GMT EXPLORATION COMPANY LLC

ADAMS COUNTY, COLORADO (NAD 83)
NE SE SEC. 12 T3S R65W 6th P.M.
L&S 3-65-12-11-11HN

ORIGINAL WELLBORE

19 June, 2018

Plan: PROPOSAL #1



GMT Exploration Company LLC

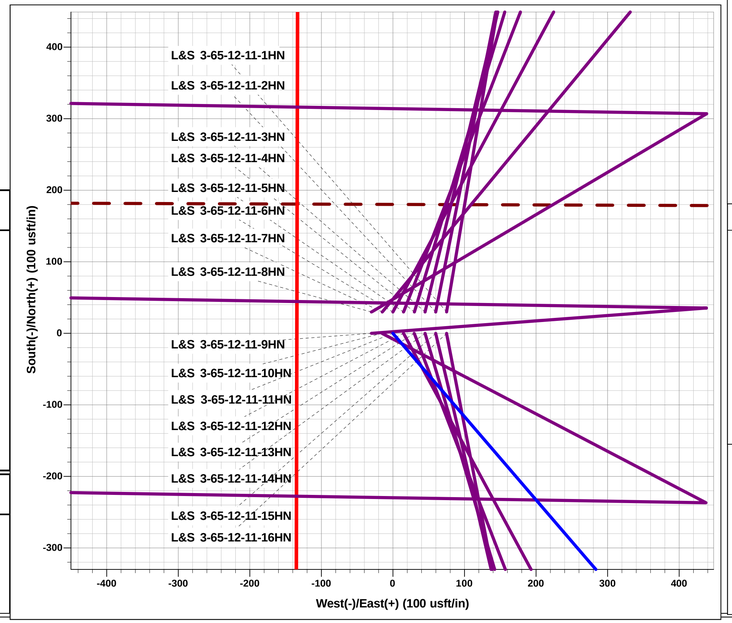
Project: ADAMS COUNTY, COLORADO (NAD 83)
Site: NE SE SEC. 12 T3S R65W 6th P.M.
Well: L&S 3-65-12-11-11HN
Wellbore: ORIGINAL WELLBORE
Design: PROPOSAL #1

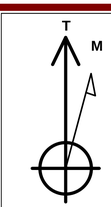
ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	VSect	Dep	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	SHL: 2460ft FSL & 465ft FEL of Sec 12
600.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00	START NUDGE (2°/100ft BUR)
1195.62	1200.00	12.00	139.32	-47.48	40.80	-39.03	62.60	EOB TO 12° INC
3760.15	3821.82	12.00	139.32	-460.90	396.09	-378.85	607.71	END OF TANGENT
4355.77	4421.82	0.00	0.00	-508.38	436.89	-417.87	670.31	EOD TO VERTICAL
7026.04	7092.09	0.00	0.00	-508.38	436.89	-417.87	670.31	KOP (10°/100ft BUR)
7599.00	7992.08	90.00	270.90	-499.38	-135.99	154.29	1243.26	HZ LP: 1960ft FSL & 600ft FEL of Sec 12
7599.00	17395.44	90.00	270.90	-351.48	-9538.18	9544.66	10646.62	BHL: 1971ft FSL & 550ft FWL of Sec 11

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
KOP - L&S 3-65-12-11-11HN	7026.04	-508.38	436.89	39.803057	-104.602881
HZ LP - L&S 3-65-12-11-11HN	7599.00	-499.38	-135.99	39.803082	-104.604920
BHL - L&S 3-65-12-11-11HN	7599.00	-351.48	-9538.18	39.803483	-104.638384





Azimuths to True North
Magnetic North: 7.97°

Magnetic Field
Strength: 51978.8snT
Dip Angle: 66.38°
Date: 19/06/2018
Model: IGRF2015

FORMATION TOP DETAILS

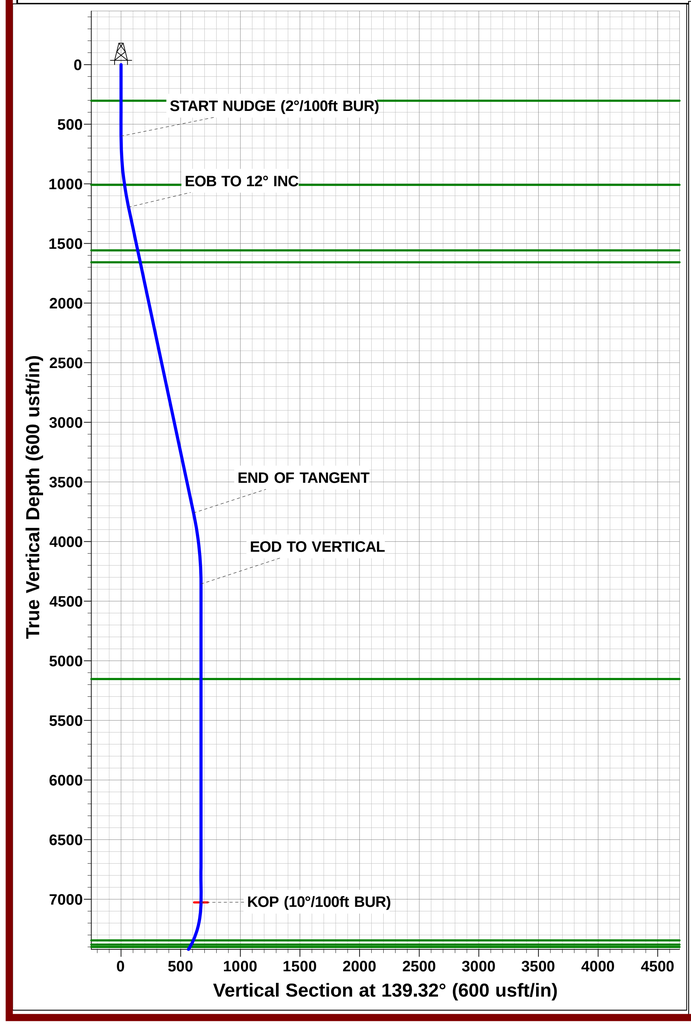
TVDPath	MDPath	Formation
303.00	303.00	DENVER
1008.00	1009.39	UPPER ARAPAHOE
1558.00	1570.47	LARAMIE - FOX HILLS
1658.00	1672.71	PIERRE SHALE (BASE FH)
5153.00	5219.05	SUSSEX SANDSTONE
7345.00	7430.36	SHARON SPRINGS SHALE
7380.00	7473.63	NIOBRARA
7400.00	7499.53	NIOBRARA A
7501.00	7652.01	NIOBRARA B TOP
7571.00	7812.23	NIOBRARA C TOP

