

Hilcorp Energy Company

Farmington, NM

San Juan Basin

Southern Ute 701H

Southern Ute 701H Lat.No.1

WP3

Anticollision Report

05 April, 2023

Halliburton

Anticollision Report

Company:	Hilcorp Energy Company	Local Co-ordinate Reference:	Well Southern Ute 701H
Project:	Farmington, NM	TVD Reference:	RKB to MSL= 6310ft @ 6310.0usft
Reference Site:	San Juan Basin	MD Reference:	RKB to MSL= 6310ft @ 6310.0usft
Site Error:	5.0 usft	North Reference:	Grid
Reference Well:	Southern Ute 701H	Survey Calculation Method:	Minimum Curvature
Well Error:	1.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Southern Ute 701H Lat.No.1	Database:	EDM 5000.17 Single User Db
Reference Design:	WP3	Offset TVD Reference:	Offset Datum

Reference	WP3		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD + Stations Interval 25.0usft	Error Model:	ISCWSA
Depth Range:	4,396.0 to 8,427.6usft	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum centre distance of 3,000.0usft	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Through Borehole Radius

Survey Tool Program	Date	4/5/2023		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	4,396.0	WP3 (Pilot Hole)	3_MWD+HRGM	B001Mb: HRGM declination correction only
4,396.0	8,427.6	WP3 (Southern Ute 701H Lat.No.1)	3_MWD+HRGM	B001Mb: HRGM declination correction only

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Separation Factor	Warning	
Offset Well - Wellbore - Design						
San Juan Basin						
SOUTHERN UTE 009 - ST00 - ST00	7,571.0	2,981.1	859.5	-1,324.7	0.393	Collision RiskProcedures Req'd
SOUTHERN UTE 009 - ST00 - ST00	7,590.9	2,980.9	859.2	-1,324.6	0.393	Collision RiskProcedures Req'd
SOUTHERN UTE 701 - ST00 - ST00	7,546.0	2,992.8	846.8	635.4	4.006	SF
SOUTHERN UTE 701 - ST00 - ST00	7,569.4	2,992.6	846.5	635.3	4.009	CC, ES
Southern Ute 701H - Pilot Hole - WP3	4,400.0	4,400.0	0.0	-2.3	0.002	Collision RiskProcedures Req'd
Southern Ute 701H - Pilot Hole - WP3	4,436.0	4,436.0	0.4	-3.1	0.118	Collision RiskProcedures Req'd
UTE 001X - ST00 - ST00	5,121.0	3,314.5	658.8	-1,714.9	0.278	Collision RiskProcedures Req'd
UTE 001X - ST00 - ST00	5,137.8	3,314.3	658.6	-1,714.7	0.278	Collision RiskProcedures Req'd

Offset Design:	San Juan Basin - SOUTHERN UTE 009 - ST00 - ST00										Offset Site Error:	5.0 usft
Survey Program:	8030-3_Blind										Offset Well Error:	1.0 usft
Reference	Offset	Semi Major Axis	Highside	Offset Wellbore Centre	Distance	Minimum	Separation	Warning				
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Separation (usft)	Factor
4,596.0	2,927.5	3,006.5	3,006.5	52.8	2,104.6	80.45	1,340.7	5,196.1	2,993.0	845.5	2,147.49	1.394
4,600.0	2,928.1	3,007.1	3,007.1	52.8	2,104.9	80.86	1,340.7	5,196.1	2,990.0	842.0	2,147.93	1.392
4,621.0	2,930.5	3,009.5	3,009.5	53.0	2,106.7	83.14	1,340.7	5,196.1	2,973.9	824.0	2,149.91	1.383
4,646.0	2,932.4	3,011.4	3,011.4	53.2	2,108.0	86.05	1,340.7	5,196.1	2,954.5	802.9	2,151.57	1.373
4,650.0	2,932.6	3,011.6	3,011.6	53.3	2,108.1	86.54	1,340.7	5,196.1	2,951.4	799.6	2,151.76	1.372
4,671.0	2,933.3	3,012.3	3,012.3	53.5	2,108.6	89.18	1,340.7	5,196.1	2,934.8	782.4	2,152.45	1.363
4,683.5	2,933.3	3,012.3	3,012.3	53.6	2,108.6	90.82	1,340.7	5,196.1	2,924.9	772.3	2,152.61	1.359
4,696.0	2,933.1	3,012.1	3,012.1	53.7	2,108.5	90.81	1,340.7	5,196.1	2,914.9	762.3	2,152.67	1.354
4,700.0	2,933.1	3,012.1	3,012.1	53.8	2,108.5	90.81	1,340.7	5,196.1	2,911.8	759.1	2,152.69	1.353
4,721.0	2,932.9	3,011.9	3,011.9	54.0	2,108.3	90.80	1,340.7	5,196.1	2,895.1	742.3	2,152.80	1.345
4,746.0	2,932.6	3,011.6	3,011.6	54.2	2,108.1	90.79	1,340.7	5,196.1	2,875.4	722.4	2,152.93	1.336
4,771.0	2,932.3	3,011.3	3,011.3	54.5	2,107.9	90.79	1,340.7	5,196.1	2,855.7	702.6	2,153.07	1.326
4,783.5	2,932.2	3,011.2	3,011.2	54.6	2,107.8	90.78	1,340.7	5,196.1	2,845.9	692.7	2,153.13	1.322
4,796.0	2,932.0	3,011.0	3,011.0	54.7	2,107.7	90.79	1,340.7	5,196.1	2,836.1	682.9	2,153.21	1.317
4,800.0	2,932.0	3,011.0	3,011.0	54.8	2,107.7	90.79	1,340.7	5,196.1	2,832.9	679.7	2,153.23	1.316
4,821.0	2,931.8	3,010.8	3,010.8	55.0	2,107.5	90.80	1,340.7	5,196.1	2,816.4	663.1	2,153.35	1.308
4,846.0	2,931.5	3,010.5	3,010.5	55.3	2,107.4	90.81	1,340.7	5,196.1	2,796.7	643.2	2,153.49	1.299
4,871.0	2,931.2	3,010.2	3,010.2	55.5	2,107.2	90.82	1,340.7	5,196.1	2,776.8	623.2	2,153.64	1.289

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Halliburton
Anticollision Report

Company:	Hilcorp Energy Company	Local Co-ordinate Reference:	Well Southern Ute 701H
Project:	Farmington, NM	TVD Reference:	RKB to MSL= 6310ft @ 6310.0usft
Reference Site:	San Juan Basin	MD Reference:	RKB to MSL= 6310ft @ 6310.0usft
Site Error:	5.0 usft	North Reference:	Grid
Reference Well:	Southern Ute 701H	Survey Calculation Method:	Minimum Curvature
Well Error:	1.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Southern Ute 701H Lat.No.1	Database:	EDM 5000.17 Single User Db
Reference Design:	WP3	Offset TVD Reference:	Offset Datum

Offset Design: San Juan Basin - SOUTHERN UTE 009 - ST00 - ST00													Offset Site Error: 5.0 usft
Survey Program: 8030-3_Blind													Offset Well Error: 1.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
4,896.0	2,931.0	3,010.0	3,010.0	55.8	2,107.0	90.83	1,340.7	5,196.1	2,756.9	603.1	2,153.78	1.280	Collision RiskProcedures Req'd
4,900.0	2,930.9	3,009.9	3,009.9	55.9	2,106.9	90.83	1,340.7	5,196.1	2,753.7	599.9	2,153.81	1.279	Collision RiskProcedures Req'd
4,921.0	2,930.7	3,009.7	3,009.7	56.1	2,106.8	90.84	1,340.7	5,196.1	2,736.9	583.0	2,153.93	1.271	Collision RiskProcedures Req'd
4,946.0	2,930.4	3,009.4	3,009.4	56.4	2,106.6	90.85	1,340.7	5,196.1	2,716.8	562.7	2,154.08	1.261	Collision RiskProcedures Req'd
4,971.0	2,930.1	3,009.1	3,009.1	56.7	2,106.4	90.86	1,340.7	5,196.1	2,696.6	542.4	2,154.23	1.252	Collision RiskProcedures Req'd
4,996.0	2,929.9	3,008.9	3,008.9	56.9	2,106.2	90.87	1,340.7	5,196.1	2,676.4	522.0	2,154.38	1.242	Collision RiskProcedures Req'd
5,000.0	2,929.8	3,008.8	3,008.8	57.0	2,106.2	90.87	1,340.7	5,196.1	2,673.1	518.7	2,154.40	1.241	Collision RiskProcedures Req'd
5,021.0	2,929.6	3,008.6	3,008.6	57.2	2,106.0	90.88	1,340.7	5,196.1	2,656.1	501.5	2,154.53	1.233	Collision RiskProcedures Req'd
5,046.0	2,929.3	3,008.3	3,008.3	57.5	2,105.8	90.89	1,340.7	5,196.1	2,635.7	481.0	2,154.68	1.223	Collision RiskProcedures Req'd
5,071.0	2,929.0	3,008.0	3,008.0	57.8	2,105.6	90.91	1,340.7	5,196.1	2,615.2	460.3	2,154.83	1.214	Collision RiskProcedures Req'd
5,096.0	2,928.8	3,007.8	3,007.8	58.1	2,105.4	90.92	1,340.7	5,196.1	2,594.6	439.6	2,154.99	1.204	Collision RiskProcedures Req'd
5,100.0	2,928.7	3,007.7	3,007.7	58.2	2,105.4	90.92	1,340.7	5,196.1	2,591.3	436.3	2,155.01	1.202	Collision RiskProcedures Req'd
5,121.0	2,928.5	3,007.5	3,007.5	58.4	2,105.2	90.93	1,340.7	5,196.1	2,574.0	418.8	2,155.14	1.194	Collision RiskProcedures Req'd
5,146.0	2,928.2	3,007.2	3,007.2	58.7	2,105.0	90.94	1,340.7	5,196.1	2,553.3	398.0	2,155.29	1.185	Collision RiskProcedures Req'd
5,171.0	2,927.9	3,006.9	3,006.9	59.1	2,104.9	90.95	1,340.7	5,196.1	2,532.5	377.0	2,155.45	1.175	Collision RiskProcedures Req'd
5,196.0	2,927.7	3,006.7	3,006.7	59.4	2,104.7	90.96	1,340.7	5,196.1	2,511.6	356.0	2,155.61	1.165	Collision RiskProcedures Req'd
5,200.0	2,927.6	3,006.6	3,006.6	59.4	2,104.6	90.96	1,340.7	5,196.1	2,508.3	352.6	2,155.63	1.164	Collision RiskProcedures Req'd
5,221.0	2,927.4	3,006.4	3,006.4	59.7	2,104.5	90.97	1,340.7	5,196.1	2,490.7	334.9	2,155.76	1.155	Collision RiskProcedures Req'd
5,246.0	2,927.1	3,006.1	3,006.1	60.0	2,104.3	90.99	1,340.7	5,196.1	2,469.7	313.7	2,155.92	1.146	Collision RiskProcedures Req'd
5,271.0	2,926.8	3,005.8	3,005.8	60.3	2,104.1	91.00	1,340.7	5,196.1	2,448.6	292.5	2,156.08	1.136	Collision RiskProcedures Req'd
5,296.0	2,926.6	3,005.6	3,005.6	60.6	2,103.9	91.01	1,340.7	5,196.1	2,427.4	271.2	2,156.24	1.126	Collision RiskProcedures Req'd
5,300.0	2,926.5	3,005.5	3,005.5	60.7	2,103.9	91.01	1,340.7	5,196.1	2,424.0	267.8	2,156.26	1.124	Collision RiskProcedures Req'd
5,321.0	2,926.3	3,005.3	3,005.3	61.0	2,103.7	91.02	1,340.7	5,196.1	2,406.2	249.8	2,156.39	1.116	Collision RiskProcedures Req'd
5,346.0	2,926.0	3,005.0	3,005.0	61.3	2,103.5	91.03	1,340.7	5,196.1	2,384.9	228.3	2,156.55	1.106	Collision RiskProcedures Req'd
5,371.0	2,925.7	3,004.7	3,004.7	61.6	2,103.3	91.05	1,340.7	5,196.1	2,363.5	206.8	2,156.71	1.096	Collision RiskProcedures Req'd
5,396.0	2,925.5	3,004.5	3,004.5	62.0	2,103.1	91.06	1,340.7	5,196.1	2,342.0	185.2	2,156.88	1.086	Collision RiskProcedures Req'd
5,400.0	2,925.4	3,004.4	3,004.4	62.0	2,103.1	91.06	1,340.7	5,196.1	2,338.6	181.7	2,156.90	1.084	Collision RiskProcedures Req'd
5,421.0	2,925.2	3,004.2	3,004.2	62.3	2,102.9	91.07	1,340.7	5,196.1	2,320.5	163.5	2,157.04	1.076	Collision RiskProcedures Req'd
5,446.0	2,924.9	3,003.9	3,003.9	62.6	2,102.7	91.08	1,340.7	5,196.1	2,298.9	141.7	2,157.20	1.066	Collision RiskProcedures Req'd
5,471.0	2,924.6	3,003.6	3,003.6	63.0	2,102.5	91.10	1,340.7	5,196.1	2,277.3	119.9	2,157.36	1.056	Collision RiskProcedures Req'd
5,496.0	2,924.4	3,003.4	3,003.4	63.3	2,102.4	91.11	1,340.7	5,196.1	2,255.6	98.0	2,157.52	1.045	Collision RiskProcedures Req'd
5,500.0	2,924.3	3,003.3	3,003.3	63.4	2,102.3	91.11	1,340.7	5,196.1	2,252.1	94.5	2,157.55	1.044	Collision RiskProcedures Req'd
5,521.0	2,924.1	3,003.1	3,003.1	63.6	2,102.2	91.12	1,340.7	5,196.1	2,233.8	76.1	2,157.69	1.035	Collision RiskProcedures Req'd
5,546.0	2,923.8	3,002.8	3,002.8	64.0	2,102.0	91.13	1,340.7	5,196.1	2,211.9	54.1	2,157.85	1.025	Collision RiskProcedures Req'd
5,571.0	2,923.5	3,002.5	3,002.5	64.3	2,101.8	91.15	1,340.7	5,196.1	2,190.0	32.0	2,158.01	1.015	Collision RiskProcedures Req'd
5,596.0	2,923.3	3,002.3	3,002.3	64.7	2,101.6	91.16	1,340.7	5,196.1	2,168.0	9.8	2,158.18	1.005	Collision RiskProcedures Req'd
5,600.0	2,923.2	3,002.2	3,002.2	64.7	2,101.6	91.16	1,340.7	5,196.1	2,164.5	6.3	2,158.21	1.003	Collision RiskProcedures Req'd
5,621.0	2,923.0	3,002.0	3,002.0	65.0	2,101.4	91.17	1,340.7	5,196.1	2,146.0	-12.4	2,158.34	0.994	Collision RiskProcedures Req'd
5,646.0	2,922.7	3,001.7	3,001.7	65.4	2,101.2	91.19	1,340.7	5,196.1	2,123.9	-34.6	2,158.50	0.984	Collision RiskProcedures Req'd
5,671.0	2,922.5	3,001.5	3,001.5	65.7	2,101.0	91.20	1,340.7	5,196.1	2,101.7	-57.0	2,158.67	0.974	Collision RiskProcedures Req'd
5,696.0	2,922.2	3,001.2	3,001.2	66.1	2,100.8	91.21	1,340.7	5,196.1	2,079.4	-79.4	2,158.84	0.963	Collision RiskProcedures Req'd
5,700.0	2,922.1	3,001.1	3,001.1	66.1	2,100.8	91.22	1,340.7	5,196.1	2,075.9	-83.0	2,158.87	0.962	Collision RiskProcedures Req'd
5,721.0	2,921.9	3,000.9	3,000.9	66.4	2,100.6	91.23	1,340.7	5,196.1	2,057.1	-101.9	2,159.00	0.953	Collision RiskProcedures Req'd
5,746.0	2,921.6	3,000.6	3,000.6	66.8	2,100.5	91.24	1,340.7	5,196.1	2,034.8	-124.4	2,159.17	0.942	Collision RiskProcedures Req'd
5,771.0	2,921.4	3,000.4	3,000.4	67.2	2,100.3	91.25	1,340.7	5,196.1	2,012.4	-147.0	2,159.33	0.932	Collision RiskProcedures Req'd
5,796.0	2,921.1	3,000.1	3,000.1	67.5	2,100.1	91.27	1,340.7	5,196.1	1,989.9	-169.6	2,159.51	0.921	Collision RiskProcedures Req'd
5,803.5	2,921.0	3,000.0	3,000.0	67.6	2,100.0	91.27	1,340.7	5,196.1	1,983.2	-176.4	2,159.56	0.918	Collision RiskProcedures Req'd
5,821.0	2,920.8	2,999.8	2,999.8	67.9	2,099.9	91.26	1,340.7	5,196.1	1,967.4	-192.3	2,159.68	0.911	Collision RiskProcedures Req'd
5,846.0	2,920.6	2,999.6	2,999.6	68.2	2,099.7	91.24	1,340.7	5,196.1	1,944.9	-215.0	2,159.85	0.900	Collision RiskProcedures Req'd
5,871.0	2,920.3	2,999.3	2,999.3	68.6	2,099.5	91.22	1,340.7	5,196.1	1,922.5	-237.5	2,160.04	0.890	Collision RiskProcedures Req'd
5,896.0	2,920.0	2,999.0	2,999.0	69.0	2,099.3	91.21	1,340.7	5,196.1	1,900.2	-260.1	2,160.23	0.880	Collision RiskProcedures Req'd
5,900.0	2,920.0	2,999.0	2,999.0	69.0	2,099.3	91.20	1,340.7	5,196.1	1,896.6	-263.6	2,160.26	0.878	Collision RiskProcedures Req'd

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Halliburton
Anticollision Report

Company:	Hilcorp Energy Company	Local Co-ordinate Reference:	Well Southern Ute 701H
Project:	Farmington, NM	TVD Reference:	RKB to MSL= 6310ft @ 6310.0usft
Reference Site:	San Juan Basin	MD Reference:	RKB to MSL= 6310ft @ 6310.0usft
Site Error:	5.0 usft	North Reference:	Grid
Reference Well:	Southern Ute 701H	Survey Calculation Method:	Minimum Curvature
Well Error:	1.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Southern Ute 701H Lat.No.1	Database:	EDM 5000.17 Single User Db
Reference Design:	WP3	Offset TVD Reference:	Offset Datum

