BISON EXPLORATION

ARAPAHOE COUNTY, COLORADO (NAD 83)
SW NW SEC. 2 T5S R64W 6th P.M.
DALTON 5-64 2-15

ORIGINAL WELLBORE

27 April, 2017

Plan: PROPOSAL #1

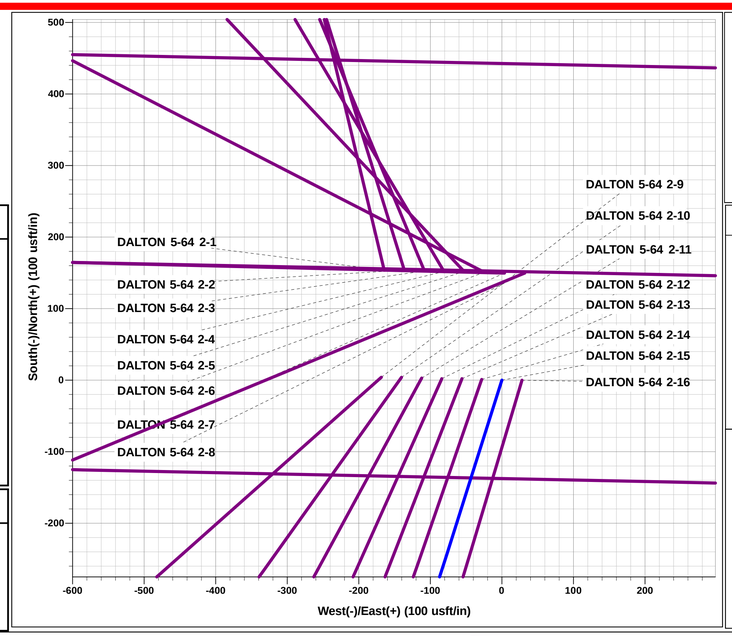
Project: ARAPAHOE COUNTY, COLORADO (NAD 83)
Site: SW NW SEC. 2 T5S R64W 6th P.M.
Well: DALTON 5-64 2-15
Wellbore: ORIGINAL WELLBORE
Design: PROPOSAL #1

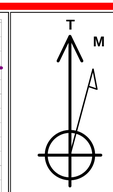
ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	VSect	Dep	Annotation
0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	SHL: 2352ft FNL & 643ft FWL of Sec 2
700.0	700.0	0.00	0.00	0.0	0.0	0.0	0.0	START NUDGE (2°/100ft BUR)
1879.6	1915.7	24.31	197.54	-242.3	-76.6	48.5	254.1	EOB TO 24.31° INC
5752.4	6165.6	24.31	197.54	-1910.8	-604.0	382.1	2004.0	END OF TANGENT
6932.0	7381.3	0.00	0.00	-2153.1	-680.6	430.6	2258.1	EOD TO VERTICAL
6962.0	7411.3	0.00	0.00	-2153.1	-680.6	430.6	2258.1	KOP (10°/100ft BUR)
7520.5	8182.3	77.10	91.19	-2162.3	-235.7	825.9	2703.3	BPI: 693ft FSL & 460ft FWL of Sec 2
7535.0	8311.3	90.00	91.19	-2165.0	-107.8	939.5	2831.1	HZ LP: 690.4ft FSL & 587.9ft FWL of Sec 2
7535.0	12563.6	90.00	91.18	-2253.0	4143.7	4716.6	7083.4	BHL: 719ft FSL & 460ft FEL of Sec 2

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
KOP - DALTON 5-64 2-15	6962.0	-2153.1	-680.6	39.639239	-104.528861
BHL - DALTON 5-64 2-15	7535.0	-2253.0	4143.7	39.638964	-104.511731
HZ LP - DALTON 5-64 2-15	7535.0	-2165.0	-107.8	39.639206	-104.526827





Azimuths to True North
Magnetic North: 8.03°

Magnetic Field
Strength: 52029.2snT
Dip Angle: 66.29°
Date: 27/04/2017
Model: IGRF2015

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
134.0	134.0	DENVER
1012.0	1012.6	UPPER ARAPAHOE
1833.0	1864.8	LARAMIE - FOX HILLS
2057.0	2110.4	PIERRE SHALE
5127.0	5479.3	SHANNON SANDSTONE MBR
7477.0	8051.4	SHARON SPRINGS SHALE
7517.0	8167.5	NIOBRARA FM
7520.0	8180.1	NIOBRARA A CHALK