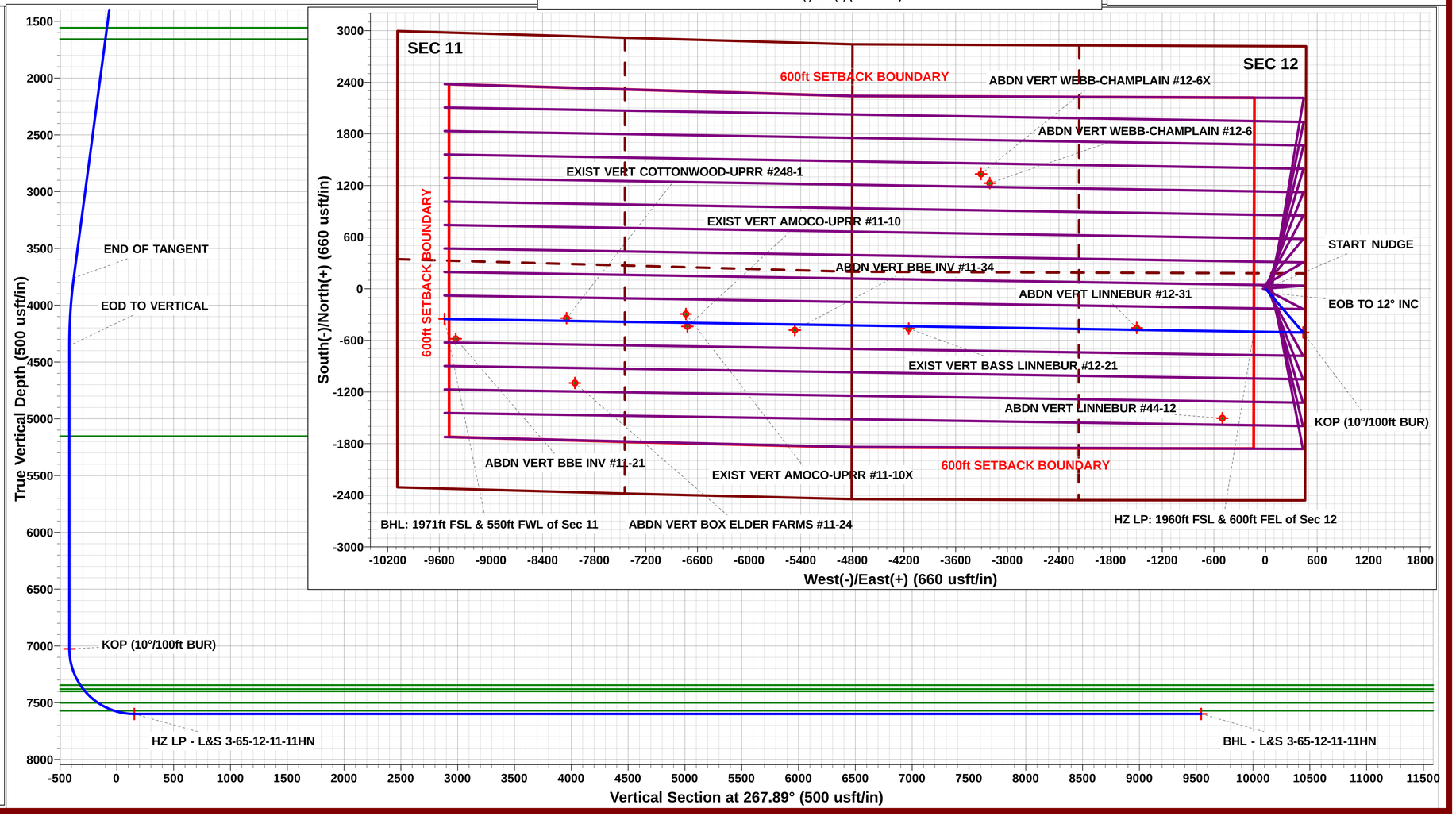
PROPOSED LOCAL COORDINATES:

SHL: 2460ft FSL & 465ft FEL of Sec 12

HZ LP: 1960ft FSL & 600ft FEL of Sec 12

BHL: 1971ft FSL & 550ft FWL of Sec 11





Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well L&S 3-65-12-11-11HN
Company:	GMT EXPLORATION COMPANY LLC	**TVD Reference:**	KB-EST @ 5458.00usft
Project:	ADAMS COUNTY, COLORADO (NAD 83)	**MD Reference:**	KB-EST @ 5458.00usft
Site:	NE SE SEC. 12 T3S R65W 6th P.M.	**North Reference:**	True
Well:	L&S 3-65-12-11-11HN	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #1		

Project	ADAMS 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. 12 T3S R65W 6th P.M.				
Site Position:		**Northing:**	1,172,915.90 usft	**Latitude:**	39.804535
From:	Lat/Long	**Easting:**	3,251,685.31 usft	**Longitude:**	-104.604169
Position Uncertainty:	0.00 usft	**Slot Radius:**	1.10000 ft	**Grid Convergence:**	0.58 °

Well	L&S 3-65-12-11-11HN					
Well Position	**+N/-S**	-29.91 usft	**Northing:**	1,172,885.24 usft	**Latitude:**	39.804453
	+E/-W	-75.02 usft	**Easting:**	3,251,610.60 usft	**Longitude:**	-104.604436
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	usft	**Ground Level:**	5,438.00 usft

Wellbore	ORIGINAL WELLBORE				
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF2015	19/06/2018	7.97	66.38	51,979

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	267.89

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
0.00	0.00	0.00	0.00	-5,458.00	0.00	0.00	0.00	0.00	0.00	0.00	
600.00	0.00	0.00	600.00	-4,858.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,200.00	12.00	139.32	1,195.62	-4,262.38	-47.48	40.80	2.00	2.00	0.00	139.32	
3,821.82	12.00	139.32	3,760.15	-1,697.85	-460.90	396.09	0.00	0.00	0.00	0.00	
4,421.82	0.00	0.00	4,355.77	-1,102.23	-508.38	436.89	2.00	-2.00	0.00	180.00	
7,092.09	0.00	0.00	7,026.04	1,568.04	-508.38	436.89	0.00	0.00	0.00	0.00	KOP - L&S 3-65-12
7,992.08	90.00	270.90	7,599.00	2,141.00	-499.38	-135.99	10.00	10.00	-9.90	270.90	HZ LP - L&S 3-65-1
17,395.44	90.00	270.90	7,599.00	2,141.00	-351.48	-9,538.18	0.00	0.00	0.00	54.06	BHL - L&S 3-65-12-

