

AXIS EXPLORATION

ARAPAHOE COUNTY

Sec 4-T4S-R65W

JAMASO 4-65 5-6-12

ORIGINAL WELLBORE

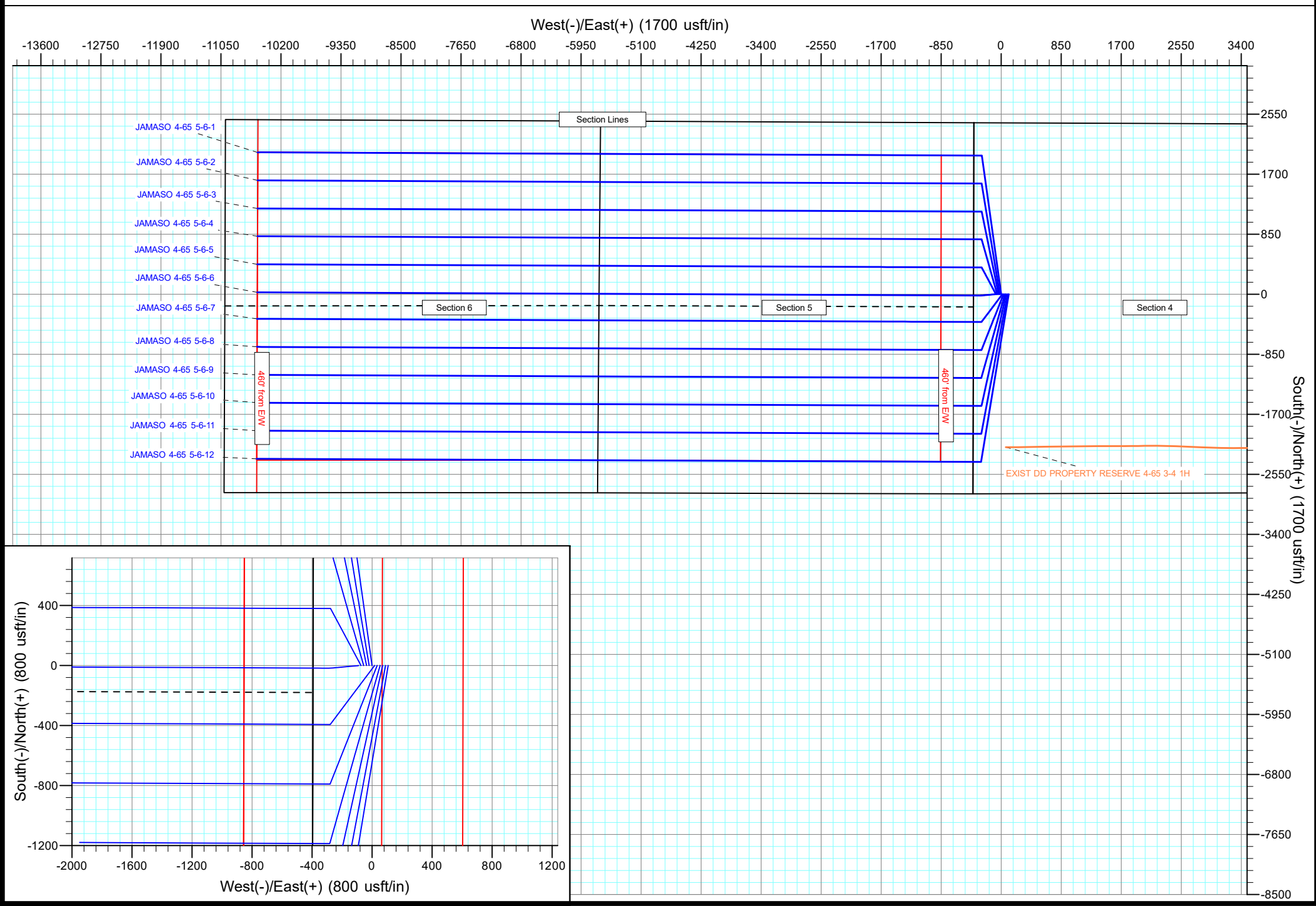
PROPOSAL 1

Anticollision Report

12 April, 2018



Project: ARAPAHOE COUNTY
Site: Sec 4-T4S-R65W
Well: JAMASO 4-65 5-6-1
ORIGINAL WELLBORE
PROPOSAL 1



Anticollision Report

Company:	AXIS EXPLORATION	Local Co-ordinate Reference:	Well JAMASO 4-65 5-6-12
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5610.00usft
Reference Site:	Sec 4-T4S-R65W	MD Reference:	KB 25' @ 5610.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	JAMASO 4-65 5-6-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Reference	PROPOSAL 1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD + Stations Interval 100.00usft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 9,999.98 usft	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program	Date	4/12/2018		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	18,210.73	PROPOSAL 1 (ORIGINAL WELLBORE)	MWD OWSG	OWSG MWD - Standard

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Sec 4-T4S-R65W						
EXIST DD PROPERTY RESERVE 4-65 3-4 1H - Wellbo	8,023.43	16,985.00	665.30	532.21	4.999	CC, ES, SF
JAMASO 4-65 5-6-1 - ORIGINAL WELLBORE - PROPO	286.98	286.20	106.31	104.72	66.650	CC
JAMASO 4-65 5-6-1 - ORIGINAL WELLBORE - PROPO	300.00	299.06	106.32	104.64	62.995	ES
JAMASO 4-65 5-6-1 - ORIGINAL WELLBORE - PROPO	18,210.73	18,239.20	4,342.23	3,784.71	7.788	SF
JAMASO 4-65 5-6-10 - ORIGINAL WELLBORE - PROPO	284.73	284.60	36.07	34.49	22.810	CC
JAMASO 4-65 5-6-10 - ORIGINAL WELLBORE - PROPO	300.00	300.16	36.09	34.40	21.328	ES
JAMASO 4-65 5-6-10 - ORIGINAL WELLBORE - PROPO	18,210.73	18,152.64	814.49	266.80	1.487	Level 3, SF
JAMASO 4-65 5-6-11 - ORIGINAL WELLBORE - PROPO	225.49	225.45	16.65	15.49	14.388	CC
JAMASO 4-65 5-6-11 - ORIGINAL WELLBORE - PROPO	18,210.73	18,212.39	419.06	-116.23	0.783	Level 1, ES, SF
JAMASO 4-65 5-6-2 - ORIGINAL WELLBORE - PROPO	422.03	421.08	124.92	122.33	48.194	CC, ES
JAMASO 4-65 5-6-2 - ORIGINAL WELLBORE - PROPO	18,210.73	18,088.22	3,943.69	3,386.47	7.078	SF
JAMASO 4-65 5-6-3 - ORIGINAL WELLBORE - PROPO	466.07	465.07	141.52	138.60	48.359	CC
JAMASO 4-65 5-6-3 - ORIGINAL WELLBORE - PROPO	500.00	501.30	141.59	138.40	44.352	ES
JAMASO 4-65 5-6-3 - ORIGINAL WELLBORE - PROPO	18,210.73	17,879.50	3,544.35	2,987.12	6.361	SF
JAMASO 4-65 5-6-4 - ORIGINAL WELLBORE - PROPO	490.42	489.21	160.95	157.84	51.739	CC
JAMASO 4-65 5-6-4 - ORIGINAL WELLBORE - PROPO	500.00	501.30	160.95	157.76	50.415	ES
JAMASO 4-65 5-6-4 - ORIGINAL WELLBORE - PROPO	18,210.73	17,999.32	3,156.14	2,599.81	5.673	SF
JAMASO 4-65 5-6-5 - ORIGINAL WELLBORE - PROPO	510.15	508.75	177.60	174.33	54.433	CC
JAMASO 4-65 5-6-5 - ORIGINAL WELLBORE - PROPO	600.00	602.53	178.16	174.18	44.727	ES
JAMASO 4-65 5-6-5 - ORIGINAL WELLBORE - PROPO	18,210.73	17,917.28	2,757.14	2,200.80	4.956	SF
JAMASO 4-65 5-6-6 - ORIGINAL WELLBORE - PROPO	528.98	527.37	194.25	190.84	56.962	CC
JAMASO 4-65 5-6-6 - ORIGINAL WELLBORE - PROPO	600.00	602.53	194.58	190.60	48.846	ES
JAMASO 4-65 5-6-6 - ORIGINAL WELLBORE - PROPO	18,210.73	17,767.61	2,356.83	1,800.41	4.236	SF
JAMASO 4-65 5-6-7 - ORIGINAL WELLBORE - PROPO	389.85	389.36	88.80	86.45	37.759	CC
JAMASO 4-65 5-6-7 - ORIGINAL WELLBORE - PROPO	400.00	400.55	88.81	86.37	36.541	ES
JAMASO 4-65 5-6-7 - ORIGINAL WELLBORE - PROPO	18,210.73	17,967.15	1,989.88	1,433.84	3.579	SF
JAMASO 4-65 5-6-8 - ORIGINAL WELLBORE - PROPO	361.29	360.93	72.15	70.01	33.688	CC
JAMASO 4-65 5-6-8 - ORIGINAL WELLBORE - PROPO	400.00	400.55	72.25	69.82	29.728	ES
JAMASO 4-65 5-6-8 - ORIGINAL WELLBORE - PROPO	18,210.73	17,960.53	1,590.23	1,033.70	2.857	SF
JAMASO 4-65 5-6-9 - ORIGINAL WELLBORE - PROPO	323.34	323.11	52.72	50.86	28.305	CC
JAMASO 4-65 5-6-9 - ORIGINAL WELLBORE - PROPO	400.00	400.55	53.19	50.76	21.885	ES
JAMASO 4-65 5-6-9 - ORIGINAL WELLBORE - PROPO	18,210.73	17,891.05	1,187.53	629.26	2.127	SF

Anticollision Report

Company:	AXIS EXPLORATION	Local Co-ordinate Reference:	Well JAMASO 4-65 5-6-12
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5610.00usft
Reference Site:	Sec 4-T4S-R65W	MD Reference:	KB 25' @ 5610.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	JAMASO 4-65 5-6-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design													Sec 4-T4S-R65W - EXIST DD PROPERTY RESERVE 4-65 3-4 1H - Wellbore #1 - Wellbore #1		Offset Site Error:		0.00 usft
Survey Program:		83-MWD											Offset Well Error:		0.00 usft		
Reference		Offset		Semi Major Axis			Distance							Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor					
0.00	0.00	16,764.74	8,058.50	0.00	243.86	175.28	-2,163.55	178.76	8,244.46								
100.00	100.00	16,767.13	8,058.54	0.13	243.93	175.34	-2,163.59	176.37	8,148.03	8,050.44	97.59	83.489					
200.00	199.98	16,769.94	8,058.59	0.48	244.00	-15.94	-2,163.64	173.57	8,051.25	7,953.15	98.10	82.070					
300.00	299.84	16,773.56	8,058.66	0.84	244.10	-18.42	-2,163.70	169.95	7,953.75	7,855.16	98.59	80.677					
400.00	399.45	400.00	8,059.83	1.22	193.54	-18.63	-2,164.50	88.45	7,855.59	7,778.59	77.00	102.018					
500.00	498.70	500.00	8,059.87	1.62	190.87	-22.86	-2,164.51	85.34	7,756.88	7,680.64	76.24	101.740					
600.00	597.47	600.00	8,059.90	2.05	188.19	-29.36	-2,164.53	81.65	7,657.74	7,582.30	75.43	101.518					
700.00	695.62	700.00	8,059.95	2.51	185.52	-40.27	-2,164.54	77.40	7,558.25	7,483.68	74.57	101.357					
800.00	793.06	800.00	8,060.00	3.00	182.85	-59.93	-2,164.56	72.59	7,458.54	7,384.89	73.66	101.261					
900.00	889.64	900.00	8,060.06	3.54	180.18	-91.60	-2,164.59	67.22	7,358.72	7,286.03	72.69	101.236					
1,000.00	985.27	1,000.00	8,060.13	4.12	177.50	-122.73	-2,164.61	61.30	7,258.91	7,187.24	71.67	101.286					
1,100.00	1,079.82	1,100.00	8,060.20	4.74	174.83	-141.73	-2,164.64	54.84	7,159.22	7,088.63	70.59	101.415					
1,200.00	1,173.17	16,956.41	8,060.71	5.41	248.98	-155.69	-2,164.63	-12.88	7,059.76	6,957.83	101.93	69.259					
1,203.38	1,176.30	16,956.62	8,060.71	5.43	248.99	-155.93	-2,164.63	-13.09	7,056.40	6,954.47	101.93	69.229					
1,300.00	1,265.84	16,962.77	8,060.73	6.10	249.15	-156.29	-2,164.61	-19.24	6,960.47	6,858.63	101.83	68.352					
1,400.00	1,358.52	16,969.13	8,060.76	6.81	249.32	-156.66	-2,164.58	-25.60	6,861.18	6,759.45	101.74	67.441					
1,500.00	1,451.19	16,975.49	8,060.79	7.52	249.49	-157.04	-2,164.55	-31.96	6,761.92	6,660.28	101.64	66.530					
1,600.00	1,543.87	16,981.85	8,060.82	8.24	249.66	-157.42	-2,164.52	-38.32	6,662.67	6,561.13	101.54	65.618					
1,700.00	1,636.54	16,988.21	8,060.84	8.95	249.83	-157.80	-2,164.50	-44.68	6,563.44	6,462.00	101.44	64.706					
1,800.00	1,729.21	16,985.00	8,060.83	9.68	249.75	-157.61	-2,164.51	-41.47	6,464.23	6,363.00	101.23	63.855					
1,900.00	1,821.89	16,985.00	8,060.83	10.40	249.75	-157.61	-2,164.51	-41.47	6,365.05	6,263.98	101.06	62.982					
2,000.00	1,914.56	16,985.00	8,060.83	11.12	249.75	-157.61	-2,164.51	-41.47	6,265.89	6,165.00	100.89	62.107					
2,100.00	2,007.24	16,985.00	8,060.83	11.85	249.75	-157.61	-2,164.51	-41.47	6,166.76	6,066.05	100.71	61.232					
2,200.00	2,099.91	16,985.00	8,060.83	12.58	249.75	-157.61	-2,164.51	-41.47	6,067.66	5,967.13	100.53	60.357					
2,300.00	2,192.58	16,985.00	8,060.83	13.30	249.75	-157.61	-2,164.51	-41.47	5,968.58	5,868.24	100.35	59.480					
2,400.00	2,285.26	16,985.00	8,060.83	14.03	249.75	-157.61	-2,164.51	-41.47	5,869.54	5,769.39	100.16	58.604					
2,500.00	2,377.93	16,985.00	8,060.83	14.76	249.75	-157.61	-2,164.51	-41.47	5,770.53	5,670.57	99.96	57.726					
2,600.00	2,470.61	16,985.00	8,060.83	15.49	249.75	-157.61	-2,164.51	-41.47	5,671.56	5,571.80	99.76	56.849					
2,700.00	2,563.28	16,985.00	8,060.83	16.22	249.75	-157.61	-2,164.51	-41.47	5,572.63	5,473.07	99.56	55.972					
2,800.00	2,655.95	16,985.00	8,060.83	16.95	249.75	-157.61	-2,164.51	-41.47	5,473.73	5,374.38	99.35	55.095					
2,900.00	2,748.63	16,985.00	8,060.83	17.68	249.75	-157.61	-2,164.51	-41.47	5,374.87	5,275.74	99.13	54.218					
3,000.00	2,841.30	16,985.00	8,060.83	18.42	249.75	-157.61	-2,164.51	-41.47	5,276.06	5,177.15	98.91	53.342					
3,100.00	2,933.98	16,985.00	8,060.83	19.15	249.75	-157.61	-2,164.51	-41.47	5,177.29	5,078.61	98.68	52.465					
3,200.00	3,026.65	16,985.00	8,060.83	19.88	249.75	-157.61	-2,164.51	-41.47	5,078.57	4,980.13	98.44	51.590					
3,300.00	3,119.33	16,985.00	8,060.83	20.61	249.75	-157.61	-2,164.51	-41.47	4,979.90	4,881.71	98.20	50.714					
3,400.00	3,212.00	16,985.00	8,060.83	21.35	249.75	-157.61	-2,164.51	-41.47	4,881.29	4,783.35	97.94	49.840					
3,500.00	3,304.67	16,985.00	8,060.83	22.08	249.75	-157.61	-2,164.51	-41.47	4,782.73	4,685.05	97.68	48.965					
3,600.00	3,397.35	16,985.00	8,060.83	22.81	249.75	-157.61	-2,164.51	-41.47	4,684.23	4,586.83	97.40	48.092					
3,700.00	3,490.02	16,985.00	8,060.83	23.54	249.75	-157.61	-2,164.51	-41.47	4,585.80	4,488.68	97.12	47.219					
3,800.00	3,582.70	16,985.00	8,060.83	24.28	249.75	-157.61	-2,164.51	-41.47	4,487.44	4,390.62	96.82	46.347					
3,900.00	3,675.37	16,985.00	8,060.83	25.01	249.75	-157.61	-2,164.51	-41.47	4,389.15	4,292.64	96.52	45.476					
4,000.00	3,768.04	16,985.00	8,060.83	25.74	249.75	-157.61	-2,164.51	-41.47	4,290.94	4,194.75	96.20	44.605					
4,100.00	3,860.72	16,985.00	8,060.83	26.48	249.75	-157.61	-2,164.51	-41.47	4,192.82	4,096.95	95.87	43.735					
4,200.00	3,953.39	16,985.00	8,060.83	27.21	249.75	-157.61	-2,164.51	-41.47	4,094.79	3,999.26	95.53	42.866					
4,300.00	4,046.07	16,985.00	8,060.83	27.95	249.75	-157.61	-2,164.51	-41.47	3,996.85	3,901.68	95.17	41.997					
4,400.00	4,138.74	16,985.00	8,060.83	28.68	249.75	-157.61	-2,164.51	-41.47	3,899.02	3,804.22	94.80	41.129					
4,500.00	4,231.41	16,985.00	8,060.83	29.41	249.75	-157.61	-2,164.51	-41.47	3,801.30	3,706.89	94.42	40.260					
4,600.00	4,324.09	16,985.00	8,060.83	30.15	249.75	-157.61	-2,164.51	-41.47	3,703.71	3,609.69	94.02	39.392					
4,700.00	4,416.76	16,985.00	8,060.83	30.88	249.75	-157.61	-2,164.51	-41.47	3,606.24	3,512.63	93.61	38.523					
4,800.00	4,509.44	16,985.00	8,060.83	31.62	249.75	-157.61	-2,164.51	-41.47	3,508.92	3,415.74	93.19	37.654					
4,900.00	4,602.11	16,985.00	8,060.83	32.35	249.75	-157.61	-2,164.51	-41.47	3,411.76	3,319.01	92.75	36.784					
5,000.00	4,694.78	16,985.00	8,060.83	33.08	249.75	-157.61	-2,164.51	-41.47	3,314.76	3,222.46	92.30	35.912					

