	0.00	0.00
SHANNON										
4,904.4	12.65	65.65	4,820.0	-16.00	323.9	715.6	726.0	0.00	0.00	0.00
5,000.0	12.65	65.65	4,913.3	-109.26	332.5	734.7	745.3	0.00	0.00	0.00
5,100.0	12.65	65.65	5,010.8	-206.83	341.5	754.6	765.5	0.00	0.00	0.00
5,200.0	12.65	65.65	5,108.4	-304.41	350.5	774.6	785.8	0.00	0.00	0.00
5,300.0	12.65	65.65	5,206.0	-401.98	359.6	794.5	806.0	0.00	0.00	0.00
5,400.0	12.65	65.65	5,303.6	-499.55	368.6	814.5	826.3	0.00	0.00	0.00
5,500.0	12.65	65.65	5,401.1	-597.12	377.6	834.4	846.5	0.00	0.00	0.00
5,600.0	12.65	65.65	5,498.7	-694.69	386.7	854.4	866.8	0.00	0.00	0.00
5,700.0	12.65	65.65	5,596.3	-792.27	395.7	874.4	887.0	0.00	0.00	0.00
5,800.0	12.65	65.65	5,693.8	-889.84	404.7	894.3	907.2	0.00	0.00	0.00
5,900.0	12.65	65.65	5,791.4	-987.41	413.7	914.3	927.5	0.00	0.00	0.00
6,000.0	12.65	65.65	5,889.0	-1,084.98	422.8	934.2	947.7	0.00	0.00	0.00
6,100.0	12.65	65.65	5,986.6	-1,182.56	431.8	954.2	968.0	0.00	0.00	0.00
6,200.0	12.65	65.65	6,084.1	-1,280.13	440.8	974.1	988.2	0.00	0.00	0.00
6,300.0	12.65	65.65	6,181.7	-1,377.70	449.9	994.1	1,008.4	0.00	0.00	0.00
6,400.0	12.65	65.65	6,279.3	-1,475.27	458.9	1,014.0	1,028.7	0.00	0.00	0.00
6,500.0	12.65	65.65	6,376.8	-1,572.85	467.9	1,034.0	1,048.9	0.00	0.00	0.00
6,600.0	12.65	65.65	6,474.4	-1,670.42	477.0	1,053.9	1,069.2	0.00	0.00	0.00
6,700.0	12.65	65.65	6,572.0	-1,767.99	486.0	1,073.9	1,089.4	0.00	0.00	0.00
START BUILD & TURN										
6,764.7	12.65	65.65	6,635.1	-1,831.12	491.8	1,086.8	1,102.5	0.00	0.00	0.00
6,800.0	15.92	71.13	6,669.3	-1,865.33	495.0	1,094.9	1,110.7	10.00	9.25	15.51
6,900.0	25.54	78.98	6,762.8	-1,958.76	503.6	1,129.1	1,145.2	10.00	9.63	7.86
7,000.0	35.37	82.70	6,848.9	-2,044.86	511.4	1,179.1	1,195.4	10.00	9.83	3.71
7,100.0	45.26	84.95	6,925.0	-2,121.02	518.2	1,243.4	1,259.9	10.00	9.89	2.25
SHARON SPRINGS										
7,121.7	47.42	85.33	6,940.0	-2,136.00	519.5	1,259.0	1,275.5	10.00	9.92	1.78
NIOBRARA										
7,171.4	52.35	86.13	6,972.0	-2,168.00	522.4	1,296.9	1,313.5	10.00	9.93	1.59
7,200.0	55.19	86.54	6,988.9	-2,184.92	523.8	1,319.9	1,336.6	10.00	9.93	1.43
7,300.0	65.13	87.78	7,038.6	-2,234.62	528.1	1,406.4	1,423.2	10.00	9.94	1.24
7,400.0	75.08	88.84	7,072.6	-2,268.60	530.8	1,500.3	1,517.1	10.00	9.95	1.06
7,500.0	85.04	89.80	7,089.8	-2,285.84	532.0	1,598.7	1,615.4	10.00	9.96	0.96
LANDING PNT - TC-COUNTRY CLUB WEST 5-9-11 - NIO B TARGET										