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Project:	ADAMS COUNTY, COLORADO (NAD 83)	**MD Reference:**	KB-EST @ 5458.00usft
Site:	NE SE SEC. 12 T3S R65W 6th P.M.	**North Reference:**	True
Well:	L&S 3-65-12-11-11HN	**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: 2460ft FSL & 465ft FEL of Sec 12										
0.00	***0.00***	***0.00***	***0.00***	***5,458.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***
100.00	0.00	0.00	100.00	5,358.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	5,258.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	5,158.00	0.00	0.00	0.00	0.00	0.00	0.00
DENVER										
303.00	***0.00***	***0.00***	***303.00***	***5,155.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***
400.00	0.00	0.00	400.00	5,058.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	4,958.00	0.00	0.00	0.00	0.00	0.00	0.00
START NUDGE (2°/100ft BUR)										
600.00	***0.00***	***0.00***	***600.00***	***4,858.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***
700.00	2.00	139.32	699.98	4,758.02	-1.32	1.14	-1.09	2.00	2.00	0.00
800.00	4.00	139.32	799.84	4,658.16	-5.29	4.55	-4.35	2.00	2.00	0.00
900.00	6.00	139.32	899.45	4,558.55	-11.90	10.23	-9.78	2.00	2.00	0.00
1,000.00	8.00	139.32	998.70	4,459.30	-21.14	18.17	-17.38	2.00	2.00	0.00
UPPER ARAPAHOE										
1,009.39	***8.19***	***139.32***	***1,008.00***	***4,450.00***	***-22.15***	***19.03***	***-18.20***	***2.00***	***2.00***	***0.00***
1,100.00	10.00	139.32	1,097.47	4,360.53	-33.01	28.37	-27.13	2.00	2.00	0.00
EOB TO 12° INC										
1,200.00	***12.00***	***139.32***	***1,195.62***	***4,262.38***	***-47.48***	***40.80***	***-39.03***	***2.00***	***2.00***	***0.00***
1,300.00	12.00	139.32	1,293.44	4,164.56	-63.25	54.35	-51.99	0.00	0.00	0.00
1,400.00	12.00	139.32	1,391.25	4,066.75	-79.02	67.90	-64.95	0.00	0.00	0.00
1,500.00	12.00	139.32	1,489.07	3,968.93	-94.78	81.46	-77.91	0.00	0.00	0.00
LARAMIE - FOX HILLS										
1,570.47	***12.00***	***139.32***	***1,558.00***	***3,900.00***	***-105.90***	***91.01***	***-87.04***	***0.00***	***0.00***	***0.00***
1,600.00	12.00	139.32	1,586.88	3,871.12	-110.55	95.01	-90.87	0.00	0.00	0.00
PIERRE SHALE (BASE FOX HILLS)										
1,672.71	***12.00***	***139.32***	***1,658.00***	***3,800.00***	***-122.02***	***104.86***	***-100.29***	***0.00***	***0.00***	***0.00***
1,700.00	12.00	139.32	1,684.70	3,773.30	-126.32	108.56	-103.83	0.00	0.00	0.00
1,800.00	12.00	139.32	1,782.51	3,675.49	-142.09	122.11	-116.79	0.00	0.00	0.00
1,900.00	12.00	139.32	1,880.33	3,577.67	-157.86	135.66	-129.75	0.00	0.00	0.00
2,000.00	12.00	139.32	1,978.14	3,479.86	-173.63	149.21	-142.72	0.00	0.00	0.00
2,100.00	12.00	139.32	2,075.96	3,382.04	-189.39	162.76	-155.68	0.00	0.00	0.00
2,200.00	12.00	139.32	2,173.77	3,284.23	-205.16	176.31	-168.64	0.00	0.00	0.00
2,300.00	12.00	139.32	2,271.59	3,186.41	-220.93	189.86	-181.60	0.00	0.00	0.00
2,400.00	12.00	139.32	2,369.40	3,088.60	-236.70	203.42	-194.56	0.00	0.00	0.00
2,500.00	12.00	139.32	2,467.22	2,990.78	-252.47	216.97	-207.52	0.00	0.00	0.00
2,600.00	12.00	139.32	2,565.03	2,892.97	-268.24	230.52	-220.48	0.00	0.00	0.00
2,700.00	12.00	139.32	2,662.84	2,795.16	-284.00	244.07	-233.44	0.00	0.00	0.00
2,800.00	12.00	139.32	2,760.66	2,697.34	-299.77	257.62	-246.41	0.00	0.00	0.00
2,900.00	12.00	139.32	2,858.47	2,599.53	-315.54	271.17	-259.37	0.00	0.00	0.00
3,000.00	12.00	139.32	2,956.29	2,501.71	-331.31	284.72	-272.33	0.00	0.00	0.00
3,100.00	12.00	139.32	3,054.10	2,403.90	-347.08	298.27	-285.29	0.00	0.00	0.00
3,200.00	12.00	139.32	3,151.92	2,306.08	-362.85	311.82	-298.25	0.00	0.00	0.00
3,300.00	12.00	139.32	3,249.73	2,208.27	-378.61	325.38	-311.21	0.00	0.00	0.00
3,400.00	12.00	139.32	3,347.55	2,110.45	-394.38	338.93	-324.17	0.00	0.00	0.00
3,500.00	12.00	139.32	3,445.36	2,012.64	-410.15	352.48	-337.13	0.00	0.00	0.00
3,600.00	12.00	139.32	3,543.18	1,914.82	-425.92	366.03	-350.10	0.00	0.00	0.00
3,700.00	12.00	139.32	3,640.99	1,817.01	-441.69	379.58	-363.06	0.00	0.00	0.00
3,800.00	12.00	139.32	3,738.81	1,719.19	-457.46	393.13	-376.02	0.00	0.00	0.00
END OF TANGENT										
3,821.82	***12.00***	***139.32***	***3,760.15***	***1,697.85***	***-460.90***	***396.09***	***-378.85***	***0.00***	***0.00***	***0.00***
3,900.00	10.44	139.32	3,836.83	1,621.17	-472.43	406.00	-388.33	2.00	-2.00	0.00