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

Anticollision Report

Company:	AXIS EXPLORATION	Local Co-ordinate Reference:	Well JAMASO 4-65 5-6-12
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5610.00usft
Reference Site:	Sec 4-T4S-R65W	MD Reference:	KB 25' @ 5610.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	JAMASO 4-65 5-6-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 83-MWDD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,100.00	4,787.46	16,985.00	8,060.83	33.82	249.75	-157.61	-2,164.51	-41.47	3,217.94	3,126.11	91.84	35.039		
5,200.00	4,880.13	16,985.00	8,060.83	34.55	249.75	-157.61	-2,164.51	-41.47	3,121.33	3,029.96	91.37	34.162		
5,300.00	4,972.81	16,985.00	8,060.83	35.29	249.75	-157.61	-2,164.51	-41.47	3,024.94	2,934.05	90.89	33.281		
5,400.00	5,065.48	16,985.00	8,060.83	36.02	249.75	-157.61	-2,164.51	-41.47	2,928.79	2,838.38	90.41	32.395		
5,500.00	5,158.15	16,985.00	8,060.83	36.76	249.75	-157.61	-2,164.51	-41.47	2,832.90	2,742.98	89.92	31.503		
5,600.00	5,250.83	16,985.00	8,060.83	37.49	249.75	-157.61	-2,164.51	-41.47	2,737.31	2,647.86	89.45	30.602		
5,700.00	5,343.50	16,985.00	8,060.83	38.22	249.75	-157.61	-2,164.51	-41.47	2,642.05	2,553.06	88.99	29.690		
5,800.00	5,436.18	16,985.00	8,060.83	38.96	249.75	-157.61	-2,164.51	-41.47	2,547.15	2,458.60	88.55	28.765		
5,900.00	5,528.85	16,985.00	8,060.83	39.69	249.75	-157.61	-2,164.51	-41.47	2,452.65	2,364.50	88.15	27.824		
6,000.00	5,621.53	16,985.00	8,060.83	40.43	249.75	-157.61	-2,164.51	-41.47	2,358.61	2,270.80	87.81	26.861		
6,100.00	5,714.20	16,985.00	8,060.83	41.16	249.75	-157.61	-2,164.51	-41.47	2,265.08	2,177.53	87.55	25.873		
6,200.00	5,806.87	16,985.00	8,060.83	41.90	249.75	-157.61	-2,164.51	-41.47	2,172.13	2,084.73	87.40	24.853		
6,300.00	5,899.55	16,985.00	8,060.83	42.63	249.75	-157.61	-2,164.51	-41.47	2,079.83	1,992.42	87.40	23.796		
6,400.00	5,992.22	16,985.00	8,060.83	43.37	249.75	-157.61	-2,164.51	-41.47	1,988.27	1,900.66	87.61	22.695		
6,490.07	6,075.70	16,985.00	8,060.83	44.03	249.75	-157.61	-2,164.51	-41.47	1,906.53	1,818.50	88.03	21.658		
6,500.00	6,084.90	16,985.00	8,060.83	44.10	249.75	-157.45	-2,164.51	-41.47	1,897.56	1,809.47	88.09	21.541		
6,600.00	6,178.34	16,985.00	8,060.83	44.81	249.75	-155.75	-2,164.51	-41.47	1,806.99	1,718.10	88.89	20.329		
6,700.00	6,272.96	16,985.00	8,060.83	45.47	249.75	-153.89	-2,164.51	-41.47	1,716.05	1,626.05	90.00	19.066		
6,800.00	6,368.65	16,985.00	8,060.83	46.08	249.75	-151.86	-2,164.51	-41.47	1,624.82	1,533.37	91.45	17.768		
6,900.00	6,465.30	16,985.00	8,060.83	46.64	249.75	-149.65	-2,164.51	-41.47	1,533.35	1,440.13	93.22	16.448		
7,000.00	6,562.78	16,985.00	8,060.83	47.15	249.75	-147.26	-2,164.51	-41.47	1,441.73	1,346.40	95.33	15.124		
7,100.00	6,660.98	16,985.00	8,060.83	47.61	249.75	-144.69	-2,164.51	-41.47	1,350.05	1,252.28	97.77	13.808		
7,200.00	6,759.78	16,985.00	8,060.83	48.02	249.75	-141.96	-2,164.51	-41.47	1,258.40	1,157.85	100.55	12.515		
7,300.00	6,859.06	16,985.00	8,060.83	48.39	249.75	-139.08	-2,164.51	-41.47	1,166.94	1,063.27	103.67	11.256		
7,400.00	6,958.69	16,985.00	8,060.83	48.70	249.75	-136.10	-2,164.51	-41.47	1,075.84	968.70	107.14	10.041		
7,500.00	7,058.56	16,985.00	8,060.83	48.96	249.75	-133.07	-2,164.51	-41.47	985.31	874.35	110.96	8.880		
7,593.46	7,152.00	16,985.00	8,060.83	49.15	249.75	59.14	-2,164.51	-41.47	901.49	786.65	114.84	7.850		
7,600.00	7,158.54	16,985.00	8,060.83	49.16	249.75	59.14	-2,164.51	-41.47	895.66	780.53	115.12	7.780		
7,623.46	7,182.00	16,985.00	8,060.83	49.20	249.75	59.14	-2,164.51	-41.47	874.84	758.67	116.18	7.530		
7,650.00	7,208.53	16,985.00	8,060.83	49.24	249.75	151.24	-2,164.51	-41.47	851.72	734.29	117.43	7.253		
7,700.00	7,258.32	16,985.00	8,060.83	49.34	249.75	154.61	-2,164.51	-41.47	810.34	690.41	119.94	6.756		
7,750.00	7,307.52	16,985.00	8,060.83	49.45	249.75	156.99	-2,164.51	-41.47	772.51	649.92	122.59	6.302		
7,800.00	7,355.76	16,985.00	8,060.83	49.56	249.75	158.69	-2,164.51	-41.47	739.06	613.77	125.28	5.899		
7,850.00	7,402.69	16,985.00	8,060.83	49.68	249.75	159.90	-2,164.51	-41.47	710.88	583.01	127.87	5.560		
7,900.00	7,447.93	16,985.00	8,060.83	49.80	249.75	160.73	-2,164.51	-41.47	688.85	558.72	130.14	5.293		
7,950.00	7,491.15	16,985.00	8,060.83	49.93	249.75	161.25	-2,164.51	-41.47	673.75	541.87	131.88	5.109		
8,000.00	7,532.02	16,985.00	8,060.83	50.07	249.75	161.49	-2,164.51	-41.47	666.17	533.27	132.90	5.012		
8,023.43	7,550.27	16,985.00	8,060.83	50.13	249.75	161.52	-2,164.51	-41.47	665.30	532.21	133.09	4.999 CC, ES, SF		
8,050.00	7,570.23	16,985.00	8,060.83	50.20	249.75	161.49	-2,164.51	-41.47	666.42	533.34	133.08	5.008		
8,100.00	7,605.48	16,985.00	8,060.83	50.35	249.75	161.22	-2,164.51	-41.47	674.49	542.11	132.37	5.095		
8,150.00	7,637.51	16,985.00	8,060.83	50.50	249.75	160.69	-2,164.51	-41.47	690.04	559.16	130.87	5.273		
8,200.00	7,666.07	16,985.00	8,060.83	50.66	249.75	159.84	-2,164.51	-41.47	712.48	583.72	128.75	5.534		
8,250.00	7,690.95	16,985.00	8,060.83	50.82	249.75	158.60	-2,164.51	-41.47	741.01	614.81	126.20	5.872		
8,300.00	7,711.95	16,985.00	8,060.83	51.00	249.75	156.86	-2,164.51	-41.47	774.76	651.34	123.43	6.277		
8,350.00	7,728.93	16,985.00	8,060.83	51.19	249.75	154.43	-2,164.51	-41.47	812.85	692.27	120.58	6.741		
8,400.00	7,741.74	16,985.00	8,060.83	51.39	249.75	150.99	-2,164.51	-41.47	854.41	736.62	117.80	7.253		
8,450.00	7,750.29	16,985.00	8,060.83	51.61	249.75	145.99	-2,164.51	-41.47	898.69	783.54	115.15	7.805		
8,500.00	7,754.52	16,985.00	8,060.83	51.85	249.75	138.46	-2,164.51	-41.47	944.97	832.28	112.69	8.386		
8,523.52	7,755.00	16,985.00	8,060.83	51.97	249.75	133.60	-2,164.51	-41.47	967.27	855.66	111.61	8.667		
8,600.00	7,755.00	16,985.00	8,060.83	52.38	249.75	133.60	-2,164.51	-41.47	1,040.45	932.04	108.41	9.597		
8,700.00	7,755.00	16,985.00	8,060.83	53.00	249.75	133.60	-2,164.51	-41.47	1,136.80	1,031.91	104.89	10.838		
8,800.00	7,755.00	16,985.00	8,060.83	53.72	249.75	133.60	-2,164.51	-41.47	1,233.73	1,131.76	101.97	12.098		

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

Anticollision Report

Company:	AXIS EXPLORATION	Local Co-ordinate Reference:	Well JAMASO 4-65 5-6-12
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5610.00usft
Reference Site:	Sec 4-T4S-R65W	MD Reference:	KB 25' @ 5610.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	JAMASO 4-65 5-6-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 83-MWDD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
8,900.00	7,755.00	16,985.00	8,060.83	54.54	249.75	133.60	-2,164.51	-41.47	1,331.12	1,231.59	99.53	13.374		
9,000.00	7,755.00	16,985.00	8,060.83	55.47	249.75	133.60	-2,164.51	-41.47	1,428.86	1,331.40	97.46	14.661		
9,100.00	7,755.00	16,985.00	8,060.83	56.53	249.75	133.60	-2,164.51	-41.47	1,526.90	1,431.20	95.70	15.955		
9,200.00	7,755.00	16,985.00	8,060.83	57.70	249.75	133.60	-2,164.51	-41.47	1,625.18	1,530.99	94.19	17.254		
9,300.00	7,755.00	16,985.00	8,060.83	58.99	249.75	133.60	-2,164.51	-41.47	1,723.65	1,630.77	92.88	18.557		
9,400.00	7,755.00	16,985.00	8,060.83	60.41	249.75	133.60	-2,164.51	-41.47	1,822.29	1,730.54	91.75	19.862		
9,500.00	7,755.00	16,985.00	8,060.83	61.93	249.75	133.60	-2,164.51	-41.47	1,921.07	1,830.31	90.76	21.167		
9,600.00	7,755.00	16,985.00	8,060.83	63.56	249.75	133.60	-2,164.51	-41.47	2,019.97	1,930.09	89.89	22.472		
9,700.00	7,755.00	16,985.00	8,060.83	65.28	249.75	133.60	-2,164.51	-41.47	2,118.98	2,029.86	89.12	23.777		
9,800.00	7,755.00	16,985.00	8,060.83	67.09	249.75	133.60	-2,164.51	-41.47	2,218.07	2,129.63	88.44	25.080		
9,900.00	7,755.00	16,985.00	8,060.83	68.98	249.75	133.60	-2,164.51	-41.47	2,317.24	2,229.41	87.83	26.382		
10,000.00	7,755.00	16,985.00	8,060.83	70.94	249.75	133.60	-2,164.51	-41.47	2,416.48	2,329.19	87.29	27.682		
10,100.00	7,755.00	16,985.00	8,060.83	72.96	249.75	133.60	-2,164.51	-41.47	2,515.78	2,428.97	86.81	28.980		
10,200.00	7,755.00	16,985.00	8,060.83	75.04	249.75	133.60	-2,164.51	-41.47	2,615.14	2,528.76	86.38	30.276		
10,300.00	7,755.00	16,985.00	8,060.83	77.17	249.75	133.60	-2,164.51	-41.47	2,714.54	2,628.55	85.98	31.570		
10,400.00	7,755.00	16,985.00	8,060.83	79.34	249.75	133.60	-2,164.51	-41.47	2,813.98	2,728.35	85.63	32.861		
10,500.00	7,755.00	16,985.00	8,060.83	81.55	249.75	133.60	-2,164.51	-41.47	2,913.46	2,828.15	85.31	34.151		
10,600.00	7,755.00	16,985.00	8,060.83	83.80	249.75	133.60	-2,164.51	-41.47	3,012.98	2,927.96	85.02	35.437		
10,700.00	7,755.00	16,985.00	8,060.83	86.08	249.75	133.60	-2,164.51	-41.47	3,112.53	3,027.77	84.76	36.722		
10,800.00	7,755.00	16,985.00	8,060.83	88.39	249.75	133.60	-2,164.51	-41.47	3,212.10	3,127.58	84.52	38.004		
10,900.00	7,755.00	16,985.00	8,060.83	90.73	249.75	133.60	-2,164.51	-41.47	3,311.70	3,227.40	84.30	39.284		
11,000.00	7,755.00	16,985.00	8,060.83	93.08	249.75	133.60	-2,164.51	-41.47	3,411.33	3,327.22	84.10	40.562		
11,100.00	7,755.00	16,985.00	8,060.83	95.46	249.75	133.60	-2,164.51	-41.47	3,510.97	3,427.05	83.92	41.837		
11,200.00	7,754.99	16,985.00	8,060.83	97.86	249.75	133.60	-2,164.51	-41.47	3,610.64	3,526.88	83.75	43.110		
11,300.00	7,754.99	16,985.00	8,060.83	100.28	249.75	133.60	-2,164.51	-41.47	3,710.32	3,626.72	83.60	44.381		
11,400.00	7,754.99	16,985.00	8,060.83	102.71	249.75	133.60	-2,164.51	-41.47	3,810.02	3,726.56	83.46	45.650		
11,500.00	7,754.99	16,985.00	8,060.83	105.16	249.75	133.60	-2,164.51	-41.47	3,909.73	3,826.40	83.33	46.917		
11,600.00	7,754.99	16,985.00	8,060.83	107.62	249.75	133.60	-2,164.51	-41.47	4,009.46	3,926.25	83.22	48.182		
11,700.00	7,754.99	16,985.00	8,060.83	110.10	249.75	133.60	-2,164.51	-41.47	4,109.21	4,026.10	83.11	49.444		
11,800.00	7,754.99	16,985.00	8,060.83	112.58	249.75	133.60	-2,164.51	-41.47	4,208.96	4,125.95	83.01	50.704		
11,900.00	7,754.99	16,985.00	8,060.83	115.08	249.75	133.60	-2,164.51	-41.47	4,308.73	4,225.81	82.92	51.963		
12,000.00	7,754.99	16,985.00	8,060.83	117.59	249.75	133.60	-2,164.51	-41.47	4,408.50	4,325.67	82.84	53.219		
12,100.00	7,754.99	16,985.00	8,060.83	120.10	249.75	133.60	-2,164.51	-41.47	4,508.29	4,425.53	82.76	54.473		
12,200.00	7,754.99	16,985.00	8,060.83	122.62	249.75	133.60	-2,164.51	-41.47	4,608.08	4,525.39	82.69	55.726		
12,300.00	7,754.99	16,985.00	8,060.83	125.16	249.75	133.60	-2,164.51	-41.47	4,707.89	4,625.26	82.63	56.976		
12,400.00	7,754.99	16,985.00	8,060.83	127.70	249.75	133.60	-2,164.51	-41.47	4,807.70	4,725.13	82.57	58.224		
12,500.00	7,754.99	16,985.00	8,060.83	130.24	249.75	133.60	-2,164.51	-41.47	4,907.52	4,825.00	82.52	59.471		
12,600.00	7,754.99	16,985.00	8,060.83	132.79	249.75	133.60	-2,164.51	-41.47	5,007.35	4,924.88	82.47	60.715		
12,700.00	7,754.99	16,985.00	8,060.83	135.35	249.75	133.60	-2,164.51	-41.47	5,107.18	5,024.75	82.43	61.958		
12,800.00	7,754.99	16,985.00	8,060.83	137.92	249.75	133.60	-2,164.51	-41.47	5,207.02	5,124.63	82.39	63.198		
12,900.00	7,754.99	16,985.00	8,060.83	140.48	249.75	133.60	-2,164.51	-41.47	5,306.87	5,224.51	82.36	64.437		
13,000.00	7,754.99	16,985.00	8,060.83	143.06	249.75	133.60	-2,164.51	-41.47	5,406.72	5,324.39	82.33	65.674		
13,100.00	7,754.99	16,985.00	8,060.83	145.64	249.75	133.60	-2,164.51	-41.47	5,506.58	5,424.28	82.30	66.909		
13,200.00	7,754.99	16,985.00	8,060.83	148.22	249.75	133.60	-2,164.51	-41.47	5,606.44	5,524.17	82.28	68.141		
13,300.00	7,754.99	16,985.00	8,060.83	150.81	249.75	133.60	-2,164.51	-41.47	5,706.31	5,624.05	82.26	69.372		
13,400.00	7,754.99	16,985.00	8,060.83	153.40	249.75	133.60	-2,164.51	-41.47	5,806.18	5,723.94	82.24	70.602		
13,500.00	7,754.99	16,985.00	8,060.83	156.00	249.75	133.60	-2,164.51	-41.47	5,906.06	5,823.83	82.22	71.829		
13,600.00	7,754.99	16,985.00	8,060.83	158.59	249.75	133.60	-2,164.51	-41.47	6,005.94	5,923.73	82.21	73.054		
13,700.00	7,754.99	16,985.00	8,060.83	161.20	249.75	133.60	-2,164.51	-41.47	6,105.82	6,023.62	82.20	74.277		
13,800.00	7,754.99	16,985.00	8,060.83	163.80	249.75	133.60	-2,164.51	-41.47	6,205.71	6,123.51	82.20	75.499		
13,900.00	7,754.99	16,985.00	8,060.83	166.41	249.75	133.60	-2,164.51	-41.47	6,305.60	6,223.41	82.19	76.718		
14,000.00	7,754.99	16,985.00	8,060.83	169.02	249.75	133.60	-2,164.51	-41.47	6,405.50	6,323.31	82.19	77.936		

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

Anticollision Report

Company:	AXIS EXPLORATION	Local Co-ordinate Reference:	Well JAMASO 4-65 5-6-12
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5610.00usft
Reference Site:	Sec 4-T4S-R65W	MD Reference:	KB 25' @ 5610.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	JAMASO 4-65 5-6-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 83-MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
14,100.00	7,754.99	16,985.00	8,060.83	171.63	249.75	133.60	-2,164.51	-41.47	6,505.40	6,423.21	82.19	79.151		
14,200.00	7,754.99	16,985.00	8,060.83	174.25	249.75	133.60	-2,164.51	-41.47	6,605.30	6,523.11	82.19	80.365		
14,300.00	7,754.99	16,985.00	8,060.83	176.87	249.75	133.60	-2,164.51	-41.47	6,705.20	6,623.01	82.20	81.577		
14,400.00	7,754.99	16,985.00	8,060.83	179.49	249.75	133.60	-2,164.51	-41.47	6,805.11	6,722.91	82.20	82.786		
14,500.00	7,754.99	16,985.00	8,060.83	182.11	249.75	133.60	-2,164.51	-41.47	6,905.02	6,822.81	82.21	83.994		
14,600.00	7,754.99	16,985.00	8,060.83	184.74	249.75	133.60	-2,164.51	-41.47	7,004.93	6,922.71	82.22	85.200		
14,700.00	7,754.99	16,985.00	8,060.83	187.37	249.75	133.60	-2,164.51	-41.47	7,104.84	7,022.62	82.23	86.404		
14,800.00	7,754.99	16,985.00	8,060.83	190.00	249.75	133.60	-2,164.51	-41.47	7,204.76	7,122.52	82.24	87.606		
14,900.00	7,754.99	16,985.00	8,060.83	192.63	249.75	133.60	-2,164.51	-41.47	7,304.68	7,222.43	82.25	88.806		
15,000.00	7,754.99	16,985.00	8,060.83	195.26	249.75	133.60	-2,164.51	-41.47	7,404.60	7,322.33	82.27	90.004		
15,100.00	7,754.99	16,985.00	8,060.83	197.89	249.75	133.60	-2,164.51	-41.47	7,504.53	7,422.24	82.29	91.199		
15,200.00	7,754.99	16,985.00	8,060.83	200.53	249.75	133.60	-2,164.51	-41.47	7,604.45	7,522.15	82.31	92.393		
15,300.00	7,754.99	16,985.00	8,060.83	203.17	249.75	133.60	-2,164.51	-41.47	7,704.38	7,622.05	82.32	93.585		
15,400.00	7,754.99	16,985.00	8,060.83	205.81	249.75	133.60	-2,164.51	-41.47	7,804.31	7,721.96	82.35	94.775		
15,500.00	7,754.99	16,985.00	8,060.83	208.45	249.75	133.60	-2,164.51	-41.47	7,904.24	7,821.87	82.37	95.963		
15,600.00	7,754.99	16,985.00	8,060.83	211.09	249.75	133.60	-2,164.51	-41.47	8,004.17	7,921.78	82.39	97.148		
15,700.00	7,754.99	16,985.00	8,060.83	213.74	249.75	133.60	-2,164.51	-41.47	8,104.11	8,021.69	82.42	98.332		
15,800.00	7,754.99	16,985.00	8,060.83	216.38	249.75	133.60	-2,164.51	-41.47	8,204.04	8,121.60	82.44	99.513		
15,900.00	7,754.99	16,985.00	8,060.83	219.03	249.75	133.60	-2,164.51	-41.47	8,303.98	8,221.51	82.47	100.693		
16,000.00	7,754.99	16,985.00	8,060.83	221.67	249.75	133.60	-2,164.51	-41.47	8,403.92	8,321.42	82.50	101.870		
16,100.00	7,754.99	16,985.00	8,060.83	224.32	249.75	133.60	-2,164.51	-41.47	8,503.86	8,421.34	82.53	103.046		
16,200.00	7,754.99	16,985.00	8,060.83	226.97	249.75	133.60	-2,164.51	-41.47	8,603.80	8,521.25	82.56	104.219		
16,300.00	7,754.99	16,985.00	8,060.83	229.62	249.75	133.60	-2,164.51	-41.47	8,703.75	8,621.16	82.59	105.390		
16,400.00	7,754.98	16,985.00	8,060.83	232.27	249.75	133.60	-2,164.51	-41.47	8,803.69	8,721.07	82.62	106.559		
16,500.00	7,754.98	16,985.00	8,060.83	234.93	249.75	133.60	-2,164.51	-41.47	8,903.64	8,820.99	82.65	107.725		
16,600.00	7,754.98	16,985.00	8,060.83	237.58	249.75	133.60	-2,164.51	-41.47	9,003.58	8,920.90	82.69	108.890		
16,700.00	7,754.98	16,985.00	8,060.83	240.23	249.75	133.60	-2,164.51	-41.47	9,103.53	9,020.81	82.72	110.052		
16,800.00	7,754.98	16,985.00	8,060.83	242.89	249.75	133.60	-2,164.51	-41.47	9,203.48	9,120.73	82.76	111.213		
16,900.00	7,754.98	16,985.00	8,060.83	245.55	249.75	133.60	-2,164.51	-41.47	9,303.43	9,220.64	82.79	112.371		
17,000.00	7,754.98	16,985.00	8,060.83	248.20	249.75	133.60	-2,164.51	-41.47	9,403.38	9,320.55	82.83	113.526		
17,100.00	7,754.98	16,985.00	8,060.83	250.86	249.75	133.60	-2,164.51	-41.47	9,503.34	9,420.47	82.87	114.680		
17,200.00	7,754.98	16,985.00	8,060.83	253.52	249.75	133.60	-2,164.51	-41.47	9,603.29	9,520.38	82.91	115.831		
17,300.00	7,754.98	16,985.00	8,060.83	256.18	249.75	133.60	-2,164.51	-41.47	9,703.25	9,620.30	82.95	116.981		
17,400.00	7,754.98	16,985.00	8,060.83	258.84	249.75	133.60	-2,164.51	-41.47	9,803.20	9,720.21	82.99	118.128		
17,500.00	7,754.98	16,985.00	8,060.83	261.50	249.75	133.60	-2,164.51	-41.47	9,903.16	9,820.13	83.03	119.272		