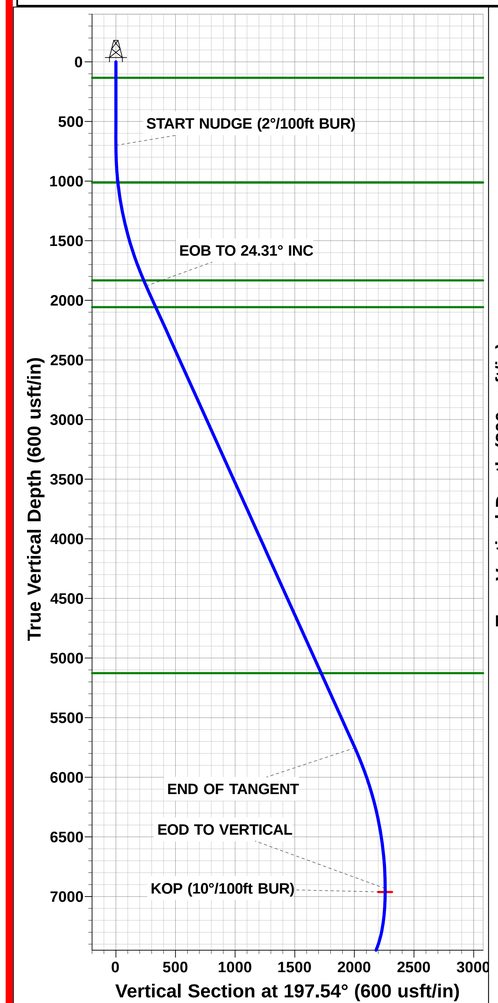
PROPOSED LOCAL COORDINATES:

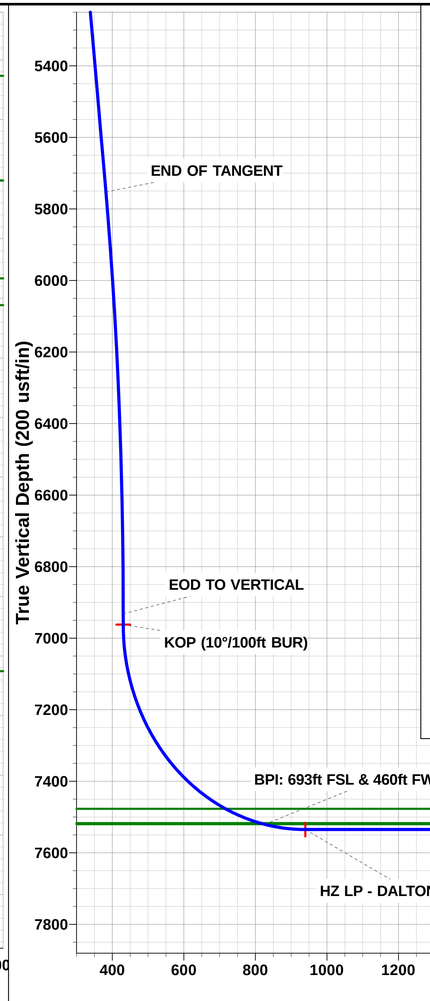
SHL: 2352ft FNL & 643ft FWL of Sec 2

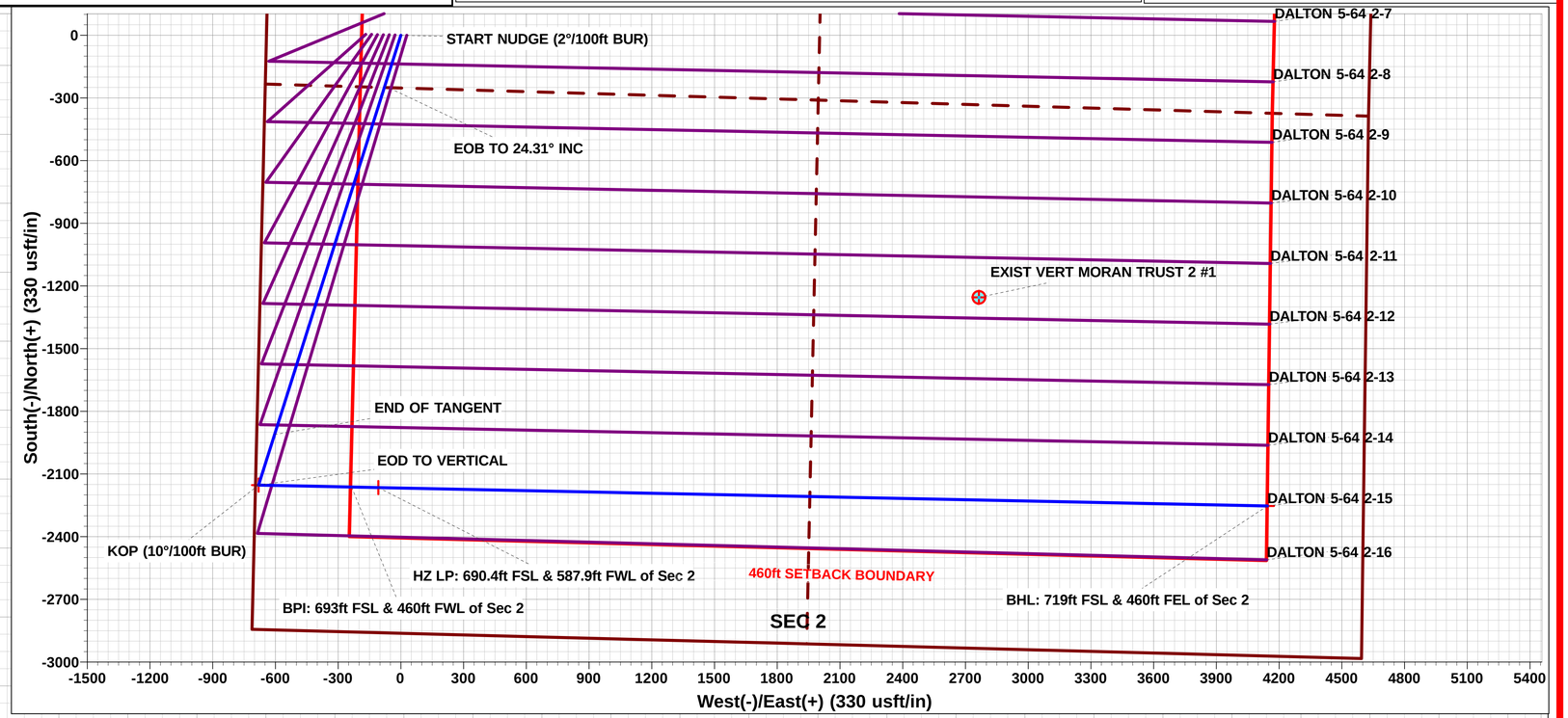
BEGIN PROD INT: 693ft FSL & 460ft FWL of Sec 2

HZ LP: 690.4ft FSL & 587.9ft FWL of Sec 2

BHL: 719ft FSL & 460ft FEL of Sec 2







Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well DALTON 5-64 2-15
Company:	BISON EXPLORATION	**TVD Reference:**	KB-EST @ 5927.0usft (Original Well Elev)
Project:	ARAPAHOE COUNTY, COLORADO (NAD 83)	**MD Reference:**	KB-EST @ 5927.0usft (Original Well Elev)
Site:	SW NW SEC. 2 T5S R64W 6th P.M.	**North Reference:**	True
Well:	DALTON 5-64 2-15	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #1		

Project ARAPAHOE COUNTY, COLORADO (NAD 83)

Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		Using geodetic scale factor

Site SW NW SEC. 2 T5S R64W 6th P.M.

Site Position:		**Northing:**	1,661,495.36 usft	**Latitude:**	39.645572
From:	Lat/Long	**Easting:**	3,273,984.42 usft	**Longitude:**	-104.527028
Position Uncertainty:	0.0 usft	**Slot Radius:**	1.10000 ft	**Grid Convergence:**	0.61 °

Well DALTON 5-64 2-15

Well Position	**+N/-S**	-153.7 usft	**Northing:**	1,661,343.41 usft	**Latitude:**	39.645150
	+E/-W	164.5 usft	**Easting:**	3,274,150.51 usft	**Longitude:**	-104.526444
Position Uncertainty		0.0 usft	**Wellhead Elevation:**	usft	**Ground Level:**	5,902.0 usft

Wellbore ORIGINAL WELLBORE

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	27/04/2017	8.04	66.29	52,029

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 (°)
	7,535.0	0.0	0.0	118.53

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	-5,927.0	0.0	0.0	0.00	0.00	0.00	0.00	
700.0	0.00	0.00	700.0	-5,227.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,915.7	24.31	197.54	1,879.6	-4,047.4	-242.3	-76.6	2.00	2.00	0.00	197.54	
6,165.6	24.31	197.54	5,752.4	-174.6	-1,910.8	-604.0	0.00	0.00	0.00	0.00	
7,381.3	0.00	0.00	6,932.0	1,005.0	-2,153.1	-680.6	2.00	-2.00	0.00	180.00	
7,411.3	0.00	0.00	6,962.0	1,035.0	-2,153.1	-680.6	0.00	0.00	0.00	0.00	KOP - DALTON 5-6
8,311.3	90.00	91.19	7,535.0	1,608.0	-2,165.0	-107.8	10.00	10.00	0.00	91.19	
12,563.6	90.00	91.18	7,535.0	1,608.0	-2,253.0	4,143.7	0.00	0.00	0.00	-97.46	BHL - DALTON 5-6