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Project:	ADAMS COUNTY, COLORADO (NAD 83)	**MD Reference:**	KB-EST @ 5458.00usft
Site:	NE SE SEC. 12 T3S R65W 6th P.M.	**North Reference:**	True
Well:	L&S 3-65-12-11-11HN	**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)
4,000.00	8.44	139.32	3,935.48	1,522.52	-484.87	416.69	-398.55	2.00	-2.00	0.00
4,100.00	6.44	139.32	4,034.63	1,423.37	-494.68	425.12	-406.62	2.00	-2.00	0.00
4,200.00	4.44	139.32	4,134.17	1,323.83	-501.87	431.30	-412.52	2.00	-2.00	0.00
4,300.00	2.44	139.32	4,233.99	1,224.01	-506.41	435.20	-416.26	2.00	-2.00	0.00
4,400.00	0.44	139.32	4,333.95	1,124.05	-508.31	436.84	-417.82	2.00	-2.00	0.00
EOD TO VERTICAL										
4,421.82	***0.00***	***0.00***	***4,355.77***	***1,102.23***	***-508.38***	***436.89***	***-417.87***	***2.00***	***-2.00***	***-638.52***
4,500.00	0.00	0.00	4,433.95	1,024.05	-508.38	436.89	-417.87	0.00	0.00	0.00
4,600.00	0.00	0.00	4,533.95	924.05	-508.38	436.89	-417.87	0.00	0.00	0.00
4,700.00	0.00	0.00	4,633.95	824.05	-508.38	436.89	-417.87	0.00	0.00	0.00
4,800.00	0.00	0.00	4,733.95	724.05	-508.38	436.89	-417.87	0.00	0.00	0.00
4,900.00	0.00	0.00	4,833.95	624.05	-508.38	436.89	-417.87	0.00	0.00	0.00
5,000.00	0.00	0.00	4,933.95	524.05	-508.38	436.89	-417.87	0.00	0.00	0.00
5,100.00	0.00	0.00	5,033.95	424.05	-508.38	436.89	-417.87	0.00	0.00	0.00
5,200.00	0.00	0.00	5,133.95	324.05	-508.38	436.89	-417.87	0.00	0.00	0.00
SUSSEX SANDSTONE										
5,219.05	***0.00***	***0.00***	***5,153.00***	***305.00***	***-508.38***	***436.89***	***-417.87***	***0.00***	***0.00***	***0.00***
5,300.00	0.00	0.00	5,233.95	224.05	-508.38	436.89	-417.87	0.00	0.00	0.00
5,400.00	0.00	0.00	5,333.95	124.05	-508.38	436.89	-417.87	0.00	0.00	0.00
5,500.00	0.00	0.00	5,433.95	24.05	-508.38	436.89	-417.87	0.00	0.00	0.00
5,600.00	0.00	0.00	5,533.95	-75.95	-508.38	436.89	-417.87	0.00	0.00	0.00
5,700.00	0.00	0.00	5,633.95	-175.95	-508.38	436.89	-417.87	0.00	0.00	0.00
5,800.00	0.00	0.00	5,733.95	-275.95	-508.38	436.89	-417.87	0.00	0.00	0.00
5,900.00	0.00	0.00	5,833.95	-375.95	-508.38	436.89	-417.87	0.00	0.00	0.00
6,000.00	0.00	0.00	5,933.95	-475.95	-508.38	436.89	-417.87	0.00	0.00	0.00
6,100.00	0.00	0.00	6,033.95	-575.95	-508.38	436.89	-417.87	0.00	0.00	0.00
6,200.00	0.00	0.00	6,133.95	-675.95	-508.38	436.89	-417.87	0.00	0.00	0.00
6,300.00	0.00	0.00	6,233.95	-775.95	-508.38	436.89	-417.87	0.00	0.00	0.00
6,400.00	0.00	0.00	6,333.95	-875.95	-508.38	436.89	-417.87	0.00	0.00	0.00
6,500.00	0.00	0.00	6,433.95	-975.95	-508.38	436.89	-417.87	0.00	0.00	0.00
6,600.00	0.00	0.00	6,533.95	-1,075.95	-508.38	436.89	-417.87	0.00	0.00	0.00
6,700.00	0.00	0.00	6,633.95	-1,175.95	-508.38	436.89	-417.87	0.00	0.00	0.00
6,800.00	0.00	0.00	6,733.95	-1,275.95	-508.38	436.89	-417.87	0.00	0.00	0.00
6,900.00	0.00	0.00	6,833.95	-1,375.95	-508.38	436.89	-417.87	0.00	0.00	0.00
7,000.00	0.00	0.00	6,933.95	-1,475.95	-508.38	436.89	-417.87	0.00	0.00	0.00
KOP (10°/100ft BUR)										
7,092.09	***0.00***	***0.00***	***7,026.04***	***-1,568.04***	***-508.38***	***436.89***	***-417.87***	***0.00***	***0.00***	***0.00***
7,100.00	0.79	270.90	7,033.95	-1,575.95	-508.37	436.84	-417.82	10.00	10.00	0.00
7,200.00	10.79	270.90	7,133.32	-1,675.32	-508.22	426.76	-407.75	10.00	10.00	0.00
7,300.00	20.79	270.90	7,229.42	-1,771.42	-507.79	399.58	-380.61	10.00	10.00	0.00
7,400.00	30.79	270.90	7,319.34	-1,861.34	-507.11	356.13	-337.22	10.00	10.00	0.00
SHARON SPRINGS SHALE										
7,430.36	***33.83***	***270.90***	***7,345.00***	***-1,887.00***	***-506.85***	***339.91***	***-321.02***	***10.00***	***10.00***	***0.00***
NIOBRARA										
7,473.63	***38.15***	***270.90***	***7,380.00***	***-1,922.00***	***-506.45***	***314.50***	***-295.63***	***10.00***	***10.00***	***0.00***
NIOBRARA A										
7,499.53	***40.74***	***270.90***	***7,400.00***	***-1,942.00***	***-506.20***	***298.04***	***-279.20***	***10.00***	***10.00***	***0.00***
7,500.00	40.79	270.90	7,400.36	-1,942.36	-506.19	297.73	-278.89	10.00	10.00	0.00
7,600.00	50.79	270.90	7,470.00	-2,012.00	-505.07	226.15	-207.40	10.00	10.00	0.00
NIOBRARA B TOP										
7,652.01	***55.99***	***270.90***	***7,501.00***	***-2,043.00***	***-504.41***	***184.42***	***-165.72***	***10.00***	***10.00***	***0.00***
7,700.00	60.79	270.90	7,526.15	-2,068.15	-503.77	143.57	-124.92	10.00	10.00	0.00
7,800.00	70.79	270.90	7,567.10	-2,109.10	-502.34	52.49	-33.96	10.00	10.00	0.00