7,549.8	90.00	90.26	7,092.0	-2,288.00	532.0	1,648.5	1,665.2	10.00	9.96	0.93
7,600.0	90.00	90.26	7,092.0	-2,288.00	531.7	1,698.6	1,715.3	0.00	0.00	0.00
7,700.0	90.00	90.26	7,092.0	-2,288.00	531.3	1,798.6	1,815.2	0.00	0.00	0.00
7,800.0	90.00	90.26	7,092.0	-2,288.00	530.8	1,898.6	1,915.2	0.00	0.00	0.00
7,900.0	90.00	90.26	7,092.0	-2,288.00	530.4	1,998.6	2,015.1	0.00	0.00	0.00
8,000.0	90.00	90.26	7,092.0	-2,288.00	529.9	2,098.6	2,115.0	0.00	0.00	0.00
8,100.0	90.00	90.26	7,092.0	-2,288.00	529.4	2,198.6	2,215.0	0.00	0.00	0.00
8,200.0	90.00	90.26	7,092.0	-2,288.00	529.0	2,298.6	2,314.9	0.00	0.00	0.00
8,300.0	90.00	90.26	7,092.0	-2,288.00	528.5	2,398.6	2,414.8	0.00	0.00	0.00
8,400.0	90.00	90.26	7,092.0	-2,288.00	528.1	2,498.6	2,514.7	0.00	0.00	0.00
8,500.0	90.00	90.26	7,092.0	-2,288.00	527.6	2,598.6	2,614.7	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well TC-COUNTRY CLUB WEST 5-9-11
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 4804.0usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4804.0usft (Original Well Elev)
Site:	NE SE SEC. 8 T5N R66W 6th P.M.	North Reference:	True
Well:	TC-COUNTRY CLUB WEST 5-9-11	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	90.26	7,092.0	-2,288.00	527.2	2,698.6	2,714.6	0.00	0.00	0.00
8,700.0	90.00	90.26	7,092.0	-2,288.00	526.7	2,798.6	2,814.5	0.00	0.00	0.00
8,800.0	90.00	90.26	7,092.0	-2,288.00	526.2	2,898.6	2,914.5	0.00	0.00	0.00
8,900.0	90.00	90.26	7,092.0	-2,288.00	525.8	2,998.6	3,014.4	0.00	0.00	0.00
9,000.0	90.00	90.26	7,092.0	-2,288.00	525.3	3,098.6	3,114.3	0.00	0.00	0.00
9,100.0	90.00	90.26	7,092.0	-2,288.00	524.9	3,198.6	3,214.2	0.00	0.00	0.00
9,200.0	90.00	90.26	7,092.0	-2,288.00	524.4	3,298.6	3,314.2	0.00	0.00	0.00
9,300.0	90.00	90.26	7,092.0	-2,288.00	523.9	3,398.6	3,414.1	0.00	0.00	0.00
9,400.0	90.00	90.26	7,092.0	-2,288.00	523.5	3,498.6	3,514.0	0.00	0.00	0.00
9,500.0	90.00	90.26	7,092.0	-2,288.00	523.0	3,598.6	3,614.0	0.00	0.00	0.00
9,600.0	90.00	90.26	7,092.0	-2,288.00	522.6	3,698.6	3,713.9	0.00	0.00	0.00
9,700.0	90.00	90.26	7,092.0	-2,288.00	522.1	3,798.6	3,813.8	0.00	0.00	0.00
9,800.0	90.00	90.26	7,092.0	-2,288.00	521.7	3,898.6	3,913.7	0.00	0.00	0.00
9,900.0	90.00	90.26	7,092.0	-2,288.00	521.2	3,998.6	4,013.7	0.00	0.00	0.00
10,000.0	90.00	90.26	7,092.0	-2,288.00	520.7	4,098.6	4,113.6	0.00	0.00	0.00