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Site:	SW NW SEC. 2 T5S R64W 6th P.M.	**North Reference:**	True
Well:	DALTON 5-64 2-15	**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)
SHL: 2352ft FNL & 643ft FWL of Sec 2										
0.0	***0.00***	***0.00***	***0.0***	***5,927.00***	***0.0***	***0.0***	***0.0***	***0.00***	***0.00***	***0.00***
100.0	0.00	0.00	100.0	5,827.00	0.0	0.0	0.0	0.00	0.00	0.00
DENVER										
134.0	***0.00***	***0.00***	***134.0***	***5,793.00***	***0.0***	***0.0***	***0.0***	***0.00***	***0.00***	***0.00***
200.0	0.00	0.00	200.0	5,727.00	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	5,627.00	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	5,527.00	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	5,427.00	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	5,327.00	0.0	0.0	0.0	0.00	0.00	0.00
START NUDGE (2°/100ft BUR)										
700.0	***0.00***	***0.00***	***700.0***	***5,227.00***	***0.0***	***0.0***	***0.0***	***0.00***	***0.00***	***0.00***
800.0	2.00	197.54	800.0	5,127.02	-1.7	-0.5	0.3	2.00	2.00	0.00
900.0	4.00	197.54	899.8	5,027.16	-6.7	-2.1	1.3	2.00	2.00	0.00
1,000.0	6.00	197.54	999.5	4,927.55	-15.0	-4.7	3.0	2.00	2.00	0.00
UPPER ARAPAHOE										
1,012.6	***6.25***	***197.54***	***1,012.0***	***4,915.00***	***-16.2***	***-5.1***	***3.2***	***2.00***	***2.00***	***0.00***
1,100.0	8.00	197.54	1,098.7	4,828.30	-26.6	-8.4	5.3	2.00	2.00	0.00
1,200.0	10.00	197.54	1,197.5	4,729.53	-41.5	-13.1	8.3	2.00	2.00	0.00
1,300.0	12.00	197.54	1,295.6	4,631.38	-59.7	-18.9	11.9	2.00	2.00	0.00
1,400.0	14.00	197.54	1,393.1	4,533.94	-81.1	-25.6	16.2	2.00	2.00	0.00
1,500.0	16.00	197.54	1,489.6	4,437.36	-105.8	-33.4	21.2	2.00	2.00	0.00
1,600.0	18.00	197.54	1,585.3	4,341.73	-133.7	-42.3	26.7	2.00	2.00	0.00
1,700.0	20.00	197.54	1,679.8	4,247.18	-164.7	-52.1	32.9	2.00	2.00	0.00
1,800.0	22.00	197.54	1,773.2	4,153.83	-198.9	-62.9	39.8	2.00	2.00	0.00
LARAMIE - FOX HILLS										
1,864.8	***23.30***	***197.54***	***1,833.0***	***4,094.00***	***-222.7***	***-70.4***	***44.5***	***2.00***	***2.00***	***0.00***
1,900.0	24.00	197.54	1,865.2	4,061.79	-236.2	-74.6	47.2	2.00	2.00	0.00
EOB TO 24.31° INC										
1,915.7	***24.31***	***197.54***	***1,879.6***	***4,047.42***	***-242.3***	***-76.6***	***48.5***	***2.00***	***2.00***	***0.00***
2,000.0	24.31	197.54	1,956.4	3,970.64	-275.4	-87.0	55.1	0.00	0.00	0.00
2,100.0	24.31	197.54	2,047.5	3,879.51	-314.6	-99.5	62.9	0.00	0.00	0.00
PIERRE SHALE (BASE FOX HILLS)										
2,110.4	***24.31***	***197.54***	***2,057.0***	***3,870.00***	***-318.7***	***-100.8***	***63.7***	***0.00***	***0.00***	***0.00***
2,200.0	24.31	197.54	2,138.6	3,788.38	-353.9	-111.9	70.8	0.00	0.00	0.00
2,300.0	24.31	197.54	2,229.8	3,697.25	-393.2	-124.3	78.6	0.00	0.00	0.00