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well L&S 3-65-12-11-11HN
Company:	GMT EXPLORATION COMPANY LLC	**TVD Reference:**	KB-EST @ 5458.00usft
Project:	ADAMS COUNTY, COLORADO (NAD 83)	**MD Reference:**	KB-EST @ 5458.00usft
Site:	NE SE SEC. 12 T3S R65W 6th P.M.	**North Reference:**	True
Well:	L&S 3-65-12-11-11HN	**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 C TOP										
7,812.23	***72.01***	***270.90***	***7,571.00***	***-2,113.00***	***-502.16***	***40.90***	***-22.38***	***10.00***	***10.00***	***0.00***
7,900.00	80.79	270.90	7,591.62	-2,133.62	-500.82	-44.32	62.73	10.00	10.00	0.00
HZ LP: 1960ft FSL & 600ft FEL of Sec 12										
7,992.08	***90.00***	***270.90***	***7,599.00***	***-2,141.00***	***-499.38***	***-135.99***	***154.29***	***10.00***	***10.00***	***0.00***
8,000.00	90.00	270.90	7,599.00	-2,141.00	-499.26	-143.91	162.20	0.00	0.00	0.00
8,100.00	90.00	270.90	7,599.00	-2,141.00	-497.69	-243.90	262.06	0.00	0.00	0.00
8,200.00	90.00	270.90	7,599.00	-2,141.00	-496.12	-343.88	361.92	0.00	0.00	0.00
8,300.00	90.00	270.90	7,599.01	-2,141.01	-494.55	-443.87	461.78	0.00	0.00	0.00
8,400.00	90.00	270.90	7,599.01	-2,141.01	-492.98	-543.86	561.64	0.00	0.00	0.00
8,500.00	90.00	270.90	7,599.01	-2,141.01	-491.41	-643.85	661.51	0.00	0.00	0.00
8,600.00	90.00	270.90	7,599.01	-2,141.01	-489.83	-743.83	761.37	0.00	0.00	0.00
8,700.00	90.00	270.90	7,599.01	-2,141.01	-488.26	-843.82	861.23	0.00	0.00	0.00
8,800.00	90.00	270.90	7,599.02	-2,141.02	-486.69	-943.81	961.09	0.00	0.00	0.00
8,900.00	90.00	270.90	7,599.02	-2,141.02	-485.12	-1,043.80	1,060.95	0.00	0.00	0.00
9,000.00	90.00	270.90	7,599.02	-2,141.02	-483.55	-1,143.78	1,160.82	0.00	0.00	0.00
9,100.00	90.00	270.90	7,599.02	-2,141.02	-481.98	-1,243.77	1,260.68	0.00	0.00	0.00
9,200.00	90.00	270.90	7,599.02	-2,141.02	-480.41	-1,343.76	1,360.54	0.00	0.00	0.00
9,300.00	90.00	270.90	7,599.02	-2,141.02	-478.84	-1,443.75	1,460.40	0.00	0.00	0.00
9,400.00	90.00	270.90	7,599.02	-2,141.02	-477.27	-1,543.74	1,560.26	0.00	0.00	0.00
9,500.00	90.00	270.90	7,599.03	-2,141.03	-475.70	-1,643.72	1,660.13	0.00	0.00	0.00
9,600.00	90.00	270.90	7,599.03	-2,141.03	-474.13	-1,743.71	1,759.99	0.00	0.00	0.00
9,700.00	90.00	270.90	7,599.03	-2,141.03	-472.56	-1,843.70	1,859.85	0.00	0.00	0.00
9,800.00	90.00	270.90	7,599.03	-2,141.03	-470.99	-1,943.69	1,959.71	0.00	0.00	0.00
9,900.00	90.00	270.90	7,599.03	-2,141.03	-469.42	-2,043.67	2,059.57	0.00	0.00	0.00
10,000.00	90.00	270.90	7,599.03	-2,141.03	-467.84	-2,143.66	2,159.44	0.00	0.00	0.00
10,100.00	90.00	270.90	7,599.03	-2,141.03	-466.27	-2,243.65	2,259.30	0.00	0.00	0.00
10,200.00	90.00	270.90	7,599.03	-2,141.03	-464.70	-2,343.64	2,359.16	0.00	0.00	0.00
10,300.00	90.00	270.90	7,599.04	-2,141.04	-463.13	-2,443.62	2,459.02	0.00	0.00	0.00
10,400.00	90.00	270.90	7,599.04	-2,141.04	-461.56	-2,543.61	2,558.88	0.00	0.00	0.00
10,500.00	90.00	270.90	7,599.04	-2,141.04	-459.99	-2,643.60	2,658.75	0.00	0.00	0.00
10,600.00	90.00	270.90	7,599.04	-2,141.04	-458.42	-2,743.59	2,758.61	0.00	0.00	0.00
10,700.00	90.00	270.90	7,599.04	-2,141.04	-456.84	-2,843.57	2,858.47	0.00	0.00	0.00
10,800.00	90.00	270.90	7,599.04	-2,141.04	-455.27	-2,943.56	2,958.33	0.00	0.00	0.00
10,900.00	90.00	270.90	7,599.04	-2,141.04	-453.70	-3,043.55	3,058.19	0.00	0.00	0.00
11,000.00	90.00	270.90	7,599.04	-2,141.04	-452.13	-3,143.54	3,158.06	0.00	0.00	0.00
11,100.00	90.00	270.90	7,599.04	-2,141.04	-450.56	-3,243.53	3,257.92	0.00	0.00	0.00
11,200.00	90.00	270.90	7,599.04	-2,141.04	-448.98	-3,343.51	3,357.78	0.00	0.00	0.00
11,300.00	90.00	270.90	7,599.04	-2,141.04	-447.41	-3,443.50	3,457.64	0.00	0.00	0.00
11,400.00	90.00	270.90	7,599.04	-2,141.04	-445.84	-3,543.49	3,557.50	0.00	0.00	0.00
11,500.00	90.00	270.90	7,599.05	-2,141.05	-444.27	-3,643.48	3,657.37	0.00	0.00	0.00
11,600.00	90.00	270.90	7,599.05	-2,141.05	-442.70	-3,743.46	3,757.23	0.00	0.00	0.00
11,700.00	90.00	270.90	7,599.05	-2,141.05	-441.12	-3,843.45	3,857.09	0.00	0.00	0.00
11,800.00	90.00	270.90	7,599.05	-2,141.05	-439.55	-3,943.44	3,956.95	0.00	0.00	0.00
11,900.00	90.00	270.90	7,599.05	-2,141.05	-437.98	-4,043.43	4,056.81	0.00	0.00	0.00
12,000.00	90.00	270.90	7,599.05	-2,141.05	-436.41	-4,143.41	4,156.67	0.00	0.00	0.00
12,100.00	90.00	270.90	7,599.05	-2,141.05	-434.84	-4,243.40	4,256.54	0.00	0.00	0.00
12,200.00	90.00	270.90	7,599.05	-2,141.05	-433.26	-4,343.39	4,356.40	0.00	0.00	0.00
12,300.00	90.00	270.90	7,599.05	-2,141.05	-431.69	-4,443.38	4,456.26	0.00	0.00	0.00
12,400.00	90.00	270.90	7,599.05	-2,141.05	-430.12	-4,543.36	4,556.12	0.00	0.00	0.00
12,500.00	90.00	270.90	7,599.05	-2,141.05	-428.54	-4,643.35	4,655.98	0.00	0.00	0.00