10,100.0	90.00	90.26	7,092.0	-2,288.00	520.3	4,198.6	4,213.5	0.00	0.00	0.00
10,200.0	90.00	90.26	7,092.0	-2,288.00	519.8	4,298.6	4,313.5	0.00	0.00	0.00
10,300.0	90.00	90.26	7,092.0	-2,288.00	519.4	4,398.6	4,413.4	0.00	0.00	0.00
10,400.0	90.00	90.26	7,092.0	-2,288.00	518.9	4,498.6	4,513.3	0.00	0.00	0.00
10,500.0	90.00	90.26	7,092.0	-2,288.00	518.5	4,598.6	4,613.2	0.00	0.00	0.00
10,600.0	90.00	90.26	7,092.0	-2,288.00	518.0	4,698.6	4,713.2	0.00	0.00	0.00
10,700.0	90.00	90.26	7,092.0	-2,288.00	517.5	4,798.6	4,813.1	0.00	0.00	0.00
10,800.0	90.00	90.26	7,092.0	-2,288.00	517.1	4,898.6	4,913.0	0.00	0.00	0.00
10,900.0	90.00	90.26	7,092.0	-2,288.00	516.6	4,998.6	5,013.0	0.00	0.00	0.00
11,000.0	90.00	90.26	7,092.0	-2,288.00	516.2	5,098.6	5,112.9	0.00	0.00	0.00
11,100.0	90.00	90.26	7,092.0	-2,288.00	515.7	5,198.6	5,212.8	0.00	0.00	0.00
11,200.0	90.00	90.26	7,092.0	-2,288.00	515.2	5,298.6	5,312.7	0.00	0.00	0.00
11,300.0	90.00	90.26	7,092.0	-2,288.00	514.8	5,398.6	5,412.7	0.00	0.00	0.00
11,400.0	90.00	90.26	7,092.0	-2,288.00	514.3	5,498.6	5,512.6	0.00	0.00	0.00
11,500.0	90.00	90.26	7,092.0	-2,288.00	513.9	5,598.6	5,612.5	0.00	0.00	0.00
11,600.0	90.00	90.26	7,092.0	-2,288.00	513.4	5,698.6	5,712.5	0.00	0.00	0.00
11,700.0	90.00	90.26	7,092.0	-2,288.00	513.0	5,798.6	5,812.4	0.00	0.00	0.00
11,800.0	90.00	90.26	7,092.0	-2,288.00	512.5	5,898.6	5,912.3	0.00	0.00	0.00
11,900.0	90.00	90.26	7,092.0	-2,288.00	512.0	5,998.6	6,012.3	0.00	0.00	0.00
12,000.0	90.00	90.26	7,092.0	-2,288.00	511.6	6,098.6	6,112.2	0.00	0.00	0.00
12,100.0	90.00	90.26	7,092.0	-2,288.00	511.1	6,198.6	6,212.1	0.00	0.00	0.00
12,200.0	90.00	90.26	7,092.0	-2,288.00	510.7	6,298.6	6,312.0	0.00	0.00	0.00
12,300.0	90.00	90.26	7,092.0	-2,288.00	510.2	6,398.6	6,412.0	0.00	0.00	0.00
12,400.0	90.00	90.26	7,092.0	-2,288.00	509.8	6,498.6	6,511.9	0.00	0.00	0.00
12,500.0	90.00	90.26	7,092.0	-2,288.00	509.3	6,598.6	6,611.8	0.00	0.00	0.00
12,600.0	90.00	90.26	7,092.0	-2,288.00	508.8	6,698.6	6,711.8	0.00	0.00	0.00
12,700.0	90.00	90.26	7,092.0	-2,288.00	508.4	6,798.6	6,811.7	0.00	0.00	0.00
12,800.0	90.00	90.26	7,092.0	-2,288.00	507.9	6,898.6	6,911.6	0.00	0.00	0.00
12,900.0	90.00	90.26	7,092.0	-2,288.00	507.5	6,998.6	7,011.5	0.00	0.00	0.00
13,000.0	90.00	90.26	7,092.0	-2,288.00	507.0	7,098.6	7,111.5	0.00	0.00	0.00
13,100.0	90.00	90.26	7,092.0	-2,288.00	506.5	7,198.6	7,211.4	0.00	0.00	0.00