Offset Design: San Juan Basin - SOUTHERN UTE 009 - ST00 - ST00													Offset Site Error: 5.0 usft
Survey Program: 8030-3_Blind							Rule Assigned:						Offset Well Error: 1.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
							+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
5,921.0	2,919.8	2,998.8	2,998.8	69.3	2,099.1	91.19	1,340.7	5,196.1	1,877.9	-282.5	2,160.43	0.869	Collision RiskProcedures Req'd
5,946.0	2,919.5	2,998.5	2,998.5	69.7	2,099.0	91.17	1,340.7	5,196.1	1,855.7	-304.9	2,160.64	0.859	Collision RiskProcedures Req'd
5,971.0	2,919.2	2,998.2	2,998.2	70.1	2,098.8	91.15	1,340.7	5,196.1	1,833.6	-327.3	2,160.86	0.849	Collision RiskProcedures Req'd
5,996.0	2,919.0	2,998.0	2,998.0	70.5	2,098.6	91.14	1,340.7	5,196.1	1,811.6	-349.5	2,161.08	0.838	Collision RiskProcedures Req'd
6,000.0	2,918.9	2,997.9	2,997.9	70.5	2,098.6	91.13	1,340.7	5,196.1	1,808.0	-353.1	2,161.12	0.837	Collision RiskProcedures Req'd
6,021.0	2,918.7	2,997.7	2,997.7	70.8	2,098.4	91.12	1,340.7	5,196.1	1,789.6	-371.7	2,161.32	0.828	Collision RiskProcedures Req'd
6,046.0	2,918.4	2,997.4	2,997.4	71.2	2,098.2	91.10	1,340.7	5,196.1	1,767.7	-393.9	2,161.56	0.818	Collision RiskProcedures Req'd
6,071.0	2,918.2	2,997.2	2,997.2	71.6	2,098.0	91.08	1,340.7	5,196.1	1,745.9	-415.9	2,161.82	0.808	Collision RiskProcedures Req'd
6,096.0	2,917.9	2,996.9	2,996.9	72.0	2,097.8	91.06	1,340.7	5,196.1	1,724.2	-437.9	2,162.08	0.797	Collision RiskProcedures Req'd
6,100.0	2,917.9	2,996.9	2,996.9	72.1	2,097.8	91.06	1,340.7	5,196.1	1,720.7	-441.4	2,162.13	0.796	Collision RiskProcedures Req'd
6,121.0	2,917.6	2,996.6	2,996.6	72.4	2,097.6	91.05	1,340.7	5,196.1	1,702.5	-459.8	2,162.36	0.787	Collision RiskProcedures Req'd
6,146.0	2,917.4	2,996.4	2,996.4	72.8	2,097.5	91.03	1,340.7	5,196.1	1,681.0	-481.6	2,162.64	0.777	Collision RiskProcedures Req'd
6,171.0	2,917.1	2,996.1	2,996.1	73.2	2,097.3	91.01	1,340.7	5,196.1	1,659.6	-503.4	2,162.94	0.767	Collision RiskProcedures Req'd
6,196.0	2,916.8	2,995.8	2,995.8	73.6	2,097.1	90.99	1,340.7	5,196.1	1,638.2	-525.0	2,163.24	0.757	Collision RiskProcedures Req'd
6,200.0	2,916.8	2,995.8	2,995.8	73.7	2,097.1	90.99	1,340.7	5,196.1	1,634.8	-528.5	2,163.29	0.756	Collision RiskProcedures Req'd
6,221.0	2,916.6	2,995.6	2,995.6	74.0	2,096.9	90.98	1,340.7	5,196.1	1,617.0	-546.6	2,163.56	0.747	Collision RiskProcedures Req'd
6,246.0	2,916.3	2,995.3	2,995.3	74.4	2,096.7	90.96	1,340.7	5,196.1	1,595.9	-568.0	2,163.89	0.738	Collision RiskProcedures Req'd
6,271.0	2,916.0	2,995.0	2,995.0	74.8	2,096.5	90.94	1,340.7	5,196.1	1,574.9	-589.4	2,164.23	0.728	Collision RiskProcedures Req'd
6,296.0	2,915.8	2,994.8	2,994.8	75.2	2,096.3	90.92	1,340.7	5,196.1	1,554.0	-610.6	2,164.58	0.718	Collision RiskProcedures Req'd
6,300.0	2,915.7	2,994.7	2,994.7	75.3	2,096.3	90.92	1,340.7	5,196.1	1,550.7	-614.0	2,164.64	0.716	Collision RiskProcedures Req'd
6,321.0	2,915.5	2,994.5	2,994.5	75.7	2,096.2	90.90	1,340.7	5,196.1	1,533.2	-631.7	2,164.94	0.708	Collision RiskProcedures Req'd
6,346.0	2,915.2	2,994.2	2,994.2	76.1	2,096.0	90.89	1,340.7	5,196.1	1,512.6	-652.7	2,165.32	0.699	Collision RiskProcedures Req'd
6,371.0	2,915.0	2,994.0	2,994.0	76.5	2,095.8	90.87	1,340.7	5,196.1	1,492.1	-673.6	2,165.70	0.689	Collision RiskProcedures Req'd
6,396.0	2,914.7	2,993.7	2,993.7	76.9	2,095.6	90.85	1,340.7	5,196.1	1,471.7	-694.4	2,166.10	0.679	Collision RiskProcedures Req'd
6,400.0	2,914.7	2,993.7	2,993.7	77.0	2,095.6	90.85	1,340.7	5,196.1	1,468.5	-697.7	2,166.17	0.678	Collision RiskProcedures Req'd
6,421.0	2,914.4	2,993.4	2,993.4	77.4	2,095.4	90.83	1,340.7	5,196.1	1,451.5	-715.0	2,166.51	0.670	Collision RiskProcedures Req'd
6,446.0	2,914.2	2,993.2	2,993.2	77.8	2,095.2	90.82	1,340.7	5,196.1	1,431.4	-735.5	2,166.94	0.661	Collision RiskProcedures Req'd
6,471.0	2,913.9	2,992.9	2,992.9	78.2	2,095.0	90.80	1,340.7	5,196.1	1,411.5	-755.9	2,167.37	0.651	Collision RiskProcedures Req'd
6,496.0	2,913.6	2,992.6	2,992.6	78.6	2,094.8	90.78	1,340.7	5,196.1	1,391.8	-776.1	2,167.82	0.642	Collision RiskProcedures Req'd
6,500.0	2,913.6	2,992.6	2,992.6	78.7	2,094.8	90.78	1,340.7	5,196.1	1,388.6	-779.3	2,167.89	0.641	Collision RiskProcedures Req'd
6,521.0	2,913.4	2,992.4	2,992.4	79.1	2,094.7	90.76	1,340.7	5,196.1	1,372.2	-796.1	2,168.28	0.633	Collision RiskProcedures Req'd
6,546.0	2,913.1	2,992.1	2,992.1	79.5	2,094.5	90.74	1,340.7	5,196.1	1,352.8	-816.0	2,168.75	0.624	Collision RiskProcedures Req'd
6,571.0	2,912.8	2,991.8	2,991.8	80.0	2,094.3	90.73	1,340.7	5,196.1	1,333.6	-835.7	2,169.24	0.615	Collision RiskProcedures Req'd
6,596.0	2,912.6	2,991.6	2,991.6	80.4	2,094.1	90.71	1,340.7	5,196.1	1,314.5	-855.2	2,169.73	0.606	Collision RiskProcedures Req'd
6,600.0	2,912.5	2,991.5	2,991.5	80.5	2,094.1	90.71	1,340.7	5,196.1	1,311.5	-858.3	2,169.81	0.604	Collision RiskProcedures Req'd
6,621.0	2,912.3	2,991.3	2,991.3	80.8	2,093.9	90.69	1,340.7	5,196.1	1,295.7	-874.5	2,170.24	0.597	Collision RiskProcedures Req'd
6,646.0	2,912.0	2,991.0	2,991.0	81.3	2,093.7	90.67	1,340.7	5,196.1	1,277.1	-893.6	2,170.76	0.588	Collision RiskProcedures Req'd
6,671.0	2,911.8	2,990.8	2,990.8	81.7	2,093.5	90.66	1,340.7	5,196.1	1,258.7	-912.6	2,171.29	0.580	Collision RiskProcedures Req'd
6,696.0	2,911.5	2,990.5	2,990.5	82.2	2,093.3	90.64	1,340.7	5,196.1	1,240.6	-931.2	2,171.83	0.571	Collision RiskProcedures Req'd
6,700.0	2,911.5	2,990.5	2,990.5	82.3	2,093.3	90.63	1,340.7	5,196.1	1,237.7	-934.2	2,171.92	0.570	Collision RiskProcedures Req'd
6,721.0	2,911.2	2,990.2	2,990.2	82.6	2,093.2	90.62	1,340.7	5,196.1	1,222.7	-949.7	2,172.39	0.563	Collision RiskProcedures Req'd
6,746.0	2,911.0	2,990.0	2,990.0	83.1	2,093.0	90.60	1,340.7	5,196.1	1,205.0	-967.9	2,172.95	0.555	Collision RiskProcedures Req'd
6,771.0	2,910.7	2,989.7	2,989.7	83.6	2,092.8	90.58	1,340.7	5,196.1	1,187.6	-985.9	2,173.52	0.546	Collision RiskProcedures Req'd
6,796.0	2,910.4	2,989.4	2,989.4	84.0	2,092.6	90.57	1,340.7	5,196.1	1,170.5	-1,003.6	2,174.10	0.538	Collision RiskProcedures Req'd
6,800.0	2,910.4	2,989.4	2,989.4	84.1	2,092.6	90.56	1,340.7	5,196.1	1,167.8	-1,006.4	2,174.19	0.537	Collision RiskProcedures Req'd
6,821.0	2,910.2	2,989.2	2,989.2	84.5	2,092.4	90.55	1,340.7	5,196.1	1,153.7	-1,021.0	2,174.68	0.531	Collision RiskProcedures Req'd
6,846.0	2,909.9	2,988.9	2,988.9	84.9	2,092.2	90.53	1,340.7	5,196.1	1,137.2	-1,038.1	2,175.28	0.523	Collision RiskProcedures Req'd
6,871.0	2,909.6	2,988.6	2,988.6	85.4	2,092.0	90.51	1,340.7	5,196.1	1,120.9	-1,054.9	2,175.87	0.515	Collision RiskProcedures Req'd
6,896.0	2,909.4	2,988.4	2,988.4	85.9	2,091.9	90.49	1,340.7	5,196.1	1,105.0	-1,071.4	2,176.47	0.508	Collision RiskProcedures Req'd
6,900.0	2,909.3	2,988.3	2,988.3	85.9	2,091.8	90.49	1,340.7	5,196.1	1,102.5	-1,074.0	2,176.57	0.507	Collision RiskProcedures Req'd
6,921.0	2,909.1	2,988.1	2,988.1	86.3	2,091.7	90.48	1,340.7	5,196.1	1,089.5	-1,087.6	2,177.07	0.500	Collision RiskProcedures Req'd
6,946.0	2,908.8	2,987.8	2,987.8	86.8	2,091.5	90.46	1,340.7	5,196.1	1,074.3	-1,103.4	2,177.67	0.493	Collision RiskProcedures Req'd

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Halliburton
Anticollision Report

Company:	Hilcorp Energy Company	Local Co-ordinate Reference:	Well Southern Ute 701H
Project:	Farmington, NM	TVD Reference:	RKB to MSL= 6310ft @ 6310.0usft
Reference Site:	San Juan Basin	MD Reference:	RKB to MSL= 6310ft @ 6310.0usft
Site Error:	5.0 usft	North Reference:	Grid
Reference Well:	Southern Ute 701H	Survey Calculation Method:	Minimum Curvature
Well Error:	1.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Southern Ute 701H Lat.No.1	Database:	EDM 5000.17 Single User Db
Reference Design:	WP3	Offset TVD Reference:	Offset Datum

Offset Design: San Juan Basin - SOUTHERN UTE 009 - ST00 - ST00													Offset Site Error: 5.0 usft
Survey Program: 8030-3_Blind													Offset Well Error: 1.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
6,971.0	2,908.6	2,987.6	2,987.6	87.3	2,091.3	90.44	1,340.7	5,196.1	1,059.5	-1,118.8	2,178.27	0.486	Collision RiskProcedures Req'd
6,996.0	2,908.3	2,987.3	2,987.3	87.8	2,091.1	90.42	1,340.7	5,196.1	1,045.1	-1,133.8	2,178.87	0.480	Collision RiskProcedures Req'd
7,000.0	2,908.2	2,987.2	2,987.2	87.8	2,091.1	90.42	1,340.7	5,196.1	1,042.8	-1,136.2	2,178.96	0.479	Collision RiskProcedures Req'd
7,021.0	2,908.0	2,987.0	2,987.0	88.2	2,090.9	90.41	1,340.7	5,196.1	1,031.0	-1,148.4	2,179.46	0.473	Collision RiskProcedures Req'd
7,046.0	2,907.8	2,986.8	2,986.8	88.7	2,090.7	90.39	1,340.7	5,196.1	1,017.4	-1,162.6	2,180.04	0.467	Collision RiskProcedures Req'd
7,071.0	2,907.5	2,986.5	2,986.5	89.2	2,090.5	90.37	1,340.7	5,196.1	1,004.3	-1,176.3	2,180.60	0.461	Collision RiskProcedures Req'd
7,096.0	2,907.2	2,986.2	2,986.2	89.7	2,090.4	90.35	1,340.7	5,196.1	991.6	-1,189.6	2,181.16	0.455	Collision RiskProcedures Req'd
7,100.0	2,907.2	2,986.2	2,986.2	89.8	2,090.3	90.35	1,340.7	5,196.1	989.6	-1,191.7	2,181.24	0.454	Collision RiskProcedures Req'd
7,121.0	2,907.0	2,986.0	2,986.0	90.2	2,090.2	90.33	1,340.7	5,196.1	979.3	-1,202.4	2,181.69	0.449	Collision RiskProcedures Req'd
7,146.0	2,906.7	2,985.7	2,985.7	90.6	2,090.0	90.32	1,340.7	5,196.1	967.6	-1,214.6	2,182.21	0.443	Collision RiskProcedures Req'd
7,171.0	2,906.4	2,985.4	2,985.4	91.1	2,089.8	90.30	1,340.7	5,196.1	956.3	-1,226.4	2,182.69	0.438	Collision RiskProcedures Req'd
7,196.0	2,906.2	2,985.2	2,985.2	91.6	2,089.6	90.28	1,340.7	5,196.1	945.6	-1,237.5	2,183.15	0.433	Collision RiskProcedures Req'd
7,200.0	2,906.1	2,985.1	2,985.1	91.7	2,089.6	90.28	1,340.7	5,196.1	944.0	-1,239.3	2,183.23	0.432	Collision RiskProcedures Req'd
7,221.0	2,905.9	2,984.9	2,984.9	92.1	2,089.4	90.26	1,340.7	5,196.1	935.5	-1,248.1	2,183.58	0.428	Collision RiskProcedures Req'd
7,246.0	2,905.6	2,984.6	2,984.6	92.6	2,089.2	90.25	1,340.7	5,196.1	925.9	-1,258.1	2,183.98	0.424	Collision RiskProcedures Req'd
7,271.0	2,905.4	2,984.4	2,984.4	93.1	2,089.0	90.23	1,340.7	5,196.1	916.9	-1,267.5	2,184.33	0.420	Collision RiskProcedures Req'd
7,296.0	2,905.1	2,984.1	2,984.1	93.6	2,088.9	90.21	1,340.7	5,196.1	908.4	-1,276.2	2,184.64	0.416	Collision RiskProcedures Req'd
7,300.0	2,905.0	2,984.0	2,984.0	93.7	2,088.8	90.21	1,340.7	5,196.1	907.1	-1,277.5	2,184.68	0.415	Collision RiskProcedures Req'd
7,321.0	2,904.8	2,983.8	2,983.8	94.1	2,088.7	90.19	1,340.7	5,196.1	900.6	-1,284.3	2,184.90	0.412	Collision RiskProcedures Req'd
7,346.0	2,904.6	2,983.6	2,983.6	94.6	2,088.5	90.17	1,340.7	5,196.1	893.5	-1,291.7	2,185.11	0.409	Collision RiskProcedures Req'd
7,371.0	2,904.3	2,983.3	2,983.3	95.1	2,088.3	90.16	1,340.7	5,196.1	886.9	-1,298.3	2,185.27	0.406	Collision RiskProcedures Req'd
7,396.0	2,904.0	2,983.0	2,983.0	95.6	2,088.1	90.14	1,340.7	5,196.1	881.1	-1,304.3	2,185.36	0.403	Collision RiskProcedures Req'd
7,400.0	2,904.0	2,983.0	2,983.0	95.7	2,088.1	90.14	1,340.7	5,196.1	880.2	-1,305.2	2,185.37	0.403	Collision RiskProcedures Req'd
7,421.0	2,903.8	2,982.8	2,982.8	96.1	2,087.9	90.12	1,340.7	5,196.1	875.9	-1,309.5	2,185.40	0.401	Collision RiskProcedures Req'd
7,446.0	2,903.5	2,982.5	2,982.5	96.6	2,087.7	90.10	1,340.7	5,196.1	871.4	-1,314.0	2,185.37	0.399	Collision RiskProcedures Req'd
7,471.0	2,903.2	2,982.2	2,982.2	97.1	2,087.6	90.09	1,340.7	5,196.1	867.6	-1,317.7	2,185.27	0.397	Collision RiskProcedures Req'd
7,496.0	2,903.0	2,982.0	2,982.0	97.6	2,087.4	90.07	1,340.7	5,196.1	864.5	-1,320.6	2,185.11	0.396	Collision RiskProcedures Req'd
7,500.0	2,902.9	2,981.9	2,981.9	97.7	2,087.3	90.06	1,340.7	5,196.1	864.0	-1,321.0	2,185.07	0.395	Collision RiskProcedures Req'd
7,521.0	2,902.7	2,981.7	2,981.7	98.1	2,087.2	90.05	1,340.7	5,196.1	862.1	-1,322.8	2,184.87	0.395	Collision RiskProcedures Req'd
7,546.0	2,902.4	2,981.4	2,981.4	98.6	2,087.0	90.03	1,340.7	5,196.1	860.4	-1,324.2	2,184.56	0.394	Collision RiskProcedures Req'd
7,571.0	2,902.1	2,981.1	2,981.1	99.1	2,086.8	90.01	1,340.7	5,196.1	859.5	-1,324.7	2,184.18	0.393	Collision RiskProcedures Req'd, ES
7,590.9	2,901.9	2,980.9	2,980.9	99.5	2,086.7	90.00	1,340.7	5,196.1	859.2	-1,324.6	2,183.83	0.393	Collision RiskProcedures Req'd, CC, S
7,596.0	2,901.9	2,980.9	2,980.9	99.6	2,086.6	90.00	1,340.7	5,196.1	859.3	-1,324.5	2,183.73	0.393	Collision RiskProcedures Req'd
7,600.0	2,901.8	2,980.8	2,980.8	99.7	2,086.6	89.99	1,340.7	5,196.1	859.3	-1,324.4	2,183.65	0.394	Collision RiskProcedures Req'd
7,621.0	2,901.6	2,980.6	2,980.6	100.1	2,086.4	89.98	1,340.7	5,196.1	859.8	-1,323.4	2,183.21	0.394	Collision RiskProcedures Req'd
7,646.0	2,901.3	2,980.3	2,980.3	100.6	2,086.2	89.96	1,340.7	5,196.1	861.0	-1,321.6	2,182.62	0.394	Collision RiskProcedures Req'd
7,671.0	2,901.1	2,980.1	2,980.1	101.2	2,086.1	89.94	1,340.7	5,196.1	863.0	-1,319.0	2,181.96	0.395	Collision RiskProcedures Req'd
7,696.0	2,900.8	2,979.8	2,979.8	101.7	2,085.9	89.93	1,340.7	5,196.1	865.6	-1,315.6	2,181.23	0.397	Collision RiskProcedures Req'd
7,700.0	2,900.8	2,979.8	2,979.8	101.7	2,085.8	89.92	1,340.7	5,196.1	866.1	-1,315.0	2,181.11	0.397	Collision RiskProcedures Req'd
7,721.0	2,900.5	2,979.5	2,979.5	102.2	2,085.7	89.91	1,340.7	5,196.1	869.0	-1,311.4	2,180.44	0.399	Collision RiskProcedures Req'd
7,746.0	2,900.3	2,979.3	2,979.3	102.7	2,085.5	89.89	1,340.7	5,196.1	873.1	-1,306.5	2,179.59	0.401	Collision RiskProcedures Req'd
7,771.0	2,900.0	2,979.0	2,979.0	103.2	2,085.3	89.87	1,340.7	5,196.1	877.9	-1,300.8	2,178.68	0.403	Collision RiskProcedures Req'd
7,796.0	2,899.7	2,978.7	2,978.7	103.7	2,085.1	89.85	1,340.7	5,196.1	883.4	-1,294.4	2,177.72	0.406	Collision RiskProcedures Req'd
7,800.0	2,899.7	2,978.7	2,978.7	103.8	2,085.1	89.85	1,340.7	5,196.1	884.3	-1,293.3	2,177.56	0.406	Collision RiskProcedures Req'd
7,821.0	2,899.5	2,978.5	2,978.5	104.3	2,084.9	89.84	1,340.7	5,196.1	889.5	-1,287.2	2,176.72	0.409	Collision RiskProcedures Req'd
7,846.0	2,899.2	2,978.2	2,978.2	104.8	2,084.7	89.82	1,340.7	5,196.1	896.3	-1,279.4	2,175.66	0.412	Collision RiskProcedures Req'd
7,871.0	2,898.9	2,977.9	2,977.9	105.3	2,084.6	89.80	1,340.7	5,196.1	903.7	-1,270.8	2,174.57	0.416	Collision RiskProcedures Req'd
7,896.0	2,898.7	2,977.7	2,977.7	105.8	2,084.4	89.78	1,340.7	5,196.1	911.8	-1,261.7	2,173.44	0.420	Collision RiskProcedures Req'd
7,900.0	2,898.6	2,977.6	2,977.6	105.9	2,084.3	89.78	1,340.7	5,196.1	913.1	-1,260.1	2,173.26	0.420	Collision RiskProcedures Req'd
7,921.0	2,898.4	2,977.4	2,977.4	106.3	2,084.2	89.76	1,340.7	5,196.1	920.5	-1,251.8	2,172.28	0.424	Collision RiskProcedures Req'd
7,946.0	2,898.1	2,977.1	2,977.1	106.9	2,084.0	89.75	1,340.7	5,196.1	929.7	-1,241.4	2,171.10	0.428	Collision RiskProcedures Req'd
7,971.0	2,897.9	2,976.9	2,976.9	107.4	2,083.8	89.73	1,340.7	5,196.1	939.5	-1,230.3	2,169.89	0.433	Collision RiskProcedures Req'd

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Halliburton

Anticollision Report

Company:	Hilcorp Energy Company	Local Co-ordinate Reference:	Well Southern Ute 701H
Project:	Farmington, NM	TVD Reference:	RKB to MSL= 6310ft @ 6310.0usft
Reference Site:	San Juan Basin	MD Reference:	RKB to MSL= 6310ft @ 6310.0usft
Site Error:	5.0 usft	North Reference:	Grid
Reference Well:	Southern Ute 701H	Survey Calculation Method:	Minimum Curvature
Well Error:	1.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Southern Ute 701H Lat.No.1	Database:	EDM 5000.17 Single User Db
Reference Design:	WP3	Offset TVD Reference:	Offset Datum