Anticollision Report

Company:	AXIS EXPLORATION	Local Co-ordinate Reference:	Well JAMASO 4-65 5-6-12
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5610.00usft
Reference Site:	Sec 4-T4S-R65W	MD Reference:	KB 25' @ 5610.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	JAMASO 4-65 5-6-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	-90.00	0.00	-106.87	106.87					
100.00	100.00	100.00	100.00	0.13	0.13	-90.00	0.00	-106.87	106.87	106.61	0.27	397.519		
200.00	199.98	199.98	199.98	0.48	0.49	81.56	0.00	-106.87	106.60	105.63	0.97	109.379		
286.98	286.85	286.20	286.19	0.80	0.80	84.56	1.28	-107.05	106.31	104.72	1.60	66.650 CC		
300.00	299.84	299.06	299.04	0.84	0.85	85.24	1.70	-107.11	106.32	104.64	1.69	62.995 ES		
400.00	399.45	397.09	396.94	1.22	1.21	92.38	6.71	-107.81	107.60	105.18	2.42	44.435		
500.00	498.70	493.42	492.91	1.62	1.56	102.20	14.87	-108.94	112.83	109.65	3.18	35.488		
600.00	597.47	587.43	586.25	2.05	1.92	113.13	25.91	-110.48	124.73	120.78	3.95	31.575		
700.00	695.62	678.56	676.34	2.51	2.29	123.43	39.50	-112.37	145.15	140.44	4.71	30.837		
800.00	793.06	766.33	762.65	3.00	2.67	132.04	55.26	-114.57	174.50	169.07	5.43	32.144		
900.00	889.64	850.35	844.78	3.54	3.05	138.73	72.80	-117.01	212.21	206.10	6.11	34.721		
1,000.00	985.27	930.30	922.42	4.12	3.44	143.76	91.70	-119.64	257.37	250.61	6.76	38.069		
1,100.00	1,079.82	1,005.93	995.34	4.74	3.83	147.51	111.54	-122.40	309.11	301.74	7.37	41.924		
1,200.00	1,173.17	1,077.08	1,063.44	5.41	4.21	150.28	131.95	-125.24	366.68	358.72	7.96	46.071		
1,203.38	1,176.30	1,082.86	1,065.46	5.43	4.24	150.35	132.58	-125.33	368.72	360.73	7.99	46.136		
1,300.00	1,265.84	1,154.05	1,136.80	6.10	4.65	153.29	155.02	-128.45	427.54	418.95	8.59	49.750		
1,400.00	1,358.52	1,231.52	1,210.63	6.81	5.09	155.61	178.25	-131.69	489.00	479.77	9.23	52.975		
1,500.00	1,451.19	1,308.98	1,284.47	7.52	5.54	157.42	201.47	-134.92	550.87	541.00	9.87	55.795		
1,600.00	1,543.87	1,386.45	1,358.30	8.24	5.99	158.87	224.70	-138.15	613.02	602.50	10.52	58.271		
1,700.00	1,636.54	1,463.92	1,432.13	8.95	6.45	160.07	247.93	-141.39	675.36	664.19	11.17	60.451		
1,800.00	1,729.21	1,541.38	1,505.96	9.68	6.91	161.06	271.15	-144.62	737.86	726.04	11.83	62.382		
1,900.00	1,821.89	1,618.85	1,579.80	10.40	7.37	161.90	294.38	-147.85	800.48	787.99	12.49	64.101		
2,000.00	1,914.56	1,703.68	1,653.63	11.12	7.87	162.62	317.60	-151.09	863.18	850.00	13.18	65.489		
2,100.00	2,007.24	1,773.79	1,727.46	11.85	8.29	163.24	340.83	-154.32	925.96	912.15	13.82	67.021		
2,200.00	2,099.91	1,851.25	1,801.29	12.58	8.76	163.79	364.06	-157.55	988.80	974.31	14.48	68.269		
2,300.00	2,192.58	1,928.72	1,875.13	13.30	9.23	164.27	387.28	-160.79	1,051.68	1,036.53	15.15	69.401		
2,400.00	2,285.26	2,006.19	1,948.96	14.03	9.69	164.69	410.51	-164.02	1,114.61	1,098.78	15.83	70.430		
2,500.00	2,377.93	2,083.66	2,022.79	14.76	10.16	165.07	433.74	-167.25	1,177.56	1,161.07	16.50	71.371		
2,600.00	2,470.61	2,161.12	2,096.62	15.49	10.63	165.41	456.96	-170.49	1,240.55	1,223.38	17.17	72.233		
2,700.00	2,563.28	2,238.59	2,170.46	16.22	11.10	165.72	480.19	-173.72	1,303.56	1,285.71	17.85	73.025		
2,800.00	2,655.95	2,316.06	2,244.29	16.95	11.57	166.00	503.42	-176.95	1,366.59	1,348.06	18.53	73.756		
2,900.00	2,748.63	2,406.48	2,318.12	17.68	12.12	166.26	526.64	-180.19	1,429.64	1,410.38	19.26	74.222		
3,000.00	2,841.30	2,470.99	2,391.95	18.42	12.51	166.49	549.87	-183.42	1,492.71	1,472.82	19.89	75.057		
3,100.00	2,933.98	2,548.46	2,465.79	19.15	12.98	166.71	573.10	-186.65	1,555.78	1,535.22	20.57	75.639		
3,200.00	3,026.65	2,625.93	2,539.62	19.88	13.45	166.91	596.32	-189.89	1,618.88	1,597.63	21.25	76.181		
3,300.00	3,119.33	2,703.39	2,613.45	20.61	13.92	167.09	619.55	-193.12	1,681.98	1,660.04	21.93	76.686		
3,400.00	3,212.00	2,780.86	2,687.29	21.35	14.39	167.26	642.77	-196.35	1,745.09	1,722.47	22.62	77.159		
3,500.00	3,304.67	2,858.33	2,761.12	22.08	14.87	167.42	666.00	-199.59	1,808.21	1,784.91	23.30	77.602		
3,600.00	3,397.35	2,935.80	2,834.95	22.81	15.34	167.57	689.23	-202.82	1,871.34	1,847.35	23.99	78.017		
3,700.00	3,490.02	3,013.26	2,908.78	23.54	15.81	167.71	712.45	-206.05	1,934.47	1,909.80	24.67	78.408		
3,800.00	3,582.70	3,109.27	2,982.62	24.28	16.39	167.84	735.68	-209.29	1,997.61	1,972.18	25.44	78.534		
3,900.00	3,675.37	3,168.20	3,056.45	25.01	16.75	167.96	758.91	-212.52	2,060.76	2,034.72	26.05	79.122		
4,000.00	3,768.04	3,245.66	3,130.28	25.74	17.23	168.08	782.13	-215.75	2,123.92	2,097.18	26.73	79.449		
4,100.00	3,860.72	3,323.13	3,204.11	26.48	17.70	168.18	805.36	-218.99	2,187.07	2,159.65	27.42	79.758		
4,200.00	3,953.39	3,400.60	3,277.95	27.21	18.17	168.29	828.59	-222.22	2,250.23	2,222.12	28.11	80.050		
4,300.00	4,046.07	3,478.07	3,351.78	27.95	18.65	168.38	851.81	-225.45	2,313.40	2,284.60	28.80	80.327		
4,400.00	4,138.74	3,555.53	3,425.61	28.68	19.12	168.47	875.04	-228.69	2,376.57	2,347.08	29.49	80.589		
4,500.00	4,231.41	3,633.00	3,499.44	29.41	19.59	168.56	898.26	-231.92	2,439.74	2,409.56	30.18	80.839		
4,600.00	4,324.09	3,710.47	3,573.28	30.15	20.07	168.64	921.49	-235.15	2,502.92	2,472.05	30.87	81.076		
4,700.00	4,416.76	3,787.94	3,647.11	30.88	20.54	168.72	944.72	-238.39	2,566.10	2,534.54	31.56	81.301		
4,800.00	4,509.44	3,865.40	3,720.94	31.62	21.01	168.80	967.94	-241.62	2,629.28	2,597.03	32.26	81.515		
4,900.00	4,602.11	3,942.87	3,794.77	32.35	21.49	168.87	991.17	-244.85	2,692.47	2,659.52	32.95	81.719		

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

Anticollision Report

Company:	AXIS EXPLORATION	Local Co-ordinate Reference:	Well JAMASO 4-65 5-6-12
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5610.00usft
Reference Site:	Sec 4-T4S-R65W	MD Reference:	KB 25' @ 5610.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	JAMASO 4-65 5-6-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,000.00	4,694.78	4,020.34	3,868.61	33.08	21.96	168.93	1,014.40	-248.09	2,755.65	2,722.01	33.64	81.914		
5,100.00	4,787.46	4,102.20	3,942.44	33.82	22.46	169.00	1,037.62	-251.32	2,818.84	2,784.49	34.35	82.055		
5,200.00	4,880.13	4,175.27	4,016.27	34.55	22.91	169.06	1,060.85	-254.55	2,882.03	2,847.01	35.03	82.277		
5,300.00	4,972.81	4,252.74	4,090.11	35.29	23.38	169.12	1,084.08	-257.79	2,945.23	2,909.50	35.72	82.446		
5,400.00	5,065.48	4,330.21	4,163.94	36.02	23.85	169.18	1,107.30	-261.02	3,008.42	2,972.00	36.42	82.607		
5,500.00	5,158.15	4,407.67	4,237.77	36.76	24.33	169.23	1,130.53	-264.25	3,071.62	3,034.51	37.11	82.762		
5,600.00	5,250.83	4,485.14	4,311.60	37.49	24.80	169.28	1,153.76	-267.49	3,134.82	3,097.01	37.81	82.910		
5,700.00	5,343.50	4,562.61	4,385.44	38.22	25.28	169.33	1,176.98	-270.72	3,198.02	3,159.51	38.51	83.051		
5,800.00	5,436.18	4,640.08	4,459.27	38.96	25.75	169.38	1,200.21	-273.95	3,261.22	3,222.01	39.20	83.187		
5,900.00	5,528.85	4,717.54	4,533.10	39.69	26.22	169.43	1,223.43	-277.19	3,324.42	3,284.52	39.90	83.316		
6,000.00	5,621.53	4,804.99	4,606.93	40.43	26.76	169.47	1,246.66	-280.42	3,387.62	3,346.98	40.64	83.354		
6,100.00	5,714.20	4,872.48	4,680.77	41.16	27.17	169.51	1,269.89	-283.65	3,450.83	3,409.53	41.30	83.560		
6,200.00	5,806.87	4,949.94	4,754.60	41.90	27.65	169.56	1,293.11	-286.89	3,514.04	3,472.04	42.00	83.674		
6,300.00	5,899.55	5,027.41	4,828.43	42.63	28.12	169.60	1,316.34	-290.12	3,577.24	3,534.55	42.70	83.783		
6,400.00	5,992.22	5,104.88	4,902.26	43.37	28.60	169.63	1,339.57	-293.35	3,640.45	3,597.05	43.40	83.888		
6,490.07	6,075.70	5,174.66	4,968.77	44.03	29.02	169.67	1,360.49	-296.27	3,697.39	3,653.36	44.03	83.979		
6,500.00	6,084.90	5,182.36	4,976.11	44.10	29.07	169.70	1,362.80	-296.59	3,703.65	3,659.55	44.10	83.989		
6,600.00	6,178.34	5,261.11	5,051.17	44.81	29.55	170.00	1,386.41	-299.87	3,765.25	3,720.45	44.80	84.046		
6,700.00	6,272.96	5,341.95	5,128.21	45.47	30.05	170.27	1,410.65	-303.25	3,824.10	3,778.59	45.51	84.033		
6,800.00	6,368.65	5,424.76	5,207.14	46.08	30.55	170.50	1,435.48	-306.70	3,880.14	3,833.92	46.22	83.952		
6,900.00	6,465.30	5,509.46	5,287.86	46.64	31.07	170.70	1,460.87	-310.24	3,933.30	3,886.36	46.93	83.808		
7,000.00	6,562.78	5,604.07	5,370.28	47.15	31.65	170.87	1,486.80	-313.85	3,983.50	3,935.82	47.68	83.544		
7,100.00	6,660.98	5,684.08	5,454.29	47.61	32.14	171.02	1,513.22	-317.53	4,030.70	3,982.34	48.36	83.346		
7,200.00	6,759.78	5,773.78	5,539.78	48.02	32.69	171.14	1,540.12	-321.27	4,074.83	4,025.76	49.07	83.037		
7,300.00	6,859.06	5,864.95	5,626.67	48.39	33.25	171.24	1,567.45	-325.08	4,115.85	4,066.07	49.78	82.681		
7,400.00	6,958.69	5,957.45	5,714.84	48.70	33.82	171.32	1,595.19	-328.94	4,153.69	4,103.21	50.48	82.280		
7,500.00	7,058.56	6,051.19	5,804.18	48.96	34.39	171.38	1,623.29	-332.85	4,188.32	4,137.14	51.18	81.838		
7,593.46	7,152.00	6,139.80	5,888.63	49.15	34.93	0.79	1,649.86	-336.55	4,217.75	4,165.94	51.81	81.410		
7,600.00	7,158.54	6,146.04	5,894.58	49.16	34.97	0.78	1,651.73	-336.81	4,219.71	4,167.86	51.85	81.381		
7,623.46	7,182.00	6,168.40	5,915.88	49.20	35.11	0.77	1,658.43	-337.74	4,226.73	4,174.73	52.01	81.274		
7,650.00	7,208.53	6,206.29	5,940.01	49.24	35.34	89.68	1,666.02	-338.80	4,234.69	4,182.45	52.24	81.065		
7,700.00	7,258.32	6,241.35	5,985.42	49.34	35.56	88.14	1,680.31	-340.79	4,249.64	4,197.11	52.53	80.898		
7,750.00	7,307.52	6,288.62	6,030.47	49.45	35.84	86.69	1,694.48	-342.76	4,264.46	4,211.58	52.88	80.644		
7,800.00	7,355.76	6,335.17	6,074.83	49.56	36.13	85.31	1,708.44	-344.70	4,279.06	4,225.83	53.23	80.387		
7,850.00	7,402.69	6,380.63	6,118.16	49.68	36.41	84.03	1,722.07	-346.60	4,293.36	4,239.78	53.58	80.130		
7,900.00	7,447.93	6,424.67	6,160.13	49.80	36.68	82.83	1,735.27	-348.44	4,307.29	4,253.37	53.93	79.872		
7,950.00	7,491.15	6,466.94	6,200.42	49.93	36.94	81.71	1,747.94	-350.20	4,320.81	4,266.54	54.27	79.614		
8,000.00	7,532.02	6,507.13	6,238.73	50.07	37.18	80.68	1,759.99	-351.88	4,333.86	4,279.24	54.62	79.352		
8,050.00	7,570.23	7,914.19	7,612.17	50.20	42.98	91.22	1,964.80	-437.37	4,339.49	4,276.44	63.05	68.828		
8,100.00	7,605.48	7,972.72	7,663.49	50.35	43.14	91.41	1,964.93	-465.47	4,339.83	4,276.26	63.57	68.267		
8,150.00	7,637.51	8,033.32	7,713.31	50.50	43.32	91.58	1,965.08	-499.91	4,340.19	4,276.03	64.16	67.643		
8,200.00	7,666.07	8,096.02	7,760.74	50.66	43.51	91.75	1,965.26	-540.88	4,340.57	4,275.73	64.84	66.945		
8,250.00	7,690.95	8,160.82	7,804.74	50.82	43.73	91.91	1,965.47	-588.40	4,340.94	4,275.32	65.61	66.159		
8,300.00	7,711.95	8,227.63	7,844.20	51.00	43.97	92.05	1,965.71	-642.27	4,341.29	4,274.78	66.51	65.277		
8,350.00	7,728.93	8,296.33	7,877.95	51.19	44.24	92.17	1,965.97	-702.05	4,341.60	4,274.08	67.52	64.299		
8,400.00	7,741.74	8,366.66	7,904.85	51.39	44.55	92.26	1,966.25	-766.99	4,341.86	4,273.18	68.68	63.218		
8,450.00	7,750.29	8,438.32	7,923.86	51.61	44.91	92.33	1,966.56	-836.03	4,342.06	4,272.09	69.97	62.054		
8,500.00	7,754.52	8,510.90	7,934.19	51.85	45.33	92.38	1,966.88	-907.82	4,342.19	4,270.80	71.39	60.827		
8,523.52	7,755.00	8,545.23	7,935.89	51.97	45.55	92.39	1,967.03	-942.11	4,342.21	4,270.13	72.08	60.237		
8,600.00	7,755.00	8,625.26	7,936.00	52.38	46.11	92.39	1,967.38	-1,022.14	4,342.22	4,268.13	74.10	58.602		
8,700.00	7,755.00	8,725.26	7,936.00	53.00	46.92	92.39	1,967.82	-1,122.14	4,342.23	4,265.32	76.91	56.458		
8,800.00	7,755.00	8,825.26	7,936.00	53.72	47.86	92.39	1,968.26	-1,222.14	4,342.23	4,262.25	79.99	54.287		