13,200.0	90.00	90.26	7,092.0	-2,288.00	506.1	7,298.6	7,311.3	0.00	0.00	0.00
13,300.0	90.00	90.26	7,092.0	-2,288.00	505.6	7,398.6	7,411.3	0.00	0.00	0.00
13,400.0	90.00	90.26	7,092.0	-2,288.00	505.2	7,498.6	7,511.2	0.00	0.00	0.00
13,500.0	90.00	90.26	7,092.0	-2,288.00	504.7	7,598.6	7,611.1	0.00	0.00	0.00
13,600.0	90.00	90.26	7,092.0	-2,288.00	504.3	7,698.5	7,711.0	0.00	0.00	0.00
13,700.0	90.00	90.26	7,092.0	-2,288.00	503.8	7,798.5	7,811.0	0.00	0.00	0.00
13,800.0	90.00	90.26	7,092.0	-2,288.00	503.3	7,898.5	7,910.9	0.00	0.00	0.00
13,900.0	90.00	90.26	7,092.0	-2,288.00	502.9	7,998.5	8,010.8	0.00	0.00	0.00

Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well TC-COUNTRY CLUB WEST 5-9-11
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 4804.0usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4804.0usft (Original Well Elev)
Site:	NE SE SEC. 8 T5N R66W 6th P.M.	North Reference:	True
Well:	TC-COUNTRY CLUB WEST 5-9-11	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	90.26	7,092.0	-2,288.00	502.4	8,098.5	8,110.8	0.00	0.00	0.00
14,100.0	90.00	90.26	7,092.0	-2,288.00	502.0	8,198.5	8,210.7	0.00	0.00	0.00
14,200.0	90.00	90.26	7,092.0	-2,288.00	501.5	8,298.5	8,310.6	0.00	0.00	0.00
14,300.0	90.00	90.26	7,092.0	-2,288.00	501.1	8,398.5	8,410.5	0.00	0.00	0.00
14,400.0	90.00	90.26	7,092.0	-2,288.00	500.6	8,498.5	8,510.5	0.00	0.00	0.00
14,500.0	90.00	90.26	7,092.0	-2,288.00	500.1	8,598.5	8,610.4	0.00	0.00	0.00
14,600.0	90.00	90.26	7,092.0	-2,288.00	499.7	8,698.5	8,710.3	0.00	0.00	0.00
14,700.0	90.00	90.26	7,092.0	-2,288.00	499.2	8,798.5	8,810.3	0.00	0.00	0.00
14,800.0	90.00	90.26	7,092.0	-2,288.00	498.8	8,898.5	8,910.2	0.00	0.00	0.00
14,900.0	90.00	90.26	7,092.0	-2,288.00	498.3	8,998.5	9,010.1	0.00	0.00	0.00
15,000.0	90.00	90.26	7,092.0	-2,288.00	497.8	9,098.5	9,110.0	0.00	0.00	0.00
15,100.0	90.00	90.26	7,092.0	-2,288.00	497.4	9,198.5	9,210.0	0.00	0.00	0.00
15,200.0	90.00	90.26	7,092.0	-2,288.00	496.9	9,298.5	9,309.9	0.00	0.00	0.00
15,300.0	90.00	90.26	7,092.0	-2,288.00	496.5	9,398.5	9,409.8	0.00	0.00	0.00
15,400.0	90.00	90.26	7,092.0	-2,288.00	496.0	9,498.5	9,509.8	0.00	0.00	0.00
15,500.0	90.00	90.26	7,092.0	-2,288.00	495.6	9,598.5	9,609.7	0.00	0.00	0.00
15,600.0	90.00	90.26	7,092.0	-2,288.00	495.1	9,698.5	9,709.6	0.00	0.00	0.00
15,700.0	90.00	90.26	7,092.0	-2,288.00	494.6	9,798.5	9,809.5	0.00	0.00	0.00