2,400.0	24.31	197.54	2,320.9	3,606.12	-432.4	-136.7	86.5	0.00	0.00	0.00
2,500.0	24.31	197.54	2,412.0	3,514.99	-471.7	-149.1	94.3	0.00	0.00	0.00
2,600.0	24.31	197.54	2,503.1	3,423.86	-510.9	-161.5	102.2	0.00	0.00	0.00
2,700.0	24.31	197.54	2,594.3	3,332.73	-550.2	-173.9	110.0	0.00	0.00	0.00
2,800.0	24.31	197.54	2,685.4	3,241.60	-589.5	-186.3	117.9	0.00	0.00	0.00
2,900.0	24.31	197.54	2,776.5	3,150.47	-628.7	-198.7	125.7	0.00	0.00	0.00
3,000.0	24.31	197.54	2,867.7	3,059.34	-668.0	-211.2	133.6	0.00	0.00	0.00
3,100.0	24.31	197.54	2,958.8	2,968.21	-707.2	-223.6	141.4	0.00	0.00	0.00
3,200.0	24.31	197.54	3,049.9	2,877.08	-746.5	-236.0	149.3	0.00	0.00	0.00
3,300.0	24.31	197.54	3,141.0	2,785.95	-785.8	-248.4	157.1	0.00	0.00	0.00
3,400.0	24.31	197.54	3,232.2	2,694.82	-825.0	-260.8	165.0	0.00	0.00	0.00
3,500.0	24.31	197.54	3,323.3	2,603.69	-864.3	-273.2	172.8	0.00	0.00	0.00
3,600.0	24.31	197.54	3,414.4	2,512.57	-903.5	-285.6	180.7	0.00	0.00	0.00
3,700.0	24.31	197.54	3,505.6	2,421.44	-942.8	-298.0	188.5	0.00	0.00	0.00
3,800.0	24.31	197.54	3,596.7	2,330.31	-982.1	-310.4	196.4	0.00	0.00	0.00
3,900.0	24.31	197.54	3,687.8	2,239.18	-1,021.3	-322.8	204.2	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well DALTON 5-64 2-15
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Project:	ARAPAHOE COUNTY, COLORADO (NAD 83)	**MD Reference:**	KB-EST @ 5927.0usft (Original Well Elev)
Site:	SW NW SEC. 2 T5S R64W 6th P.M.	**North Reference:**	True
Well:	DALTON 5-64 2-15	**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)
4,000.0	24.31	197.54	3,779.0	2,148.05	-1,060.6	-335.3	212.1	0.00	0.00	0.00
4,100.0	24.31	197.54	3,870.1	2,056.92	-1,099.8	-347.7	219.9	0.00	0.00	0.00
4,200.0	24.31	197.54	3,961.2	1,965.79	-1,139.1	-360.1	227.8	0.00	0.00	0.00
4,300.0	24.31	197.54	4,052.3	1,874.66	-1,178.4	-372.5	235.6	0.00	0.00	0.00
4,400.0	24.31	197.54	4,143.5	1,783.53	-1,217.6	-384.9	243.5	0.00	0.00	0.00
4,500.0	24.31	197.54	4,234.6	1,692.40	-1,256.9	-397.3	251.3	0.00	0.00	0.00
4,600.0	24.31	197.54	4,325.7	1,601.27	-1,296.2	-409.7	259.2	0.00	0.00	0.00
4,700.0	24.31	197.54	4,416.9	1,510.14	-1,335.4	-422.1	267.0	0.00	0.00	0.00
4,800.0	24.31	197.54	4,508.0	1,419.01	-1,374.7	-434.5	274.9	0.00	0.00	0.00
4,900.0	24.31	197.54	4,599.1	1,327.88	-1,413.9	-446.9	282.7	0.00	0.00	0.00
5,000.0	24.31	197.54	4,690.2	1,236.75	-1,453.2	-459.4	290.6	0.00	0.00	0.00
5,100.0	24.31	197.54	4,781.4	1,145.62	-1,492.5	-471.8	298.4	0.00	0.00	0.00
5,200.0	24.31	197.54	4,872.5	1,054.49	-1,531.7	-484.2	306.3	0.00	0.00	0.00
5,300.0	24.31	197.54	4,963.6	963.36	-1,571.0	-496.6	314.1	0.00	0.00	0.00
5,400.0	24.31	197.54	5,054.8	872.23	-1,610.2	-509.0	322.0	0.00	0.00	0.00
SHANNON SANDSTONE MBR										