Offset Design:	San Juan Basin - SOUTHERN UTE 009 - ST00 - ST00												Offset Site Error:	5.0 usft
	Survey Program: 8030-3_Blind												Offset Well Error:	1.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned: Distance			Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)			
7,996.0	2,897.6	2,976.6	2,976.6	107.9	2,083.6	89.71	1,340.7	5,196.1	949.9	-1,218.7	2,168.66	0.438	Collision RiskProcedures Req'd	
8,000.0	2,897.6	2,976.6	2,976.6	108.0	2,083.6	89.71	1,340.7	5,196.1	951.6	-1,216.8	2,168.46	0.439	Collision RiskProcedures Req'd	
8,021.0	2,897.3	2,976.3	2,976.3	108.5	2,083.4	89.69	1,340.7	5,196.1	960.9	-1,206.6	2,167.42	0.443	Collision RiskProcedures Req'd	
8,046.0	2,897.1	2,976.1	2,976.1	109.0	2,083.3	89.68	1,340.7	5,196.1	972.3	-1,193.9	2,166.17	0.449	Collision RiskProcedures Req'd	
8,071.0	2,896.8	2,975.8	2,975.8	109.5	2,083.1	89.66	1,340.7	5,196.1	984.3	-1,180.7	2,164.91	0.455	Collision RiskProcedures Req'd	
8,096.0	2,896.5	2,975.5	2,975.5	110.0	2,082.9	89.64	1,340.7	5,196.1	996.7	-1,167.0	2,163.65	0.461	Collision RiskProcedures Req'd	
8,100.0	2,896.5	2,975.5	2,975.5	110.1	2,082.8	89.64	1,340.7	5,196.1	998.7	-1,164.7	2,163.44	0.462	Collision RiskProcedures Req'd	
8,121.0	2,896.3	2,975.3	2,975.3	110.6	2,082.7	89.62	1,340.7	5,196.1	1,009.6	-1,152.8	2,162.38	0.467	Collision RiskProcedures Req'd	
8,146.0	2,896.0	2,975.0	2,975.0	111.1	2,082.5	89.60	1,340.7	5,196.1	1,022.9	-1,138.2	2,161.12	0.473	Collision RiskProcedures Req'd	
8,171.0	2,895.7	2,974.7	2,974.7	111.6	2,082.3	89.59	1,340.7	5,196.1	1,036.7	-1,123.2	2,159.87	0.480	Collision RiskProcedures Req'd	
8,196.0	2,895.5	2,974.5	2,974.5	112.2	2,082.1	89.57	1,340.7	5,196.1	1,050.9	-1,107.7	2,158.62	0.487	Collision RiskProcedures Req'd	
8,200.0	2,895.4	2,974.4	2,974.4	112.3	2,082.1	89.57	1,340.7	5,196.1	1,053.2	-1,105.2	2,158.42	0.488	Collision RiskProcedures Req'd	
8,221.0	2,895.2	2,974.2	2,974.2	112.7	2,081.9	89.55	1,340.7	5,196.1	1,065.5	-1,091.9	2,157.38	0.494	Collision RiskProcedures Req'd	
8,246.0	2,894.9	2,973.9	2,973.9	113.2	2,081.8	89.53	1,340.7	5,196.1	1,080.5	-1,075.7	2,156.16	0.501	Collision RiskProcedures Req'd	
8,271.0	2,894.7	2,973.7	2,973.7	113.8	2,081.6	89.52	1,340.7	5,196.1	1,095.8	-1,059.1	2,154.94	0.509	Collision RiskProcedures Req'd	
8,296.0	2,894.4	2,973.4	2,973.4	114.3	2,081.4	89.50	1,340.7	5,196.1	1,111.5	-1,042.3	2,153.74	0.516	Collision RiskProcedures Req'd	
8,300.0	2,894.4	2,973.4	2,973.4	114.4	2,081.4	89.50	1,340.7	5,196.1	1,114.0	-1,039.5	2,153.55	0.517	Collision RiskProcedures Req'd	
8,321.0	2,894.1	2,973.1	2,973.1	114.9	2,081.2	89.48	1,340.7	5,196.1	1,127.5	-1,025.1	2,152.56	0.524	Collision RiskProcedures Req'd	
8,346.0	2,893.9	2,972.9	2,972.9	115.4	2,081.0	89.46	1,340.7	5,196.1	1,143.8	-1,007.5	2,151.39	0.532	Collision RiskProcedures Req'd	
8,371.0	2,893.6	2,972.6	2,972.6	115.9	2,080.8	89.44	1,340.7	5,196.1	1,160.5	-989.7	2,150.24	0.540	Collision RiskProcedures Req'd	
8,396.0	2,893.3	2,972.3	2,972.3	116.5	2,080.6	89.43	1,340.7	5,196.1	1,177.4	-971.7	2,149.11	0.548	Collision RiskProcedures Req'd	
8,400.0	2,893.3	2,972.3	2,972.3	116.6	2,080.6	89.42	1,340.7	5,196.1	1,180.2	-968.7	2,148.93	0.549	Collision RiskProcedures Req'd	
8,421.0	2,893.1	2,972.1	2,972.1	117.0	2,080.4	89.41	1,340.7	5,196.1	1,194.7	-953.3	2,147.99	0.556	Collision RiskProcedures Req'd	
8,427.6	2,893.0	2,972.0	2,972.0	117.2	2,080.4	89.40	1,340.7	5,196.1	1,199.3	-948.4	2,147.70	0.558	Collision RiskProcedures Req'd	

Halliburton
Anticollision Report

Company:	Hilcorp Energy Company	Local Co-ordinate Reference:	Well Southern Ute 701H
Project:	Farmington, NM	TVD Reference:	RKB to MSL= 6310ft @ 6310.0usft
Reference Site:	San Juan Basin	MD Reference:	RKB to MSL= 6310ft @ 6310.0usft
Site Error:	5.0 usft	North Reference:	Grid
Reference Well:	Southern Ute 701H	Survey Calculation Method:	Minimum Curvature
Well Error:	1.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Southern Ute 701H Lat.No.1	Database:	EDM 5000.17 Single User Db
Reference Design:	WP3	Offset TVD Reference:	Offset Datum

Offset Design: San Juan Basin - SOUTHERN UTE 701 - ST00 - ST00													Offset Site Error: 5.0 usft
Survey Program: 247-3_Unknown													Offset Well Error: 1.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
4,571.0	2,923.4	3,008.5	3,008.4	52.5	115.1	77.97	1,353.2	5,174.4	2,988.3	2,830.7	157.62	18.959	
4,596.0	2,927.5	3,012.7	3,012.6	52.8	115.3	80.45	1,353.2	5,174.4	2,969.6	2,811.5	158.11	18.782	
4,600.0	2,928.1	3,013.3	3,013.2	52.8	115.3	80.87	1,353.2	5,174.4	2,966.5	2,808.3	158.18	18.754	
4,621.0	2,930.5	3,015.8	3,015.7	53.0	115.4	83.16	1,353.2	5,174.4	2,950.4	2,791.9	158.55	18.609	
4,646.0	2,932.4	3,017.8	3,017.7	53.2	115.5	86.10	1,353.3	5,174.4	2,931.0	2,772.0	158.94	18.441	
4,650.0	2,932.6	3,018.1	3,018.0	53.3	115.5	86.59	1,353.3	5,174.4	2,927.8	2,768.8	159.00	18.414	
4,671.0	2,933.3	3,018.8	3,018.7	53.5	115.5	89.25	1,353.3	5,174.4	2,911.2	2,751.9	159.29	18.276	
4,683.5	2,933.3	3,018.8	3,018.7	53.6	115.5	90.90	1,353.3	5,174.4	2,901.3	2,741.8	159.45	18.196	
4,696.0	2,933.1	3,018.8	3,018.7	53.7	115.5	90.90	1,353.3	5,174.4	2,891.3	2,731.7	159.60	18.116	
4,700.0	2,933.1	3,018.7	3,018.6	53.8	115.5	90.90	1,353.3	5,174.4	2,888.1	2,728.5	159.65	18.090	
4,721.0	2,932.9	3,018.6	3,018.5	54.0	115.5	90.90	1,353.3	5,174.4	2,871.4	2,711.5	159.91	17.956	
4,746.0	2,932.6	3,018.5	3,018.4	54.2	115.5	90.89	1,353.3	5,174.4	2,851.6	2,691.4	160.23	17.797	
4,771.0	2,932.3	3,018.3	3,018.2	54.5	115.5	90.89	1,353.3	5,174.4	2,831.9	2,671.4	160.55	17.639	
4,783.5	2,932.2	3,018.2	3,018.1	54.6	115.5	90.88	1,353.3	5,174.4	2,822.1	2,661.4	160.71	17.561	
4,796.0	2,932.0	3,018.1	3,018.0	54.7	115.5	90.89	1,353.3	5,174.4	2,812.3	2,651.4	160.87	17.482	
4,800.0	2,932.0	3,018.1	3,018.0	54.8	115.5	90.89	1,353.3	5,174.4	2,809.1	2,648.2	160.92	17.456	
4,821.0	2,931.8	3,018.0	3,017.9	55.0	115.5	90.91	1,353.3	5,174.4	2,792.6	2,631.4	161.20	17.324	
4,846.0	2,931.5	3,017.8	3,017.7	55.3	115.5	90.92	1,353.3	5,174.4	2,772.8	2,611.2	161.53	17.166	
4,871.0	2,931.2	3,017.7	3,017.6	55.5	115.5	90.94	1,353.3	5,174.4	2,752.9	2,591.0	161.85	17.008	
4,896.0	2,931.0	3,017.5	3,017.4	55.8	115.5	90.95	1,353.2	5,174.4	2,732.9	2,570.7	162.19	16.851	
4,900.0	2,930.9	3,017.5	3,017.4	55.9	115.5	90.96	1,353.2	5,174.4	2,729.7	2,567.5	162.24	16.825	
4,921.0	2,930.7	3,017.3	3,017.2	56.1	115.5	90.97	1,353.2	5,174.4	2,712.9	2,550.4	162.52	16.693	
4,946.0	2,930.4	3,017.1	3,017.0	56.4	115.4	90.99	1,353.2	5,174.4	2,692.8	2,529.9	162.85	16.535	
4,971.0	2,930.1	3,017.0	3,016.9	56.7	115.4	91.00	1,353.2	5,174.4	2,672.6	2,509.4	163.19	16.377	
4,996.0	2,929.9	3,016.8	3,016.7	56.9	115.4	91.02	1,353.2	5,174.4	2,652.3	2,488.7	163.52	16.220	
5,000.0	2,929.8	3,016.8	3,016.7	57.0	115.4	91.02	1,353.2	5,174.4	2,649.0	2,485.4	163.58	16.194	
5,021.0	2,929.6	3,016.6	3,016.5	57.2	115.4	91.04	1,353.2	5,174.4	2,631.9	2,468.0	163.86	16.062	
5,046.0	2,929.3	3,016.4	3,016.3	57.5	115.4	91.05	1,353.2	5,174.4	2,611.5	2,447.3	164.19	15.905	
5,071.0	2,929.0	3,016.2	3,016.2	57.8	115.4	91.07	1,353.2	5,174.4	2,590.9	2,426.4	164.53	15.747	
5,096.0	2,928.8	3,016.1	3,016.0	58.1	115.4	91.09	1,353.2	5,174.4	2,570.4	2,405.5	164.87	15.590	
5,100.0	2,928.7	3,016.0	3,015.9	58.2	115.4	91.09	1,353.2	5,174.4	2,567.1	2,402.1	164.93	15.565	
5,121.0	2,928.5	3,015.9	3,015.8	58.4	115.4	91.11	1,353.2	5,174.4	2,549.7	2,384.5	165.21	15.433	
5,146.0	2,928.2	3,015.7	3,015.6	58.7	115.4	91.12	1,353.2	5,174.4	2,528.9	2,363.4	165.55	15.276	
5,171.0	2,927.9	3,015.5	3,015.4	59.1	115.4	91.14	1,353.2	5,174.4	2,508.1	2,342.2	165.89	15.119	
5,196.0	2,927.7	3,015.3	3,015.2	59.4	115.4	91.16	1,353.2	5,174.4	2,487.2	2,321.0	166.24	14.962	
5,200.0	2,927.6	3,015.3	3,015.2	59.4	115.4	91.16	1,353.2	5,174.4	2,483.9	2,317.6	166.29	14.937	
5,221.0	2,927.4	3,015.1	3,015.0	59.7	115.4	91.18	1,353.2	5,174.4	2,466.2	2,299.7	166.58	14.805	
5,246.0	2,927.1	3,014.9	3,014.8	60.0	115.4	91.20	1,353.2	5,174.4	2,445.2	2,278.3	166.92	14.649	
5,271.0	2,926.8	3,014.7	3,014.6	60.3	115.3	91.21	1,353.2	5,174.4	2,424.1	2,256.8	167.26	14.493	
5,296.0	2,926.6	3,014.5	3,014.4	60.6	115.3	91.23	1,353.2	5,174.4	2,402.9	2,235.3	167.61	14.336	
5,300.0	2,926.5	3,014.5	3,014.4	60.7	115.3	91.24	1,353.2	5,174.4	2,399.5	2,231.8	167.67	14.311	
5,321.0	2,926.3	3,014.3	3,014.2	61.0	115.3	91.25	1,353.2	5,174.4	2,381.6	2,213.7	167.95	14.180	
5,346.0	2,926.0	3,014.1	3,014.0	61.3	115.3	91.27	1,353.2	5,174.4	2,360.3	2,192.0	168.30	14.025	
5,371.0	2,925.7	3,013.9	3,013.8	61.6	115.3	91.29	1,353.2	5,174.4	2,338.9	2,170.3	168.64	13.869	
5,396.0	2,925.5	3,013.6	3,013.5	62.0	115.3	91.31	1,353.2	5,174.4	2,317.4	2,148.4	168.99	13.713	
5,400.0	2,925.4	3,013.6	3,013.5	62.0	115.3	91.31	1,353.2	5,174.4	2,314.0	2,144.9	169.05	13.688	
5,421.0	2,925.2	3,013.4	3,013.3	62.3	115.3	91.33	1,353.2	5,174.4	2,295.9	2,126.6	169.34	13.558	
5,446.0	2,924.9	3,013.2	3,013.1	62.6	115.3	91.35	1,353.2	5,174.4	2,274.3	2,104.6	169.68	13.403	
5,471.0	2,924.6	3,013.0	3,012.9	63.0	115.3	91.37	1,353.2	5,174.4	2,252.6	2,082.6	170.03	13.248	
5,496.0	2,924.4	3,012.8	3,012.7	63.3	115.3	91.39	1,353.2	5,174.4	2,230.9	2,060.5	170.38	13.094	
5,500.0	2,924.3	3,012.7	3,012.6	63.4	115.3	91.39	1,353.2	5,174.4	2,227.4	2,056.9	170.43	13.069	
5,521.0	2,924.1	3,012.5	3,012.4	63.6	115.3	91.41	1,353.2	5,174.4	2,209.1	2,038.3	170.72	12.939	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Halliburton
Anticollision Report

Company:	Hilcorp Energy Company	Local Co-ordinate Reference:	Well Southern Ute 701H
Project:	Farmington, NM	TVD Reference:	RKB to MSL= 6310ft @ 6310.0usft
Reference Site:	San Juan Basin	MD Reference:	RKB to MSL= 6310ft @ 6310.0usft
Site Error:	5.0 usft	North Reference:	Grid
Reference Well:	Southern Ute 701H	Survey Calculation Method:	Minimum Curvature
Well Error:	1.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Southern Ute 701H Lat.No.1	Database:	EDM 5000.17 Single User Db
Reference Design:	WP3	Offset TVD Reference:	Offset Datum

Offset Design: San Juan Basin - SOUTHERN UTE 701 - ST00 - ST00												Offset Site Error:	5.0 usft
Survey Program: 247-3_Unknown												Offset Well Error:	1.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
5,546.0	2,923.8	3,012.3	3,012.2	64.0	115.3	91.43	1,353.2	5,174.4	2,187.2	2,016.1	171.07	12.785	
5,571.0	2,923.5	3,012.1	3,012.0	64.3	115.2	91.45	1,353.2	5,174.4	2,165.2	1,993.8	171.42	12.632	
5,596.0	2,923.3	3,011.9	3,011.8	64.7	115.2	91.48	1,353.2	5,174.4	2,143.2	1,971.5	171.77	12.478	
5,600.0	2,923.2	3,011.8	3,011.7	64.7	115.2	91.48	1,353.2	5,174.4	2,139.7	1,967.9	171.82	12.453	
5,621.0	2,923.0	3,011.6	3,011.5	65.0	115.2	91.50	1,353.2	5,174.4	2,121.2	1,949.1	172.11	12.324	
5,646.0	2,922.7	3,011.4	3,011.3	65.4	115.2	91.52	1,353.2	5,174.4	2,099.0	1,926.6	172.46	12.171	
5,671.0	2,922.5	3,011.2	3,011.1	65.7	115.2	91.54	1,353.2	5,174.4	2,076.8	1,904.0	172.80	12.019	
5,696.0	2,922.2	3,010.9	3,010.8	66.1	115.2	91.56	1,353.2	5,174.4	2,054.6	1,881.4	173.15	11.866	
5,700.0	2,922.1	3,010.9	3,010.8	66.1	115.2	91.57	1,353.2	5,174.4	2,051.0	1,877.8	173.21	11.841	
5,721.0	2,921.9	3,010.7	3,010.6	66.4	115.2	91.59	1,353.2	5,174.4	2,032.3	1,858.8	173.50	11.714	
5,746.0	2,921.6	3,010.4	3,010.4	66.8	115.2	91.61	1,353.2	5,174.4	2,009.9	1,836.1	173.84	11.562	
5,771.0	2,921.4	3,010.2	3,010.1	67.2	115.2	91.64	1,353.2	5,174.4	1,987.5	1,813.3	174.19	11.410	
5,796.0	2,921.1	3,010.0	3,009.9	67.5	115.2	91.66	1,353.2	5,174.4	1,965.0	1,790.4	174.54	11.258	
5,803.5	2,921.0	3,009.9	3,009.8	67.6	115.2	91.67	1,353.2	5,174.4	1,958.2	1,783.6	174.64	11.213	
5,821.0	2,920.8	3,009.7	3,009.6	67.9	115.1	91.66	1,353.2	5,174.4	1,942.4	1,767.5	174.89	11.107	
5,846.0	2,920.6	3,009.5	3,009.4	68.2	115.1	91.64	1,353.2	5,174.4	1,920.0	1,744.7	175.24	10.956	
5,871.0	2,920.3	3,009.2	3,009.1	68.6	115.1	91.62	1,353.2	5,174.4	1,897.6	1,722.0	175.61	10.806	
5,896.0	2,920.0	3,009.0	3,008.9	69.0	115.1	91.61	1,353.2	5,174.4	1,875.2	1,699.2	175.98	10.656	
5,900.0	2,920.0	3,008.9	3,008.8	69.0	115.1	91.60	1,353.2	5,174.4	1,871.7	1,695.6	176.04	10.632	
5,921.0	2,919.8	3,008.7	3,008.6	69.3	115.1	91.59	1,353.2	5,174.4	1,852.9	1,676.6	176.36	10.507	
5,946.0	2,919.5	3,008.5	3,008.4	69.7	115.1	91.57	1,353.2	5,174.4	1,830.7	1,654.0	176.75	10.358	
5,971.0	2,919.2	3,008.3	3,008.2	70.1	115.1	91.56	1,353.2	5,174.4	1,808.6	1,631.5	177.14	10.210	
5,996.0	2,919.0	3,008.0	3,007.9	70.5	115.1	91.54	1,353.2	5,174.4	1,786.6	1,609.0	177.55	10.062	
6,000.0	2,918.9	3,008.0	3,007.9	70.5	115.1	91.54	1,353.2	5,174.4	1,783.0	1,605.4	177.62	10.039	
6,021.0	2,918.7	3,007.8	3,007.7	70.8	115.1	91.52	1,353.2	5,174.4	1,764.6	1,586.6	177.97	9.915	
6,046.0	2,918.4	3,007.5	3,007.4	71.2	115.1	91.51	1,353.2	5,174.4	1,742.7	1,564.3	178.39	9.769	
6,071.0	2,918.2	3,007.3	3,007.2	71.6	115.1	91.49	1,353.2	5,174.4	1,720.9	1,542.1	178.83	9.623	
6,096.0	2,917.9	3,007.0	3,006.9	72.0	115.0	91.47	1,353.2	5,174.4	1,699.2	1,519.9	179.27	9.478	
6,100.0	2,917.9	3,007.0	3,006.9	72.1	115.0	91.47	1,353.2	5,174.4	1,695.7	1,516.4	179.34	9.455	
6,121.0	2,917.6	3,006.8	3,006.7	72.4	115.0	91.46	1,353.2	5,174.4	1,677.5	1,497.8	179.73	9.334	
6,146.0	2,917.4	3,006.5	3,006.4	72.8	115.0	91.44	1,353.2	5,174.4	1,656.0	1,475.8	180.19	9.190	
6,171.0	2,917.1	3,006.3	3,006.2	73.2	115.0	91.42	1,353.2	5,174.4	1,634.6	1,453.9	180.67	9.047	
6,196.0	2,916.8	3,006.1	3,006.0	73.6	115.0	91.41	1,353.2	5,174.4	1,613.2	1,432.1	181.16	8.905	
6,200.0	2,916.8	3,006.0	3,005.9	73.7	115.0	91.40	1,353.2	5,174.4	1,609.8	1,428.6	181.24	8.882	
6,221.0	2,916.6	3,005.8	3,005.7	74.0	115.0	91.39	1,353.1	5,174.4	1,592.0	1,410.3	181.66	8.764	
6,246.0	2,916.3	3,005.6	3,005.5	74.4	115.0	91.37	1,353.1	5,174.4	1,570.9	1,388.7	182.17	8.623	
6,271.0	2,916.0	3,005.3	3,005.2	74.8	115.0	91.36	1,353.1	5,174.4	1,549.9	1,367.2	182.69	8.484	
6,296.0	2,915.8	3,005.1	3,005.0	75.2	115.0	91.34	1,353.1	5,174.4	1,529.0	1,345.8	183.22	8.345	
6,300.0	2,915.7	3,005.0	3,004.9	75.3	115.0	91.34	1,353.1	5,174.4	1,525.7	1,342.4	183.31	8.323	
6,321.0	2,915.5	3,004.8	3,004.7	75.7	115.0	91.32	1,353.1	5,174.4	1,508.3	1,324.5	183.77	8.207	
6,346.0	2,915.2	3,004.6	3,004.5	76.1	114.9	91.31	1,353.1	5,174.4	1,487.6	1,303.3	184.32	8.071	
6,371.0	2,915.0	3,004.3	3,004.2	76.5	114.9	91.29	1,353.1	5,174.4	1,467.1	1,282.2	184.89	7.935	
6,396.0	2,914.7	3,004.1	3,004.0	76.9	114.9	91.27	1,353.1	5,174.4	1,446.8	1,261.3	185.47	7.800	
6,400.0	2,914.7	3,004.1	3,004.0	77.0	114.9	91.27	1,353.1	5,174.4	1,443.6	1,258.0	185.57	7.779	
6,421.0	2,914.4	3,003.8	3,003.8	77.4	114.9	91.26	1,353.1	5,174.4	1,426.6	1,240.5	186.07	7.667	
6,446.0	2,914.2	3,003.6	3,003.5	77.8	114.9	91.24	1,353.1	5,174.4	1,406.6	1,219.9	186.68	7.535	
6,471.0	2,913.9	3,003.4	3,003.3	78.2	114.9	91.22	1,353.1	5,174.4	1,386.7	1,199.4	187.30	7.404	
6,496.0	2,913.6	3,003.1	3,003.0	78.6	114.9	91.21	1,353.1	5,174.4	1,367.0	1,179.0	187.93	7.274	
6,500.0	2,913.6	3,003.1	3,003.0	78.7	114.9	91.21	1,353.1	5,174.4	1,363.8	1,175.8	188.03	7.253	
6,521.0	2,913.4	3,002.9	3,002.8	79.1	114.9	91.19	1,353.1	5,174.4	1,347.4	1,158.8	188.57	7.145	
6,546.0	2,913.1	3,002.6	3,002.5	79.5	114.9	91.18	1,353.1	5,174.4	1,328.1	1,138.8	189.23	7.018	
6,571.0	2,912.8	3,002.4	3,002.3	80.0	114.9	91.16	1,353.1	5,174.4	1,308.9	1,119.0	189.90	6.893	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Halliburton
Anticollision Report