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

Anticollision Report

Company:	AXIS EXPLORATION	Local Co-ordinate Reference:	Well JAMASO 4-65 5-6-12
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5610.00usft
Reference Site:	Sec 4-T4S-R65W	MD Reference:	KB 25' @ 5610.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	JAMASO 4-65 5-6-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
8,900.00	7,755.00	8,925.26	7,935.99	54.54	48.95	92.39	1,968.70	-1,322.14	4,342.24	4,258.94	83.30	52.129		
9,000.00	7,755.00	9,025.26	7,935.99	55.47	50.16	92.39	1,969.14	-1,422.14	4,342.25	4,255.43	86.82	50.017		
9,100.00	7,755.00	9,125.26	7,935.99	56.53	51.51	92.39	1,969.58	-1,522.13	4,342.25	4,251.73	90.52	47.972		
9,200.00	7,755.00	9,225.26	7,935.99	57.70	52.98	92.39	1,970.02	-1,622.13	4,342.26	4,247.88	94.38	46.008		
9,300.00	7,755.00	9,325.26	7,935.99	58.99	54.57	92.39	1,970.46	-1,722.13	4,342.26	4,243.88	98.39	44.135		
9,400.00	7,755.00	9,425.26	7,935.99	60.41	56.26	92.39	1,970.90	-1,822.13	4,342.27	4,239.75	102.52	42.357		
9,500.00	7,755.00	9,525.26	7,935.99	61.93	58.05	92.39	1,971.34	-1,922.13	4,342.28	4,235.52	106.76	40.674		
9,600.00	7,755.00	9,625.26	7,935.98	63.56	59.91	92.39	1,971.79	-2,022.13	4,342.28	4,231.18	111.10	39.085		
9,700.00	7,755.00	9,725.26	7,935.98	65.28	61.85	92.39	1,972.23	-2,122.13	4,342.29	4,226.76	115.53	37.586		
9,800.00	7,755.00	9,825.26	7,935.98	67.09	63.86	92.39	1,972.67	-2,222.13	4,342.29	4,222.26	120.03	36.176		
9,900.00	7,755.00	9,925.26	7,935.98	68.98	65.93	92.39	1,973.11	-2,322.13	4,342.30	4,217.69	124.61	34.847		
10,000.00	7,755.00	10,025.26	7,935.98	70.94	68.04	92.39	1,973.55	-2,422.13	4,342.31	4,213.06	129.25	33.597		
10,100.00	7,755.00	10,125.26	7,935.98	72.96	70.21	92.39	1,973.99	-2,522.12	4,342.31	4,208.37	133.94	32.420		
10,200.00	7,755.00	10,225.26	7,935.98	75.04	72.41	92.39	1,974.43	-2,622.12	4,342.32	4,203.64	138.68	31.312		
10,300.00	7,755.00	10,325.26	7,935.97	77.17	74.65	92.39	1,974.87	-2,722.12	4,342.32	4,198.86	143.47	30.267		
10,400.00	7,755.00	10,425.26	7,935.97	79.34	76.93	92.39	1,975.31	-2,822.12	4,342.33	4,194.03	148.30	29.282		
10,500.00	7,755.00	10,525.26	7,935.97	81.55	79.23	92.39	1,975.75	-2,922.12	4,342.34	4,189.18	153.16	28.352		
10,600.00	7,755.00	10,625.26	7,935.97	83.80	81.56	92.39	1,976.19	-3,022.12	4,342.34	4,184.28	158.06	27.473		
10,700.00	7,755.00	10,725.26	7,935.97	86.08	83.91	92.39	1,976.63	-3,122.12	4,342.35	4,179.36	162.99	26.643		
10,800.00	7,755.00	10,825.26	7,935.97	88.39	86.29	92.39	1,977.07	-3,222.12	4,342.35	4,174.41	167.94	25.856		
10,900.00	7,755.00	10,925.26	7,935.97	90.73	88.68	92.39	1,977.51	-3,322.12	4,342.36	4,169.44	172.92	25.112		
11,000.00	7,755.00	11,025.26	7,935.96	93.08	91.10	92.39	1,977.95	-3,422.12	4,342.36	4,164.44	177.93	24.405		
11,100.00	7,755.00	11,125.26	7,935.96	95.46	93.53	92.39	1,978.39	-3,522.11	4,342.37	4,159.42	182.95	23.735		
11,200.00	7,754.99	11,225.26	7,935.96	97.86	95.97	92.39	1,978.83	-3,622.11	4,342.38	4,154.38	188.00	23.098		
11,300.00	7,754.99	11,325.26	7,935.96	100.28	98.43	92.39	1,979.28	-3,722.11	4,342.38	4,149.32	193.06	22.493		
11,400.00	7,754.99	11,425.26	7,935.96	102.71	100.90	92.39	1,979.72	-3,822.11	4,342.39	4,144.25	198.14	21.916		
11,500.00	7,754.99	11,525.26	7,935.96	105.16	103.39	92.39	1,980.16	-3,922.11	4,342.39	4,139.16	203.23	21.367		
11,600.00	7,754.99	11,625.26	7,935.96	107.62	105.88	92.39	1,980.60	-4,022.11	4,342.40	4,134.06	208.34	20.843		
11,700.00	7,754.99	11,725.26	7,935.95	110.10	108.38	92.39	1,981.04	-4,122.11	4,342.41	4,128.94	213.46	20.343		
11,800.00	7,754.99	11,825.26	7,935.95	112.58	110.90	92.39	1,981.48	-4,222.11	4,342.41	4,123.81	218.60	19.865		
11,900.00	7,754.99	11,925.26	7,935.95	115.08	113.42	92.39	1,981.92	-4,322.11	4,342.42	4,118.67	223.74	19.408		
12,000.00	7,754.99	12,025.26	7,935.95	117.59	115.95	92.39	1,982.36	-4,422.11	4,342.42	4,113.52	228.90	18.971		
12,100.00	7,754.99	12,125.26	7,935.95	120.10	118.49	92.39	1,982.80	-4,522.11	4,342.43	4,108.36	234.07	18.552		
12,200.00	7,754.99	12,225.26	7,935.95	122.62	121.03	92.39	1,983.24	-4,622.10	4,342.44	4,103.19	239.24	18.151		
12,300.00	7,754.99	12,325.26	7,935.95	125.16	123.58	92.39	1,983.68	-4,722.10	4,342.44	4,098.01	244.43	17.766		
12,400.00	7,754.99	12,425.26	7,935.94	127.70	126.14	92.39	1,984.12	-4,822.10	4,342.45	4,092.83	249.62	17.396		
12,500.00	7,754.99	12,525.26	7,935.94	130.24	128.70	92.39	1,984.56	-4,922.10	4,342.45	4,087.63	254.82	17.041		
12,600.00	7,754.99	12,625.26	7,935.94	132.79	131.27	92.39	1,985.00	-5,022.10	4,342.46	4,082.43	260.03	16.700		
12,700.00	7,754.99	12,725.26	7,935.94	135.35	133.84	92.39	1,985.44	-5,122.10	4,342.47	4,077.22	265.25	16.372		
12,800.00	7,754.99	12,825.26	7,935.94	137.92	136.42	92.39	1,985.88	-5,222.10	4,342.47	4,072.01	270.47	16.056		
12,900.00	7,754.99	12,925.26	7,935.94	140.48	139.00	92.39	1,986.33	-5,322.10	4,342.48	4,066.78	275.69	15.751		
13,000.00	7,754.99	13,025.26	7,935.94	143.06	141.59	92.39	1,986.77	-5,422.10	4,342.48	4,061.56	280.93	15.458		
13,100.00	7,754.99	13,125.26	7,935.93	145.64	144.18	92.39	1,987.21	-5,522.10	4,342.49	4,056.32	286.16	15.175		
13,200.00	7,754.99	13,225.26	7,935.93	148.22	146.77	92.39	1,987.65	-5,622.09	4,342.50	4,051.09	291.41	14.902		
13,300.00	7,754.99	13,325.26	7,935.93	150.81	149.37	92.39	1,988.09	-5,722.09	4,342.50	4,045.85	296.66	14.638		
13,400.00	7,754.99	13,425.26	7,935.93	153.40	151.97	92.39	1,988.53	-5,822.09	4,342.51	4,040.60	301.91	14.384		
13,500.00	7,754.99	13,525.26	7,935.93	156.00	154.57	92.39	1,988.97	-5,922.09	4,342.51	4,035.35	307.17	14.137		
13,600.00	7,754.99	13,625.26	7,935.93	158.59	157.18	92.39	1,989.41	-6,022.09	4,342.52	4,030.09	312.43	13.899		
13,700.00	7,754.99	13,725.26	7,935.93	161.20	159.79	92.39	1,989.85	-6,122.09	4,342.52	4,024.83	317.69	13.669		
13,800.00	7,754.99	13,825.26	7,935.92	163.80	162.40	92.39	1,990.29	-6,222.09	4,342.53	4,019.57	322.96	13.446		
13,900.00	7,754.99	13,925.26	7,935.92	166.41	165.02	92.39	1,990.73	-6,322.09	4,342.54	4,014.30	328.23	13.230		
14,000.00	7,754.99	14,025.26	7,935.92	169.02	167.63	92.39	1,991.17	-6,422.09	4,342.54	4,009.03	333.51	13.021		

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

Anticollision Report

Company:	AXIS EXPLORATION	Local Co-ordinate Reference:	Well JAMASO 4-65 5-6-12
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5610.00usft
Reference Site:	Sec 4-T4S-R65W	MD Reference:	KB 25' @ 5610.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	JAMASO 4-65 5-6-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
14,100.00	7,754.99	14,125.26	7,935.92	171.63	170.25	92.39	1,991.61	-6,522.09	4,342.55	4,003.76	338.79	12.818		
14,200.00	7,754.99	14,225.26	7,935.92	174.25	172.87	92.39	1,992.05	-6,622.08	4,342.55	3,998.48	344.07	12.621		
14,300.00	7,754.99	14,325.26	7,935.92	176.87	175.50	92.39	1,992.49	-6,722.08	4,342.56	3,993.21	349.35	12.430		
14,400.00	7,754.99	14,425.26	7,935.92	179.49	178.12	92.39	1,992.93	-6,822.08	4,342.57	3,987.92	354.64	12.245		
14,500.00	7,754.99	14,525.26	7,935.91	182.11	180.75	92.39	1,993.37	-6,922.08	4,342.57	3,982.64	359.93	12.065		
14,600.00	7,754.99	14,625.26	7,935.91	184.74	183.38	92.39	1,993.82	-7,022.08	4,342.58	3,977.35	365.23	11.890		
14,700.00	7,754.99	14,725.26	7,935.91	187.37	186.01	92.39	1,994.26	-7,122.08	4,342.58	3,972.06	370.52	11.720		
14,800.00	7,754.99	14,825.26	7,935.91	190.00	188.65	92.39	1,994.70	-7,222.08	4,342.59	3,966.77	375.82	11.555		
14,900.00	7,754.99	14,925.26	7,935.91	192.63	191.28	92.39	1,995.14	-7,322.08	4,342.60	3,961.48	381.12	11.394		
15,000.00	7,754.99	15,025.26	7,935.91	195.26	193.92	92.39	1,995.58	-7,422.08	4,342.60	3,956.18	386.42	11.238		
15,100.00	7,754.99	15,125.26	7,935.91	197.89	196.56	92.39	1,996.02	-7,522.08	4,342.61	3,950.88	391.73	11.086		
15,200.00	7,754.99	15,225.26	7,935.90	200.53	199.20	92.39	1,996.46	-7,622.08	4,342.61	3,945.58	397.03	10.938		
15,300.00	7,754.99	15,325.26	7,935.90	203.17	201.84	92.39	1,996.90	-7,722.07	4,342.62	3,940.28	402.34	10.793		
15,400.00	7,754.99	15,425.26	7,935.90	205.81	204.48	92.39	1,997.34	-7,822.07	4,342.63	3,934.97	407.65	10.653		
15,500.00	7,754.99	15,525.26	7,935.90	208.45	207.12	92.39	1,997.78	-7,922.07	4,342.63	3,929.67	412.96	10.516		
15,600.00	7,754.99	15,625.26	7,935.90	211.09	209.77	92.39	1,998.22	-8,022.07	4,342.64	3,924.36	418.28	10.382		
15,700.00	7,754.99	15,725.26	7,935.90	213.74	212.41	92.39	1,998.66	-8,122.07	4,342.64	3,919.05	423.59	10.252		
15,800.00	7,754.99	15,825.26	7,935.90	216.38	215.06	92.39	1,999.10	-8,222.07	4,342.65	3,913.74	428.91	10.125		
15,900.00	7,754.99	15,925.26	7,935.89	219.03	217.71	92.39	1,999.54	-8,322.07	4,342.66	3,908.43	434.23	10.001		
16,000.00	7,754.99	16,025.26	7,935.89	221.67	220.35	92.39	1,999.98	-8,422.07	4,342.66	3,903.12	439.55	9.880		
16,100.00	7,754.99	16,125.26	7,935.89	224.32	223.00	92.39	2,000.42	-8,522.07	4,342.67	3,897.80	444.87	9.762		
16,200.00	7,754.99	16,225.26	7,935.89	226.97	225.66	92.39	2,000.86	-8,622.07	4,342.67	3,892.48	450.19	9.646		
16,300.00	7,754.99	16,325.26	7,935.89	229.62	228.31	92.39	2,001.31	-8,722.06	4,342.68	3,887.17	455.51	9.534		
16,400.00	7,754.98	16,425.26	7,935.89	232.27	230.96	92.39	2,001.75	-8,822.06	4,342.68	3,881.85	460.84	9.423		
16,500.00	7,754.98	16,525.26	7,935.89	234.93	233.61	92.39	2,002.19	-8,922.06	4,342.69	3,876.53	466.16	9.316		
16,600.00	7,754.98	16,625.26	7,935.88	237.58	236.27	92.39	2,002.63	-9,022.06	4,342.70	3,871.20	471.49	9.211		
16,700.00	7,754.98	16,725.26	7,935.88	240.23	238.92	92.39	2,003.07	-9,122.06	4,342.70	3,865.88	476.82	9.108		
16,800.00	7,754.98	16,825.26	7,935.88	242.89	241.58	92.39	2,003.51	-9,222.06	4,342.71	3,860.56	482.15	9.007		
16,900.00	7,754.98	16,925.26	7,935.88	245.55	244.24	92.39	2,003.95	-9,322.06	4,342.71	3,855.23	487.48	8.908		
17,000.00	7,754.98	17,025.26	7,935.88	248.20	246.89	92.39	2,004.39	-9,422.06	4,342.72	3,849.91	492.81	8.812		
17,100.00	7,754.98	17,125.26	7,935.88	250.86	249.55	92.39	2,004.83	-9,522.06	4,342.73	3,844.58	498.15	8.718		
17,200.00	7,754.98	17,225.26	7,935.88	253.52	252.21	92.39	2,005.27	-9,622.06	4,342.73	3,839.25	503.48	8.625		
17,300.00	7,754.98	17,325.26	7,935.87	256.18	254.87	92.39	2,005.71	-9,722.05	4,342.74	3,833.92	508.81	8.535		
17,400.00	7,754.98	17,425.26	7,935.87	258.84	257.53	92.39	2,006.15	-9,822.05	4,342.74	3,828.59	514.15	8.446		
17,500.00	7,754.98	17,525.26	7,935.87	261.50	260.19	92.39	2,006.59	-9,922.05	4,342.75	3,823.26	519.49	8.360		
17,600.00	7,754.98	17,625.26	7,935.87	264.16	262.85	92.39	2,007.03	-10,022.05	4,342.76	3,817.93	524.82	8.275		
17,700.00	7,754.98	17,725.26	7,935.87	266.82	265.51	92.39	2,007.47	-10,122.05	4,342.76	3,812.60	530.16	8.191		
17,800.00	7,754.98	17,825.26	7,935.87	269.49	268.18	92.39	2,007.91	-10,222.05	4,342.77	3,807.27	535.50	8.110		
17,900.00	7,754.98	17,925.26	7,935.87	272.15	270.84	92.39	2,008.36	-10,322.05	4,342.77	3,801.93	540.84	8.030		
18,000.00	7,754.98	18,025.26	7,935.86	274.81	273.50	92.39	2,008.80	-10,422.05	4,342.78	3,796.60	546.18	7.951		
18,100.00	7,754.98	18,125.26	7,935.86	277.48	276.17	92.39	2,009.24	-10,522.05	4,342.79	3,791.26	551.52	7.874		
18,200.00	7,754.98	18,239.20	7,936.00	280.14	279.20	92.39	2,009.40	-10,635.98	4,342.48	3,785.24	557.24	7.793		
18,210.73	7,755.00	18,239.20	7,936.00	280.43	279.20	92.39	2,009.40	-10,635.98	4,342.23	3,784.71	557.52	7.788 SF		

Anticollision Report

Company:	AXIS EXPLORATION	Local Co-ordinate Reference:	Well JAMASO 4-65 5-6-12
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5610.00usft
Reference Site:	Sec 4-T4S-R65W	MD Reference:	KB 25' @ 5610.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	JAMASO 4-65 5-6-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	-90.00	0.00	-36.56	36.56					
100.00	100.00	100.00	100.00	0.13	0.13	-90.00	0.00	-36.56	36.56	36.29	0.27	135.993		
200.00	199.98	200.02	199.98	0.48	0.49	83.35	0.00	-36.56	36.32	35.34	0.97	37.260		
284.73	284.60	284.60	284.60	0.79	0.80	90.00	0.00	-36.56	36.07	34.49	1.58	22.810 CC		
300.00	299.84	300.16	299.84	0.84	0.85	91.62	0.00	-36.56	36.09	34.40	1.69	21.328 ES		
400.00	399.45	400.55	399.45	1.22	1.21	105.03	0.00	-36.56	37.37	34.94	2.43	15.378		
500.00	498.70	498.70	498.70	1.62	1.56	121.04	0.00	-36.56	42.22	39.04	3.17	13.305		
600.00	597.47	598.65	598.63	2.05	1.91	134.49	-1.66	-36.93	50.95	47.05	3.90	13.055		
700.00	695.62	699.10	698.94	2.51	2.24	143.55	-6.75	-38.06	61.76	57.13	4.62	13.356		
800.00	793.06	800.06	799.51	3.00	2.59	149.68	-15.33	-39.95	73.71	68.35	5.36	13.761		
900.00	889.64	901.51	900.20	3.54	2.97	153.95	-27.43	-42.63	86.31	80.21	6.10	14.145		
1,000.00	985.27	1,003.48	1,000.89	4.12	3.37	157.00	-43.09	-46.10	99.29	92.43	6.86	14.471		
1,100.00	1,079.82	1,105.96	1,101.45	4.74	3.80	159.23	-62.34	-50.36	112.48	104.85	7.64	14.730		
1,200.00	1,173.17	1,208.96	1,201.75	5.41	4.26	160.89	-85.22	-55.42	125.78	117.36	8.43	14.929		
1,203.38	1,176.30	1,212.46	1,205.13	5.43	4.28	160.94	-86.05	-55.60	126.24	117.78	8.45	14.935		
1,300.00	1,265.84	1,309.62	1,299.08	6.10	4.75	162.10	-110.27	-60.96	138.31	129.07	9.24	14.970		
1,400.00	1,358.52	1,408.82	1,394.95	6.81	5.26	163.06	-135.16	-66.47	150.68	140.62	10.06	14.977		
1,500.00	1,451.19	1,508.02	1,490.82	7.52	5.77	163.87	-160.05	-71.98	163.09	152.20	10.89	14.981		
1,600.00	1,543.87	1,607.23	1,586.69	8.24	6.29	164.57	-184.94	-77.48	175.52	163.81	11.72	14.981		
1,700.00	1,636.54	1,706.43	1,682.56	8.95	6.82	165.18	-209.84	-82.99	187.98	175.43	12.55	14.980		
1,800.00	1,729.21	1,805.63	1,778.43	9.68	7.35	165.71	-234.73	-88.50	200.46	187.07	13.38	14.978		
1,900.00	1,821.89	1,904.83	1,874.30	10.40	7.89	166.18	-259.62	-94.01	212.95	198.73	14.22	14.975		
2,000.00	1,914.56	2,004.04	1,970.17	11.12	8.43	166.59	-284.51	-99.52	225.45	210.39	15.06	14.972		
2,100.00	2,007.24	2,103.24	2,066.04	11.85	8.97	166.97	-309.41	-105.02	237.97	222.07	15.90	14.969		
2,200.00	2,099.91	2,202.44	2,161.91	12.58	9.52	167.30	-334.30	-110.53	250.49	233.75	16.74	14.965		
2,300.00	2,192.58	2,301.64	2,257.79	13.30	10.07	167.61	-359.19	-116.04	263.02	245.44	17.58	14.962		
2,400.00	2,285.26	2,400.85	2,353.66	14.03	10.62	167.88	-384.08	-121.55	275.56	257.13	18.42	14.958		
2,500.00	2,377.93	2,500.05	2,449.53	14.76	11.17	168.14	-408.98	-127.06	288.10	268.83	19.27	14.954		
2,600.00	2,470.61	2,600.75	2,545.40	15.49	11.73	168.37	-433.87	-132.57	300.65	280.53	20.12	14.946		
2,700.00	2,563.28	2,701.55	2,641.27	16.22	12.29	168.58	-458.76	-138.07	313.20	292.23	20.97	14.938		
2,800.00	2,655.95	2,802.34	2,737.14	16.95	12.85	168.78	-483.66	-143.58	325.76	303.94	21.82	14.931		
2,900.00	2,748.63	2,903.14	2,833.01	17.68	13.42	168.96	-508.55	-149.09	338.32	315.65	22.67	14.924		
3,000.00	2,841.30	3,003.94	2,928.88	18.42	13.98	169.13	-533.44	-154.60	350.88	327.36	23.52	14.917		
3,100.00	2,933.98	3,104.74	3,024.75	19.15	14.55	169.28	-558.33	-160.11	363.45	339.07	24.38	14.911		
3,200.00	3,026.65	3,205.53	3,120.62	19.88	15.11	169.43	-583.23	-165.61	376.02	350.79	25.23	14.904		
3,300.00	3,119.33	3,306.33	3,216.49	20.61	15.68	169.57	-608.12	-171.12	388.59	362.50	26.08	14.899		
3,400.00	3,212.00	3,407.13	3,312.36	21.35	16.25	169.69	-633.01	-176.63	401.16	374.22	26.94	14.893		
3,500.00	3,304.67	3,507.92	3,408.23	22.08	16.81	169.82	-657.90	-182.14	413.73	385.94	27.79	14.888		
3,600.00	3,397.35	3,608.72	3,504.10	22.81	17.38	169.93	-682.80	-187.65	426.31	397.67	28.64	14.883		
3,700.00	3,490.02	3,709.52	3,599.97	23.54	17.95	170.04	-707.69	-193.15	438.89	409.39	29.50	14.878		
3,800.00	3,582.70	3,789.68	3,695.84	24.28	18.40	170.14	-732.58	-198.66	451.47	421.20	30.27	14.915		
3,900.00	3,675.37	3,888.89	3,791.71	25.01	18.96	170.23	-757.47	-204.17	464.05	432.93	31.12	14.913		
4,000.00	3,768.04	3,988.09	3,887.59	25.74	19.52	170.32	-782.37	-209.68	476.63	444.66	31.97	14.911		
4,100.00	3,860.72	4,087.29	3,983.46	26.48	20.08	170.41	-807.26	-215.19	489.21	456.40	32.81	14.908		
4,200.00	3,953.39	4,186.49	4,079.33	27.21	20.64	170.49	-832.15	-220.69	501.80	468.13	33.66	14.906		
4,300.00	4,046.07	4,285.70	4,175.20	27.95	21.20	170.57	-857.05	-226.20	514.38	479.87	34.51	14.904		
4,400.00	4,138.74	4,384.90	4,271.07	28.68	21.76	170.64	-881.94	-231.71	526.97	491.61	35.36	14.902		
4,500.00	4,231.41	4,484.10	4,366.94	29.41	22.32	170.71	-906.83	-237.22	539.55	503.34	36.21	14.900		
4,600.00	4,324.09	4,583.30	4,462.81	30.15	22.88	170.78	-931.72	-242.73	552.14	515.08	37.06	14.898		
4,700.00	4,416.76	4,682.51	4,558.68	30.88	23.44	170.84	-956.62	-248.23	564.73	526.82	37.91	14.896		
4,800.00	4,509.44	4,781.71	4,654.55	31.62	24.00	170.91	-981.51	-253.74	577.32	538.56	38.76	14.895		
4,900.00	4,602.11	4,880.91	4,750.42	32.35	24.56	170.96	-1,006.40	-259.25	589.91	550.30	39.61	14.893		