5,479.3	***24.31***	***197.54***	***5,127.0***	***800.00***	***-1,641.4***	***-518.8***	***328.2***	***0.00***	***0.00***	***0.00***
5,500.0	24.31	197.54	5,145.9	781.10	-1,649.5	-521.4	329.8	0.00	0.00	0.00
5,600.0	24.31	197.54	5,237.0	689.97	-1,688.8	-533.8	337.7	0.00	0.00	0.00
5,700.0	24.31	197.54	5,328.2	598.84	-1,728.0	-546.2	345.6	0.00	0.00	0.00
5,800.0	24.31	197.54	5,419.3	507.71	-1,767.3	-558.6	353.4	0.00	0.00	0.00
5,900.0	24.31	197.54	5,510.4	416.59	-1,806.5	-571.1	361.3	0.00	0.00	0.00
6,000.0	24.31	197.54	5,601.5	325.46	-1,845.8	-583.5	369.1	0.00	0.00	0.00
6,100.0	24.31	197.54	5,692.7	234.33	-1,885.1	-595.9	377.0	0.00	0.00	0.00
END OF TANGENT										
6,165.6	***24.31***	***197.54***	***5,752.4***	***174.58***	***-1,910.8***	***-604.0***	***382.1***	***0.00***	***0.00***	***0.00***
6,200.0	23.63	197.54	5,783.9	143.11	-1,924.1	-608.2	384.8	2.00	-2.00	0.00
6,300.0	21.63	197.54	5,876.2	50.81	-1,960.8	-619.8	392.1	2.00	-2.00	0.00
6,400.0	19.63	197.54	5,969.8	-42.77	-1,994.4	-630.4	398.8	2.00	-2.00	0.00
6,500.0	17.63	197.54	6,064.5	-137.53	-2,024.9	-640.1	404.9	2.00	-2.00	0.00
6,600.0	15.63	197.54	6,160.3	-233.34	-2,052.1	-648.7	410.4	2.00	-2.00	0.00
6,700.0	13.63	197.54	6,257.1	-330.10	-2,076.2	-656.3	415.2	2.00	-2.00	0.00
6,800.0	11.63	197.54	6,354.7	-427.67	-2,097.1	-662.9	419.3	2.00	-2.00	0.00
6,900.0	9.63	197.54	6,453.0	-525.96	-2,114.6	-668.4	422.9	2.00	-2.00	0.00
7,000.0	7.63	197.54	6,551.8	-624.82	-2,128.9	-673.0	425.7	2.00	-2.00	0.00
7,100.0	5.63	197.54	6,651.1	-724.15	-2,139.9	-676.4	427.9	2.00	-2.00	0.00
7,200.0	3.63	197.54	6,750.8	-823.81	-2,147.6	-678.9	429.5	2.00	-2.00	0.00
7,300.0	1.63	197.54	6,850.7	-923.70	-2,152.0	-680.3	430.3	2.00	-2.00	0.00
EOD TO VERTICAL										
7,381.3	***0.00***	***0.00***	***6,932.0***	***-1,005.00***	***-2,153.1***	***-680.6***	***430.6***	***2.00***	***-2.00***	***0.00***
7,400.0	0.00	0.00	6,950.7	-1,023.69	-2,153.1	-680.6	430.6	0.00	0.00	0.00
KOP (10°/100ft BUR)										
7,411.3	***0.00***	***0.00***	***6,962.0***	***-1,035.00***	***-2,153.1***	***-680.6***	***430.6***	***0.00***	***0.00***	***0.00***
7,500.0	8.87	91.19	7,050.3	-1,123.34	-2,153.2	-673.8	436.6	10.00	10.00	0.00
7,600.0	18.87	91.19	7,147.3	-1,220.30	-2,153.7	-649.8	457.9	10.00	10.00	0.00
7,700.0	28.87	91.19	7,238.6	-1,311.63	-2,154.6	-609.4	493.8	10.00	10.00	0.00
7,800.0	38.87	91.19	7,321.6	-1,394.56	-2,155.7	-553.8	543.2	10.00	10.00	0.00
7,900.0	48.87	91.19	7,393.6	-1,466.56	-2,157.2	-484.6	604.7	10.00	10.00	0.00
8,000.0	58.87	91.19	7,452.4	-1,525.45	-2,158.8	-403.9	676.4	10.00	10.00	0.00
SHARON SPRINGS SHALE										
8,051.4	***64.01***	***91.19***	***7,477.0***	***-1,550.00***	***-2,159.8***	***-358.8***	***716.4***	***10.00***	***10.00***	***0.00***
8,100.0	68.87	91.19	7,496.4	-1,569.43	-2,160.7	-314.3	756.0	10.00	10.00	0.00