15,800.0	90.00	90.26	7,092.0	-2,288.00	494.2	9,898.5	9,909.5	0.00	0.00	0.00
15,900.0	90.00	90.26	7,092.0	-2,288.00	493.7	9,998.5	10,009.4	0.00	0.00	0.00
16,000.0	90.00	90.26	7,092.0	-2,288.00	493.3	10,098.5	10,109.3	0.00	0.00	0.00
16,100.0	90.00	90.26	7,092.0	-2,288.00	492.8	10,198.5	10,209.3	0.00	0.00	0.00
16,200.0	90.00	90.26	7,092.0	-2,288.00	492.4	10,298.5	10,309.2	0.00	0.00	0.00
16,300.0	90.00	90.26	7,092.0	-2,288.00	491.9	10,398.5	10,409.1	0.00	0.00	0.00
16,400.0	90.00	90.26	7,092.0	-2,288.00	491.4	10,498.5	10,509.0	0.00	0.00	0.00
16,500.0	90.00	90.26	7,092.0	-2,288.00	491.0	10,598.5	10,609.0	0.00	0.00	0.00
16,600.0	90.00	90.26	7,092.0	-2,288.00	490.5	10,698.5	10,708.9	0.00	0.00	0.00
16,700.0	90.00	90.26	7,092.0	-2,288.00	490.1	10,798.5	10,808.8	0.00	0.00	0.00
16,800.0	90.00	90.26	7,092.0	-2,288.00	489.6	10,898.5	10,908.8	0.00	0.00	0.00
16,900.0	90.00	90.26	7,092.0	-2,288.00	489.1	10,998.5	11,008.7	0.00	0.00	0.00
17,000.0	90.00	90.26	7,092.0	-2,288.00	488.7	11,098.5	11,108.6	0.00	0.00	0.00
17,100.0	90.00	90.26	7,092.0	-2,288.00	488.2	11,198.5	11,208.5	0.00	0.00	0.00
17,200.0	90.00	90.26	7,092.0	-2,288.00	487.8	11,298.5	11,308.5	0.00	0.00	0.00
17,300.0	90.00	90.26	7,092.0	-2,288.00	487.3	11,398.5	11,408.4	0.00	0.00	0.00
17,400.0	90.00	90.26	7,092.0	-2,288.00	486.9	11,498.5	11,508.3	0.00	0.00	0.00
17,500.0	90.00	90.26	7,092.0	-2,288.00	486.4	11,598.5	11,608.3	0.00	0.00	0.00
17,600.0	90.00	90.26	7,092.0	-2,288.00	485.9	11,698.5	11,708.2	0.00	0.00	0.00
17,700.0	90.00	90.26	7,092.0	-2,288.00	485.5	11,798.5	11,808.1	0.00	0.00	0.00
17,800.0	90.00	90.26	7,092.0	-2,288.00	485.0	11,898.5	11,908.0	0.00	0.00	0.00
17,900.0	90.00	90.26	7,092.0	-2,288.00	484.6	11,998.5	12,008.0	0.00	0.00	0.00
18,000.0	90.00	90.26	7,092.0	-2,288.00	484.1	12,098.5	12,107.9	0.00	0.00	0.00
18,100.0	90.00	90.26	7,092.0	-2,288.00	483.7	12,198.5	12,207.8	0.00	0.00	0.00
18,200.0	90.00	90.26	7,092.0	-2,288.00	483.2	12,298.5	12,307.8	0.00	0.00	0.00
18,300.0	90.00	90.26	7,092.0	-2,288.00	482.7	12,398.5	12,407.7	0.00	0.00	0.00
18,400.0	90.00	90.26	7,092.0	-2,288.00	482.3	12,498.5	12,507.6	0.00	0.00	0.00
18,500.0	90.00	90.26	7,092.0	-2,288.00	481.8	12,598.5	12,607.5	0.00	0.00	0.00
18,600.0	90.00	90.26	7,092.0	-2,288.00	481.4	12,698.5	12,707.5	0.00	0.00	0.00
18,700.0	90.00	90.26	7,092.0	-2,288.00	480.9	12,798.5	12,807.4	0.00	0.00	0.00