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

Anticollision Report

Company:	AXIS EXPLORATION	Local Co-ordinate Reference:	Well JAMASO 4-65 5-6-12
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5610.00usft
Reference Site:	Sec 4-T4S-R65W	MD Reference:	KB 25' @ 5610.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	JAMASO 4-65 5-6-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,000.00	4,694.78	4,980.11	4,846.29	33.08	25.12	171.02	-1,031.29	-264.76	602.50	562.04	40.46	14.891		
5,100.00	4,787.46	5,079.32	4,942.16	33.82	25.68	171.07	-1,056.19	-270.27	615.09	573.78	41.31	14.890		
5,200.00	4,880.13	5,178.52	5,038.03	34.55	26.25	171.13	-1,081.08	-275.77	627.68	585.52	42.16	14.888		
5,300.00	4,972.81	5,277.72	5,133.90	35.29	26.81	171.18	-1,105.97	-281.28	640.27	597.26	43.01	14.887		
5,400.00	5,065.48	5,376.92	5,229.77	36.02	27.37	171.22	-1,130.86	-286.79	652.86	609.00	43.86	14.885		
5,500.00	5,158.15	5,476.13	5,325.64	36.76	27.93	171.27	-1,155.76	-292.30	665.45	620.74	44.71	14.884		
5,600.00	5,250.83	5,575.33	5,421.51	37.49	28.49	171.31	-1,180.65	-297.81	678.05	632.49	45.56	14.882		
5,700.00	5,343.50	5,674.53	5,517.39	38.22	29.05	171.36	-1,205.54	-303.31	690.64	644.23	46.41	14.881		
5,800.00	5,436.18	5,773.74	5,613.26	38.96	29.62	171.40	-1,230.43	-308.82	703.23	655.97	47.26	14.880		
5,900.00	5,528.85	5,872.94	5,709.13	39.69	30.18	171.44	-1,255.33	-314.33	715.83	667.72	48.11	14.878		
6,000.00	5,621.53	5,972.14	5,805.00	40.43	30.74	171.48	-1,280.22	-319.84	728.42	679.46	48.96	14.877		
6,100.00	5,714.20	6,071.34	5,900.87	41.16	31.30	171.51	-1,305.11	-325.35	741.02	691.20	49.81	14.876		
6,200.00	5,806.87	6,170.55	5,996.74	41.90	31.86	171.55	-1,330.01	-330.85	753.61	702.95	50.66	14.875		
6,300.00	5,899.55	6,269.75	6,092.61	42.63	32.43	171.58	-1,354.90	-336.36	766.21	714.69	51.52	14.873		
6,400.00	5,992.22	6,368.95	6,188.48	43.37	32.99	171.62	-1,379.79	-341.87	778.80	726.44	52.37	14.872		
6,490.07	6,075.70	6,458.31	6,274.83	44.03	33.49	171.65	-1,402.21	-346.83	790.15	737.02	53.13	14.871		
6,500.00	6,084.90	6,468.16	6,284.35	44.10	33.55	171.65	-1,404.68	-347.38	791.38	738.16	53.22	14.871		
6,600.00	6,178.34	6,567.59	6,380.45	44.81	34.11	171.69	-1,429.64	-352.90	801.92	747.86	54.07	14.832		
6,700.00	6,272.96	6,667.34	6,476.84	45.47	34.68	171.69	-1,454.66	-358.44	809.02	754.11	54.91	14.734		
6,800.00	6,368.65	6,767.26	6,573.41	46.08	35.24	171.64	-1,479.74	-363.98	812.67	756.93	55.74	14.579		
6,900.00	6,465.30	6,850.74	6,654.24	46.64	35.71	171.57	-1,500.10	-368.49	813.64	757.19	56.45	14.414		
7,000.00	6,562.78	6,928.96	6,730.47	47.15	36.12	171.50	-1,517.18	-372.27	813.76	756.69	57.07	14.260		
7,100.00	6,660.98	7,007.19	6,807.17	47.61	36.50	171.44	-1,532.23	-375.60	813.10	755.47	57.63	14.109		
7,200.00	6,759.78	7,085.44	6,884.27	48.02	36.86	171.37	-1,545.22	-378.48	811.66	753.53	58.13	13.962		
7,300.00	6,859.06	7,163.72	6,961.75	48.39	37.19	171.30	-1,556.16	-380.90	809.46	750.88	58.58	13.819		
7,400.00	6,958.69	7,242.04	7,039.54	48.70	37.50	171.23	-1,565.04	-382.86	806.47	747.51	58.97	13.677		
7,500.00	7,058.56	7,320.42	7,117.61	48.96	37.78	171.16	-1,571.83	-384.36	802.72	743.43	59.30	13.538		
7,593.46	7,152.00	7,393.73	7,190.78	49.15	38.02	0.46	-1,576.30	-385.35	798.52	738.98	59.54	13.412		
7,600.00	7,158.54	7,400.00	7,197.04	49.16	38.04	0.46	-1,576.60	-385.42	798.21	738.63	59.57	13.399		
7,623.46	7,182.00	7,417.29	7,214.31	49.20	38.09	0.45	-1,577.35	-385.58	797.18	737.58	59.60	13.375		
7,650.00	7,208.53	7,438.14	7,235.14	49.24	38.15	90.32	-1,578.12	-385.75	796.20	736.55	59.65	13.348		
7,700.00	7,258.32	7,477.29	7,274.27	49.34	38.26	90.69	-1,579.16	-385.98	794.90	735.21	59.69	13.317		
7,750.00	7,307.52	7,515.99	7,312.97	49.45	38.36	91.22	-1,579.68	-386.10	794.37	734.70	59.67	13.313		
7,756.28	7,313.64	7,520.80	7,317.78	49.46	38.37	91.30	-1,579.71	-386.11	794.36	734.70	59.66	13.314		
7,800.00	7,355.76	7,558.78	7,355.76	49.56	38.46	92.01	-1,579.75	-386.11	794.65	734.97	59.69	13.314		
7,850.00	7,402.69	7,609.12	7,406.06	49.68	38.58	93.07	-1,579.74	-387.74	795.39	735.51	59.88	13.284		
7,900.00	7,447.93	7,661.43	7,457.97	49.80	38.71	94.15	-1,579.71	-394.04	796.42	736.25	60.17	13.235		
7,950.00	7,491.15	7,715.44	7,510.74	49.93	38.86	95.21	-1,579.67	-405.49	797.74	737.18	60.56	13.172		
8,000.00	7,532.02	7,771.29	7,563.91	50.07	39.03	96.25	-1,579.59	-422.49	799.31	738.28	61.03	13.096		
8,050.00	7,570.23	7,829.07	7,616.91	50.20	39.21	97.26	-1,579.49	-445.44	801.08	739.50	61.58	13.009		
8,100.00	7,605.48	7,888.89	7,669.05	50.35	39.40	98.22	-1,579.36	-474.70	802.99	740.79	62.20	12.909		
8,150.00	7,637.51	7,950.79	7,719.50	50.50	39.61	99.14	-1,579.21	-510.52	804.98	742.08	62.90	12.798		
8,200.00	7,666.07	8,014.80	7,767.29	50.66	39.83	99.99	-1,579.02	-553.06	806.97	743.28	63.70	12.669		
8,250.00	7,690.95	8,080.86	7,811.31	50.82	40.08	100.76	-1,578.81	-602.26	808.88	744.27	64.61	12.519		
8,300.00	7,711.95	8,148.86	7,850.41	51.00	40.35	101.43	-1,578.57	-657.84	810.63	744.95	65.68	12.342		
8,350.00	7,728.93	8,218.59	7,883.38	51.19	40.66	101.99	-1,578.30	-719.24	812.13	745.17	66.96	12.129		
8,400.00	7,741.74	8,289.77	7,909.09	51.39	41.01	102.42	-1,578.01	-785.57	813.30	744.84	68.46	11.880		
8,450.00	7,750.29	8,362.03	7,926.58	51.61	41.41	102.70	-1,577.71	-855.63	814.10	743.88	70.21	11.595		
8,500.00	7,754.52	8,434.93	7,935.15	51.85	41.88	102.83	-1,577.39	-927.97	814.47	742.27	72.20	11.281		
8,523.52	7,755.00	8,469.31	7,935.99	51.97	42.12	102.84	-1,577.24	-962.34	814.49	741.29	73.19	11.128		
8,523.60	7,755.00	8,469.42	7,935.99	51.97	42.12	102.84	-1,577.24	-962.45	814.49	741.29	73.20	11.127		
8,600.00	7,755.00	8,544.77	7,936.00	52.38	42.72	102.84	-1,576.91	-1,037.80	814.49	739.34	75.15	10.838		

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

Anticollision Report

Company:	AXIS EXPLORATION	Local Co-ordinate Reference:	Well JAMASO 4-65 5-6-12
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5610.00usft
Reference Site:	Sec 4-T4S-R65W	MD Reference:	KB 25' @ 5610.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	JAMASO 4-65 5-6-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
8,700.00	7,755.00	8,644.77	7,936.00	53.00	43.63	102.84	-1,576.48	-1,137.80	814.49	736.52	77.97	10.446		
8,800.00	7,755.00	8,744.77	7,936.00	53.72	44.70	102.84	-1,576.04	-1,237.80	814.49	733.45	81.04	10.050		
8,900.00	7,755.00	8,844.77	7,935.99	54.54	45.92	102.84	-1,575.61	-1,337.80	814.49	730.16	84.33	9.659		
9,000.00	7,755.00	8,944.77	7,935.99	55.47	47.28	102.84	-1,575.17	-1,437.79	814.49	726.69	87.80	9.276		
9,100.00	7,755.00	9,044.77	7,935.99	56.53	48.79	102.84	-1,574.74	-1,537.79	814.49	723.04	91.45	8.906		
9,200.00	7,755.00	9,144.77	7,935.99	57.70	50.42	102.84	-1,574.30	-1,637.79	814.49	719.24	95.25	8.551		
9,300.00	7,755.00	9,244.77	7,935.99	58.99	52.16	102.84	-1,573.86	-1,737.79	814.49	715.31	99.18	8.212		
9,400.00	7,755.00	9,344.77	7,935.98	60.41	54.00	102.84	-1,573.43	-1,837.79	814.49	711.26	103.24	7.890		
9,500.00	7,755.00	9,444.77	7,935.98	61.93	55.93	102.84	-1,572.99	-1,937.79	814.49	707.10	107.39	7.584		
9,600.00	7,755.00	9,544.77	7,935.98	63.56	57.93	102.84	-1,572.56	-2,037.79	814.49	702.85	111.64	7.296		
9,700.00	7,755.00	9,644.77	7,935.98	65.28	59.99	102.84	-1,572.12	-2,137.79	814.49	698.52	115.97	7.023		
9,800.00	7,755.00	9,744.77	7,935.98	67.09	62.11	102.84	-1,571.69	-2,237.79	814.49	694.11	120.38	6.766		
9,900.00	7,755.00	9,844.77	7,935.98	68.98	64.29	102.84	-1,571.25	-2,337.79	814.49	689.64	124.85	6.524		
10,000.00	7,755.00	9,944.77	7,935.97	70.94	66.50	102.84	-1,570.82	-2,437.78	814.49	685.11	129.38	6.295		
10,100.00	7,755.00	10,044.77	7,935.97	72.96	68.76	102.84	-1,570.38	-2,537.78	814.49	680.52	133.97	6.080		
10,200.00	7,755.00	10,144.77	7,935.97	75.04	71.05	102.84	-1,569.95	-2,637.78	814.49	675.89	138.60	5.876		
10,300.00	7,755.00	10,244.77	7,935.97	77.17	73.37	102.84	-1,569.51	-2,737.78	814.49	671.21	143.28	5.685		
10,400.00	7,755.00	10,344.77	7,935.97	79.34	75.72	102.84	-1,569.08	-2,837.78	814.49	666.50	148.00	5.504		
10,500.00	7,755.00	10,444.77	7,935.96	81.55	78.09	102.84	-1,568.64	-2,937.78	814.49	661.75	152.75	5.332		
10,600.00	7,755.00	10,544.77	7,935.96	83.80	80.48	102.84	-1,568.21	-3,037.78	814.50	656.96	157.53	5.170		
10,700.00	7,755.00	10,644.77	7,935.96	86.08	82.90	102.84	-1,567.77	-3,137.78	814.50	652.15	162.34	5.017		
10,800.00	7,755.00	10,744.77	7,935.96	88.39	85.33	102.84	-1,567.33	-3,237.78	814.50	647.31	167.18	4.872		
10,900.00	7,755.00	10,844.77	7,935.96	90.73	87.78	102.84	-1,566.90	-3,337.78	814.50	642.45	172.05	4.734		
11,000.00	7,755.00	10,944.77	7,935.96	93.08	90.24	102.84	-1,566.46	-3,437.78	814.50	637.56	176.94	4.603		
11,100.00	7,755.00	11,044.77	7,935.95	95.46	92.72	102.84	-1,566.03	-3,537.77	814.50	632.65	181.84	4.479		
11,200.00	7,754.99	11,144.77	7,935.95	97.86	95.21	102.84	-1,565.59	-3,637.77	814.50	627.72	186.77	4.361		
11,300.00	7,754.99	11,244.77	7,935.95	100.28	97.71	102.84	-1,565.16	-3,737.77	814.50	622.78	191.72	4.248		
11,400.00	7,754.99	11,344.77	7,935.95	102.71	100.23	102.84	-1,564.72	-3,837.77	814.50	617.82	196.68	4.141		
11,500.00	7,754.99	11,444.77	7,935.95	105.16	102.75	102.84	-1,564.29	-3,937.77	814.50	612.84	201.66	4.039		
11,600.00	7,754.99	11,544.77	7,935.94	107.62	105.28	102.84	-1,563.85	-4,037.77	814.50	607.85	206.65	3.941		
11,700.00	7,754.99	11,644.77	7,935.94	110.10	107.82	102.84	-1,563.42	-4,137.77	814.50	602.85	211.65	3.848		
11,800.00	7,754.99	11,744.77	7,935.94	112.58	110.37	102.84	-1,562.98	-4,237.77	814.50	597.83	216.67	3.759		
11,900.00	7,754.99	11,844.77	7,935.94	115.08	112.92	102.84	-1,562.55	-4,337.77	814.50	592.80	221.70	3.674		
12,000.00	7,754.99	11,944.77	7,935.94	117.59	115.48	102.84	-1,562.11	-4,437.77	814.50	587.77	226.73	3.592		
12,100.00	7,754.99	12,044.77	7,935.94	120.10	118.05	102.84	-1,561.68	-4,537.76	814.50	582.72	231.78	3.514		
12,200.00	7,754.99	12,144.77	7,935.93	122.62	120.62	102.84	-1,561.24	-4,637.76	814.50	577.66	236.84	3.439		
12,300.00	7,754.99	12,244.77	7,935.93	125.16	123.20	102.84	-1,560.80	-4,737.76	814.50	572.60	241.91	3.367		
12,400.00	7,754.99	12,344.77	7,935.93	127.70	125.78	102.84	-1,560.37	-4,837.76	814.50	567.52	246.98	3.298		
12,500.00	7,754.99	12,444.77	7,935.93	130.24	128.37	102.83	-1,559.93	-4,937.76	814.50	562.44	252.06	3.231		
12,600.00	7,754.99	12,544.77	7,935.93	132.79	130.96	102.83	-1,559.50	-5,037.76	814.50	557.35	257.15	3.167		
12,700.00	7,754.99	12,644.77	7,935.92	135.35	133.56	102.83	-1,559.06	-5,137.76	814.50	552.26	262.25	3.106		
12,800.00	7,754.99	12,744.77	7,935.92	137.92	136.16	102.83	-1,558.63	-5,237.76	814.50	547.15	267.35	3.047		
12,900.00	7,754.99	12,844.77	7,935.92	140.48	138.76	102.83	-1,558.19	-5,337.76	814.50	542.05	272.46	2.989		
13,000.00	7,754.99	12,944.77	7,935.92	143.06	141.37	102.83	-1,557.76	-5,437.76	814.50	536.93	277.57	2.934		
13,100.00	7,754.99	13,044.77	7,935.92	145.64	143.98	102.83	-1,557.32	-5,537.76	814.50	531.81	282.69	2.881		
13,200.00	7,754.99	13,144.77	7,935.92	148.22	146.60	102.83	-1,556.89	-5,637.75	814.50	526.69	287.82	2.830		
13,300.00	7,754.99	13,244.77	7,935.91	150.81	149.21	102.83	-1,556.45	-5,737.75	814.50	521.56	292.94	2.780		
13,400.00	7,754.99	13,344.77	7,935.91	153.40	151.83	102.83	-1,556.02	-5,837.75	814.50	516.43	298.08	2.733		
13,500.00	7,754.99	13,444.77	7,935.91	156.00	154.45	102.83	-1,555.58	-5,937.75	814.51	511.29	303.22	2.686		
13,600.00	7,754.99	13,544.77	7,935.91	158.59	157.08	102.83	-1,555.15	-6,037.75	814.51	506.15	308.36	2.641		
13,700.00	7,754.99	13,644.77	7,935.91	161.20	159.71	102.83	-1,554.71	-6,137.75	814.51	501.00	313.51	2.598		
13,800.00	7,754.99	13,744.77	7,935.90	163.80	162.33	102.83	-1,554.27	-6,237.75	814.51	495.85	318.66	2.556		