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well DALTON 5-64 2-15
Company:	BISON EXPLORATION	**TVD Reference:**	KB-EST @ 5927.0usft (Original Well Elev)
Project:	ARAPAHOE COUNTY, COLORADO (NAD 83)	**MD Reference:**	KB-EST @ 5927.0usft (Original Well Elev)
Site:	SW NW SEC. 2 T5S R64W 6th P.M.	**North Reference:**	True
Well:	DALTON 5-64 2-15	**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)
NIOBRARA FM										
8,167.5	***75.62***	***91.19***	***7,517.0***	***-1,590.00***	***-2,162.0***	***-250.1***	***813.1***	***10.00***	***10.00***	***0.00***
NIOBRARA A CHALK										
8,180.1	***76.88***	***91.19***	***7,520.0***	***-1,593.00***	***-2,162.3***	***-237.8***	***824.0***	***10.00***	***10.00***	***0.00***
BPI: 693ft FSL & 460ft FWL of Sec 2										
8,182.3	***77.10***	***91.19***	***7,520.5***	***-1,593.50***	***-2,162.3***	***-235.7***	***825.9***	***10.00***	***10.00***	***0.00***
8,200.0	78.87	91.19	7,524.2	-1,597.18	-2,162.7	-218.3	841.2	10.00	10.00	0.00
8,300.0	88.87	91.19	7,534.8	-1,607.85	-2,164.8	-119.1	929.5	10.00	10.00	0.00
HZ LP: 690.4ft FSL & 587.9ft FWL of Sec 2										
8,311.3	***90.00***	***91.19***	***7,535.0***	***-1,607.96***	***-2,165.0***	***-107.8***	***939.5***	***10.00***	***10.00***	***0.00***
8,400.0	90.00	91.19	7,535.0	-1,607.96	-2,166.8	-19.1	1,018.3	0.00	0.00	0.00
8,500.0	90.00	91.19	7,535.0	-1,607.96	-2,168.9	80.9	1,107.1	0.00	0.00	0.00
8,600.0	90.00	91.19	7,535.0	-1,607.96	-2,171.0	180.9	1,195.9	0.00	0.00	0.00
8,700.0	90.00	91.19	7,535.0	-1,607.96	-2,173.1	280.8	1,284.8	0.00	0.00	0.00
8,800.0	90.00	91.19	7,535.0	-1,607.96	-2,175.1	380.8	1,373.6	0.00	0.00	0.00
8,900.0	90.00	91.19	7,535.0	-1,607.96	-2,177.2	480.8	1,462.4	0.00	0.00	0.00
9,000.0	90.00	91.19	7,535.0	-1,607.96	-2,179.3	580.8	1,551.2	0.00	0.00	0.00
9,100.0	90.00	91.19	7,535.0	-1,607.96	-2,181.4	680.8	1,640.1	0.00	0.00	0.00
9,200.0	90.00	91.19	7,535.0	-1,607.96	-2,183.4	780.7	1,728.9	0.00	0.00	0.00
9,300.0	90.00	91.19	7,535.0	-1,607.96	-2,185.5	880.7	1,817.7	0.00	0.00	0.00
9,400.0	90.00	91.19	7,535.0	-1,607.96	-2,187.6	980.7	1,906.5	0.00	0.00	0.00
9,500.0	90.00	91.19	7,535.0	-1,607.96	-2,189.7	1,080.7	1,995.4	0.00	0.00	0.00
9,600.0	90.00	91.19	7,535.0	-1,607.96	-2,191.7	1,180.7	2,084.2	0.00	0.00	0.00
9,700.0	90.00	91.19	7,535.0	-1,607.96	-2,193.8	1,280.6	2,173.0	0.00	0.00	0.00
9,800.0	90.00	91.19	7,535.0	-1,607.96	-2,195.9	1,380.6	2,261.8	0.00	0.00	0.00
9,900.0	90.00	91.19	7,535.0	-1,607.96	-2,197.9	1,480.6	2,350.7	0.00	0.00	0.00
10,000.0	90.00	91.19	7,535.0	-1,607.96	-2,200.0	1,580.6	2,439.5	0.00	0.00	0.00
10,100.0	90.00	91.19	7,535.0	-1,607.97	-2,202.1	1,680.5	2,528.3	0.00	0.00	0.00
10,200.0	90.00	91.19	7,535.0	-1,607.97	-2,204.2	1,780.5	2,617.1	0.00	0.00	0.00
10,300.0	90.00	91.19	7,535.0	-1,607.97	-2,206.2	1,880.5	2,706.0	0.00	0.00	0.00
10,400.0	90.00	91.19	7,535.0	-1,607.97	-2,208.3	1,980.5	2,794.8	0.00	0.00	0.00
10,500.0	90.00	91.19	7,535.0	-1,607.97	-2,210.4	2,080.5	2,883.6	0.00	0.00	0.00
10,600.0	90.00	91.19	7,535.0	-1,607.97	-2,212.4	2,180.4	2,972.4	0.00	0.00	0.00
10,700.0	90.00	91.19	7,535.0	-1,607.97	-2,214.5	2,280.4	3,061.2	0.00	0.00	0.00
10,800.0	90.00	91.18	7,535.0	-1,607.97	-2,216.6	2,380.4	3,150.1	0.00	0.00	0.00
10,900.0	90.00	91.18	7,535.0	-1,607.97	-2,218.6	2,480.4	3,238.9	0.00	0.00	0.00
11,000.0	90.00	91.18	7,535.0	-1,607.97	-2,220.7	2,580.4	3,327.7	0.00	0.00	0.00
11,100.0	90.00	91.18	7,535.0	-1,607.98	-2,222.8	2,680.3	3,416.5	0.00	0.00	0.00
11,200.0	90.00	91.18	7,535.0	-1,607.98	-2,224.8	2,780.3	3,505.4	0.00	0.00	0.00
11,300.0	90.00	91.18	7,535.0	-1,607.98	-2,226.9	2,880.3	3,594.2	0.00	0.00	0.00
11,400.0	90.00	91.18	7,535.0	-1,607.98	-2,229.0	2,980.3	3,683.0	0.00	0.00	0.00
11,500.0	90.00	91.18	7,535.0	-1,607.98	-2,231.0	3,080.2	3,771.8	0.00	0.00	0.00
11,600.0	90.00	91.18	7,535.0	-1,607.98	-2,233.1	3,180.2	3,860.6	0.00	0.00	0.00
11,700.0	90.00	91.18	7,535.0	-1,607.98	-2,235.2	3,280.2	3,949.5	0.00	0.00	0.00
11,800.0	90.00	91.18	7,535.0	-1,607.99	-2,237.2	3,380.2	4,038.3	0.00	0.00	0.00
11,900.0	90.00	91.18	7,535.0	-1,607.99	-2,239.3	3,480.2	4,127.1	0.00	0.00	0.00
12,000.0	90.00	91.18	7,535.0	-1,607.99	-2,241.4	3,580.1	4,215.9	0.00	0.00	0.00
12,100.0	90.00	91.18	7,535.0	-1,607.99	-2,243.4	3,680.1	4,304.7	0.00	0.00	0.00
12,200.0	90.00	91.18	7,535.0	-1,607.99	-2,245.5	3,780.1	4,393.6	0.00	0.00	0.00
12,300.0	90.00	91.18	7,535.0	-1,607.99	-2,247.6	3,880.1	4,482.4	0.00	0.00	0.00
12,400.0	90.00	91.18	7,535.0	-1,608.00	-2,249.6	3,980.1	4,571.2	0.00	0.00	0.00
12,500.0	90.00	91.18	7,535.0	-1,608.00	-2,251.7	4,080.0	4,660.0	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well DALTON 5-64 2-15
Company:	BISON EXPLORATION	**TVD Reference:**	KB-EST @ 5927.0usft (Original Well Elev)
Project:	ARAPAHOE COUNTY, COLORADO (NAD 83)	**MD Reference:**	KB-EST @ 5927.0usft (Original Well Elev)
Site:	SW NW SEC. 2 T5S R64W 6th P.M.	**North Reference:**	True
Well:	DALTON 5-64 2-15	**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)
BHL: 719ft FSL & 460ft FEL of Sec 2										
12,563.6	***90.00***	***91.18***	***7,535.0***	***-1,608.00***	***-2,253.0***	***4,143.7***	***4,716.6***	***0.00***	***0.00***	***0.00***