18,800.0	90.00	90.26	7,092.0	-2,288.00	480.5	12,898.5	12,907.3	0.00	0.00	0.00
18,900.0	90.00	90.26	7,092.0	-2,288.00	480.0	12,998.5	13,007.3	0.00	0.00	0.00
19,000.0	90.00	90.26	7,092.0	-2,288.00	479.5	13,098.5	13,107.2	0.00	0.00	0.00
19,100.0	90.00	90.26	7,092.0	-2,288.00	479.1	13,198.5	13,207.1	0.00	0.00	0.00
19,200.0	90.00	90.26	7,092.0	-2,288.00	478.6	13,298.5	13,307.0	0.00	0.00	0.00
19,300.0	90.00	90.26	7,092.0	-2,288.00	478.2	13,398.5	13,407.0	0.00	0.00	0.00

Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well TC-COUNTRY CLUB WEST 5-9-11
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 4804.0usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4804.0usft (Original Well Elev)
Site:	NE SE SEC. 8 T5N R66W 6th P.M.	North Reference:	True
Well:	TC-COUNTRY CLUB WEST 5-9-11	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	90.26	7,092.0	-2,288.00	477.7	13,498.5	13,506.9	0.00	0.00	0.00
19,500.0	90.00	90.26	7,092.0	-2,288.00	477.2	13,598.5	13,606.8	0.00	0.00	0.00
19,600.0	90.00	90.26	7,092.0	-2,288.00	476.8	13,698.5	13,706.8	0.00	0.00	0.00
19,700.0	90.00	90.26	7,092.0	-2,288.00	476.3	13,798.5	13,806.7	0.00	0.00	0.00
19,800.0	90.00	90.26	7,092.0	-2,288.00	475.9	13,898.5	13,906.6	0.00	0.00	0.00
19,900.0	90.00	90.26	7,092.0	-2,288.00	475.4	13,998.5	14,006.5	0.00	0.00	0.00
20,000.0	90.00	90.26	7,092.0	-2,288.00	475.0	14,098.5	14,106.5	0.00	0.00	0.00
20,100.0	90.00	90.26	7,092.0	-2,288.00	474.5	14,198.5	14,206.4	0.00	0.00	0.00
BHL - TC-COUNTRY CLUB WEST 5-9-11										
20,186.3	90.00	90.26	7,092.0	-2,288.00	474.1	14,284.8	14,292.6	0.00	0.00	0.00

Formations						
MD (usft)	TVD (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,736.1	3,680.0	PARKMAN				
4,484.2	4,410.0	SUSSEX				
4,904.4	4,820.0	SHANNON				
7,121.7	6,940.0	SHARON SPRINGS				
7,171.4	6,972.0	NIOBRARA				
7,549.8	7,092.0	NIO B TARGET				

Plan Annotations					
MD (usft)	TVD (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
1,000.0	1,000.0	0.0	0.0	START NUDGE (2°/100ft BUR)	
1,604.5	1,600.0	26.2	57.9	9 5/8" SURFACE CASING	
1,669.5	1,663.6	31.8	70.3	START NUDGE (2°/100ft BUR)	
1,697.5	1,690.9	34.3	75.8	EOB TO 12.65° INC	
6,764.7	6,635.1	491.8	1,086.8	START BUILD & TURN	
7,549.8	7,092.0	532.0	1,648.4	LANDING PNT - TC-COUNTRY CLUB WEST 5-9-11	
20,186.3	7,092.0	474.1	14,284.8	BHL - TC-COUNTRY CLUB WEST 5-9-11	