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

Anticollision Report

Company:	AXIS EXPLORATION	Local Co-ordinate Reference:	Well JAMASO 4-65 5-6-12
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5610.00usft
Reference Site:	Sec 4-T4S-R65W	MD Reference:	KB 25' @ 5610.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	JAMASO 4-65 5-6-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design Sec 4-T4S-R65W - JAMASO 4-65 5-6-10 - ORIGINAL WELLBORE - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
13,900.00	7,754.99	13,844.77	7,935.90	166.41	164.97	102.83	-1,553.84	-6,337.75	814.51	490.70	323.81	2.515		
14,000.00	7,754.99	13,944.77	7,935.90	169.02	167.60	102.83	-1,553.40	-6,437.75	814.51	485.54	328.97	2.476		
14,100.00	7,754.99	14,044.77	7,935.90	171.63	170.23	102.83	-1,552.97	-6,537.75	814.51	480.38	334.13	2.438		
14,200.00	7,754.99	14,144.77	7,935.90	174.25	172.87	102.83	-1,552.53	-6,637.74	814.51	475.22	339.29	2.401		
14,300.00	7,754.99	14,244.77	7,935.90	176.87	175.51	102.83	-1,552.10	-6,737.74	814.51	470.05	344.46	2.365		
14,400.00	7,754.99	14,344.77	7,935.89	179.49	178.15	102.83	-1,551.66	-6,837.74	814.51	464.88	349.63	2.330		
14,500.00	7,754.99	14,444.77	7,935.89	182.11	180.79	102.83	-1,551.23	-6,937.74	814.51	459.71	354.80	2.296		
14,600.00	7,754.99	14,544.77	7,935.89	184.74	183.44	102.83	-1,550.79	-7,037.74	814.51	454.54	359.97	2.263		
14,700.00	7,754.99	14,644.77	7,935.89	187.37	186.08	102.83	-1,550.36	-7,137.74	814.51	449.36	365.15	2.231		
14,800.00	7,754.99	14,744.77	7,935.89	190.00	188.73	102.83	-1,549.92	-7,237.74	814.51	444.18	370.33	2.199		
14,900.00	7,754.99	14,844.77	7,935.88	192.63	191.38	102.83	-1,549.49	-7,337.74	814.51	439.00	375.51	2.169		
15,000.00	7,754.99	14,944.77	7,935.88	195.26	194.02	102.83	-1,549.05	-7,437.74	814.51	433.82	380.70	2.140		
15,100.00	7,754.99	15,044.77	7,935.88	197.89	196.67	102.83	-1,548.61	-7,537.74	814.51	428.63	385.88	2.111		
15,200.00	7,754.99	15,144.77	7,935.88	200.53	199.33	102.83	-1,548.18	-7,637.74	814.51	423.44	391.07	2.083		
15,300.00	7,754.99	15,244.77	7,935.88	203.17	201.98	102.83	-1,547.74	-7,737.73	814.51	418.25	396.26	2.056		
15,400.00	7,754.99	15,344.77	7,935.88	205.81	204.63	102.83	-1,547.31	-7,837.73	814.51	413.06	401.45	2.029		
15,500.00	7,754.99	15,444.77	7,935.87	208.45	207.29	102.83	-1,546.87	-7,937.73	814.51	407.87	406.64	2.003		
15,600.00	7,754.99	15,544.77	7,935.87	211.09	209.94	102.83	-1,546.44	-8,037.73	814.51	402.67	411.84	1.978		
15,700.00	7,754.99	15,644.77	7,935.87	213.74	212.60	102.83	-1,546.00	-8,137.73	814.51	397.48	417.04	1.953		
15,800.00	7,754.99	15,744.77	7,935.87	216.38	215.26	102.83	-1,545.57	-8,237.73	814.51	392.28	422.24	1.929		
15,900.00	7,754.99	15,844.77	7,935.87	219.03	217.92	102.83	-1,545.13	-8,337.73	814.51	387.08	427.44	1.906		
16,000.00	7,754.99	15,944.77	7,935.86	221.67	220.57	102.83	-1,544.70	-8,437.73	814.51	381.88	432.64	1.883		
16,100.00	7,754.99	16,044.77	7,935.86	224.32	223.23	102.83	-1,544.26	-8,537.73	814.51	376.67	437.84	1.860		
16,200.00	7,754.99	16,144.77	7,935.86	226.97	225.90	102.83	-1,543.83	-8,637.73	814.51	371.47	443.04	1.838		
16,300.00	7,754.99	16,244.77	7,935.86	229.62	228.56	102.83	-1,543.39	-8,737.73	814.51	366.26	448.25	1.817		
16,400.00	7,754.98	16,344.77	7,935.86	232.27	231.22	102.83	-1,542.96	-8,837.72	814.52	361.06	453.46	1.796		
16,500.00	7,754.98	16,444.77	7,935.86	234.93	233.88	102.83	-1,542.52	-8,937.72	814.52	355.85	458.67	1.776		
16,600.00	7,754.98	16,544.77	7,935.85	237.58	236.55	102.83	-1,542.08	-9,037.72	814.52	350.64	463.87	1.756		
16,700.00	7,754.98	16,644.77	7,935.85	240.23	239.21	102.83	-1,541.65	-9,137.72	814.52	345.43	469.09	1.736		
16,800.00	7,754.98	16,744.77	7,935.85	242.89	241.88	102.83	-1,541.21	-9,237.72	814.52	340.22	474.30	1.717		
16,900.00	7,754.98	16,844.77	7,935.85	245.55	244.54	102.83	-1,540.78	-9,337.72	814.52	335.01	479.51	1.699		
17,000.00	7,754.98	16,944.77	7,935.85	248.20	247.21	102.83	-1,540.34	-9,437.72	814.52	329.79	484.72	1.680		
17,100.00	7,754.98	17,044.77	7,935.84	250.86	249.88	102.83	-1,539.91	-9,537.72	814.52	324.58	489.94	1.662		
17,200.00	7,754.98	17,144.77	7,935.84	253.52	252.54	102.83	-1,539.47	-9,637.72	814.52	319.36	495.15	1.645		
17,300.00	7,754.98	17,244.77	7,935.84	256.18	255.21	102.83	-1,539.04	-9,737.72	814.52	314.15	500.37	1.628		
17,400.00	7,754.98	17,344.77	7,935.84	258.84	257.88	102.83	-1,538.60	-9,837.71	814.52	308.93	505.59	1.611		
17,500.00	7,754.98	17,444.77	7,935.84	261.50	260.55	102.83	-1,538.17	-9,937.71	814.52	303.71	510.81	1.595		
17,600.00	7,754.98	17,544.77	7,935.84	264.16	263.22	102.83	-1,537.73	-10,037.71	814.52	298.49	516.03	1.578		
17,700.00	7,754.98	17,644.77	7,935.83	266.82	265.89	102.83	-1,537.30	-10,137.71	814.52	293.27	521.25	1.563		
17,800.00	7,754.98	17,744.77	7,935.83	269.49	268.56	102.83	-1,536.86	-10,237.71	814.52	288.05	526.47	1.547		
17,900.00	7,754.98	17,844.77	7,935.83	272.15	271.23	102.83	-1,536.43	-10,337.71	814.52	282.83	531.69	1.532		
18,000.00	7,754.98	17,944.77	7,935.83	274.81	273.90	102.83	-1,535.99	-10,437.71	814.52	277.61	536.91	1.517		
18,100.00	7,754.98	18,044.77	7,935.83	277.48	276.57	102.83	-1,535.55	-10,537.71	814.52	272.38	542.14	1.502		
18,200.00	7,754.98	18,141.90	7,935.96	280.14	279.17	102.84	-1,535.01	-10,634.83	814.67	267.54	547.14	1.489 Level 3		
18,210.42	7,754.98	18,152.32	7,936.00	280.42	279.45	102.84	-1,534.94	-10,645.25	814.71	267.03	547.68	1.488 Level 3		
18,210.73	7,755.00	18,152.64	7,936.00	280.43	279.46	102.84	-1,534.93	-10,645.57	814.49	266.80	547.69	1.487 Level 3, SF		

Anticollision Report

Company:	AXIS EXPLORATION	Local Co-ordinate Reference:	Well JAMASO 4-65 5-6-12
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5610.00usft
Reference Site:	Sec 4-T4S-R65W	MD Reference:	KB 25' @ 5610.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	JAMASO 4-65 5-6-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	-90.00	0.00	-16.87	16.87					
100.00	100.00	100.00	100.00	0.13	0.13	-90.00	0.00	-16.87	16.87	16.61	0.27	62.766		
200.00	199.98	200.02	199.98	0.48	0.49	86.56	0.00	-16.87	16.68	15.71	0.97	17.112		
225.49	225.45	225.45	225.45	0.58	0.58	90.00	0.00	-16.87	16.65	15.49	1.16	14.388 CC		
300.00	299.84	299.84	299.84	0.84	0.85	104.22	0.00	-16.87	17.18	15.49	1.69	10.158		
400.00	399.45	399.85	399.83	1.22	1.19	123.83	-1.71	-17.20	20.11	17.70	2.41	8.353		
500.00	498.70	500.11	499.94	1.62	1.54	137.19	-6.87	-18.17	24.77	21.64	3.12	7.927		
600.00	597.47	600.61	600.06	2.05	1.90	145.88	-15.49	-19.79	30.36	26.51	3.85	7.880		
700.00	695.62	701.36	700.05	2.51	2.28	151.64	-27.59	-22.07	36.45	31.86	4.59	7.937		
800.00	793.06	802.36	799.79	3.00	2.69	155.62	-43.18	-25.00	42.81	37.47	5.34	8.013		
900.00	889.64	903.61	899.15	3.54	3.14	158.45	-62.26	-28.59	49.32	43.21	6.10	8.080		
1,000.00	985.27	1,005.11	998.01	4.12	3.62	160.53	-84.85	-32.84	55.90	49.02	6.88	8.124		
1,100.00	1,079.82	1,106.85	1,096.23	4.74	4.14	162.08	-110.93	-37.75	62.50	54.83	7.67	8.152		
1,200.00	1,173.17	1,208.85	1,193.68	5.41	4.71	163.26	-140.49	-43.32	69.11	60.63	8.47	8.157		
1,203.38	1,176.30	1,212.30	1,196.96	5.43	4.73	163.29	-141.55	-43.52	69.33	60.83	8.50	8.157		
1,300.00	1,265.84	1,308.85	1,288.59	6.10	5.30	164.16	-171.44	-49.14	75.53	66.21	9.31	8.110		
1,400.00	1,358.52	1,408.64	1,383.30	6.81	5.90	164.92	-202.34	-54.96	81.95	71.79	10.16	8.065		
1,500.00	1,451.19	1,508.43	1,478.01	7.52	6.51	165.57	-233.23	-60.77	88.38	77.37	11.01	8.024		
1,600.00	1,543.87	1,608.22	1,572.71	8.24	7.12	166.13	-264.13	-66.59	94.83	82.96	11.87	7.989		
1,700.00	1,636.54	1,708.00	1,667.42	8.95	7.74	166.62	-295.02	-72.40	101.28	88.55	12.73	7.957		
1,800.00	1,729.21	1,807.79	1,762.13	9.68	8.37	167.05	-325.92	-78.22	107.74	94.15	13.59	7.928		
1,900.00	1,821.89	1,907.58	1,856.83	10.40	8.99	167.43	-356.81	-84.03	114.21	99.75	14.45	7.902		
2,000.00	1,914.56	2,007.37	1,951.54	11.12	9.62	167.77	-387.71	-89.85	120.68	105.36	15.32	7.879		
2,100.00	2,007.24	2,107.16	2,046.25	11.85	10.26	168.07	-418.60	-95.66	127.15	110.97	16.18	7.857		
2,200.00	2,099.91	2,206.94	2,140.95	12.58	10.89	168.35	-449.50	-101.48	133.63	116.58	17.05	7.838		
2,300.00	2,192.58	2,306.73	2,236.66	13.30	11.52	168.60	-480.39	-107.29	140.10	122.19	17.92	7.820		
2,400.00	2,285.26	2,406.52	2,330.37	14.03	12.16	168.83	-511.29	-113.11	146.59	127.80	18.78	7.804		
2,500.00	2,377.93	2,506.31	2,425.07	14.76	12.80	169.04	-542.18	-118.92	153.07	133.42	19.65	7.789		
2,600.00	2,470.61	2,606.10	2,519.78	15.49	13.44	169.23	-573.08	-124.74	159.56	139.03	20.52	7.775		
2,700.00	2,563.28	2,705.88	2,614.49	16.22	14.07	169.41	-603.97	-130.55	166.04	144.65	21.39	7.762		
2,800.00	2,655.95	2,805.67	2,709.19	16.95	14.71	169.57	-634.87	-136.37	172.53	150.27	22.26	7.750		
2,900.00	2,748.63	2,905.46	2,803.90	17.68	15.35	169.72	-665.76	-142.18	179.02	155.89	23.13	7.739		
3,000.00	2,841.30	3,005.25	2,898.61	18.42	15.99	169.86	-696.66	-148.00	185.51	161.51	24.00	7.729		
3,100.00	2,933.98	3,105.04	2,993.31	19.15	16.63	170.00	-727.55	-153.81	192.00	167.13	24.87	7.719		
3,200.00	3,026.65	3,204.82	3,088.02	19.88	17.28	170.12	-758.45	-159.63	198.50	172.75	25.75	7.710		
3,300.00	3,119.33	3,304.61	3,182.73	20.61	17.92	170.23	-789.34	-165.44	204.99	178.37	26.62	7.701		
3,400.00	3,212.00	3,404.40	3,277.43	21.35	18.56	170.34	-820.24	-171.26	211.49	184.00	27.49	7.693		
3,500.00	3,304.67	3,504.19	3,372.14	22.08	19.20	170.44	-851.13	-177.07	217.98	189.62	28.36	7.685		
3,600.00	3,397.35	3,603.98	3,466.85	22.81	19.84	170.54	-882.03	-182.89	224.48	195.24	29.24	7.678		
3,700.00	3,490.02	3,703.77	3,561.55	23.54	20.49	170.63	-912.92	-188.70	230.98	200.87	30.11	7.671		
3,800.00	3,582.70	3,803.55	3,656.26	24.28	21.13	170.72	-943.82	-194.51	237.47	206.49	30.98	7.665		
3,900.00	3,675.37	3,903.34	3,750.97	25.01	21.77	170.80	-974.71	-200.33	243.97	212.12	31.86	7.659		
4,000.00	3,768.04	4,003.13	3,845.67	25.74	22.41	170.87	-1,005.61	-206.14	250.47	217.74	32.73	7.653		
4,100.00	3,860.72	4,102.92	3,940.38	26.48	23.06	170.95	-1,036.50	-211.96	256.97	223.37	33.60	7.647		
4,200.00	3,953.39	4,202.71	4,035.09	27.21	23.70	171.02	-1,067.40	-217.77	263.47	228.99	34.48	7.642		
4,300.00	4,046.07	4,302.49	4,129.79	27.95	24.34	171.08	-1,098.29	-223.59	269.97	234.62	35.35	7.637		
4,400.00	4,138.74	4,402.28	4,224.50	28.68	24.99	171.14	-1,129.19	-229.40	276.47	240.24	36.22	7.632		
4,500.00	4,231.41	4,502.07	4,319.21	29.41	25.63	171.20	-1,160.08	-235.22	282.97	245.87	37.10	7.628		
4,600.00	4,324.09	4,601.86	4,413.91	30.15	26.28	171.26	-1,190.98	-241.03	289.47	251.49	37.97	7.623		
4,700.00	4,416.76	4,701.65	4,508.62	30.88	26.92	171.32	-1,221.87	-246.85	295.97	257.12	38.85	7.619		
4,800.00	4,509.44	4,801.43	4,603.33	31.62	27.56	171.37	-1,252.77	-252.66	302.47	262.75	39.72	7.615		
4,900.00	4,602.11	4,901.22	4,698.03	32.35	28.21	171.42	-1,283.66	-258.48	308.97	268.37	40.59	7.611		

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

Anticollision Report

Company:	AXIS EXPLORATION	Local Co-ordinate Reference:	Well JAMASO 4-65 5-6-12
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5610.00usft
Reference Site:	Sec 4-T4S-R65W	MD Reference:	KB 25' @ 5610.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	JAMASO 4-65 5-6-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,000.00	4,694.78	5,001.01	4,792.74	33.08	28.85	171.47	-1,314.56	-264.29	315.47	274.00	41.47	7.607		
5,100.00	4,787.46	5,100.80	4,887.45	33.82	29.50	171.51	-1,345.45	-270.11	321.97	279.63	42.34	7.604		
5,200.00	4,880.13	5,200.59	4,982.15	34.55	30.14	171.56	-1,376.35	-275.92	328.47	285.26	43.22	7.600		
5,300.00	4,972.81	5,300.37	5,076.86	35.29	30.79	171.60	-1,407.24	-281.74	334.98	290.88	44.09	7.597		
5,400.00	5,065.48	5,400.16	5,171.57	36.02	31.43	171.64	-1,438.14	-287.55	341.48	296.51	44.97	7.594		
5,500.00	5,158.15	5,499.95	5,266.27	36.76	32.07	171.68	-1,469.03	-293.37	347.98	302.14	45.84	7.591		
5,600.00	5,250.83	5,599.74	5,360.98	37.49	32.72	171.72	-1,499.93	-299.18	354.48	307.76	46.72	7.588		
5,700.00	5,343.50	5,700.47	5,455.69	38.22	33.37	171.76	-1,530.82	-305.00	360.99	313.39	47.60	7.584		
5,800.00	5,436.18	5,800.69	5,550.39	38.96	34.02	171.79	-1,561.72	-310.81	367.49	319.01	48.47	7.581		
5,900.00	5,528.85	5,899.10	5,645.10	39.69	34.65	171.83	-1,592.61	-316.63	373.99	324.65	49.34	7.579		
6,000.00	5,621.53	5,998.89	5,739.81	40.43	35.30	171.86	-1,623.51	-322.44	380.49	330.28	50.22	7.577		
6,100.00	5,714.20	6,101.32	5,834.51	41.16	35.96	171.89	-1,654.40	-328.26	387.00	335.89	51.10	7.573		
6,200.00	5,806.87	6,198.47	5,929.22	41.90	36.59	171.92	-1,685.30	-334.07	393.50	341.53	51.97	7.572		
6,300.00	5,899.55	6,301.74	6,023.93	42.63	37.25	171.95	-1,716.19	-339.89	400.00	347.15	52.86	7.567		
6,400.00	5,992.22	6,401.96	6,118.63	43.37	37.90	171.98	-1,747.09	-345.70	406.51	352.77	53.74	7.565		
6,490.07	6,075.70	6,487.93	6,203.94	44.03	38.46	172.00	-1,774.92	-350.94	412.37	357.86	54.51	7.565		
6,500.00	6,084.90	6,502.17	6,213.34	44.10	38.55	172.01	-1,777.99	-351.52	412.99	358.38	54.61	7.562		
6,600.00	6,178.34	6,602.27	6,308.15	44.81	39.20	172.01	-1,808.91	-357.34	417.43	361.94	55.49	7.523		
6,700.00	6,272.96	6,695.12	6,400.60	45.47	39.80	171.94	-1,839.01	-363.00	418.47	362.14	56.33	7.429		
6,800.00	6,368.65	6,782.52	6,484.12	46.08	40.33	171.85	-1,864.31	-367.76	418.13	361.04	57.09	7.324		
6,900.00	6,465.30	6,869.94	6,568.40	46.64	40.84	171.76	-1,887.10	-372.05	417.33	359.55	57.78	7.222		
7,000.00	6,562.78	6,957.38	6,653.38	47.15	41.31	171.67	-1,907.35	-375.87	416.10	357.69	58.41	7.124		
7,100.00	6,660.98	7,044.87	6,738.98	47.61	41.74	171.58	-1,925.05	-379.20	414.42	355.46	58.96	7.028		
7,200.00	6,759.78	7,132.39	6,825.14	48.02	42.14	171.49	-1,940.18	-382.04	412.30	352.85	59.45	6.935		
7,300.00	6,859.06	7,219.97	6,911.79	48.39	42.51	171.39	-1,952.73	-384.41	409.74	349.88	59.86	6.845		
7,400.00	6,958.69	7,307.62	6,998.85	48.70	42.84	171.30	-1,962.67	-386.28	406.75	346.54	60.21	6.756		
7,500.00	7,058.56	7,395.35	7,086.25	48.96	43.13	171.20	-1,970.00	-387.66	403.32	342.84	60.48	6.669		
7,593.46	7,152.00	7,477.41	7,168.18	49.15	43.36	0.47	-1,974.47	-388.50	399.72	339.07	60.66	6.590		
7,600.00	7,158.54	7,483.16	7,173.93	49.16	43.38	0.46	-1,974.69	-388.54	399.46	338.80	60.67	6.585		
7,623.46	7,182.00	7,503.77	7,194.53	49.20	43.44	0.45	-1,975.41	-388.68	398.64	337.95	60.70	6.568		
7,650.00	7,208.53	7,527.11	7,217.85	49.24	43.49	90.33	-1,976.05	-388.80	397.92	337.21	60.70	6.555		
7,700.00	7,258.32	7,570.91	7,261.65	49.34	43.59	90.96	-1,976.75	-388.93	397.17	336.56	60.61	6.553		
7,716.20	7,274.34	7,585.00	7,275.74	49.38	43.62	91.26	-1,976.83	-388.94	397.12	336.57	60.56	6.558		
7,750.00	7,307.52	7,616.78	7,307.52	49.45	43.68	92.11	-1,976.85	-388.95	397.29	336.79	60.51	6.566		
7,800.00	7,355.76	7,667.00	7,357.70	49.56	43.79	93.73	-1,976.84	-390.47	397.90	337.30	60.60	6.566		
7,850.00	7,402.69	7,718.55	7,408.88	49.68	43.90	95.35	-1,976.82	-396.52	398.85	337.98	60.86	6.553		
7,900.00	7,447.93	7,771.28	7,460.44	49.80	44.03	96.95	-1,976.77	-407.45	400.10	338.83	61.27	6.530		
7,950.00	7,491.15	7,825.22	7,511.93	49.93	44.17	98.50	-1,976.70	-423.48	401.64	339.85	61.79	6.500		
8,000.00	7,532.02	7,880.43	7,562.82	50.07	44.33	99.99	-1,976.60	-444.83	403.41	341.02	62.39	6.466		
8,050.00	7,570.23	7,936.93	7,612.53	50.20	44.49	101.41	-1,976.48	-471.64	405.35	342.31	63.04	6.430		
8,100.00	7,605.48	7,994.73	7,660.40	50.35	44.66	102.75	-1,976.34	-503.99	407.40	343.69	63.72	6.394		
8,150.00	7,637.51	8,053.82	7,705.71	50.50	44.84	103.98	-1,976.17	-541.88	409.50	345.07	64.43	6.356		
8,200.00	7,666.07	8,114.16	7,747.70	50.66	45.04	105.10	-1,975.98	-585.16	411.55	346.36	65.19	6.313		
8,250.00	7,690.95	8,175.67	7,785.59	50.82	45.25	106.08	-1,975.76	-633.59	413.49	347.46	66.04	6.262		
8,300.00	7,711.95	8,238.25	7,818.58	51.00	45.48	106.93	-1,975.53	-686.73	415.24	348.21	67.02	6.196		
8,350.00	7,728.93	8,301.77	7,845.94	51.19	45.73	107.61	-1,975.27	-744.01	416.72	348.51	68.20	6.110		
8,400.00	7,741.74	8,366.04	7,867.00	51.39	46.01	108.13	-1,975.01	-804.70	417.87	348.23	69.65	6.000		
8,450.00	7,750.29	8,430.87	7,881.23	51.61	46.32	108.47	-1,974.72	-867.91	418.66	347.29	71.37	5.866		
8,500.00	7,754.52	8,496.03	7,888.25	51.85	46.68	108.64	-1,974.44	-932.65	419.03	345.66	73.37	5.711		
8,523.52	7,755.00	8,526.73	7,889.00	51.97	46.86	108.65	-1,974.30	-963.34	419.06	344.67	74.40	5.633		
8,526.21	7,755.00	8,530.24	7,888.98	51.98	46.88	108.65	-1,974.29	-966.85	419.06	344.54	74.52	5.624		
8,600.00	7,755.00	8,602.88	7,889.00	52.38	47.35	108.65	-1,973.96	-1,039.49	419.07	342.77	76.30	5.493		