Formations

MD (usft)	TVD (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
134.0	134.0	DENVER			
1,012.6	1,012.0	UPPER ARAPAHOE			
1,864.8	1,833.0	LARAMIE - FOX HILLS			
2,110.4	2,057.0	PIERRE SHALE (BASE FOX HILLS			
5,479.3	5,127.0	SHANNON SANDSTONE MBR			
8,051.4	7,477.0	SHARON SPRINGS SHALE			
8,167.5	7,517.0	NIOBRARA FM			
8,180.1	7,520.0	NIOBRARA A CHALK			

Plan Annotations

MD (usft)	TVD (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
0.0	0.0	0.0	0.0	SHL: 2352ft FNL & 643ft FWL of Sec 2
700.0	700.0	0.0	0.0	START NUDGE (2°/100ft BUR)
1,915.7	1,879.6	-242.3	-76.6	EOB TO 24.31° INC
6,165.6	5,752.4	-1,910.8	-604.0	END OF TANGENT
7,381.3	6,932.0	-2,153.1	-680.6	EOD TO VERTICAL
7,411.3	6,962.0	-2,153.1	-680.6	KOP (10°/100ft BUR)
8,182.3	7,520.5	-2,162.3	-235.7	BPI: 693ft FSL & 460ft FWL of Sec 2
8,311.3	7,535.0	-2,165.0	-107.8	HZ LP: 690.4ft FSL & 587.9ft FWL of Sec 2
12,563.6	7,535.0	-2,253.0	4,143.7	BHL: 719ft FSL & 460ft FEL of Sec 2