Company:	Hilcorp Energy Company	Local Co-ordinate Reference:	Well Southern Ute 701H
Project:	Farmington, NM	TVD Reference:	RKB to MSL= 6310ft @ 6310.0usft
Reference Site:	San Juan Basin	MD Reference:	RKB to MSL= 6310ft @ 6310.0usft
Site Error:	5.0 usft	North Reference:	Grid
Reference Well:	Southern Ute 701H	Survey Calculation Method:	Minimum Curvature
Well Error:	1.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Southern Ute 701H Lat.No.1	Database:	EDM 5000.17 Single User Db
Reference Design:	WP3	Offset TVD Reference:	Offset Datum

Offset Design: San Juan Basin - SOUTHERN UTE 701 - ST00 - ST00												Offset Site Error:	5.0 usft
Survey Program: 247-3_Unknown												Offset Well Error:	1.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
6,596.0	2,912.6	3,002.1	3,002.0	80.4	114.8	91.14	1,353.1	5,174.4	1,289.9	1,099.4	190.58	6.769	
6,600.0	2,912.5	3,002.1	3,002.0	80.5	114.8	91.14	1,353.1	5,174.4	1,286.9	1,096.2	190.69	6.749	
6,621.0	2,912.3	3,001.9	3,001.8	80.8	114.8	91.13	1,353.1	5,174.4	1,271.2	1,079.9	191.27	6.646	
6,646.0	2,912.0	3,001.6	3,001.5	81.3	114.8	91.11	1,353.1	5,174.4	1,252.6	1,060.7	191.98	6.525	
6,671.0	2,911.8	3,001.4	3,001.3	81.7	114.8	91.09	1,353.1	5,174.4	1,234.3	1,041.6	192.69	6.406	
6,696.0	2,911.5	3,001.2	3,001.1	82.2	114.8	91.08	1,353.1	5,174.4	1,216.2	1,022.8	193.42	6.288	
6,700.0	2,911.5	3,001.1	3,001.0	82.3	114.8	91.07	1,353.1	5,174.4	1,213.4	1,019.8	193.53	6.270	
6,721.0	2,911.2	3,000.9	3,000.8	82.6	114.8	91.06	1,353.1	5,174.4	1,198.4	1,004.3	194.15	6.173	
6,746.0	2,911.0	3,000.7	3,000.6	83.1	114.8	91.04	1,353.1	5,174.4	1,180.9	986.0	194.90	6.059	
6,771.0	2,910.7	3,000.4	3,000.3	83.6	114.8	91.03	1,353.1	5,174.4	1,163.6	967.9	195.65	5.947	
6,796.0	2,910.4	3,000.2	3,000.1	84.0	114.8	91.01	1,353.1	5,174.4	1,146.6	950.1	196.42	5.837	
6,800.0	2,910.4	3,000.1	3,000.0	84.1	114.8	91.01	1,353.1	5,174.4	1,143.9	947.3	196.54	5.820	
6,821.0	2,910.2	2,999.9	2,999.8	84.5	114.8	90.99	1,353.1	5,174.4	1,129.8	932.7	197.18	5.730	
6,846.0	2,909.9	2,999.7	2,999.6	84.9	114.7	90.98	1,353.1	5,174.4	1,113.4	915.5	197.96	5.625	
6,871.0	2,909.6	2,999.4	2,999.3	85.4	114.7	90.96	1,353.1	5,174.4	1,097.4	898.6	198.74	5.522	
6,896.0	2,909.4	2,999.2	2,999.1	85.9	114.7	90.94	1,353.1	5,174.4	1,081.6	882.1	199.52	5.421	
6,900.0	2,909.3	2,999.2	2,999.1	85.9	114.7	90.94	1,353.1	5,174.4	1,079.2	879.5	199.64	5.405	
6,921.0	2,909.1	2,999.0	2,998.9	86.3	114.7	90.93	1,353.1	5,174.4	1,066.3	866.0	200.30	5.323	
6,946.0	2,908.8	2,998.7	2,998.6	86.8	114.7	90.91	1,353.1	5,174.4	1,051.2	850.2	201.08	5.228	
6,971.0	2,908.6	2,998.5	2,998.4	87.3	114.7	90.89	1,353.1	5,174.4	1,036.6	834.8	201.85	5.135	
6,996.0	2,908.3	2,998.2	2,998.1	87.8	114.7	90.88	1,353.1	5,174.4	1,022.4	819.8	202.62	5.046	
7,000.0	2,908.2	2,998.2	2,998.1	87.8	114.7	90.87	1,353.1	5,174.4	1,020.2	817.4	202.75	5.032	
7,021.0	2,908.0	2,998.0	2,997.9	88.2	114.7	90.86	1,353.1	5,174.4	1,008.6	805.2	203.39	4.959	
7,046.0	2,907.8	2,997.7	2,997.6	88.7	114.7	90.84	1,353.1	5,174.4	995.2	791.1	204.14	4.875	
7,071.0	2,907.5	2,997.5	2,997.4	89.2	114.7	90.83	1,353.1	5,174.4	982.3	777.4	204.88	4.795	
7,096.0	2,907.2	2,997.2	2,997.1	89.7	114.7	90.81	1,353.1	5,174.4	969.9	764.3	205.60	4.717	
7,100.0	2,907.2	2,997.2	2,997.1	89.8	114.6	90.81	1,353.1	5,174.4	967.9	762.2	205.71	4.705	
7,121.0	2,907.0	2,997.0	2,996.9	90.2	114.6	90.79	1,353.1	5,174.4	957.9	751.6	206.30	4.643	
7,146.0	2,906.7	2,996.8	2,996.7	90.6	114.6	90.78	1,353.1	5,174.4	946.5	739.5	206.97	4.573	
7,171.0	2,906.4	2,996.5	2,996.4	91.1	114.6	90.76	1,353.1	5,174.4	935.5	727.9	207.62	4.506	
7,196.0	2,906.2	2,996.3	2,996.2	91.6	114.6	90.74	1,353.1	5,174.4	925.2	716.9	208.24	4.443	
7,200.0	2,906.1	2,996.2	2,996.1	91.7	114.6	90.74	1,353.1	5,174.4	923.6	715.2	208.33	4.433	
7,221.0	2,905.9	2,996.0	2,995.9	92.1	114.6	90.73	1,353.1	5,174.4	915.4	706.6	208.82	4.384	
7,246.0	2,905.6	2,995.8	2,995.7	92.6	114.6	90.71	1,353.1	5,174.4	906.2	696.8	209.36	4.328	
7,271.0	2,905.4	2,995.5	2,995.4	93.1	114.6	90.69	1,353.1	5,174.4	897.5	687.7	209.85	4.277	
7,296.0	2,905.1	2,995.3	2,995.2	93.6	114.6	90.68	1,353.1	5,174.4	889.5	679.2	210.30	4.230	
7,300.0	2,905.0	2,995.2	2,995.2	93.7	114.6	90.68	1,353.1	5,174.4	888.3	677.9	210.37	4.223	
7,321.0	2,904.8	2,995.0	2,994.9	94.1	114.6	90.66	1,353.1	5,174.4	882.2	671.5	210.70	4.187	
7,346.0	2,904.6	2,994.8	2,994.7	94.6	114.6	90.65	1,353.1	5,174.4	875.5	664.4	211.04	4.148	
7,371.0	2,904.3	2,994.6	2,994.5	95.1	114.5	90.63	1,353.1	5,174.4	869.4	658.1	211.32	4.114	
7,396.0	2,904.0	2,994.3	2,994.2	95.6	114.5	90.61	1,353.0	5,174.4	864.1	652.5	211.54	4.085	
7,400.0	2,904.0	2,994.3	2,994.2	95.7	114.5	90.61	1,353.0	5,174.4	863.3	651.7	211.57	4.080	
7,421.0	2,903.8	2,994.1	2,994.0	96.1	114.5	90.60	1,353.0	5,174.4	859.4	647.7	211.70	4.060	
7,446.0	2,903.5	2,993.8	2,993.7	96.6	114.5	90.58	1,353.0	5,174.4	855.4	643.7	211.79	4.039	
7,471.0	2,903.2	2,993.6	2,993.5	97.1	114.5	90.56	1,353.0	5,174.4	852.2	640.4	211.80	4.024	
7,496.0	2,903.0	2,993.3	2,993.2	97.6	114.5	90.55	1,353.0	5,174.4	849.7	637.9	211.74	4.013	
7,500.0	2,902.9	2,993.3	2,993.2	97.7	114.5	90.54	1,353.0	5,174.4	849.3	637.6	211.73	4.011	
7,521.0	2,902.7	2,993.1	2,993.0	98.1	114.5	90.53	1,353.0	5,174.4	847.9	636.3	211.61	4.007	
7,546.0	2,902.4	2,992.8	2,992.7	98.6	114.5	90.51	1,353.0	5,174.4	846.8	635.4	211.41	4.006 SF	
7,569.4	2,902.2	2,992.6	2,992.5	99.1	114.5	90.50	1,353.0	5,174.4	846.5	635.3	211.15	4.009 CC, ES	
7,571.0	2,902.1	2,992.6	2,992.5	99.1	114.5	90.50	1,353.0	5,174.4	846.5	635.4	211.13	4.009	
7,596.0	2,901.9	2,992.4	2,992.3	99.6	114.5	90.48	1,353.0	5,174.4	846.9	636.1	210.78	4.018	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Halliburton

Anticollision Report

Company:	Hilcorp Energy Company	Local Co-ordinate Reference:	Well Southern Ute 701H
Project:	Farmington, NM	TVD Reference:	RKB to MSL= 6310ft @ 6310.0usft
Reference Site:	San Juan Basin	MD Reference:	RKB to MSL= 6310ft @ 6310.0usft
Site Error:	5.0 usft	North Reference:	Grid
Reference Well:	Southern Ute 701H	Survey Calculation Method:	Minimum Curvature
Well Error:	1.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Southern Ute 701H Lat.No.1	Database:	EDM 5000.17 Single User Db
Reference Design:	WP3	Offset TVD Reference:	Offset Datum

Offset Design: San Juan Basin - SOUTHERN UTE 701 - ST00 - ST00												Offset Site Error:	5.0 usft
Survey Program: 247-3_Unknown												Offset Well Error:	1.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
7,600.0	2,901.8	2,992.3	2,992.2	99.7	114.5	90.48	1,353.0	5,174.4	847.1	636.3	210.72	4.020	
7,621.0	2,901.6	2,992.1	2,992.0	100.1	114.4	90.46	1,353.0	5,174.4	848.1	637.7	210.36	4.031	
7,646.0	2,901.3	2,991.9	2,991.8	100.6	114.4	90.45	1,353.0	5,174.4	850.0	640.1	209.87	4.050	
7,671.0	2,901.1	2,991.6	2,991.5	101.2	114.4	90.43	1,353.0	5,174.4	852.6	643.3	209.31	4.073	
7,696.0	2,900.8	2,991.4	2,991.3	101.7	114.4	90.41	1,353.0	5,174.4	855.9	647.2	208.68	4.101	
7,700.0	2,900.8	2,991.3	2,991.2	101.7	114.4	90.41	1,353.0	5,174.4	856.5	647.9	208.58	4.106	
7,721.0	2,900.5	2,991.1	2,991.0	102.2	114.4	90.40	1,353.0	5,174.4	860.0	652.0	208.00	4.135	
7,746.0	2,900.3	2,990.9	2,990.8	102.7	114.4	90.38	1,353.0	5,174.4	864.7	657.5	207.25	4.172	
7,771.0	2,900.0	2,990.6	2,990.5	103.2	114.4	90.36	1,353.0	5,174.4	870.2	663.7	206.45	4.215	
7,796.0	2,899.7	2,990.4	2,990.3	103.7	114.4	90.35	1,353.0	5,174.4	876.3	670.7	205.61	4.262	
7,800.0	2,899.7	2,990.4	2,990.3	103.8	114.4	90.34	1,353.0	5,174.4	877.3	671.9	205.47	4.270	
7,821.0	2,899.5	2,990.1	2,990.1	104.3	114.4	90.33	1,353.0	5,174.4	883.1	678.4	204.71	4.314	
7,846.0	2,899.2	2,989.9	2,989.8	104.8	114.4	90.31	1,353.0	5,174.4	890.5	686.8	203.78	4.370	
7,871.0	2,898.9	2,989.7	2,989.6	105.3	114.3	90.30	1,353.0	5,174.4	898.6	695.8	202.81	4.431	
7,896.0	2,898.7	2,989.4	2,989.3	105.8	114.3	90.28	1,353.0	5,174.4	907.3	705.5	201.81	4.496	
7,900.0	2,898.6	2,989.4	2,989.3	105.9	114.3	90.28	1,353.0	5,174.4	908.8	707.1	201.64	4.507	
7,921.0	2,898.4	2,989.2	2,989.1	106.3	114.3	90.26	1,353.0	5,174.4	916.6	715.8	200.78	4.565	
7,946.0	2,898.1	2,988.9	2,988.8	106.9	114.3	90.25	1,353.0	5,174.4	926.5	726.8	199.73	4.639	
7,971.0	2,897.9	2,988.7	2,988.6	107.4	114.3	90.23	1,353.0	5,174.4	936.9	738.3	198.66	4.716	
7,996.0	2,897.6	2,988.4	2,988.3	107.9	114.3	90.21	1,353.0	5,174.4	947.9	750.3	197.58	4.798	
8,000.0	2,897.6	2,988.4	2,988.3	108.0	114.3	90.21	1,353.0	5,174.4	949.7	752.3	197.40	4.811	
8,021.0	2,897.3	2,988.2	2,988.1	108.5	114.3	90.20	1,353.0	5,174.4	959.4	762.9	196.48	4.883	
8,046.0	2,897.1	2,987.9	2,987.9	109.0	114.3	90.18	1,353.0	5,174.4	971.4	776.1	195.39	4.972	
8,071.0	2,896.8	2,987.7	2,987.6	109.5	114.3	90.17	1,353.0	5,174.4	984.0	789.7	194.28	5.065	
8,096.0	2,896.5	2,987.5	2,987.4	110.0	114.3	90.15	1,353.0	5,174.4	996.9	803.7	193.18	5.161	
8,100.0	2,896.5	2,987.4	2,987.3	110.1	114.3	90.15	1,353.0	5,174.4	999.0	806.0	193.01	5.176	
8,121.0	2,896.3	2,987.2	2,987.1	110.6	114.2	90.13	1,353.0	5,174.4	1,010.4	818.3	192.08	5.260	
8,146.0	2,896.0	2,987.0	2,986.9	111.1	114.2	90.12	1,353.0	5,174.4	1,024.2	833.2	190.99	5.363	
8,171.0	2,895.7	2,986.7	2,986.6	111.6	114.2	90.10	1,353.0	5,174.4	1,038.5	848.6	189.91	5.468	
8,196.0	2,895.5	2,986.5	2,986.4	112.2	114.2	90.08	1,353.0	5,174.4	1,053.2	864.3	188.83	5.577	
8,200.0	2,895.4	2,986.4	2,986.3	112.3	114.2	90.08	1,353.0	5,174.4	1,055.6	866.9	188.66	5.595	
8,221.0	2,895.2	2,986.2	2,986.1	112.7	114.2	90.07	1,353.0	5,174.4	1,068.2	880.5	187.77	5.689	
8,246.0	2,894.9	2,986.0	2,985.9	113.2	114.2	90.05	1,353.0	5,174.4	1,083.7	896.9	186.73	5.804	
8,271.0	2,894.7	2,985.7	2,985.6	113.8	114.2	90.03	1,353.0	5,174.4	1,099.5	913.8	185.69	5.921	
8,296.0	2,894.4	2,985.5	2,985.4	114.3	114.2	90.02	1,353.0	5,174.4	1,115.6	930.9	184.68	6.041	
8,300.0	2,894.4	2,985.5	2,985.4	114.4	114.2	90.01	1,353.0	5,174.4	1,118.2	933.7	184.52	6.060	
8,321.0	2,894.1	2,985.3	2,985.2	114.9	114.2	90.00	1,353.0	5,174.4	1,132.0	948.3	183.68	6.163	
8,346.0	2,893.9	2,985.0	2,984.9	115.4	114.2	89.98	1,353.0	5,174.4	1,148.8	966.1	182.70	6.288	
8,371.0	2,893.6	2,984.8	2,984.7	115.9	114.2	89.97	1,353.0	5,174.4	1,165.8	984.1	181.74	6.415	
8,396.0	2,893.3	2,984.5	2,984.4	116.5	114.1	89.95	1,353.0	5,174.4	1,183.1	1,002.3	180.80	6.544	
8,400.0	2,893.3	2,984.5	2,984.4	116.6	114.1	89.95	1,353.0	5,174.4	1,185.9	1,005.3	180.65	6.565	
8,421.0	2,893.1	2,984.3	2,984.2	117.0	114.1	89.93	1,353.0	5,174.4	1,200.7	1,020.9	179.88	6.675	
8,427.6	2,893.0	2,984.2	2,984.1	117.2	114.1	89.93	1,353.0	5,174.4	1,205.4	1,025.8	179.64	6.710	

Halliburton

Anticollision Report

Company:	Hilcorp Energy Company	Local Co-ordinate Reference:	Well Southern Ute 701H
Project:	Farmington, NM	TVD Reference:	RKB to MSL= 6310ft @ 6310.0usft
Reference Site:	San Juan Basin	MD Reference:	RKB to MSL= 6310ft @ 6310.0usft
Site Error:	5.0 usft	North Reference:	Grid
Reference Well:	Southern Ute 701H	Survey Calculation Method:	Minimum Curvature
Well Error:	1.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Southern Ute 701H Lat.No.1	Database:	EDM 5000.17 Single User Db
Reference Design:	WP3	Offset TVD Reference:	Offset Datum