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

Anticollision Report

Company:	AXIS EXPLORATION	Local Co-ordinate Reference:	Well JAMASO 4-65 5-6-12
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5610.00usft
Reference Site:	Sec 4-T4S-R65W	MD Reference:	KB 25' @ 5610.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	JAMASO 4-65 5-6-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design													Sec 4-T4S-R65W - JAMASO 4-6S 5-6-11 - ORIGINAL WELLBORE - PROPOSAL 1		Offset Site Error:		0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:		0.00 usft		
Reference		Offset		Semi Major Axis		Distance								Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor					
8,700.00	7,755.00	8,702.88	7,889.00	53.00	48.09	108.65	-1,973.52	-1,139.49	419.08	340.05	79.03	5.303					
8,800.00	7,755.00	8,802.88	7,889.00	53.72	48.95	108.65	-1,973.08	-1,239.49	419.09	337.09	82.00	5.111					
8,900.00	7,755.00	8,902.88	7,889.00	54.54	49.95	108.65	-1,972.63	-1,339.49	419.09	333.93	85.17	4.921					
9,000.00	7,755.00	9,002.88	7,888.99	55.47	51.08	108.65	-1,972.19	-1,439.49	419.10	330.58	88.52	4.735					
9,100.00	7,755.00	9,102.88	7,888.99	56.53	52.35	108.65	-1,971.75	-1,539.49	419.11	327.07	92.04	4.554					
9,200.00	7,755.00	9,202.88	7,888.99	57.70	53.75	108.65	-1,971.30	-1,639.49	419.12	323.42	95.70	4.380					
9,300.00	7,755.00	9,302.88	7,888.99	58.99	55.28	108.64	-1,970.86	-1,739.49	419.12	319.63	99.49	4.213					
9,400.00	7,755.00	9,402.88	7,888.99	60.41	56.91	108.64	-1,970.42	-1,839.49	419.13	315.73	103.40	4.054					
9,500.00	7,755.00	9,502.88	7,888.99	61.93	58.65	108.64	-1,969.98	-1,939.49	419.14	311.73	107.40	3.902					
9,600.00	7,755.00	9,602.88	7,888.99	63.56	60.48	108.64	-1,969.53	-2,039.49	419.14	307.64	111.51	3.759					
9,700.00	7,755.00	9,702.88	7,888.99	65.28	62.39	108.64	-1,969.09	-2,139.49	419.15	303.46	115.69	3.623					
9,800.00	7,755.00	9,802.89	7,888.99	67.09	64.38	108.64	-1,968.65	-2,239.49	419.16	299.21	119.94	3.495					
9,900.00	7,755.00	9,902.89	7,888.99	68.98	66.43	108.64	-1,968.21	-2,339.49	419.16	294.90	124.26	3.373					
10,000.00	7,755.00	10,002.89	7,888.98	70.94	68.53	108.64	-1,967.77	-2,439.49	419.17	290.53	128.64	3.258					
10,100.00	7,755.00	10,102.89	7,888.98	72.96	70.68	108.64	-1,967.32	-2,539.49	419.18	286.10	133.08	3.150					
10,200.00	7,755.00	10,202.89	7,888.98	75.04	72.88	108.64	-1,966.88	-2,639.48	419.18	281.62	137.56	3.047					
10,300.00	7,755.00	10,302.89	7,888.98	77.17	75.12	108.64	-1,966.44	-2,739.48	419.19	277.11	142.08	2.950					
10,400.00	7,755.00	10,402.89	7,888.98	79.34	77.39	108.64	-1,966.00	-2,839.48	419.20	272.55	146.65	2.859					
10,500.00	7,755.00	10,502.89	7,888.98	81.55	79.69	108.64	-1,965.56	-2,939.48	419.20	267.95	151.25	2.772					
10,600.00	7,755.00	10,602.89	7,888.98	83.80	82.03	108.64	-1,965.12	-3,039.48	419.21	263.33	155.88	2.689					
10,700.00	7,755.00	10,702.89	7,888.98	86.08	84.38	108.64	-1,964.68	-3,139.48	419.21	258.67	160.55	2.611					
10,800.00	7,755.00	10,802.89	7,888.98	88.39	86.76	108.64	-1,964.24	-3,239.48	419.22	253.98	165.24	2.537					
10,900.00	7,755.00	10,902.89	7,888.98	90.73	89.16	108.64	-1,963.80	-3,339.48	419.22	249.27	169.95	2.467					
11,000.00	7,755.00	11,002.89	7,888.98	93.08	91.58	108.64	-1,963.36	-3,439.48	419.23	244.54	174.69	2.400					
11,100.00	7,755.00	11,102.89	7,888.98	95.46	94.01	108.64	-1,962.92	-3,539.48	419.23	239.78	179.45	2.336					
11,200.00	7,754.99	11,202.89	7,888.98	97.86	96.46	108.64	-1,962.48	-3,639.48	419.24	235.01	184.23	2.276					
11,300.00	7,754.99	11,302.89	7,888.98	100.28	98.93	108.64	-1,962.04	-3,739.48	419.24	230.22	189.03	2.218					
11,400.00	7,754.99	11,402.89	7,888.98	102.71	101.40	108.64	-1,961.60	-3,839.48	419.25	225.41	193.84	2.163					
11,500.00	7,754.99	11,502.89	7,888.98	105.16	103.89	108.64	-1,961.16	-3,939.48	419.25	220.58	198.67	2.110					
11,600.00	7,754.99	11,602.89	7,888.97	107.62	106.39	108.64	-1,960.72	-4,039.48	419.26	215.74	203.52	2.060					
11,700.00	7,754.99	11,702.90	7,888.97	110.10	108.90	108.64	-1,960.28	-4,139.48	419.26	210.89	208.37	2.012					
11,800.00	7,754.99	11,802.90	7,888.97	112.58	111.42	108.64	-1,959.84	-4,239.48	419.27	206.02	213.25	1.966					
11,900.00	7,754.99	11,902.90	7,888.97	115.08	113.95	108.64	-1,959.40	-4,339.48	419.27	201.14	218.13	1.922					
12,000.00	7,754.99	12,002.90	7,888.97	117.59	116.49	108.64	-1,958.96	-4,439.48	419.28	196.25	223.02	1.880					
12,100.00	7,754.99	12,102.90	7,888.97	120.10	119.03	108.64	-1,958.52	-4,539.48	419.28	191.36	227.92	1.840					
12,200.00	7,754.99	12,202.90	7,888.97	122.62	121.58	108.64	-1,958.08	-4,639.48	419.28	186.45	232.84	1.801					
12,300.00	7,754.99	12,302.90	7,888.97	125.16	124.14	108.64	-1,957.65	-4,739.48	419.29	181.53	237.76	1.763					
12,400.00	7,754.99	12,402.90	7,888.97	127.70	126.70	108.64	-1,957.21	-4,839.48	419.29	176.60	242.69	1.728					
12,500.00	7,754.99	12,502.90	7,888.97	130.24	129.27	108.63	-1,956.77	-4,939.47	419.29	171.67	247.63	1.693					
12,600.00	7,754.99	12,602.90	7,888.97	132.79	131.84	108.63	-1,956.33	-5,039.47	419.30	166.72	252.57	1.660					
12,700.00	7,754.99	12,702.90	7,888.97	135.35	134.42	108.63	-1,955.89	-5,139.47	419.30	161.77	257.52	1.628					
12,800.00	7,754.99	12,802.90	7,888.97	137.92	137.01	108.63	-1,955.46	-5,239.47	419.30	156.82	262.48	1.597					
12,900.00	7,754.99	12,902.90	7,888.97	140.48	139.60	108.63	-1,955.02	-5,339.47	419.31	151.86	267.45	1.568					
13,000.00	7,754.99	13,002.90	7,888.97	143.06	142.19	108.63	-1,954.58	-5,439.47	419.31	146.89	272.42	1.539					
13,100.00	7,754.99	13,102.90	7,888.97	145.64	144.78	108.63	-1,954.14	-5,539.47	419.31	141.91	277.40	1.512					
13,200.00	7,754.99	13,202.90	7,888.97	148.22	147.38	108.63	-1,953.71	-5,639.47	419.31	136.93	282.38	1.485 Level 3					
13,300.00	7,754.99	13,302.90	7,888.97	150.81	149.99	108.63	-1,953.27	-5,739.47	419.32	131.95	287.37	1.459 Level 3					
13,400.00	7,754.99	13,402.90	7,888.97	153.40	152.59	108.63	-1,952.83	-5,839.47	419.32	126.96	292.36	1.434 Level 3					
13,500.00	7,754.99	13,502.90	7,888.97	156.00	155.20	108.63	-1,952.40	-5,939.47	419.32	121.96	297.36	1.410 Level 3					
13,600.00	7,754.99	13,602.91	7,888.97	158.59	157.82	108.63	-1,951.96	-6,039.47	419.32	116.96	302.36	1.387 Level 3					
13,700.00	7,754.99	13,702.91	7,888.97	161.20	160.43	108.63	-1,951.52	-6,139.47	419.32	111.96	307.36	1.364 Level 3					
13,800.00	7,754.99	13,802.91	7,888.97	163.80	163.05	108.63	-1,951.09	-6,239.47	419.33	106.95	312.37	1.342 Level 3					

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

Anticollision Report

Company:	AXIS EXPLORATION	Local Co-ordinate Reference:	Well JAMASO 4-65 5-6-12
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5610.00usft
Reference Site:	Sec 4-T4S-R65W	MD Reference:	KB 25' @ 5610.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	JAMASO 4-65 5-6-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
13,900.00	7,754.99	13,902.91	7,888.97	166.41	165.67	108.63	-1,950.65	-6,339.47	419.33	101.94	317.38	1.321	Level 3	
14,000.00	7,754.99	14,002.91	7,888.97	169.02	168.29	108.63	-1,950.21	-6,439.47	419.33	96.93	322.40	1.301	Level 3	
14,100.00	7,754.99	14,102.91	7,888.97	171.63	170.92	108.63	-1,949.78	-6,539.47	419.33	91.91	327.42	1.281	Level 3	
14,200.00	7,754.99	14,202.91	7,888.97	174.25	173.55	108.63	-1,949.34	-6,639.47	419.33	86.89	332.44	1.261	Level 3	
14,300.00	7,754.99	14,302.91	7,888.97	176.87	176.17	108.63	-1,948.91	-6,739.47	419.33	81.86	337.47	1.243	Level 2	
14,400.00	7,754.99	14,402.91	7,888.97	179.49	178.81	108.63	-1,948.47	-6,839.47	419.33	76.84	342.50	1.224	Level 2	
14,500.00	7,754.99	14,502.91	7,888.97	182.11	181.44	108.63	-1,948.03	-6,939.47	419.33	71.81	347.53	1.207	Level 2	
14,600.00	7,754.99	14,602.91	7,888.97	184.74	184.07	108.63	-1,947.60	-7,039.47	419.34	66.77	352.56	1.189	Level 2	
14,700.00	7,754.99	14,702.91	7,888.97	187.37	186.71	108.63	-1,947.16	-7,139.47	419.34	61.74	357.60	1.173	Level 2	
14,800.00	7,754.99	14,802.91	7,888.97	190.00	189.35	108.63	-1,946.73	-7,239.46	419.34	56.70	362.64	1.156	Level 2	
14,900.00	7,754.99	14,902.91	7,888.97	192.63	191.99	108.63	-1,946.29	-7,339.46	419.34	51.66	367.68	1.140	Level 2	
15,000.00	7,754.99	15,002.91	7,888.97	195.26	194.63	108.63	-1,945.86	-7,439.46	419.34	46.61	372.72	1.125	Level 2	
15,100.00	7,754.99	15,102.91	7,888.97	197.89	197.27	108.63	-1,945.43	-7,539.46	419.34	41.57	377.77	1.110	Level 2	
15,200.00	7,754.99	15,202.91	7,888.97	200.53	199.92	108.63	-1,944.99	-7,639.46	419.34	36.52	382.82	1.095	Level 2	
15,300.00	7,754.99	15,302.91	7,888.98	203.17	202.57	108.63	-1,944.56	-7,739.46	419.34	31.47	387.87	1.081	Level 2	
15,400.00	7,754.99	15,402.91	7,888.98	205.81	205.21	108.63	-1,944.12	-7,839.46	419.34	26.42	392.92	1.067	Level 2	
15,500.00	7,754.99	15,502.92	7,888.98	208.45	207.86	108.63	-1,943.69	-7,939.46	419.34	21.36	397.97	1.054	Level 2	
15,600.00	7,754.99	15,602.92	7,888.98	211.09	210.51	108.63	-1,943.25	-8,039.46	419.34	16.31	403.03	1.040	Level 2	
15,700.00	7,754.99	15,702.92	7,888.98	213.74	213.16	108.63	-1,942.82	-8,139.46	419.34	11.25	408.09	1.028	Level 2	
15,800.00	7,754.99	15,802.92	7,888.98	216.38	215.81	108.63	-1,942.39	-8,239.46	419.33	6.19	413.15	1.015	Level 2	
15,900.00	7,754.99	15,902.92	7,888.98	219.03	218.46	108.63	-1,941.95	-8,339.46	419.33	1.13	418.21	1.003	Level 2	
16,000.00	7,754.99	16,002.92	7,888.98	221.67	221.12	108.64	-1,941.52	-8,439.46	419.33	-3.94	423.27	0.991	Level 1	
16,100.00	7,754.99	16,102.92	7,888.98	224.32	223.77	108.64	-1,941.09	-8,539.46	419.33	-9.00	428.33	0.979	Level 1	
16,200.00	7,754.99	16,202.92	7,888.98	226.97	226.43	108.64	-1,940.65	-8,639.46	419.33	-14.07	433.40	0.968	Level 1	
16,300.00	7,754.99	16,302.92	7,888.98	229.62	229.09	108.64	-1,940.22	-8,739.46	419.33	-19.13	438.46	0.956	Level 1	
16,400.00	7,754.98	16,402.92	7,888.98	232.27	231.74	108.64	-1,939.79	-8,839.46	419.33	-24.20	443.53	0.945	Level 1	
16,500.00	7,754.98	16,502.92	7,888.98	234.93	234.40	108.64	-1,939.36	-8,939.46	419.33	-29.27	448.60	0.935	Level 1	
16,600.00	7,754.98	16,602.92	7,888.98	237.58	237.06	108.64	-1,938.92	-9,039.46	419.32	-34.34	453.67	0.924	Level 1	
16,700.00	7,754.98	16,702.92	7,888.98	240.23	239.72	108.64	-1,938.49	-9,139.46	419.32	-39.42	458.74	0.914	Level 1	
16,800.00	7,754.98	16,802.92	7,888.99	242.89	242.38	108.64	-1,938.06	-9,239.46	419.32	-44.49	463.81	0.904	Level 1	
16,900.00	7,754.98	16,902.92	7,888.99	245.55	245.04	108.64	-1,937.63	-9,339.46	419.32	-49.57	468.89	0.894	Level 1	
17,000.00	7,754.98	17,002.92	7,888.99	248.20	247.70	108.64	-1,937.20	-9,439.46	419.32	-54.64	473.96	0.885	Level 1	
17,100.00	7,754.98	17,102.92	7,888.99	250.86	250.37	108.64	-1,936.76	-9,539.46	419.31	-59.72	479.04	0.875	Level 1	
17,200.00	7,754.98	17,202.92	7,888.99	253.52	253.03	108.64	-1,936.33	-9,639.46	419.31	-64.80	484.11	0.866	Level 1	
17,300.00	7,754.98	17,302.92	7,888.99	256.18	255.69	108.64	-1,935.90	-9,739.45	419.31	-69.88	489.19	0.857	Level 1	
17,400.00	7,754.98	17,402.93	7,888.99	258.84	258.36	108.64	-1,935.47	-9,839.45	419.31	-74.96	494.27	0.848	Level 1	
17,500.00	7,754.98	17,502.93	7,888.99	261.50	261.02	108.64	-1,935.04	-9,939.45	419.30	-80.05	499.35	0.840	Level 1	
17,600.00	7,754.98	17,602.93	7,888.99	264.16	263.69	108.64	-1,934.61	-10,039.45	419.30	-85.13	504.43	0.831	Level 1	
17,700.00	7,754.98	17,702.93	7,888.99	266.82	266.36	108.64	-1,934.18	-10,139.45	419.30	-90.21	509.51	0.823	Level 1	
17,800.00	7,754.98	17,802.93	7,889.00	269.49	269.02	108.64	-1,933.75	-10,239.45	419.29	-95.30	514.59	0.815	Level 1	
17,900.00	7,754.98	17,902.93	7,889.00	272.15	271.69	108.64	-1,933.31	-10,339.45	419.29	-100.38	519.67	0.807	Level 1	
18,000.00	7,754.98	18,002.93	7,889.00	274.81	274.36	108.64	-1,932.88	-10,439.45	419.29	-105.47	524.76	0.799	Level 1	
18,100.00	7,754.98	18,102.93	7,889.00	277.48	277.03	108.64	-1,932.45	-10,539.45	419.28	-110.56	529.84	0.791	Level 1	
18,200.00	7,754.98	18,202.93	7,889.00	280.14	279.69	108.64	-1,932.02	-10,639.45	419.28	-115.65	534.93	0.784	Level 1	
18,210.49	7,754.98	18,213.41	7,889.00	280.42	279.97	108.64	-1,931.98	-10,649.94	419.28	-116.18	535.46	0.783	Level 1	
18,210.73	7,755.00	18,212.39	7,889.00	280.43	279.95	108.65	-1,931.98	-10,648.91	419.06	-116.23	535.30	0.783	Level 1, ES, SF	