12,600.00	90.00	270.90	7,599.05	-2,141.05	-426.97	-4,743.34	4,755.85	0.00	0.00	0.00
12,700.00	90.00	270.90	7,599.05	-2,141.05	-425.40	-4,843.33	4,855.71	0.00	0.00	0.00
12,800.00	90.00	270.90	7,599.05	-2,141.05	-423.83	-4,943.32	4,955.57	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well L&S 3-65-12-11-11HN
Company:	GMT EXPLORATION COMPANY LLC	**TVD Reference:**	KB-EST @ 5458.00usft
Project:	ADAMS COUNTY, COLORADO (NAD 83)	**MD Reference:**	KB-EST @ 5458.00usft
Site:	NE SE SEC. 12 T3S R65W 6th P.M.	**North Reference:**	True
Well:	L&S 3-65-12-11-11HN	**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)
12,900.00	90.00	270.90	7,599.05	-2,141.05	-422.25	-5,043.30	5,055.43	0.00	0.00	0.00
13,000.00	90.00	270.90	7,599.05	-2,141.05	-420.68	-5,143.29	5,155.29	0.00	0.00	0.00
13,100.00	90.00	270.90	7,599.05	-2,141.05	-419.11	-5,243.28	5,255.16	0.00	0.00	0.00
13,200.00	90.00	270.90	7,599.05	-2,141.05	-417.53	-5,343.27	5,355.02	0.00	0.00	0.00
13,300.00	90.00	270.90	7,599.05	-2,141.05	-415.96	-5,443.25	5,454.88	0.00	0.00	0.00
13,400.00	90.00	270.90	7,599.05	-2,141.05	-414.39	-5,543.24	5,554.74	0.00	0.00	0.00
13,500.00	90.00	270.90	7,599.05	-2,141.05	-412.81	-5,643.23	5,654.60	0.00	0.00	0.00
13,600.00	90.00	270.90	7,599.05	-2,141.05	-411.24	-5,743.22	5,754.46	0.00	0.00	0.00
13,700.00	90.00	270.90	7,599.05	-2,141.05	-409.67	-5,843.20	5,854.33	0.00	0.00	0.00
13,800.00	90.00	270.90	7,599.05	-2,141.05	-408.09	-5,943.19	5,954.19	0.00	0.00	0.00
13,900.00	90.00	270.90	7,599.05	-2,141.05	-406.52	-6,043.18	6,054.05	0.00	0.00	0.00
14,000.00	90.00	270.90	7,599.04	-2,141.04	-404.95	-6,143.17	6,153.91	0.00	0.00	0.00
14,100.00	90.00	270.90	7,599.04	-2,141.04	-403.37	-6,243.15	6,253.77	0.00	0.00	0.00
14,200.00	90.00	270.90	7,599.04	-2,141.04	-401.80	-6,343.14	6,353.64	0.00	0.00	0.00
14,300.00	90.00	270.90	7,599.04	-2,141.04	-400.23	-6,443.13	6,453.50	0.00	0.00	0.00
14,400.00	90.00	270.90	7,599.04	-2,141.04	-398.65	-6,543.12	6,553.36	0.00	0.00	0.00
14,500.00	90.00	270.90	7,599.04	-2,141.04	-397.08	-6,643.10	6,653.22	0.00	0.00	0.00
14,600.00	90.00	270.90	7,599.04	-2,141.04	-395.50	-6,743.09	6,753.08	0.00	0.00	0.00
14,700.00	90.00	270.90	7,599.04	-2,141.04	-393.93	-6,843.08	6,852.95	0.00	0.00	0.00
14,800.00	90.00	270.90	7,599.04	-2,141.04	-392.36	-6,943.07	6,952.81	0.00	0.00	0.00
14,900.00	90.00	270.90	7,599.04	-2,141.04	-390.78	-7,043.06	7,052.67	0.00	0.00	0.00
15,000.00	90.00	270.90	7,599.04	-2,141.04	-389.21	-7,143.04	7,152.53	0.00	0.00	0.00
15,100.00	90.00	270.90	7,599.04	-2,141.04	-387.63	-7,243.03	7,252.39	0.00	0.00	0.00
15,200.00	90.00	270.90	7,599.03	-2,141.03	-386.06	-7,343.02	7,352.25	0.00	0.00	0.00
15,300.00	90.00	270.90	7,599.03	-2,141.03	-384.49	-7,443.01	7,452.12	0.00	0.00	0.00
15,400.00	90.00	270.90	7,599.03	-2,141.03	-382.91	-7,542.99	7,551.98	0.00	0.00	0.00
15,500.00	90.00	270.90	7,599.03	-2,141.03	-381.34	-7,642.98	7,651.84	0.00	0.00	0.00
15,600.00	90.00	270.90	7,599.03	-2,141.03	-379.76	-7,742.97	7,751.70	0.00	0.00	0.00
15,700.00	90.00	270.90	7,599.03	-2,141.03	-378.19	-7,842.96	7,851.56	0.00	0.00	0.00
15,800.00	90.00	270.90	7,599.03	-2,141.03	-376.61	-7,942.94	7,951.43	0.00	0.00	0.00
15,900.00	90.00	270.90	7,599.03	-2,141.03	-375.04	-8,042.93	8,051.29	0.00	0.00	0.00
16,000.00	90.00	270.90	7,599.02	-2,141.02	-373.46	-8,142.92	8,151.15	0.00	0.00	0.00
16,100.00	90.00	270.90	7,599.02	-2,141.02	-371.89	-8,242.91	8,251.01	0.00	0.00	0.00
16,200.00	90.00	270.90	7,599.02	-2,141.02	-370.31	-8,342.89	8,350.87	0.00	0.00	0.00
16,300.00	90.00	270.90	7,599.02	-2,141.02	-368.74	-8,442.88	8,450.73	0.00	0.00	0.00
16,400.00	90.00	270.90	7,599.02	-2,141.02	-367.16	-8,542.87	8,550.60	0.00	0.00	0.00
16,500.00	90.00	270.90	7,599.02	-2,141.02	-365.59	-8,642.86	8,650.46	0.00	0.00	0.00
16,600.00	90.00	270.90	7,599.01	-2,141.01	-364.01	-8,742.84	8,750.32	0.00	0.00	0.00
16,700.00	90.00	270.90	7,599.01	-2,141.01	-362.44	-8,842.83	8,850.18	0.00	0.00	0.00
16,800.00	90.00	270.90	7,599.01	-2,141.01	-360.86	-8,942.82	8,950.04	0.00	0.00	0.00
16,900.00	90.00	270.90	7,599.01	-2,141.01	-359.29	-9,042.81	9,049.90	0.00	0.00	0.00
17,000.00	90.00	270.90	7,599.01	-2,141.01	-357.71	-9,142.79	9,149.77	0.00	0.00	0.00
17,100.00	90.00	270.90	7,599.01	-2,141.01	-356.14	-9,242.78	9,249.63	0.00	0.00	0.00
17,200.00	90.00	270.90	7,599.00	-2,141.00	-354.56	-9,342.77	9,349.49	0.00	0.00	0.00
17,300.00	90.00	270.90	7,599.00	-2,141.00	-352.98	-9,442.76	9,449.35	0.00	0.00	0.00
BHL: 1971ft FSL & 550ft FWL of Sec 11										
17,395.44	***90.00***	***270.90***	***7,599.00***	***-2,141.00***	***-351.48***	***-9,538.18***	***9,544.66***	***0.00***	***0.00***	***0.00***