Offset Design: San Juan Basin - Southern Ute 701H - Pilot Hole - WP3													Offset Site Error: 5.0 usft
Survey Program: 0-3_MWD+HRGM													Offset Well Error: 1.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,400.0	2,868.3	4,400.0	2,868.3	5.2	5.2	-135.04	1,724.4	2,091.9	0.0	-2.3	2.26	0.002	Collision RiskProcedures Req'd, CC, S
4,421.0	2,877.1	4,421.0	2,877.2	5.3	5.3	-135.24	1,736.6	2,106.6	0.2	-3.0	3.16	0.052	Collision RiskProcedures Req'd
4,436.0	2,883.2	4,436.0	2,883.5	5.3	5.3	-135.38	1,745.2	2,117.1	0.4	-3.1	3.56	0.118	Collision RiskProcedures Req'd, ES
4,446.0	2,887.2	4,446.0	2,887.7	5.3	5.3	-137.94	1,751.0	2,124.1	0.7	-3.0	3.76	0.191	Collision RiskProcedures Req'd
4,450.0	2,888.8	4,450.0	2,889.4	5.3	5.3	-139.38	1,753.3	2,126.9	0.9	-2.9	3.83	0.233	Collision RiskProcedures Req'd
4,471.0	2,896.5	4,470.9	2,898.2	5.3	5.3	-145.10	1,765.4	2,141.6	2.3	-1.8	4.14	0.555	Collision RiskProcedures Req'd
4,496.0	2,904.8	4,495.8	2,908.7	5.4	5.3	-148.54	1,779.7	2,159.0	5.1	0.5	4.52	1.121	Collision RiskProcedures Req'd
4,500.0	2,906.0	4,499.7	2,910.3	5.4	5.3	-148.91	1,782.0	2,161.7	5.6	1.0	4.60	1.223	Collision RiskProcedures Req'd
4,521.0	2,912.1	4,520.5	2,919.1	5.4	5.4	-150.42	1,794.0	2,176.2	9.0	3.9	5.09	1.775	Collision RiskProcedures Req'd
4,546.0	2,918.3	4,544.9	2,929.4	5.5	5.4	-151.61	1,808.1	2,193.4	14.2	8.5	5.63	2.517	
4,550.0	2,919.2	4,548.8	2,931.0	5.5	5.4	-151.77	1,810.3	2,196.1	15.1	9.4	5.73	2.637	
4,571.0	2,923.4	4,569.1	2,939.5	5.5	5.4	-152.44	1,822.0	2,210.3	20.5	14.3	6.14	3.337	
4,596.0	2,927.5	4,593.0	2,949.6	5.5	5.5	-153.03	1,835.8	2,227.0	27.9	21.3	6.62	4.223	
4,600.0	2,928.1	4,596.8	2,951.2	5.5	5.5	-153.11	1,838.0	2,229.6	29.2	22.5	6.70	4.361	
4,621.0	2,930.5	4,616.4	2,959.5	5.6	5.5	-153.46	1,849.3	2,243.4	36.5	29.4	7.16	5.104	
4,646.0	2,932.4	4,639.5	2,969.2	5.6	5.5	-153.77	1,862.6	2,259.5	46.2	38.6	7.69	6.016	
4,650.0	2,932.6	4,643.1	2,970.7	5.6	5.5	-153.81	1,864.7	2,262.1	47.9	40.1	7.78	6.155	
4,671.0	2,933.3	4,662.0	2,978.7	5.7	5.5	-153.97	1,875.6	2,275.3	57.1	48.9	8.19	6.970	
4,683.5	2,933.3	4,673.1	2,983.3	5.9	5.5	-154.04	1,882.0	2,283.1	62.9	54.4	8.43	7.460	
4,696.0	2,933.1	4,684.1	2,987.9	6.1	5.6	-154.12	1,888.4	2,290.8	68.8	60.2	8.65	7.953	
4,700.0	2,933.1	4,687.6	2,989.4	6.1	5.6	-154.15	1,890.4	2,293.2	70.7	62.0	8.72	8.109	
4,721.0	2,932.9	4,706.1	2,997.2	6.6	5.6	-154.25	1,901.0	2,306.2	80.7	71.6	9.09	8.878	
4,746.0	2,932.6	4,713.2	3,000.2	7.1	5.7	-154.28	1,905.1	2,311.1	93.7	84.2	9.52	9.842	
4,771.0	2,932.3	4,713.2	3,000.2	7.6	5.7	-154.28	1,905.1	2,311.1	110.8	100.6	10.20	10.856	
4,783.5	2,932.2	4,713.2	3,000.2	7.9	5.7	-154.28	1,905.1	2,311.1	120.3	109.8	10.54	11.421	
4,796.0	2,932.0	4,713.2	3,000.2	8.1	5.7	-154.66	1,905.1	2,311.1	130.4	119.5	10.84	12.029	
4,800.0	2,932.0	4,713.2	3,000.2	8.2	5.7	-154.80	1,905.1	2,311.1	133.7	122.8	10.93	12.231	
4,821.0	2,931.8	4,713.2	3,000.2	8.7	5.7	-155.58	1,905.1	2,311.1	151.6	140.3	11.35	13.359	
4,846.0	2,931.5	4,713.2	3,000.2	9.2	5.7	-156.70	1,905.1	2,311.1	173.9	162.2	11.75	14.806	
4,871.0	2,931.2	4,713.2	3,000.2	9.8	5.7	-158.05	1,905.1	2,311.1	196.9	184.9	12.06	16.330	
4,896.0	2,931.0	4,713.2	3,000.2	10.3	5.7	-159.63	1,905.1	2,311.1	220.4	208.1	12.31	17.908	
4,900.0	2,930.9	4,713.2	3,000.2	10.4	5.7	-159.91	1,905.1	2,311.1	224.2	211.9	12.34	18.163	
4,921.0	2,930.7	4,713.2	3,000.2	10.9	5.7	-161.46	1,905.1	2,311.1	244.2	231.7	12.51	19.521	
4,946.0	2,930.4	4,713.2	3,000.2	11.4	5.7	-163.54	1,905.1	2,311.1	268.2	255.6	12.68	21.158	
4,971.0	2,930.1	4,713.2	3,000.2	12.0	5.7	-165.89	1,905.1	2,311.1	292.5	279.6	12.82	22.811	
4,996.0	2,929.9	4,713.2	3,000.2	12.5	5.7	-168.52	1,905.1	2,311.1	316.8	303.9	12.94	24.475	
5,000.0	2,929.8	4,713.2	3,000.2	12.6	5.7	-168.97	1,905.1	2,311.1	320.7	307.8	12.96	24.742	
5,021.0	2,929.6	4,713.2	3,000.2	13.1	5.7	-171.43	1,905.1	2,311.1	341.3	328.2	13.05	26.146	
5,046.0	2,929.3	4,713.2	3,000.2	13.7	5.7	-174.61	1,905.1	2,311.1	365.8	352.7	13.15	27.821	
5,071.0	2,929.0	4,713.2	3,000.2	14.2	5.7	-178.06	1,905.1	2,311.1	390.4	377.2	13.24	29.498	
5,096.0	2,928.8	4,713.2	3,000.2	14.8	5.7	178.24	1,905.1	2,311.1	415.1	401.8	13.31	31.175	
5,100.0	2,928.7	4,713.2	3,000.2	14.9	5.7	177.63	1,905.1	2,311.1	419.0	405.7	13.33	31.443	
5,121.0	2,928.5	4,713.2	3,000.2	15.3	5.7	174.32	1,905.1	2,311.1	439.8	426.4	13.39	32.851	
5,146.0	2,928.2	4,713.2	3,000.2	15.9	5.7	170.23	1,905.1	2,311.1	464.5	451.0	13.45	34.524	
5,171.0	2,927.9	4,713.2	3,000.2	16.5	5.7	166.02	1,905.1	2,311.1	489.2	475.7	13.52	36.195	
5,196.0	2,927.7	4,713.2	3,000.2	17.0	5.7	161.75	1,905.1	2,311.1	514.0	500.4	13.57	37.863	
5,200.0	2,927.6	4,713.2	3,000.2	17.1	5.7	161.06	1,905.1	2,311.1	517.9	504.4	13.58	38.130	
5,221.0	2,927.4	4,713.2	3,000.2	17.6	5.7	157.48	1,905.1	2,311.1	538.8	525.1	13.63	39.527	
5,246.0	2,927.1	4,713.2	3,000.2	18.2	5.7	153.27	1,905.1	2,311.1	563.5	549.8	13.68	41.186	
5,271.0	2,926.8	4,713.2	3,000.2	18.8	5.7	149.19	1,905.1	2,311.1	588.3	574.6	13.73	42.841	
5,296.0	2,926.6	4,713.2	3,000.2	19.3	5.7	145.27	1,905.1	2,311.1	613.1	599.3	13.78	44.491	
5,300.0	2,926.5	4,713.2	3,000.2	19.4	5.7	144.66	1,905.1	2,311.1	617.0	603.3	13.79	44.756	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Halliburton

Anticollision Report

Company:	Hilcorp Energy Company	Local Co-ordinate Reference:	Well Southern Ute 701H
Project:	Farmington, NM	TVD Reference:	RKB to MSL= 6310ft @ 6310.0usft
Reference Site:	San Juan Basin	MD Reference:	RKB to MSL= 6310ft @ 6310.0usft
Site Error:	5.0 usft	North Reference:	Grid
Reference Well:	Southern Ute 701H	Survey Calculation Method:	Minimum Curvature
Well Error:	1.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Southern Ute 701H Lat.No.1	Database:	EDM 5000.17 Single User Db
Reference Design:	WP3	Offset TVD Reference:	Offset Datum

Offset Design: San Juan Basin - Southern Ute 701H - Pilot Hole - WP3												Offset Site Error: 5.0 usft	
Survey Program: 0-3_MWD+HRGM				Rule Assigned:								Offset Well Error: 1.0 usft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance			Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)		
5,321.0	2,926.3	4,713.2	3,000.2	19.9	5.7	141.55	1,905.1	2,311.1	637.9	624.0	13.83	46.136	
5,346.0	2,926.0	4,713.2	3,000.2	20.5	5.7	138.05	1,905.1	2,311.1	662.6	648.8	13.87	47.776	
5,371.0	2,925.7	4,713.2	3,000.2	21.0	5.7	134.79	1,905.1	2,311.1	687.4	673.5	13.91	49.410	
5,396.0	2,925.5	4,713.2	3,000.2	21.6	5.7	131.77	1,905.1	2,311.1	712.2	698.2	13.95	51.039	
5,400.0	2,925.4	4,713.2	3,000.2	21.7	5.7	131.30	1,905.1	2,311.1	716.1	702.2	13.96	51.301	
5,421.0	2,925.2	4,713.2	3,000.2	22.2	5.7	128.97	1,905.1	2,311.1	736.9	722.9	13.99	52.663	
5,446.0	2,924.9	4,713.2	3,000.2	22.8	5.7	126.40	1,905.1	2,311.1	761.6	747.6	14.03	54.280	
5,471.0	2,924.6	4,713.2	3,000.2	23.3	5.7	124.04	1,905.1	2,311.1	786.3	772.3	14.07	55.892	
5,496.0	2,924.4	4,713.2	3,000.2	23.9	5.7	121.88	1,905.1	2,311.1	811.0	796.9	14.11	57.499	
5,500.0	2,924.3	4,713.2	3,000.2	24.0	5.7	121.55	1,905.1	2,311.1	815.0	800.9	14.11	57.757	
5,521.0	2,924.1	4,713.2	3,000.2	24.5	5.7	119.90	1,905.1	2,311.1	835.7	821.6	14.14	59.099	
5,546.0	2,923.8	4,713.2	3,000.2	25.1	5.7	118.08	1,905.1	2,311.1	860.4	846.2	14.18	60.693	
5,571.0	2,923.5	4,713.2	3,000.2	25.7	5.7	116.41	1,905.1	2,311.1	885.0	870.8	14.21	62.282	
5,596.0	2,923.3	4,713.2	3,000.2	26.2	5.7	114.89	1,905.1	2,311.1	909.7	895.4	14.24	63.865	
5,600.0	2,923.2	4,713.2	3,000.2	26.3	5.7	114.65	1,905.1	2,311.1	913.6	899.3	14.25	64.120	
5,621.0	2,923.0	4,713.2	3,000.2	26.8	5.7	113.48	1,905.1	2,311.1	934.3	920.0	14.28	65.442	
5,646.0	2,922.7	4,713.2	3,000.2	27.4	5.7	112.20	1,905.1	2,311.1	958.8	944.5	14.31	67.012	
5,671.0	2,922.5	4,713.2	3,000.2	28.0	5.7	111.01	1,905.1	2,311.1	983.4	969.0	14.34	68.577	
5,696.0	2,922.2	4,713.2	3,000.2	28.5	5.7	109.91	1,905.1	2,311.1	1,007.9	993.5	14.37	70.135	
5,700.0	2,922.1	4,713.2	3,000.2	28.6	5.7	109.75	1,905.1	2,311.1	1,011.8	997.5	14.38	70.387	
5,721.0	2,921.9	4,713.2	3,000.2	29.1	5.7	108.90	1,905.1	2,311.1	1,032.4	1,018.0	14.40	71.689	
5,746.0	2,921.6	4,713.2	3,000.2	29.7	5.7	107.97	1,905.1	2,311.1	1,056.9	1,042.5	14.43	73.234	
5,771.0	2,921.4	4,713.2	3,000.2	30.3	5.7	107.11	1,905.1	2,311.1	1,081.3	1,066.9	14.46	74.775	
5,796.0	2,921.1	4,713.2	3,000.2	30.9	5.7	106.30	1,905.1	2,311.1	1,105.7	1,091.3	14.49	76.309	
5,803.5	2,921.0	4,713.2	3,000.2	31.0	5.7	106.08	1,905.1	2,311.1	1,113.0	1,098.5	14.50	76.769	
5,821.0	2,920.8	4,713.2	3,000.2	31.4	5.7	106.08	1,905.1	2,311.1	1,130.1	1,115.6	14.52	77.837	
5,846.0	2,920.6	4,713.2	3,000.2	32.0	5.7	106.08	1,905.1	2,311.1	1,154.6	1,140.0	14.55	79.353	
5,871.0	2,920.3	4,713.2	3,000.2	32.6	5.7	106.08	1,905.1	2,311.1	1,179.0	1,164.4	14.58	80.867	
5,896.0	2,920.0	4,713.2	3,000.2	33.2	5.7	106.08	1,905.1	2,311.1	1,203.5	1,188.9	14.61	82.378	
5,900.0	2,920.0	4,713.2	3,000.2	33.3	5.7	106.08	1,905.1	2,311.1	1,207.4	1,192.8	14.61	82.619	
5,921.0	2,919.8	4,713.2	3,000.2	33.8	5.7	106.08	1,905.1	2,311.1	1,228.0	1,213.3	14.64	83.885	
5,946.0	2,919.5	4,713.2	3,000.2	34.3	5.7	106.08	1,905.1	2,311.1	1,252.5	1,237.8	14.67	85.389	
5,971.0	2,919.2	4,713.2	3,000.2	34.9	5.7	106.08	1,905.1	2,311.1	1,277.0	1,262.3	14.70	86.889	
5,996.0	2,919.0	4,713.2	3,000.2	35.5	5.7	106.08	1,905.1	2,311.1	1,301.6	1,286.8	14.73	88.386	
6,000.0	2,918.9	4,713.2	3,000.2	35.6	5.7	106.08	1,905.1	2,311.1	1,305.5	1,290.8	14.73	88.625	
6,021.0	2,918.7	4,713.2	3,000.2	36.1	5.7	106.08	1,905.1	2,311.1	1,326.1	1,311.4	14.75	89.879	
6,046.0	2,918.4	4,713.2	3,000.2	36.7	5.7	106.08	1,905.1	2,311.1	1,350.7	1,335.9	14.78	91.369	
6,071.0	2,918.2	4,713.2	3,000.2	37.3	5.7	106.08	1,905.1	2,311.1	1,375.3	1,360.5	14.81	92.855	
6,096.0	2,917.9	4,713.2	3,000.2	37.8	5.7	106.08	1,905.1	2,311.1	1,399.9	1,385.1	14.84	94.337	
6,100.0	2,917.9	4,713.2	3,000.2	37.9	5.7	106.08	1,905.1	2,311.1	1,403.9	1,389.0	14.84	94.573	
6,121.0	2,917.6	4,713.2	3,000.2	38.4	5.7	106.08	1,905.1	2,311.1	1,424.5	1,409.7	14.87	95.815	
6,146.0	2,917.4	4,713.2	3,000.2	39.0	5.7	106.08	1,905.1	2,311.1	1,449.2	1,434.3	14.90	97.289	
6,171.0	2,917.1	4,713.2	3,000.2	39.6	5.7	106.08	1,905.1	2,311.1	1,473.8	1,458.9	14.92	98.759	
6,196.0	2,916.8	4,713.2	3,000.2	40.2	5.7	106.08	1,905.1	2,311.1	1,498.5	1,483.5	14.95	100.225	
6,200.0	2,916.8	4,713.2	3,000.2	40.3	5.7	106.08	1,905.1	2,311.1	1,502.4	1,487.5	14.96	100.459	
6,221.0	2,916.6	4,713.2	3,000.2	40.8	5.7	106.08	1,905.1	2,311.1	1,523.2	1,508.2	14.98	101.687	
6,246.0	2,916.3	4,713.2	3,000.2	41.4	5.7	106.08	1,905.1	2,311.1	1,547.8	1,532.8	15.01	103.146	
6,271.0	2,916.0	4,713.2	3,000.2	42.0	5.7	106.08	1,905.1	2,311.1	1,572.5	1,557.5	15.03	104.600	
6,296.0	2,915.8	4,713.2	3,000.2	42.6	5.7	106.08	1,905.1	2,311.1	1,597.2	1,582.2	15.06	106.050	
6,300.0	2,915.7	4,713.2	3,000.2	42.6	5.7	106.08	1,905.1	2,311.1	1,601.2	1,586.1	15.07	106.281	
6,321.0	2,915.5	4,713.2	3,000.2	43.1	5.7	106.08	1,905.1	2,311.1	1,621.9	1,606.9	15.09	107.496	
6,346.0	2,915.2	4,713.2	3,000.2	43.7	5.7	106.08	1,905.1	2,311.1	1,646.7	1,631.6	15.12	108.937	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Halliburton

Anticollision Report

Company:	Hilcorp Energy Company	Local Co-ordinate Reference:	Well Southern Ute 701H
Project:	Farmington, NM	TVD Reference:	RKB to MSL= 6310ft @ 6310.0usft
Reference Site:	San Juan Basin	MD Reference:	RKB to MSL= 6310ft @ 6310.0usft
Site Error:	5.0 usft	North Reference:	Grid
Reference Well:	Southern Ute 701H	Survey Calculation Method:	Minimum Curvature
Well Error:	1.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Southern Ute 701H Lat.No.1	Database:	EDM 5000.17 Single User Db
Reference Design:	WP3	Offset TVD Reference:	Offset Datum

Offset Design: San Juan Basin - Southern Ute 701H - Pilot Hole - WP3												Offset Site Error:	5.0 usft
Survey Program: 0-3_MWD+HRGM												Offset Well Error:	1.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
							+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
6,371.0	2,915.0	4,713.2	3,000.2	44.3	5.7	106.08	1,905.1	2,311.1	1,671.4	1,656.3	15.14	110.375	
6,396.0	2,914.7	4,713.2	3,000.2	44.9	5.7	106.08	1,905.1	2,311.1	1,696.1	1,681.0	15.17	111.808	
6,400.0	2,914.7	4,713.2	3,000.2	45.0	5.7	106.08	1,905.1	2,311.1	1,700.1	1,684.9	15.17	112.037	
6,421.0	2,914.4	4,713.2	3,000.2	45.5	5.7	106.08	1,905.1	2,311.1	1,720.9	1,705.7	15.20	113.237	
6,446.0	2,914.2	4,713.2	3,000.2	46.1	5.7	106.08	1,905.1	2,311.1	1,745.6	1,730.4	15.22	114.662	
6,471.0	2,913.9	4,713.2	3,000.2	46.7	5.7	106.08	1,905.1	2,311.1	1,770.4	1,755.1	15.25	116.083	
6,496.0	2,913.6	4,713.2	3,000.2	47.3	5.7	106.08	1,905.1	2,311.1	1,795.1	1,779.9	15.28	117.499	
6,500.0	2,913.6	4,713.2	3,000.2	47.4	5.7	106.08	1,905.1	2,311.1	1,799.1	1,783.8	15.28	117.725	
6,521.0	2,913.4	4,713.2	3,000.2	47.9	5.7	106.08	1,905.1	2,311.1	1,819.9	1,804.6	15.30	118.911	
6,546.0	2,913.1	4,713.2	3,000.2	48.5	5.7	106.08	1,905.1	2,311.1	1,844.7	1,829.4	15.33	120.319	
6,571.0	2,912.8	4,713.2	3,000.2	49.1	5.7	106.08	1,905.1	2,311.1	1,869.5	1,854.1	15.36	121.723	
6,596.0	2,912.6	4,713.2	3,000.2	49.7	5.7	106.08	1,905.1	2,311.1	1,894.3	1,878.9	15.39	123.122	
6,600.0	2,912.5	4,713.2	3,000.2	49.8	5.7	106.08	1,905.1	2,311.1	1,898.2	1,882.8	15.39	123.346	
6,621.0	2,912.3	4,713.2	3,000.2	50.3	5.7	106.08	1,905.1	2,311.1	1,919.1	1,903.7	15.41	124.517	
6,646.0	2,912.0	4,713.2	3,000.2	50.9	5.7	106.08	1,905.1	2,311.1	1,943.9	1,928.4	15.44	125.908	
6,671.0	2,911.8	4,713.2	3,000.2	51.5	5.7	106.08	1,905.1	2,311.1	1,968.7	1,953.2	15.47	127.295	
6,696.0	2,911.5	4,713.2	3,000.2	52.1	5.7	106.08	1,905.1	2,311.1	1,993.5	1,978.0	15.49	128.677	
6,700.0	2,911.5	4,713.2	3,000.2	52.2	5.7	106.08	1,905.1	2,311.1	1,997.4	1,981.9	15.50	128.898	
6,721.0	2,911.2	4,713.2	3,000.2	52.7	5.7	106.08	1,905.1	2,311.1	2,018.3	2,002.8	15.52	130.055	
6,746.0	2,911.0	4,713.2	3,000.2	53.2	5.7	106.08	1,905.1	2,311.1	2,043.1	2,027.6	15.55	131.429	
6,771.0	2,910.7	4,713.2	3,000.2	53.8	5.7	106.08	1,905.1	2,311.1	2,067.9	2,052.4	15.57	132.798	
6,796.0	2,910.4	4,713.2	3,000.2	54.4	5.7	106.08	1,905.1	2,311.1	2,092.8	2,077.2	15.60	134.163	
6,800.0	2,910.4	4,713.2	3,000.2	54.5	5.7	106.08	1,905.1	2,311.1	2,096.7	2,081.1	15.60	134.381	
6,821.0	2,910.2	4,713.2	3,000.2	55.0	5.7	106.08	1,905.1	2,311.1	2,117.6	2,102.0	15.63	135.524	
6,846.0	2,909.9	4,713.2	3,000.2	55.6	5.7	106.08	1,905.1	2,311.1	2,142.4	2,126.8	15.65	136.881	
6,871.0	2,909.6	4,713.2	3,000.2	56.2	5.7	106.08	1,905.1	2,311.1	2,167.3	2,151.6	15.68	138.233	
6,896.0	2,909.4	4,713.2	3,000.2	56.8	5.7	106.08	1,905.1	2,311.1	2,192.1	2,176.4	15.70	139.581	
6,900.0	2,909.3	4,713.2	3,000.2	56.9	5.7	106.08	1,905.1	2,311.1	2,196.1	2,180.4	15.71	139.796	
6,921.0	2,909.1	4,713.2	3,000.2	57.4	5.7	106.08	1,905.1	2,311.1	2,217.0	2,201.2	15.73	140.925	
6,946.0	2,908.8	4,713.2	3,000.2	58.0	5.7	106.08	1,905.1	2,311.1	2,241.8	2,226.0	15.76	142.264	
6,971.0	2,908.6	4,713.2	3,000.2	58.6	5.7	106.08	1,905.1	2,311.1	2,266.7	2,250.9	15.78	143.600	
6,996.0	2,908.3	4,713.2	3,000.2	59.2	5.7	106.08	1,905.1	2,311.1	2,291.5	2,275.7	15.81	144.931	
7,000.0	2,908.2	4,713.2	3,000.2	59.3	5.7	106.08	1,905.1	2,311.1	2,295.5	2,279.7	15.82	145.143	
7,021.0	2,908.0	4,713.2	3,000.2	59.8	5.7	106.08	1,905.1	2,311.1	2,316.4	2,300.5	15.84	146.258	
7,046.0	2,907.8	4,713.2	3,000.2	60.4	5.7	106.08	1,905.1	2,311.1	2,341.2	2,325.4	15.86	147.580	
7,071.0	2,907.5	4,713.2	3,000.2	61.0	5.7	106.08	1,905.1	2,311.1	2,366.1	2,350.2	15.89	148.899	
7,096.0	2,907.2	4,713.2	3,000.2	61.6	5.7	106.08	1,905.1	2,311.1	2,391.0	2,375.1	15.92	150.213	
7,100.0	2,907.2	4,713.2	3,000.2	61.7	5.7	106.08	1,905.1	2,311.1	2,394.9	2,379.0	15.92	150.423	
7,121.0	2,907.0	4,713.2	3,000.2	62.2	5.7	106.08	1,905.1	2,311.1	2,415.8	2,399.9	15.94	151.523	
7,146.0	2,906.7	4,713.2	3,000.2	62.8	5.7	106.08	1,905.1	2,311.1	2,440.7	2,424.7	15.97	152.829	
7,171.0	2,906.4	4,713.2	3,000.2	63.4	5.7	106.08	1,905.1	2,311.1	2,465.6	2,449.6	16.00	154.130	
7,196.0	2,906.2	4,713.2	3,000.2	64.0	5.7	106.08	1,905.1	2,311.1	2,490.5	2,474.4	16.02	155.428	
7,200.0	2,906.1	4,713.2	3,000.2	64.1	5.7	106.08	1,905.1	2,311.1	2,494.4	2,478.4	16.03	155.635	
7,221.0	2,905.9	4,713.2	3,000.2	64.6	5.7	106.08	1,905.1	2,311.1	2,515.3	2,499.3	16.05	156.721	
7,246.0	2,905.6	4,713.2	3,000.2	65.2	5.7	106.08	1,905.1	2,311.1	2,540.2	2,524.2	16.08	158.010	
7,271.0	2,905.4	4,713.2	3,000.2	65.8	5.7	106.08	1,905.1	2,311.1	2,565.1	2,549.0	16.10	159.295	
7,296.0	2,905.1	4,713.2	3,000.2	66.4	5.7	106.08	1,905.1	2,311.1	2,590.0	2,573.9	16.13	160.576	
7,300.0	2,905.0	4,713.2	3,000.2	66.5	5.7	106.08	1,905.1	2,311.1	2,594.0	2,577.9	16.13	160.781	
7,321.0	2,904.8	4,713.2	3,000.2	67.0	5.7	106.08	1,905.1	2,311.1	2,614.9	2,598.7	16.16	161.853	
7,346.0	2,904.6	4,713.2	3,000.2	67.6	5.7	106.08	1,905.1	2,311.1	2,639.8	2,623.6	16.18	163.125	
7,371.0	2,904.3	4,713.2	3,000.2	68.2	5.7	106.08	1,905.1	2,311.1	2,664.7	2,648.5	16.21	164.394	
7,396.0	2,904.0	4,713.2	3,000.2	68.8	5.7	106.08	1,905.1	2,311.1	2,689.6	2,673.3	16.24	165.658	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Halliburton

Anticollision Report

Company:	Hilcorp Energy Company	Local Co-ordinate Reference:	Well Southern Ute 701H
Project:	Farmington, NM	TVD Reference:	RKB to MSL= 6310ft @ 6310.0usft
Reference Site:	San Juan Basin	MD Reference:	RKB to MSL= 6310ft @ 6310.0usft
Site Error:	5.0 usft	North Reference:	Grid
Reference Well:	Southern Ute 701H	Survey Calculation Method:	Minimum Curvature
Well Error:	1.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Southern Ute 701H Lat.No.1	Database:	EDM 5000.17 Single User Db
Reference Design:	WP3	Offset TVD Reference:	Offset Datum

Offset Design: San Juan Basin - Southern Ute 701H - Pilot Hole - WP3												Offset Site Error:	5.0 usft
Survey Program: 0-3_MWD+HRGM												Offset Well Error:	1.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
7,400.0	2,904.0	4,713.2	3,000.2	68.9	5.7	106.08	1,905.1	2,311.1	2,693.6	2,677.3	16.24	165.860	
7,421.0	2,903.8	4,713.2	3,000.2	69.4	5.7	106.08	1,905.1	2,311.1	2,714.5	2,698.2	16.26	166.919	
7,446.0	2,903.5	4,713.2	3,000.2	70.0	5.7	106.08	1,905.1	2,311.1	2,739.4	2,723.1	16.29	168.175	
7,471.0	2,903.2	4,713.2	3,000.2	70.6	5.7	106.08	1,905.1	2,311.1	2,764.3	2,748.0	16.32	169.427	
7,496.0	2,903.0	4,713.2	3,000.2	71.2	5.7	106.08	1,905.1	2,311.1	2,789.2	2,772.8	16.34	170.675	
7,500.0	2,902.9	4,713.2	3,000.2	71.3	5.7	106.08	1,905.1	2,311.1	2,793.2	2,776.8	16.35	170.874	
7,521.0	2,902.7	4,713.2	3,000.2	71.8	5.7	106.08	1,905.1	2,311.1	2,814.1	2,797.7	16.37	171.919	
7,546.0	2,902.4	4,713.2	3,000.2	72.4	5.7	106.08	1,905.1	2,311.1	2,839.0	2,822.6	16.40	173.159	
7,571.0	2,902.1	4,713.2	3,000.2	73.0	5.7	106.08	1,905.1	2,311.1	2,863.9	2,847.5	16.42	174.395	
7,596.0	2,901.9	4,713.2	3,000.2	73.6	5.7	106.08	1,905.1	2,311.1	2,888.8	2,872.4	16.45	175.627	
7,600.0	2,901.8	4,713.2	3,000.2	73.7	5.7	106.08	1,905.1	2,311.1	2,892.8	2,876.3	16.45	175.824	
7,621.0	2,901.6	4,713.2	3,000.2	74.2	5.7	106.08	1,905.1	2,311.1	2,913.7	2,897.2	16.48	176.856	
7,646.0	2,901.3	4,713.2	3,000.2	74.8	5.7	106.08	1,905.1	2,311.1	2,938.6	2,922.1	16.50	178.080	
7,671.0	2,901.1	4,713.2	3,000.2	75.4	5.7	106.08	1,905.1	2,311.1	2,963.5	2,947.0	16.53	179.300	
7,696.0	2,900.8	4,713.2	3,000.2	76.0	5.7	106.08	1,905.1	2,311.1	2,988.5	2,971.9	16.56	180.516	
7,700.0	2,900.8	4,713.2	3,000.2	76.1	5.7	106.08	1,905.1	2,311.1	2,992.4	2,975.9	16.56	180.710	

Halliburton
Anticollision Report

Company:	Hilcorp Energy Company	Local Co-ordinate Reference:	Well Southern Ute 701H
Project:	Farmington, NM	TVD Reference:	RKB to MSL= 6310ft @ 6310.0usft
Reference Site:	San Juan Basin	MD Reference:	RKB to MSL= 6310ft @ 6310.0usft
Site Error:	5.0 usft	North Reference:	Grid
Reference Well:	Southern Ute 701H	Survey Calculation Method:	Minimum Curvature
Well Error:	1.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Southern Ute 701H Lat.No.1	Database:	EDM 5000.17 Single User Db
Reference Design:	WP3	Offset TVD Reference:	Offset Datum

Offset Design: San Juan Basin - UTE 001X - ST00 - ST00													Offset Site Error: 5.0 usft
Survey Program: 7920-3_Blind													Offset Well Error: 1.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
4,396.0	2,866.7	3,252.7	3,252.7	51.1	2,272.5	75.66	1,425.7	2,938.8	899.9	-1,419.1	2,318.94	0.388	Collision RiskProcedures Req'd
4,400.0	2,868.3	3,254.3	3,254.3	51.2	2,273.7	75.76	1,425.7	2,938.8	898.0	-1,422.3	2,320.28	0.387	Collision RiskProcedures Req'd
4,421.0	2,877.1	3,263.1	3,263.1	51.3	2,279.8	76.29	1,425.7	2,938.8	888.2	-1,438.8	2,326.96	0.382	Collision RiskProcedures Req'd
4,436.0	2,883.2	3,269.2	3,269.2	51.4	2,284.1	76.67	1,425.7	2,938.8	881.3	-1,450.4	2,331.66	0.378	Collision RiskProcedures Req'd
4,446.0	2,887.2	3,273.2	3,273.2	51.5	2,286.9	77.15	1,425.7	2,938.8	876.7	-1,458.1	2,334.72	0.375	Collision RiskProcedures Req'd
4,450.0	2,888.8	3,274.8	3,274.8	51.5	2,288.0	77.35	1,425.7	2,938.8	874.8	-1,461.1	2,335.92	0.375	Collision RiskProcedures Req'd
4,471.0	2,896.5	3,282.5	3,282.5	51.7	2,293.4	78.43	1,425.7	2,938.8	865.0	-1,476.9	2,341.90	0.369	Collision RiskProcedures Req'd
4,496.0	2,904.8	3,290.8	3,290.8	51.9	2,299.2	79.78	1,425.7	2,938.8	853.1	-1,495.2	2,348.38	0.363	Collision RiskProcedures Req'd
4,500.0	2,906.0	3,292.0	3,292.0	51.9	2,300.1	80.00	1,425.7	2,938.8	851.2	-1,498.1	2,349.34	0.362	Collision RiskProcedures Req'd
4,521.0	2,912.1	3,298.1	3,298.1	52.1	2,304.3	81.18	1,425.7	2,938.8	841.2	-1,513.0	2,354.13	0.357	Collision RiskProcedures Req'd
4,546.0	2,918.3	3,304.3	3,304.3	52.3	2,308.6	82.61	1,425.7	2,938.8	829.1	-1,530.0	2,359.15	0.351	Collision RiskProcedures Req'd
4,550.0	2,919.2	3,305.2	3,305.2	52.4	2,309.2	82.84	1,425.7	2,938.8	827.2	-1,532.7	2,359.89	0.351	Collision RiskProcedures Req'd
4,571.0	2,923.4	3,309.4	3,309.4	52.5	2,312.2	84.06	1,425.7	2,938.8	817.1	-1,546.4	2,363.43	0.346	Collision RiskProcedures Req'd
4,596.0	2,927.5	3,313.5	3,313.5	52.8	2,315.1	85.50	1,425.7	2,938.8	805.0	-1,561.9	2,366.95	0.340	Collision RiskProcedures Req'd
4,600.0	2,928.1	3,314.1	3,314.1	52.8	2,315.5	85.73	1,425.7	2,938.8	803.1	-1,564.3	2,367.44	0.339	Collision RiskProcedures Req'd
4,621.0	2,930.5	3,316.5	3,316.5	53.0	2,317.2	86.93	1,425.7	2,938.8	793.1	-1,576.6	2,369.70	0.335	Collision RiskProcedures Req'd
4,646.0	2,932.4	3,318.4	3,318.4	53.2	2,318.5	88.32	1,425.7	2,938.8	781.2	-1,590.5	2,371.67	0.329	Collision RiskProcedures Req'd
4,650.0	2,932.6	3,318.6	3,318.6	53.3	2,318.6	88.54	1,425.7	2,938.8	779.3	-1,592.6	2,371.91	0.329	Collision RiskProcedures Req'd
4,671.0	2,933.3	3,319.3	3,319.3	53.5	2,319.1	89.67	1,425.7	2,938.8	769.5	-1,603.3	2,372.86	0.324	Collision RiskProcedures Req'd
4,683.5	2,933.3	3,319.3	3,319.3	53.6	2,319.1	90.32	1,425.7	2,938.8	763.7	-1,609.4	2,373.17	0.322	Collision RiskProcedures Req'd
4,696.0	2,933.1	3,319.1	3,319.1	53.7	2,319.0	90.31	1,425.7	2,938.8	758.1	-1,615.3	2,373.37	0.319	Collision RiskProcedures Req'd
4,700.0	2,933.1	3,319.1	3,319.1	53.8	2,319.0	90.31	1,425.7	2,938.8	756.3	-1,617.1	2,373.43	0.319	Collision RiskProcedures Req'd
4,721.0	2,932.9	3,318.9	3,318.9	54.0	2,318.8	90.29	1,425.7	2,938.8	747.2	-1,626.5	2,373.76	0.315	Collision RiskProcedures Req'd
4,746.0	2,932.6	3,318.6	3,318.6	54.2	2,318.6	90.26	1,425.7	2,938.8	737.1	-1,637.0	2,374.12	0.310	Collision RiskProcedures Req'd
4,771.0	2,932.3	3,318.3	3,318.3	54.5	2,318.4	90.24	1,425.7	2,938.8	727.6	-1,646.8	2,374.44	0.306	Collision RiskProcedures Req'd
4,783.5	2,932.2	3,318.2	3,318.2	54.6	2,318.3	90.23	1,425.7	2,938.8	723.2	-1,651.4	2,374.59	0.305	Collision RiskProcedures Req'd
4,796.0	2,932.0	3,318.0	3,318.0	54.7	2,318.2	90.22	1,425.7	2,938.8	718.9	-1,655.8	2,374.74	0.303	Collision RiskProcedures Req'd
4,800.0	2,932.0	3,318.0	3,318.0	54.8	2,318.2	90.22	1,425.7	2,938.8	717.6	-1,657.2	2,374.78	0.302	Collision RiskProcedures Req'd
4,821.0	2,931.8	3,317.8	3,317.8	55.0	2,318.0	90.21	1,425.7	2,938.8	710.7	-1,664.3	2,375.00	0.299	Collision RiskProcedures Req'd
4,846.0	2,931.5	3,317.5	3,317.5	55.3	2,317.9	90.19	1,425.7	2,938.8	703.1	-1,672.1	2,375.21	0.296	Collision RiskProcedures Req'd
4,871.0	2,931.2	3,317.2	3,317.2	55.5	2,317.7	90.18	1,425.7	2,938.8	696.0	-1,679.4	2,375.37	0.293	Collision RiskProcedures Req'd
4,896.0	2,931.0	3,317.0	3,317.0	55.8	2,317.5	90.16	1,425.7	2,938.8	689.5	-1,686.0	2,375.48	0.290	Collision RiskProcedures Req'd
4,900.0	2,930.9	3,316.9	3,316.9	55.9	2,317.4	90.16	1,425.7	2,938.8	688.5	-1,687.0	2,375.49	0.290	Collision RiskProcedures Req'd
4,921.0	2,930.7	3,316.7	3,316.7	56.1	2,317.3	90.15	1,425.7	2,938.8	683.5	-1,692.0	2,375.54	0.288	Collision RiskProcedures Req'd
4,946.0	2,930.4	3,316.4	3,316.4	56.4	2,317.1	90.13	1,425.7	2,938.8	678.2	-1,697.3	2,375.54	0.285	Collision RiskProcedures Req'd
4,971.0	2,930.1	3,316.1	3,316.1	56.7	2,316.9	90.11	1,425.7	2,938.8	673.5	-1,702.0	2,375.48	0.284	Collision RiskProcedures Req'd
4,996.0	2,929.9	3,315.9	3,315.9	56.9	2,316.7	90.10	1,425.7	2,938.8	669.4	-1,705.9	2,375.34	0.282	Collision RiskProcedures Req'd
5,000.0	2,929.8	3,315.8	3,315.8	57.0	2,316.7	90.09	1,425.7	2,938.8	668.8	-1,706.5	2,375.32	0.282	Collision RiskProcedures Req'd
5,021.0	2,929.6	3,315.6	3,315.6	57.2	2,316.5	90.08	1,425.7	2,938.8	665.9	-1,709.2	2,375.15	0.280	Collision RiskProcedures Req'd
5,046.0	2,929.3	3,315.3	3,315.3	57.5	2,316.3	90.06	1,425.7	2,938.8	663.2	-1,711.7	2,374.89	0.279	Collision RiskProcedures Req'd
5,071.0	2,929.0	3,315.0	3,315.0	57.8	2,316.1	90.05	1,425.7	2,938.8	661.0	-1,713.5	2,374.56	0.278	Collision RiskProcedures Req'd
5,096.0	2,928.8	3,314.8	3,314.8	58.1	2,315.9	90.03	1,425.7	2,938.8	659.6	-1,714.6	2,374.15	0.278	Collision RiskProcedures Req'd
5,100.0	2,928.7	3,314.7	3,314.7	58.2	2,315.9	90.03	1,425.7	2,938.8	659.4	-1,714.7	2,374.08	0.278	Collision RiskProcedures Req'd
5,121.0	2,928.5	3,314.5	3,314.5	58.4	2,315.7	90.01	1,425.7	2,938.8	658.8	-1,714.9	2,373.69	0.278	Collision RiskProcedures Req'd, ES
5,137.8	2,928.3	3,314.3	3,314.3	58.6	2,315.6	90.00	1,425.7	2,938.8	658.6	-1,714.7	2,373.34	0.278	Collision RiskProcedures Req'd, CC, S
5,146.0	2,928.2	3,314.2	3,314.2	58.7	2,315.6	89.99	1,425.7	2,938.8	658.7	-1,714.5	2,373.15	0.278	Collision RiskProcedures Req'd
5,171.0	2,927.9	3,313.9	3,313.9	59.1	2,315.4	89.98	1,425.7	2,938.8	659.2	-1,713.3	2,372.54	0.278	Collision RiskProcedures Req'd
5,196.0	2,927.7	3,313.7	3,313.7	59.4	2,315.2	89.96	1,425.7	2,938.8	660.4	-1,711.4	2,371.87	0.278	Collision RiskProcedures Req'd
5,200.0	2,927.6	3,313.6	3,313.6	59.4	2,315.1	89.96	1,425.7	2,938.8	660.7	-1,711.0	2,371.75	0.279	Collision RiskProcedures Req'd
5,221.0	2,927.4	3,313.4	3,313.4	59.7	2,315.0	89.94	1,425.7	2,938.8	662.4	-1,708.8	2,371.13	0.279	Collision RiskProcedures Req'd
5,246.0	2,927.1	3,313.1	3,313.1	60.0	2,314.8	89.93	1,425.7	2,938.8	664.9	-1,705.4	2,370.34	0.281	Collision RiskProcedures Req'd
5,271.0	2,926.8	3,312.8	3,312.8	60.3	2,314.6	89.91	1,425.7	2,938.8	668.1	-1,701.3	2,369.49	0.282	Collision RiskProcedures Req'd

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Halliburton
Anticollision Report

Company:	Hilcorp Energy Company	Local Co-ordinate Reference:	Well Southern Ute 701H
Project:	Farmington, NM	TVD Reference:	RKB to MSL= 6310ft @ 6310.0usft
Reference Site:	San Juan Basin	MD Reference:	RKB to MSL= 6310ft @ 6310.0usft
Site Error:	5.0 usft	North Reference:	Grid
Reference Well:	Southern Ute 701H	Survey Calculation Method:	Minimum Curvature
Well Error:	1.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Southern Ute 701H Lat.No.1	Database:	EDM 5000.17 Single User Db
Reference Design:	WP3	Offset TVD Reference:	Offset Datum