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well L&S 3-65-12-11-11HN
Company:	GMT EXPLORATION COMPANY LLC	**TVD Reference:**	KB-EST @ 5458.00usft
Project:	ADAMS COUNTY, COLORADO (NAD 83)	**MD Reference:**	KB-EST @ 5458.00usft
Site:	NE SE SEC. 12 T3S R65W 6th P.M.	**North Reference:**	True
Well:	L&S 3-65-12-11-11HN	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #1		

Formations

MD (usft)	TVD (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
303.00	303.00	DENVER		0.00	
1,009.39	1,008.00	UPPER ARAPAHOE		0.00	
1,570.47	1,558.00	LARAMIE - FOX HILLS		0.00	
1,672.71	1,658.00	PIERRE SHALE (BASE FOX HILLS		0.00	
5,219.05	5,153.00	SUSSEX SANDSTONE		0.00	
7,430.36	7,345.00	SHARON SPRINGS SHALE		0.00	
7,473.63	7,380.00	NIOBRARA		0.00	
7,499.53	7,400.00	NIOBRARA A		0.00	
7,652.01	7,501.00	NIOBRARA B TOP		0.00	
7,812.23	7,571.00	NIOBRARA C TOP		0.00	

Plan Annotations

		Local Coordinates		
MD (usft)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Comment
0.00	0.00	0.00	0.00	SHL: 2460ft FSL & 465ft FEL of Sec 12
600.00	600.00	0.00	0.00	START NUDGE (2°/100ft BUR)
1,200.00	1,195.62	-47.48	40.80	EOB TO 12° INC
3,821.82	3,760.15	-460.90	396.09	END OF TANGENT
4,421.82	4,355.77	-508.38	436.89	EOD TO VERTICAL
7,092.09	7,026.04	-508.38	436.89	KOP (10°/100ft BUR)
7,992.08	7,599.00	-499.38	-135.99	HZ LP: 1960ft FSL & 600ft FEL of Sec 12
17,395.44	7,599.00	-351.48	-9,538.18	BHL: 1971ft FSL & 550ft FWL of Sec 11