Offset Design: San Juan Basin - UTE 001X - ST00 - ST00													Offset Site Error: 5.0 usft
Survey Program: 7920-3_Blind													Offset Well Error: 1.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
5,296.0	2,926.6	3,312.6	3,312.6	60.6	2,314.4	89.89	1,425.7	2,938.8	672.0	-1,696.6	2,368.58	0.284	Collision RiskProcedures Req'd
5,300.0	2,926.5	3,312.5	3,312.5	60.7	2,314.4	89.89	1,425.7	2,938.8	672.7	-1,695.7	2,368.43	0.284	Collision RiskProcedures Req'd
5,321.0	2,926.3	3,312.3	3,312.3	61.0	2,314.2	89.88	1,425.7	2,938.8	676.5	-1,691.1	2,367.63	0.286	Collision RiskProcedures Req'd
5,346.0	2,926.0	3,312.0	3,312.0	61.3	2,314.0	89.86	1,425.7	2,938.8	681.7	-1,685.0	2,366.64	0.288	Collision RiskProcedures Req'd
5,371.0	2,925.7	3,311.7	3,311.7	61.6	2,313.8	89.84	1,425.7	2,938.8	687.4	-1,678.2	2,365.61	0.291	Collision RiskProcedures Req'd
5,396.0	2,925.5	3,311.5	3,311.5	62.0	2,313.6	89.83	1,425.7	2,938.8	693.7	-1,670.8	2,364.53	0.293	Collision RiskProcedures Req'd
5,400.0	2,925.4	3,311.4	3,311.4	62.0	2,313.6	89.82	1,425.7	2,938.8	694.8	-1,669.6	2,364.36	0.294	Collision RiskProcedures Req'd
5,421.0	2,925.2	3,311.2	3,311.2	62.3	2,313.4	89.81	1,425.7	2,938.8	700.6	-1,662.8	2,363.44	0.296	Collision RiskProcedures Req'd
5,446.0	2,924.9	3,310.9	3,310.9	62.6	2,313.2	89.80	1,425.7	2,938.8	708.1	-1,654.2	2,362.32	0.300	Collision RiskProcedures Req'd
5,471.0	2,924.6	3,310.6	3,310.6	63.0	2,313.1	89.78	1,425.7	2,938.8	716.1	-1,645.1	2,361.18	0.303	Collision RiskProcedures Req'd
5,496.0	2,924.4	3,310.4	3,310.4	63.3	2,312.9	89.76	1,425.7	2,938.8	724.6	-1,635.4	2,360.02	0.307	Collision RiskProcedures Req'd
5,500.0	2,924.3	3,310.3	3,310.3	63.4	2,312.8	89.76	1,425.7	2,938.8	726.0	-1,633.8	2,359.83	0.308	Collision RiskProcedures Req'd
5,521.0	2,924.1	3,310.1	3,310.1	63.6	2,312.7	89.75	1,425.7	2,938.8	733.6	-1,625.3	2,358.86	0.311	Collision RiskProcedures Req'd
5,546.0	2,923.8	3,309.8	3,309.8	64.0	2,312.5	89.74	1,425.7	2,938.8	743.1	-1,614.6	2,357.70	0.315	Collision RiskProcedures Req'd
5,571.0	2,923.5	3,309.5	3,309.5	64.3	2,312.3	89.72	1,425.7	2,938.8	753.1	-1,603.5	2,356.52	0.320	Collision RiskProcedures Req'd
5,596.0	2,923.3	3,309.3	3,309.3	64.7	2,312.1	89.71	1,425.7	2,938.8	763.5	-1,591.9	2,355.35	0.324	Collision RiskProcedures Req'd
5,600.0	2,923.2	3,309.2	3,309.2	64.7	2,312.1	89.71	1,425.7	2,938.8	765.2	-1,590.0	2,355.16	0.325	Collision RiskProcedures Req'd
5,621.0	2,923.0	3,309.0	3,309.0	65.0	2,311.9	89.69	1,425.7	2,938.8	774.3	-1,579.9	2,354.19	0.329	Collision RiskProcedures Req'd
5,646.0	2,922.7	3,308.7	3,308.7	65.4	2,311.7	89.68	1,425.7	2,938.8	785.5	-1,567.5	2,353.04	0.334	Collision RiskProcedures Req'd
5,671.0	2,922.5	3,308.5	3,308.5	65.7	2,311.5	89.67	1,425.7	2,938.8	797.2	-1,554.7	2,351.89	0.339	Collision RiskProcedures Req'd
5,696.0	2,922.2	3,308.2	3,308.2	66.1	2,311.3	89.66	1,425.7	2,938.8	809.1	-1,541.6	2,350.75	0.344	Collision RiskProcedures Req'd
5,700.0	2,922.1	3,308.1	3,308.1	66.1	2,311.3	89.65	1,425.7	2,938.8	811.1	-1,539.5	2,350.57	0.345	Collision RiskProcedures Req'd
5,721.0	2,921.9	3,307.9	3,307.9	66.4	2,311.2	89.64	1,425.7	2,938.8	821.5	-1,528.2	2,349.65	0.350	Collision RiskProcedures Req'd
5,746.0	2,921.6	3,307.6	3,307.6	66.8	2,311.0	89.63	1,425.7	2,938.8	834.2	-1,514.4	2,348.56	0.355	Collision RiskProcedures Req'd
5,771.0	2,921.4	3,307.4	3,307.4	67.2	2,310.8	89.62	1,425.7	2,938.8	847.2	-1,500.3	2,347.49	0.361	Collision RiskProcedures Req'd
5,796.0	2,921.1	3,307.1	3,307.1	67.5	2,310.6	89.61	1,425.7	2,938.8	860.5	-1,486.0	2,346.43	0.367	Collision RiskProcedures Req'd
5,803.5	2,921.0	3,307.0	3,307.0	67.6	2,310.5	89.61	1,425.7	2,938.8	864.5	-1,481.7	2,346.12	0.368	Collision RiskProcedures Req'd
5,821.0	2,920.8	3,306.8	3,306.8	67.9	2,310.4	89.59	1,425.7	2,938.8	874.1	-1,471.3	2,345.41	0.373	Collision RiskProcedures Req'd
5,846.0	2,920.6	3,306.6	3,306.6	68.2	2,310.2	89.57	1,425.7	2,938.8	888.2	-1,456.2	2,344.42	0.379	Collision RiskProcedures Req'd
5,871.0	2,920.3	3,306.3	3,306.3	68.6	2,310.0	89.55	1,425.7	2,938.8	902.8	-1,440.7	2,343.46	0.385	Collision RiskProcedures Req'd
5,896.0	2,920.0	3,306.0	3,306.0	69.0	2,309.8	89.53	1,425.7	2,938.8	917.8	-1,424.7	2,342.54	0.392	Collision RiskProcedures Req'd
5,900.0	2,920.0	3,306.0	3,306.0	69.0	2,309.8	89.53	1,425.7	2,938.8	920.3	-1,422.1	2,342.39	0.393	Collision RiskProcedures Req'd
5,921.0	2,919.8	3,305.8	3,305.8	69.3	2,309.7	89.51	1,425.7	2,938.8	933.3	-1,408.3	2,341.65	0.399	Collision RiskProcedures Req'd
5,946.0	2,919.5	3,305.5	3,305.5	69.7	2,309.5	89.49	1,425.7	2,938.8	949.2	-1,391.6	2,340.80	0.405	Collision RiskProcedures Req'd
5,971.0	2,919.2	3,305.2	3,305.2	70.1	2,309.3	89.47	1,425.7	2,938.8	965.4	-1,374.5	2,339.98	0.413	Collision RiskProcedures Req'd
5,996.0	2,919.0	3,305.0	3,305.0	70.5	2,309.1	89.44	1,425.7	2,938.8	982.1	-1,357.1	2,339.19	0.420	Collision RiskProcedures Req'd
6,000.0	2,918.9	3,304.9	3,304.9	70.5	2,309.1	89.44	1,425.7	2,938.8	984.8	-1,354.3	2,339.07	0.421	Collision RiskProcedures Req'd
6,021.0	2,918.7	3,304.7	3,304.7	70.8	2,308.9	89.42	1,425.7	2,938.8	999.1	-1,339.4	2,338.45	0.427	Collision RiskProcedures Req'd
6,046.0	2,918.4	3,304.4	3,304.4	71.2	2,308.7	89.40	1,425.7	2,938.8	1,016.4	-1,321.4	2,337.73	0.435	Collision RiskProcedures Req'd
6,071.0	2,918.2	3,304.2	3,304.2	71.6	2,308.5	89.38	1,425.7	2,938.8	1,034.0	-1,303.1	2,337.05	0.442	Collision RiskProcedures Req'd
6,096.0	2,917.9	3,303.9	3,303.9	72.0	2,308.4	89.36	1,425.7	2,938.8	1,051.9	-1,284.5	2,336.40	0.450	Collision RiskProcedures Req'd
6,100.0	2,917.9	3,303.9	3,303.9	72.1	2,308.3	89.36	1,425.7	2,938.8	1,054.8	-1,281.5	2,336.30	0.451	Collision RiskProcedures Req'd
6,121.0	2,917.6	3,303.6	3,303.6	72.4	2,308.2	89.34	1,425.7	2,938.8	1,070.1	-1,265.7	2,335.79	0.458	Collision RiskProcedures Req'd
6,146.0	2,917.4	3,303.4	3,303.4	72.8	2,308.0	89.32	1,425.7	2,938.8	1,088.6	-1,246.6	2,335.20	0.466	Collision RiskProcedures Req'd
6,171.0	2,917.1	3,303.1	3,303.1	73.2	2,307.8	89.30	1,425.7	2,938.8	1,107.3	-1,227.3	2,334.65	0.474	Collision RiskProcedures Req'd
6,196.0	2,916.8	3,302.8	3,302.8	73.6	2,307.6	89.28	1,425.7	2,938.8	1,126.3	-1,207.8	2,334.12	0.483	Collision RiskProcedures Req'd
6,200.0	2,916.8	3,302.8	3,302.8	73.7	2,307.6	89.27	1,425.7	2,938.8	1,129.4	-1,204.7	2,334.04	0.484	Collision RiskProcedures Req'd
6,221.0	2,916.6	3,302.6	3,302.6	74.0	2,307.4	89.25	1,425.7	2,938.8	1,145.5	-1,188.1	2,333.63	0.491	Collision RiskProcedures Req'd
6,246.0	2,916.3	3,302.3	3,302.3	74.4	2,307.2	89.23	1,425.7	2,938.8	1,164.9	-1,168.2	2,333.16	0.499	Collision RiskProcedures Req'd
6,271.0	2,916.0	3,302.0	3,302.0	74.8	2,307.0	89.21	1,425.7	2,938.8	1,184.6	-1,148.1	2,332.71	0.508	Collision RiskProcedures Req'd
6,296.0	2,915.8	3,301.8	3,301.8	75.2	2,306.9	89.19	1,425.7	2,938.8	1,204.4	-1,127.9	2,332.29	0.516	Collision RiskProcedures Req'd
6,300.0	2,915.7	3,301.7	3,301.7	75.3	2,306.8	89.19	1,425.7	2,938.8	1,207.6	-1,124.6	2,332.22	0.518	Collision RiskProcedures Req'd

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Halliburton
Anticollision Report

Company:	Hilcorp Energy Company	Local Co-ordinate Reference:	Well Southern Ute 701H
Project:	Farmington, NM	TVD Reference:	RKB to MSL= 6310ft @ 6310.0usft
Reference Site:	San Juan Basin	MD Reference:	RKB to MSL= 6310ft @ 6310.0usft
Site Error:	5.0 usft	North Reference:	Grid
Reference Well:	Southern Ute 701H	Survey Calculation Method:	Minimum Curvature
Well Error:	1.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Southern Ute 701H Lat.No.1	Database:	EDM 5000.17 Single User Db
Reference Design:	WP3	Offset TVD Reference:	Offset Datum

Offset Design: San Juan Basin - UTE 001X - ST00 - ST00													Offset Site Error: 5.0 usft	
Survey Program: 7920-3_Blind		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned:			Offset Well Error: 1.0 usft		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
6,321.0	2,915.5	3,301.5	3,301.5	75.7	2,306.7	89.17	1,425.7	2,938.8	1,224.4	-1,107.5	2,331.89	0.525	Collision RiskProcedures Req'd	
6,346.0	2,915.2	3,301.2	3,301.2	76.1	2,306.5	89.15	1,425.7	2,938.8	1,244.6	-1,086.9	2,331.52	0.534	Collision RiskProcedures Req'd	
6,371.0	2,915.0	3,301.0	3,301.0	76.5	2,306.3	89.13	1,425.7	2,938.8	1,265.0	-1,066.2	2,331.16	0.543	Collision RiskProcedures Req'd	
6,396.0	2,914.7	3,300.7	3,300.7	76.9	2,306.1	89.11	1,425.7	2,938.8	1,285.5	-1,045.3	2,330.82	0.552	Collision RiskProcedures Req'd	
6,400.0	2,914.7	3,300.7	3,300.7	77.0	2,306.1	89.10	1,425.7	2,938.8	1,288.8	-1,041.9	2,330.77	0.553	Collision RiskProcedures Req'd	
6,421.0	2,914.4	3,300.4	3,300.4	77.4	2,305.9	89.09	1,425.7	2,938.8	1,306.2	-1,024.3	2,330.50	0.560	Collision RiskProcedures Req'd	
6,446.0	2,914.2	3,300.2	3,300.2	77.8	2,305.7	89.07	1,425.7	2,938.8	1,327.1	-1,003.1	2,330.21	0.570	Collision RiskProcedures Req'd	
6,471.0	2,913.9	3,299.9	3,299.9	78.2	2,305.6	89.04	1,425.7	2,938.8	1,348.1	-981.9	2,329.92	0.579	Collision RiskProcedures Req'd	
6,496.0	2,913.6	3,299.6	3,299.6	78.6	2,305.4	89.02	1,425.7	2,938.8	1,369.2	-960.5	2,329.65	0.588	Collision RiskProcedures Req'd	
6,500.0	2,913.6	3,299.6	3,299.6	78.7	2,305.3	89.02	1,425.7	2,938.8	1,372.6	-957.0	2,329.60	0.589	Collision RiskProcedures Req'd	
6,521.0	2,913.4	3,299.4	3,299.4	79.1	2,305.2	89.00	1,425.7	2,938.8	1,390.4	-939.0	2,329.39	0.597	Collision RiskProcedures Req'd	
6,546.0	2,913.1	3,299.1	3,299.1	79.5	2,305.0	88.98	1,425.7	2,938.8	1,411.8	-917.4	2,329.15	0.606	Collision RiskProcedures Req'd	
6,571.0	2,912.8	3,298.8	3,298.8	80.0	2,304.8	88.96	1,425.7	2,938.8	1,433.3	-895.6	2,328.92	0.615	Collision RiskProcedures Req'd	
6,596.0	2,912.6	3,298.6	3,298.6	80.4	2,304.6	88.94	1,425.7	2,938.8	1,454.9	-873.8	2,328.70	0.625	Collision RiskProcedures Req'd	
6,600.0	2,912.5	3,298.5	3,298.5	80.5	2,304.6	88.94	1,425.7	2,938.8	1,458.3	-870.3	2,328.66	0.626	Collision RiskProcedures Req'd	
6,621.0	2,912.3	3,298.3	3,298.3	80.8	2,304.4	88.92	1,425.7	2,938.8	1,476.6	-851.9	2,328.49	0.634	Collision RiskProcedures Req'd	
6,646.0	2,912.0	3,298.0	3,298.0	81.3	2,304.2	88.90	1,425.7	2,938.8	1,498.4	-829.9	2,328.29	0.644	Collision RiskProcedures Req'd	
6,671.0	2,911.8	3,297.8	3,297.8	81.7	2,304.1	88.88	1,425.7	2,938.8	1,520.3	-807.8	2,328.10	0.653	Collision RiskProcedures Req'd	
6,696.0	2,911.5	3,297.5	3,297.5	82.2	2,303.9	88.86	1,425.7	2,938.8	1,542.3	-785.6	2,327.91	0.663	Collision RiskProcedures Req'd	
6,700.0	2,911.5	3,297.5	3,297.5	82.3	2,303.8	88.85	1,425.7	2,938.8	1,545.8	-782.1	2,327.88	0.664	Collision RiskProcedures Req'd	
6,721.0	2,911.2	3,297.2	3,297.2	82.6	2,303.7	88.83	1,425.7	2,938.8	1,564.4	-763.3	2,327.74	0.672	Collision RiskProcedures Req'd	
6,746.0	2,911.0	3,297.0	3,297.0	83.1	2,303.5	88.81	1,425.7	2,938.8	1,586.6	-741.0	2,327.57	0.682	Collision RiskProcedures Req'd	
6,771.0	2,910.7	3,296.7	3,296.7	83.6	2,303.3	88.79	1,425.7	2,938.8	1,608.8	-718.6	2,327.40	0.691	Collision RiskProcedures Req'd	
6,796.0	2,910.4	3,296.4	3,296.4	84.0	2,303.1	88.77	1,425.7	2,938.8	1,631.2	-696.1	2,327.24	0.701	Collision RiskProcedures Req'd	
6,800.0	2,910.4	3,296.4	3,296.4	84.1	2,303.1	88.77	1,425.7	2,938.8	1,634.8	-692.5	2,327.22	0.702	Collision RiskProcedures Req'd	
6,821.0	2,910.2	3,296.2	3,296.2	84.5	2,302.9	88.75	1,425.7	2,938.8	1,653.6	-673.5	2,327.09	0.711	Collision RiskProcedures Req'd	
6,846.0	2,909.9	3,295.9	3,295.9	84.9	2,302.8	88.73	1,425.7	2,938.8	1,676.1	-650.9	2,326.95	0.720	Collision RiskProcedures Req'd	
6,871.0	2,909.6	3,295.6	3,295.6	85.4	2,302.6	88.71	1,425.7	2,938.8	1,698.6	-628.2	2,326.80	0.730	Collision RiskProcedures Req'd	
6,896.0	2,909.4	3,295.4	3,295.4	85.9	2,302.4	88.69	1,425.7	2,938.8	1,721.3	-605.4	2,326.66	0.740	Collision RiskProcedures Req'd	
6,900.0	2,909.3	3,295.3	3,295.3	85.9	2,302.4	88.68	1,425.7	2,938.8	1,724.9	-601.8	2,326.64	0.741	Collision RiskProcedures Req'd	
6,921.0	2,909.1	3,295.1	3,295.1	86.3	2,302.2	88.67	1,425.7	2,938.8	1,744.0	-582.6	2,326.53	0.750	Collision RiskProcedures Req'd	
6,946.0	2,908.8	3,294.8	3,294.8	86.8	2,302.0	88.64	1,425.7	2,938.8	1,766.7	-559.7	2,326.39	0.759	Collision RiskProcedures Req'd	
6,971.0	2,908.6	3,294.6	3,294.6	87.3	2,301.8	88.62	1,425.7	2,938.8	1,789.5	-536.7	2,326.26	0.769	Collision RiskProcedures Req'd	
6,996.0	2,908.3	3,294.3	3,294.3	87.8	2,301.6	88.60	1,425.7	2,938.8	1,812.4	-513.7	2,326.13	0.779	Collision RiskProcedures Req'd	
7,000.0	2,908.2	3,294.2	3,294.2	87.8	2,301.6	88.60	1,425.7	2,938.8	1,816.1	-510.1	2,326.11	0.781	Collision RiskProcedures Req'd	
7,021.0	2,908.0	3,294.0	3,294.0	88.2	2,301.4	88.58	1,425.7	2,938.8	1,835.3	-490.7	2,326.01	0.789	Collision RiskProcedures Req'd	
7,046.0	2,907.8	3,293.8	3,293.8	88.7	2,301.3	88.56	1,425.7	2,938.8	1,858.3	-467.6	2,325.89	0.799	Collision RiskProcedures Req'd	
7,071.0	2,907.5	3,293.5	3,293.5	89.2	2,301.1	88.54	1,425.7	2,938.8	1,881.3	-444.4	2,325.77	0.809	Collision RiskProcedures Req'd	
7,096.0	2,907.2	3,293.2	3,293.2	89.7	2,300.9	88.52	1,425.7	2,938.8	1,904.4	-421.2	2,325.65	0.819	Collision RiskProcedures Req'd	
7,100.0	2,907.2	3,293.2	3,293.2	89.8	2,300.9	88.52	1,425.7	2,938.8	1,908.1	-417.5	2,325.63	0.820	Collision RiskProcedures Req'd	
7,121.0	2,907.0	3,293.0	3,293.0	90.2	2,300.7	88.50	1,425.7	2,938.8	1,927.5	-398.0	2,325.53	0.829	Collision RiskProcedures Req'd	
7,146.0	2,906.7	3,292.7	3,292.7	90.6	2,300.5	88.48	1,425.7	2,938.8	1,950.7	-374.7	2,325.41	0.839	Collision RiskProcedures Req'd	
7,171.0	2,906.4	3,292.4	3,292.4	91.1	2,300.3	88.46	1,425.7	2,938.8	1,973.9	-351.4	2,325.29	0.849	Collision RiskProcedures Req'd	
7,196.0	2,906.2	3,292.2	3,292.2	91.6	2,300.1	88.43	1,425.7	2,938.8	1,997.2	-328.0	2,325.18	0.859	Collision RiskProcedures Req'd	
7,200.0	2,906.1	3,292.1	3,292.1	91.7	2,300.1	88.43	1,425.7	2,938.8	2,000.9	-324.2	2,325.16	0.861	Collision RiskProcedures Req'd	
7,221.0	2,905.9	3,291.9	3,291.9	92.1	2,300.0	88.41	1,425.7	2,938.8	2,020.5	-304.6	2,325.06	0.869	Collision RiskProcedures Req'd	
7,246.0	2,905.6	3,291.6	3,291.6	92.6	2,299.8	88.39	1,425.7	2,938.8	2,043.8	-281.1	2,324.95	0.879	Collision RiskProcedures Req'd	
7,271.0	2,905.4	3,291.4	3,291.4	93.1	2,299.6	88.37	1,425.7	2,938.8	2,067.2	-257.6	2,324.84	0.889	Collision RiskProcedures Req'd	
7,296.0	2,905.1	3,291.1	3,291.1	93.6	2,299.4	88.35	1,425.7	2,938.8	2,090.6	-234.1	2,324.72	0.899	Collision RiskProcedures Req'd	
7,300.0	2,905.0	3,291.0	3,291.0	93.7	2,299.4	88.35	1,425.7	2,938.8	2,094.4	-230.3	2,324.71	0.901	Collision RiskProcedures Req'd	
7,321.0	2,904.8	3,290.8	3,290.8	94.1	2,299.2	88.33	1,425.7	2,938.8	2,114.1	-210.5	2,324.61	0.909	Collision RiskProcedures Req'd	
7,346.0	2,904.6	3,290.6	3,290.6	94.6	2,299.0	88.31	1,425.7	2,938.8	2,137.6	-186.9	2,324.50	0.920	Collision RiskProcedures Req'd	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Halliburton
Anticollision Report

Company:	Hilcorp Energy Company	Local Co-ordinate Reference:	Well Southern Ute 701H
Project:	Farmington, NM	TVD Reference:	RKB to MSL= 6310ft @ 6310.0usft
Reference Site:	San Juan Basin	MD Reference:	RKB to MSL= 6310ft @ 6310.0usft
Site Error:	5.0 usft	North Reference:	Grid
Reference Well:	Southern Ute 701H	Survey Calculation Method:	Minimum Curvature
Well Error:	1.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Southern Ute 701H Lat.No.1	Database:	EDM 5000.17 Single User Db
Reference Design:	WP3	Offset TVD Reference:	Offset Datum

Offset Design: San Juan Basin - UTE 001X - ST00 - ST00													Offset Site Error: 5.0 usft
Survey Program: 7920-3_Blind													Offset Well Error: 1.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
7,371.0	2,904.3	3,290.3	3,290.3	95.1	2,298.8	88.29	1,425.7	2,938.8	2,161.1	-163.3	2,324.39	0.930	Collision RiskProcedures Req'd
7,396.0	2,904.0	3,290.0	3,290.0	95.6	2,298.7	88.27	1,425.7	2,938.8	2,184.7	-139.6	2,324.27	0.940	Collision RiskProcedures Req'd
7,400.0	2,904.0	3,290.0	3,290.0	95.7	2,298.6	88.26	1,425.7	2,938.8	2,188.4	-135.8	2,324.26	0.942	Collision RiskProcedures Req'd
7,421.0	2,903.8	3,289.8	3,289.8	96.1	2,298.5	88.25	1,425.7	2,938.8	2,208.3	-115.9	2,324.16	0.950	Collision RiskProcedures Req'd
7,446.0	2,903.5	3,289.5	3,289.5	96.6	2,298.3	88.22	1,425.7	2,938.8	2,231.9	-92.2	2,324.05	0.960	Collision RiskProcedures Req'd
7,471.0	2,903.2	3,289.2	3,289.2	97.1	2,298.1	88.20	1,425.7	2,938.8	2,255.5	-68.4	2,323.94	0.971	Collision RiskProcedures Req'd
7,496.0	2,903.0	3,289.0	3,289.0	97.6	2,297.9	88.18	1,425.7	2,938.8	2,279.2	-44.6	2,323.83	0.981	Collision RiskProcedures Req'd
7,500.0	2,902.9	3,288.9	3,288.9	97.7	2,297.9	88.18	1,425.7	2,938.8	2,283.0	-40.8	2,323.81	0.982	Collision RiskProcedures Req'd
7,521.0	2,902.7	3,288.7	3,288.7	98.1	2,297.7	88.16	1,425.7	2,938.8	2,302.9	-20.8	2,323.71	0.991	Collision RiskProcedures Req'd
7,546.0	2,902.4	3,288.4	3,288.4	98.6	2,297.5	88.14	1,425.7	2,938.8	2,326.7	3.1	2,323.60	1.001	Collision RiskProcedures Req'd
7,571.0	2,902.1	3,288.1	3,288.1	99.1	2,297.3	88.12	1,425.7	2,938.8	2,350.4	26.9	2,323.49	1.012	Collision RiskProcedures Req'd
7,596.0	2,901.9	3,287.9	3,287.9	99.6	2,297.2	88.10	1,425.7	2,938.8	2,374.2	50.8	2,323.37	1.022	Collision RiskProcedures Req'd
7,600.0	2,901.8	3,287.8	3,287.8	99.7	2,297.1	88.09	1,425.7	2,938.8	2,378.0	54.7	2,323.36	1.024	Collision RiskProcedures Req'd
7,621.0	2,901.6	3,287.6	3,287.6	100.1	2,297.0	88.08	1,425.7	2,938.8	2,398.0	74.7	2,323.26	1.032	Collision RiskProcedures Req'd
7,646.0	2,901.3	3,287.3	3,287.3	100.6	2,296.8	88.06	1,425.7	2,938.8	2,421.8	98.7	2,323.15	1.042	Collision RiskProcedures Req'd
7,671.0	2,901.1	3,287.1	3,287.1	101.2	2,296.6	88.04	1,425.7	2,938.8	2,445.7	122.7	2,323.03	1.053	Collision RiskProcedures Req'd
7,696.0	2,900.8	3,286.8	3,286.8	101.7	2,296.4	88.01	1,425.7	2,938.8	2,469.6	146.7	2,322.92	1.063	Collision RiskProcedures Req'd
7,700.0	2,900.8	3,286.8	3,286.8	101.7	2,296.4	88.01	1,425.7	2,938.8	2,473.4	150.5	2,322.90	1.065	Collision RiskProcedures Req'd
7,721.0	2,900.5	3,286.5	3,286.5	102.2	2,296.2	87.99	1,425.7	2,938.8	2,493.5	170.7	2,322.80	1.073	Collision RiskProcedures Req'd
7,746.0	2,900.3	3,286.3	3,286.3	102.7	2,296.0	87.97	1,425.7	2,938.8	2,517.4	194.7	2,322.68	1.084	Collision RiskProcedures Req'd
7,771.0	2,900.0	3,286.0	3,286.0	103.2	2,295.9	87.95	1,425.7	2,938.8	2,541.3	218.8	2,322.57	1.094	Collision RiskProcedures Req'd
7,796.0	2,899.7	3,285.7	3,285.7	103.7	2,295.7	87.93	1,425.7	2,938.8	2,565.3	242.9	2,322.45	1.105	Collision RiskProcedures Req'd
7,800.0	2,899.7	3,285.7	3,285.7	103.8	2,295.6	87.93	1,425.7	2,938.8	2,569.1	246.7	2,322.43	1.106	Collision RiskProcedures Req'd
7,821.0	2,899.5	3,285.5	3,285.5	104.3	2,295.5	87.91	1,425.7	2,938.8	2,589.3	267.0	2,322.33	1.115	Collision RiskProcedures Req'd
7,846.0	2,899.2	3,285.2	3,285.2	104.8	2,295.3	87.89	1,425.7	2,938.8	2,613.3	291.1	2,322.22	1.125	Collision RiskProcedures Req'd
7,871.0	2,898.9	3,284.9	3,284.9	105.3	2,295.1	87.87	1,425.7	2,938.8	2,637.3	315.2	2,322.10	1.136	Collision RiskProcedures Req'd
7,896.0	2,898.7	3,284.7	3,284.7	105.8	2,294.9	87.85	1,425.7	2,938.8	2,661.4	339.4	2,321.98	1.146	Collision RiskProcedures Req'd
7,900.0	2,898.6	3,284.6	3,284.6	105.9	2,294.9	87.84	1,425.7	2,938.8	2,665.2	343.2	2,321.96	1.148	Collision RiskProcedures Req'd
7,921.0	2,898.4	3,284.4	3,284.4	106.3	2,294.7	87.82	1,425.7	2,938.8	2,685.4	363.6	2,321.86	1.157	Collision RiskProcedures Req'd
7,946.0	2,898.1	3,284.1	3,284.1	106.9	2,294.5	87.80	1,425.7	2,938.8	2,709.5	387.7	2,321.74	1.167	Collision RiskProcedures Req'd
7,971.0	2,897.9	3,283.9	3,283.9	107.4	2,294.4	87.78	1,425.7	2,938.8	2,733.6	412.0	2,321.62	1.177	Collision RiskProcedures Req'd
7,996.0	2,897.6	3,283.6	3,283.6	107.9	2,294.2	87.76	1,425.7	2,938.8	2,757.7	436.2	2,321.50	1.188	Collision RiskProcedures Req'd
8,000.0	2,897.6	3,283.6	3,283.6	108.0	2,294.1	87.76	1,425.7	2,938.8	2,761.5	440.1	2,321.48	1.190	Collision RiskProcedures Req'd
8,021.0	2,897.3	3,283.3	3,283.3	108.5	2,294.0	87.74	1,425.7	2,938.8	2,781.8	460.4	2,321.38	1.198	Collision RiskProcedures Req'd
8,046.0	2,897.1	3,283.1	3,283.1	109.0	2,293.8	87.72	1,425.7	2,938.8	2,805.9	484.7	2,321.25	1.209	Collision RiskProcedures Req'd
8,071.0	2,896.8	3,282.8	3,282.8	109.5	2,293.6	87.70	1,425.7	2,938.8	2,830.1	509.0	2,321.13	1.219	Collision RiskProcedures Req'd
8,096.0	2,896.5	3,282.5	3,282.5	110.0	2,293.4	87.68	1,425.7	2,938.8	2,854.3	533.3	2,321.01	1.230	Collision RiskProcedures Req'd
8,100.0	2,896.5	3,282.5	3,282.5	110.1	2,293.4	87.67	1,425.7	2,938.8	2,858.1	537.1	2,320.99	1.231	Collision RiskProcedures Req'd
8,121.0	2,896.3	3,282.3	3,282.3	110.6	2,293.2	87.66	1,425.7	2,938.8	2,878.4	557.6	2,320.88	1.240	Collision RiskProcedures Req'd
8,146.0	2,896.0	3,282.0	3,282.0	111.1	2,293.1	87.64	1,425.7	2,938.8	2,902.6	581.9	2,320.76	1.251	Collision RiskProcedures Req'd
8,171.0	2,895.7	3,281.7	3,281.7	111.6	2,292.9	87.61	1,425.7	2,938.8	2,926.8	606.2	2,320.63	1.261	Collision RiskProcedures Req'd
8,196.0	2,895.5	3,281.5	3,281.5	112.2	2,292.7	87.59	1,425.7	2,938.8	2,951.1	630.6	2,320.51	1.272	Collision RiskProcedures Req'd
8,200.0	2,895.4	3,281.4	3,281.4	112.3	2,292.7	87.59	1,425.7	2,938.8	2,954.9	634.5	2,320.49	1.273	Collision RiskProcedures Req'd
8,221.0	2,895.2	3,281.2	3,281.2	112.7	2,292.5	87.57	1,425.7	2,938.8	2,975.3	654.9	2,320.38	1.282	Collision RiskProcedures Req'd
8,246.0	2,894.9	3,280.9	3,280.9	113.2	2,292.3	87.55	1,425.7	2,938.8	2,999.5	679.3	2,320.26	1.293	Collision RiskProcedures Req'd

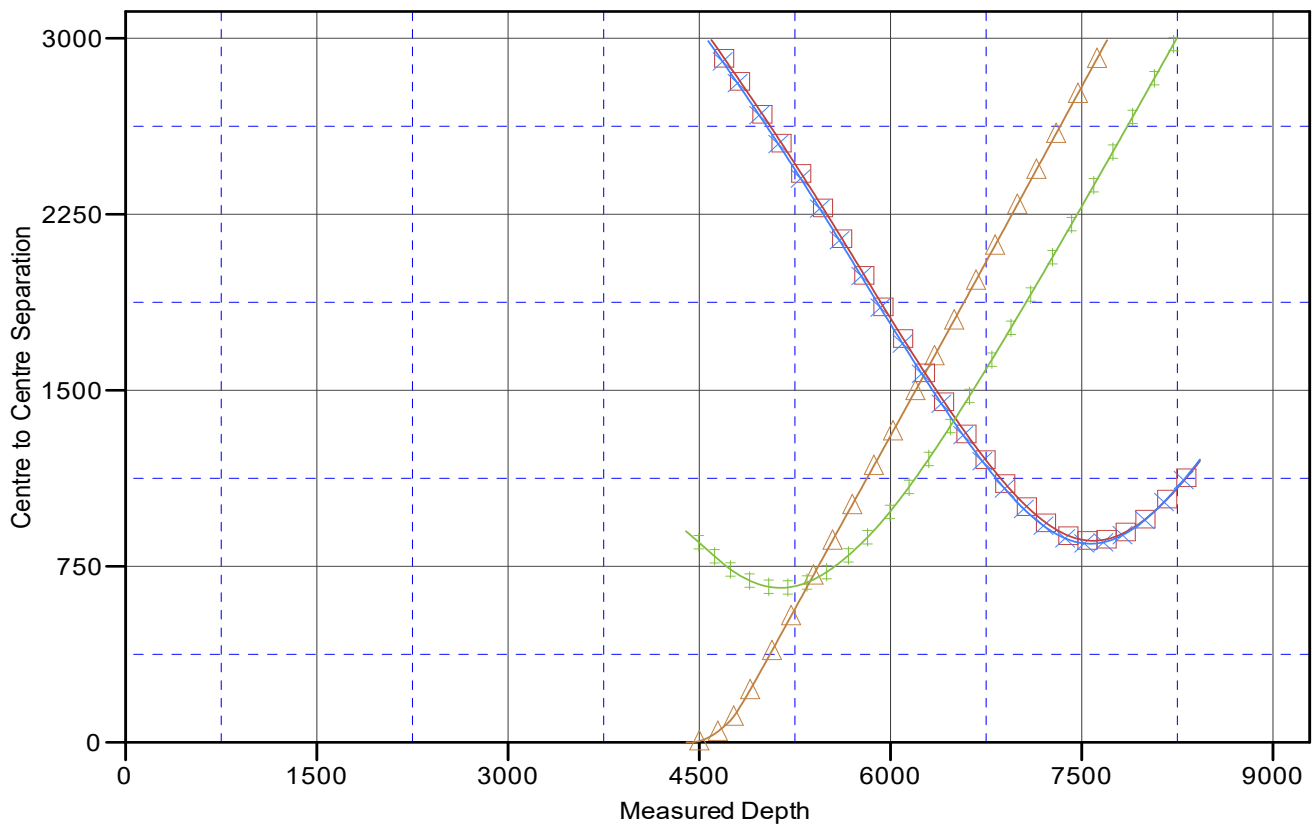
Halliburton
Anticollision Report

Company:	Hilcorp Energy Company	Local Co-ordinate Reference:	Well Southern Ute 701H
Project:	Farmington, NM	TVD Reference:	RKB to MSL= 6310ft @ 6310.0usft
Reference Site:	San Juan Basin	MD Reference:	RKB to MSL= 6310ft @ 6310.0usft
Site Error:	5.0 usft	North Reference:	Grid
Reference Well:	Southern Ute 701H	Survey Calculation Method:	Minimum Curvature
Well Error:	1.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Southern Ute 701H Lat.No.1	Database:	EDM 5000.17 Single User Db
Reference Design:	WP3	Offset TVD Reference:	Offset Datum

Reference Depths are relative to RKB to MSL= 6310ft @ 6310.0usft
Offset Depths are relative to Offset Datum
Central Meridian is -107.833

Coordinates are relative to: Southern Ute 701H
Coordinate System is US State Plane 1927 (Exact solution), New Mexico West 30
Grid Convergence at Surface is: 0.15°

Ladder Plot



LEGEND

 Southern Ute 701H, Pilot Hole, WP3 V0
 SOUTHERN UTE 701, ST00, ST00 V0
 UTE 001X, ST00, ST00 V0

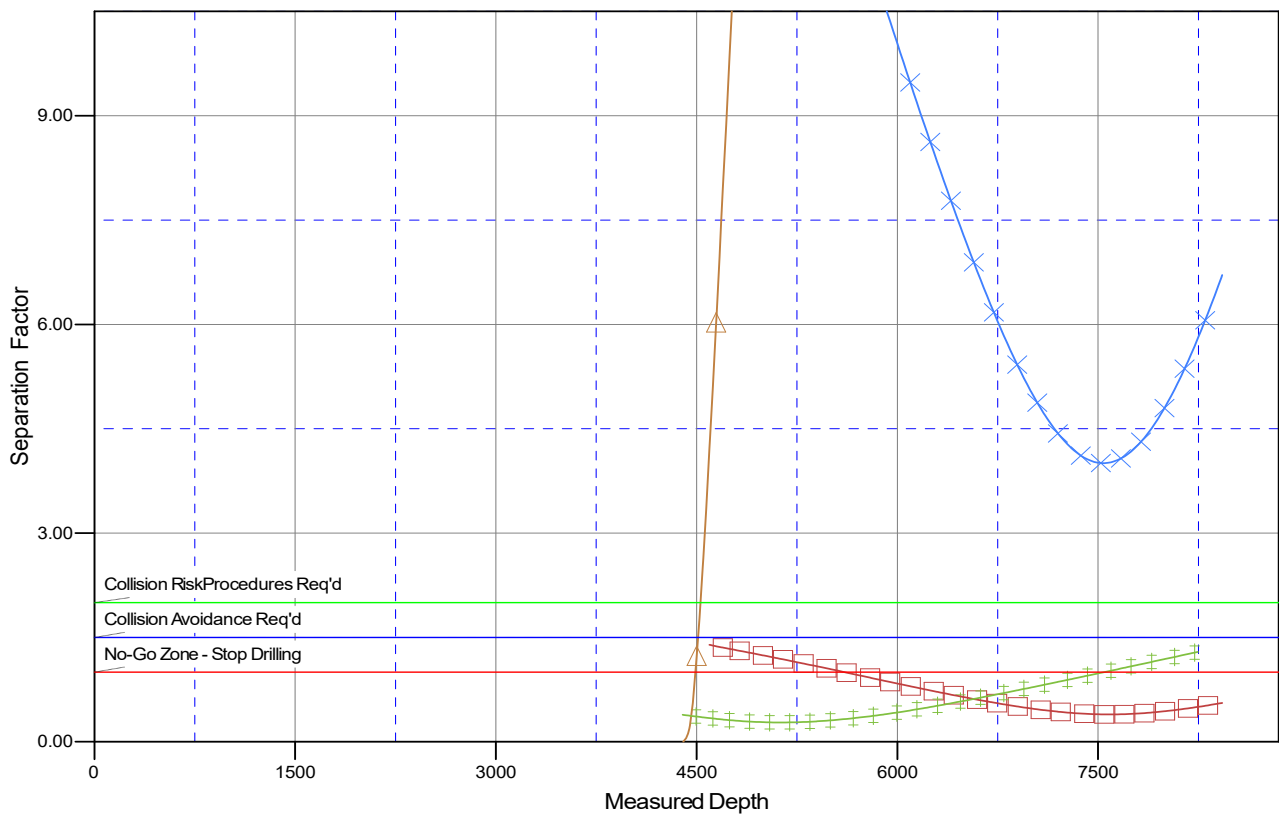
Halliburton
Anticollision Report

Company:	Hilcorp Energy Company	Local Co-ordinate Reference:	Well Southern Ute 701H
Project:	Farmington, NM	TVD Reference:	RKB to MSL= 6310ft @ 6310.0usft
Reference Site:	San Juan Basin	MD Reference:	RKB to MSL= 6310ft @ 6310.0usft
Site Error:	5.0 usft	North Reference:	Grid
Reference Well:	Southern Ute 701H	Survey Calculation Method:	Minimum Curvature
Well Error:	1.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Southern Ute 701H Lat.No.1	Database:	EDM 5000.17 Single User Db
Reference Design:	WP3	Offset TVD Reference:	Offset Datum

Reference Depths are relative to RKB to MSL= 6310ft @ 6310.0usft
Offset Depths are relative to Offset Datum
Central Meridian is -107.833

Coordinates are relative to: Southern Ute 701H
Coordinate System is US State Plane 1927 (Exact solution), New Mexico West 30
Grid Convergence at Surface is: 0.15°

Separation Factor Plot



LEGEND

Southern Ute 701H, Pilot Hole, WP3 V0
 SOUTHERNUTE 009, ST00, ST00 V0
 SOUTHERNUTE 701, ST00, ST00 V0
 UTE 001X, ST00, ST00 V0