Anticollision Report

Company:	AXIS EXPLORATION	Local Co-ordinate Reference:	Well JAMASO 4-65 5-6-12
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5610.00usft
Reference Site:	Sec 4-T4S-R65W	MD Reference:	KB 25' @ 5610.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	JAMASO 4-65 5-6-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	-90.00	0.00	-126.56	126.56					
100.00	100.00	100.00	100.00	0.13	0.13	-90.00	0.00	-126.56	126.56	126.29	0.27	470.746		
200.00	199.98	200.02	199.98	0.48	0.49	81.41	0.00	-126.56	126.29	125.31	0.97	129.558		
300.00	299.84	300.16	299.84	0.84	0.85	83.79	0.00	-126.56	125.61	123.92	1.69	74.237		
400.00	399.45	399.45	399.45	1.22	1.21	87.76	0.00	-126.56	124.97	122.54	2.43	51.505		
422.03	421.35	421.08	421.08	1.31	1.29	88.87	0.08	-126.57	124.92	122.33	2.59	48.194	CC, ES	
500.00	498.70	497.08	497.06	1.62	1.56	93.88	1.62	-126.83	125.72	122.54	3.18	39.571		
600.00	597.47	593.01	592.86	2.05	1.91	102.36	6.41	-127.61	130.32	126.37	3.95	33.015		
700.00	695.62	686.66	686.18	2.51	2.25	112.03	14.14	-128.88	141.20	136.47	4.73	29.880		
800.00	793.06	777.46	776.37	3.00	2.59	121.49	24.51	-130.57	160.21	154.72	5.49	29.195		
900.00	889.64	864.95	862.91	3.54	2.93	129.73	37.15	-132.64	188.01	181.80	6.21	30.263		
1,000.00	985.27	948.73	945.38	4.12	3.28	136.38	51.70	-135.03	224.27	217.37	6.90	32.524		
1,100.00	1,079.82	1,028.48	1,023.45	4.74	3.62	141.53	67.76	-137.66	268.18	260.64	7.54	35.569		
1,200.00	1,173.17	1,103.96	1,096.89	5.41	3.96	145.45	84.93	-140.47	318.89	310.74	8.15	39.140		
1,203.38	1,176.30	1,106.43	1,099.29	5.43	3.97	145.56	85.52	-140.56	320.72	312.55	8.17	39.266		
1,300.00	1,265.84	1,182.72	1,173.17	6.10	4.34	149.27	104.28	-143.63	373.94	365.16	8.78	42.601		
1,400.00	1,358.52	1,263.56	1,251.46	6.81	4.74	152.27	124.20	-146.89	430.05	420.62	9.43	45.618		
1,500.00	1,451.19	1,344.41	1,329.75	7.52	5.14	154.59	144.13	-150.16	486.80	476.72	10.08	48.295		
1,600.00	1,543.87	1,425.26	1,408.04	8.24	5.55	156.44	164.05	-153.42	544.01	533.27	10.74	50.665		
1,700.00	1,636.54	1,506.11	1,486.32	8.95	5.96	157.95	183.98	-156.68	601.53	590.13	11.40	52.769		
1,800.00	1,729.21	1,586.96	1,564.61	9.68	6.38	159.19	203.90	-159.94	659.28	647.22	12.07	54.641		
1,900.00	1,821.89	1,667.81	1,642.90	10.40	6.80	160.24	223.83	-163.20	717.21	704.48	12.74	56.315		
2,000.00	1,914.56	1,748.66	1,721.19	11.12	7.22	161.14	243.75	-166.47	775.29	761.88	13.41	57.818		
2,100.00	2,007.24	1,829.51	1,799.47	11.85	7.64	161.91	263.68	-169.73	833.47	819.38	14.09	59.173		
2,200.00	2,099.91	1,910.36	1,877.76	12.58	8.07	162.58	283.60	-172.99	891.73	876.97	14.76	60.399		
2,300.00	2,192.58	2,008.79	1,956.05	13.30	8.59	163.17	303.53	-176.25	950.08	934.56	15.51	61.238		
2,400.00	2,285.26	2,072.06	2,034.34	14.03	8.93	163.69	323.45	-179.51	1,008.47	992.35	16.13	62.529		
2,500.00	2,377.93	2,152.91	2,112.62	14.76	9.36	164.16	343.38	-182.78	1,066.92	1,050.11	16.81	63.458		
2,600.00	2,470.61	2,233.75	2,190.91	15.49	9.79	164.58	363.30	-186.04	1,125.42	1,107.92	17.50	64.311		
2,700.00	2,563.28	2,314.60	2,269.20	16.22	10.22	164.95	383.23	-189.30	1,183.94	1,165.75	18.19	65.096		
2,800.00	2,655.95	2,404.55	2,347.49	16.95	10.70	165.29	403.15	-192.56	1,242.50	1,223.59	18.91	65.695		
2,900.00	2,748.63	2,476.30	2,425.77	17.68	11.08	165.61	423.08	-195.82	1,301.08	1,281.52	19.57	66.492		
3,000.00	2,841.30	2,557.15	2,504.06	18.42	11.51	165.89	443.00	-199.09	1,359.69	1,339.43	20.26	67.115		
3,100.00	2,933.98	2,638.00	2,582.35	19.15	11.95	166.15	462.93	-202.35	1,418.32	1,397.37	20.95	67.695		
3,200.00	3,026.65	2,718.85	2,660.64	19.88	12.38	166.39	482.85	-205.61	1,476.96	1,455.32	21.65	68.235		
3,300.00	3,119.33	2,799.70	2,738.92	20.61	12.81	166.61	502.78	-208.87	1,535.62	1,513.28	22.34	68.739		
3,400.00	3,212.00	2,880.55	2,817.21	21.35	13.25	166.82	522.70	-212.13	1,594.30	1,571.26	23.04	69.212		
3,500.00	3,304.67	2,961.40	2,895.50	22.08	13.68	167.01	542.63	-215.39	1,652.98	1,629.25	23.73	69.655		
3,600.00	3,397.35	3,042.25	2,973.79	22.81	14.12	167.19	562.55	-218.66	1,711.68	1,687.26	24.43	70.070		
3,700.00	3,490.02	3,123.09	3,052.07	23.54	14.55	167.35	582.48	-221.92	1,770.39	1,745.27	25.13	70.462		
3,800.00	3,582.70	3,203.94	3,130.36	24.28	14.99	167.51	602.40	-225.18	1,829.11	1,803.29	25.82	70.831		
3,900.00	3,675.37	3,284.79	3,208.65	25.01	15.43	167.65	622.33	-228.44	1,887.84	1,861.31	26.52	71.179		
4,000.00	3,768.04	3,365.64	3,286.94	25.74	15.86	167.79	642.25	-231.70	1,946.57	1,919.35	27.22	71.507		
4,100.00	3,860.72	3,446.49	3,365.22	26.48	16.30	167.92	662.18	-234.97	2,005.31	1,977.39	27.92	71.818		
4,200.00	3,953.39	3,527.34	3,443.51	27.21	16.73	168.04	682.10	-238.23	2,064.06	2,035.43	28.62	72.113		
4,300.00	4,046.07	3,608.19	3,521.80	27.95	17.17	168.16	702.03	-241.49	2,122.81	2,093.48	29.32	72.392		
4,400.00	4,138.74	3,689.04	3,600.09	28.68	17.61	168.26	721.95	-244.75	2,181.57	2,151.54	30.03	72.658		
4,500.00	4,231.41	3,769.89	3,678.37	29.41	18.04	168.37	741.88	-248.01	2,240.33	2,209.60	30.73	72.910		
4,600.00	4,324.09	3,850.74	3,756.66	30.15	18.48	168.46	761.80	-251.28	2,299.10	2,267.67	31.43	73.150		
4,700.00	4,416.76	3,931.59	3,834.95	30.88	18.92	168.56	781.73	-254.54	2,357.87	2,325.73	32.13	73.378		
4,800.00	4,509.44	4,012.44	3,913.24	31.62	19.36	168.65	801.65	-257.80	2,416.64	2,383.81	32.84	73.595		
4,900.00	4,602.11	4,093.28	3,991.52	32.35	19.79	168.73	821.58	-261.06	2,475.42	2,441.88	33.54	73.803		

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

Anticollision Report

Company:	AXIS EXPLORATION	Local Co-ordinate Reference:	Well JAMASO 4-65 5-6-12
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5610.00usft
Reference Site:	Sec 4-T4S-R65W	MD Reference:	KB 25' @ 5610.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	JAMASO 4-65 5-6-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,000.00	4,694.78	4,174.13	4,069.81	33.08	20.23	168.81	841.50	-264.32	2,534.20	2,499.96	34.25	74.001		
5,100.00	4,787.46	4,254.98	4,148.10	33.82	20.67	168.89	861.43	-267.59	2,592.99	2,558.04	34.95	74.190		
5,200.00	4,880.13	4,335.83	4,226.39	34.55	21.11	168.96	881.35	-270.85	2,651.78	2,616.12	35.66	74.371		
5,300.00	4,972.81	4,416.68	4,304.67	35.29	21.54	169.03	901.28	-274.11	2,710.57	2,674.21	36.36	74.544		
5,400.00	5,065.48	4,502.47	4,382.96	36.02	22.01	169.10	921.20	-277.37	2,769.36	2,732.27	37.09	74.670		
5,500.00	5,158.15	4,578.38	4,461.25	36.76	22.42	169.16	941.13	-280.63	2,828.16	2,790.38	37.78	74.868		
5,600.00	5,250.83	4,659.23	4,539.54	37.49	22.86	169.22	961.05	-283.89	2,886.96	2,848.47	38.48	75.020		
5,700.00	5,343.50	4,740.08	4,617.82	38.22	23.29	169.28	980.98	-287.16	2,945.76	2,906.57	39.19	75.166		
5,800.00	5,436.18	4,820.93	4,696.11	38.96	23.73	169.34	1,000.90	-290.42	3,004.56	2,964.66	39.90	75.306		
5,900.00	5,528.85	4,901.78	4,774.40	39.69	24.17	169.40	1,020.83	-293.68	3,063.36	3,022.75	40.61	75.440		
6,000.00	5,621.53	4,982.63	4,852.69	40.43	24.61	169.45	1,040.75	-296.94	3,122.17	3,080.85	41.32	75.568		
6,100.00	5,714.20	5,063.47	4,930.97	41.16	25.05	169.50	1,060.68	-300.20	3,180.97	3,138.95	42.03	75.692		
6,200.00	5,806.87	5,144.32	5,009.26	41.90	25.48	169.55	1,080.60	-303.47	3,239.78	3,197.05	42.74	75.811		
6,300.00	5,899.55	5,225.17	5,087.55	42.63	25.92	169.59	1,100.53	-306.73	3,298.59	3,255.15	43.45	75.925		
6,400.00	5,992.22	5,306.02	5,165.84	43.37	26.36	169.64	1,120.45	-309.99	3,357.41	3,313.25	44.16	76.035		
6,490.07	6,075.70	5,378.85	5,236.35	44.03	26.76	169.68	1,138.40	-312.93	3,410.38	3,365.58	44.80	76.130		
6,500.00	6,084.90	5,386.88	5,244.13	44.10	26.80	169.71	1,140.38	-313.25	3,416.21	3,371.34	44.87	76.140		
6,600.00	6,178.34	5,468.93	5,323.58	44.81	27.24	169.99	1,160.60	-316.56	3,473.34	3,427.76	45.58	76.204		
6,700.00	6,272.96	5,552.90	5,404.89	45.47	27.70	170.23	1,181.29	-319.95	3,527.62	3,481.33	46.29	76.199		
6,800.00	6,368.65	5,638.69	5,487.97	46.08	28.17	170.45	1,202.44	-323.41	3,578.98	3,531.97	47.01	76.129		
6,900.00	6,465.30	5,726.21	5,572.71	46.64	28.64	170.63	1,224.01	-326.94	3,627.36	3,579.63	47.73	75.997		
7,000.00	6,562.78	5,815.33	5,659.01	47.15	29.12	170.78	1,245.97	-330.54	3,672.69	3,624.25	48.45	75.809		
7,100.00	6,660.98	5,905.96	5,746.77	47.61	29.61	170.91	1,268.31	-334.19	3,714.93	3,665.77	49.16	75.567		
7,200.00	6,759.78	6,002.02	5,835.87	48.02	30.14	171.01	1,290.98	-337.91	3,754.02	3,704.14	49.89	75.250		
7,300.00	6,859.06	6,108.71	5,926.22	48.39	30.71	171.10	1,313.98	-341.67	3,789.92	3,739.27	50.65	74.832		
7,400.00	6,958.69	6,185.76	6,017.70	48.70	31.13	171.16	1,337.26	-345.48	3,822.58	3,771.30	51.27	74.555		
7,500.00	7,058.56	6,281.28	6,110.19	48.96	31.65	171.20	1,360.80	-349.34	3,851.96	3,800.00	51.96	74.132		
7,593.46	7,152.00	6,371.39	6,197.45	49.15	32.14	0.59	1,383.01	-352.97	3,876.42	3,823.84	52.58	73.719		
7,600.00	7,158.54	6,377.73	6,203.59	49.16	32.17	0.59	1,384.57	-353.23	3,878.04	3,825.41	52.63	73.691		
7,623.46	7,182.00	6,400.44	6,225.58	49.20	32.30	0.57	1,390.17	-354.15	3,883.81	3,831.03	52.78	73.588		
7,650.00	7,208.53	6,426.16	6,250.49	49.24	32.44	89.64	1,396.51	-355.18	3,890.35	3,837.40	52.95	73.467		
7,700.00	7,258.32	6,474.55	6,297.35	49.34	32.70	88.41	1,408.43	-357.14	3,902.63	3,849.34	53.29	73.228		
7,750.00	7,307.52	6,522.56	6,343.83	49.45	32.96	87.26	1,420.27	-359.07	3,914.81	3,861.17	53.64	72.987		
7,800.00	7,355.76	6,569.82	6,389.59	49.56	33.22	86.19	1,431.91	-360.98	3,926.80	3,872.82	53.98	72.745		
7,850.00	7,402.69	6,615.97	6,434.28	49.68	33.47	85.20	1,443.29	-362.84	3,938.56	3,884.23	54.32	72.503		
7,900.00	7,447.93	6,653.25	6,457.95	49.80	33.72	90.57	1,567.63	-401.05	3,941.61	3,880.92	60.69	64.949		
7,950.00	7,491.15	7,706.20	7,508.57	49.93	37.67	90.73	1,567.70	-416.51	3,941.74	3,880.65	61.09	64.524		
8,000.00	7,532.02	7,760.38	7,558.67	50.07	37.83	90.89	1,567.78	-437.11	3,941.90	3,880.37	61.53	64.064		
8,050.00	7,570.23	7,815.84	7,607.70	50.20	38.00	91.04	1,567.90	-462.99	3,942.08	3,880.07	62.02	63.563		
8,100.00	7,605.48	7,872.60	7,655.04	50.35	38.19	91.19	1,568.03	-494.25	3,942.29	3,879.72	62.56	63.012		
8,150.00	7,637.51	7,930.66	7,700.03	50.50	38.38	91.33	1,568.19	-530.92	3,942.50	3,879.32	63.18	62.404		
8,200.00	7,666.07	7,990.01	7,741.94	50.66	38.59	91.46	1,568.37	-572.90	3,942.71	3,878.84	63.87	61.729		
8,250.00	7,690.95	8,050.60	7,780.01	50.82	38.82	91.58	1,568.57	-619.99	3,942.93	3,878.27	64.66	60.981		
8,300.00	7,711.95	8,112.35	7,813.48	51.00	39.08	91.68	1,568.80	-671.85	3,943.13	3,877.57	65.56	60.145		
8,350.00	7,728.93	8,175.15	7,841.59	51.19	39.38	91.77	1,569.04	-727.97	3,943.30	3,876.73	66.58	59.230		
8,400.00	7,741.74	8,238.85	7,863.67	51.39	39.72	91.85	1,569.30	-787.69	3,943.45	3,875.74	67.71	58.241		
8,450.00	7,750.29	8,303.28	7,879.12	51.61	40.11	91.90	1,569.57	-850.21	3,943.57	3,874.61	68.96	57.188		
8,500.00	7,754.52	8,368.23	7,887.49	51.85	40.55	91.94	1,569.84	-914.58	3,943.64	3,873.32	70.31	56.086		
8,523.52	7,755.00	8,398.90	7,888.90	51.97	40.78	91.95	1,569.98	-945.21	3,943.66	3,872.68	70.98	55.561		
8,600.00	7,755.00	8,477.94	7,889.00	52.38	41.44	91.95	1,570.32	-1,024.25	3,943.66	3,870.66	73.00	54.024		
8,700.00	7,755.00	8,577.93	7,889.00	53.00	42.41	91.95	1,570.75	-1,124.24	3,943.66	3,867.82	75.84	52.001		
8,800.00	7,755.00	8,677.93	7,889.00	53.72	43.54	91.95	1,571.18	-1,224.24	3,943.65	3,864.71	78.94	49.956		

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

Anticollision Report

Company:	AXIS EXPLORATION	Local Co-ordinate Reference:	Well JAMASO 4-65 5-6-12
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5610.00usft
Reference Site:	Sec 4-T4S-R65W	MD Reference:	KB 25' @ 5610.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	JAMASO 4-65 5-6-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
8,900.00	7,755.00	8,777.92	7,889.00	54.54	44.83	91.95	1,571.61	-1,324.23	3,943.65	3,861.37	82.28	47.928		
9,000.00	7,755.00	8,877.92	7,888.99	55.47	46.25	91.95	1,572.04	-1,424.23	3,943.65	3,857.82	85.83	45.948		
9,100.00	7,755.00	8,977.91	7,888.99	56.53	47.81	91.95	1,572.48	-1,524.22	3,943.64	3,854.08	89.56	44.034		
9,200.00	7,755.00	9,077.91	7,888.99	57.70	49.48	91.95	1,572.91	-1,624.21	3,943.64	3,850.19	93.45	42.200		
9,300.00	7,755.00	9,177.91	7,888.99	58.99	51.26	91.95	1,573.34	-1,724.21	3,943.64	3,846.16	97.48	40.454		
9,400.00	7,755.00	9,277.90	7,888.99	60.41	53.13	91.95	1,573.77	-1,824.20	3,943.64	3,842.00	101.64	38.800		
9,500.00	7,755.00	9,377.90	7,888.99	61.93	55.07	91.95	1,574.21	-1,924.20	3,943.63	3,837.73	105.91	37.236		
9,600.00	7,755.00	9,477.89	7,888.99	63.56	57.09	91.95	1,574.64	-2,024.19	3,943.63	3,833.36	110.27	35.762		
9,700.00	7,755.00	9,577.89	7,888.99	65.28	59.17	91.95	1,575.07	-2,124.19	3,943.63	3,828.91	114.73	34.374		
9,800.00	7,755.00	9,677.88	7,888.99	67.09	61.30	91.95	1,575.50	-2,224.18	3,943.63	3,824.38	119.25	33.069		
9,900.00	7,755.00	9,777.88	7,888.98	68.98	63.48	91.95	1,575.94	-2,324.17	3,943.63	3,819.78	123.85	31.842		
10,000.00	7,755.00	9,877.87	7,888.98	70.94	65.70	91.95	1,576.37	-2,424.17	3,943.63	3,815.12	128.51	30.688		
10,100.00	7,755.00	9,977.87	7,888.98	72.96	67.96	91.95	1,576.80	-2,524.16	3,943.62	3,810.41	133.22	29.603		
10,200.00	7,755.00	10,077.86	7,888.98	75.04	70.25	91.95	1,577.24	-2,624.16	3,943.62	3,805.64	137.98	28.581		
10,300.00	7,755.00	10,177.86	7,888.98	77.17	72.57	91.95	1,577.67	-2,724.15	3,943.62	3,800.84	142.78	27.620		
10,400.00	7,755.00	10,277.85	7,888.98	79.34	74.92	91.95	1,578.10	-2,824.15	3,943.62	3,795.99	147.63	26.713		
10,500.00	7,755.00	10,377.85	7,888.98	81.55	77.29	91.95	1,578.54	-2,924.14	3,943.62	3,791.11	152.51	25.859		
10,600.00	7,755.00	10,477.84	7,888.98	83.80	79.68	91.95	1,578.97	-3,024.13	3,943.62	3,786.20	157.42	25.052		
10,700.00	7,755.00	10,577.84	7,888.98	86.08	82.09	91.95	1,579.40	-3,124.13	3,943.62	3,781.26	162.36	24.289		
10,800.00	7,755.00	10,677.83	7,888.98	88.39	84.52	91.95	1,579.84	-3,224.12	3,943.62	3,776.29	167.33	23.568		
10,900.00	7,755.00	10,777.83	7,888.98	90.73	86.97	91.95	1,580.27	-3,324.12	3,943.62	3,771.29	172.32	22.885		
11,000.00	7,755.00	10,877.83	7,888.98	93.08	89.43	91.95	1,580.71	-3,424.11	3,943.62	3,766.28	177.34	22.238		
11,100.00	7,755.00	10,977.82	7,888.98	95.46	91.91	91.95	1,581.14	-3,524.11	3,943.62	3,761.24	182.38	21.623		
11,200.00	7,754.99	11,077.82	7,888.97	97.86	94.39	91.95	1,581.58	-3,624.10	3,943.62	3,756.18	187.43	21.040		
11,231.79	7,754.99	11,109.60	7,888.97	98.63	95.18	91.95	1,581.71	-3,655.89	3,943.62	3,754.57	189.04	20.861		
11,300.00	7,754.99	11,177.81	7,888.97	100.28	96.89	91.95	1,582.01	-3,724.09	3,943.62	3,751.11	192.51	20.486		
11,400.00	7,754.99	11,277.81	7,888.97	102.71	99.40	91.95	1,582.45	-3,824.09	3,943.62	3,746.02	197.60	19.958		
11,500.00	7,754.99	11,377.80	7,888.97	105.16	101.92	91.95	1,582.88	-3,924.08	3,943.62	3,740.92	202.70	19.455		
11,600.00	7,754.99	11,477.80	7,888.97	107.62	104.44	91.95	1,583.32	-4,024.08	3,943.62	3,735.80	207.82	18.976		
11,700.00	7,754.99	11,577.79	7,888.97	110.10	106.98	91.95	1,583.75	-4,124.07	3,943.62	3,730.67	212.95	18.519		
11,800.00	7,754.99	11,677.79	7,888.97	112.58	109.52	91.95	1,584.19	-4,224.07	3,943.62	3,725.52	218.09	18.082		
11,900.00	7,754.99	11,777.78	7,888.97	115.08	112.07	91.95	1,584.62	-4,324.06	3,943.62	3,720.37	223.25	17.665		
12,000.00	7,754.99	11,877.78	7,888.97	117.59	114.63	91.95	1,585.06	-4,424.06	3,943.62	3,715.21	228.41	17.265		
12,100.00	7,754.99	11,977.77	7,888.97	120.10	117.19	91.95	1,585.49	-4,524.05	3,943.62	3,710.03	233.59	16.883		
12,200.00	7,754.99	12,077.77	7,888.97	122.62	119.76	91.95	1,585.93	-4,624.04	3,943.62	3,704.85	238.77	16.516		
12,300.00	7,754.99	12,177.76	7,888.97	125.16	122.34	91.95	1,586.36	-4,724.04	3,943.62	3,699.66	243.96	16.165		
12,400.00	7,754.99	12,277.76	7,888.97	127.70	124.91	91.95	1,586.80	-4,824.03	3,943.63	3,694.46	249.16	15.827		
12,500.00	7,754.99	12,377.75	7,888.97	130.24	127.50	91.95	1,587.24	-4,924.03	3,943.63	3,689.25	254.37	15.503		
12,600.00	7,754.99	12,477.75	7,888.97	132.79	130.09	91.95	1,587.67	-5,024.02	3,943.63	3,684.04	259.59	15.192		
12,700.00	7,754.99	12,577.74	7,888.97	135.35	132.68	91.95	1,588.11	-5,124.02	3,943.63	3,678.82	264.81	14.892		
12,800.00	7,754.99	12,677.74	7,888.97	137.92	135.27	91.95	1,588.54	-5,224.01	3,943.63	3,673.60	270.03	14.604		
12,900.00	7,754.99	12,777.74	7,888.97	140.48	137.87	91.95	1,588.98	-5,324.00	3,943.63	3,668.37	275.27	14.327		
13,000.00	7,754.99	12,877.73	7,888.97	143.06	140.48	91.95	1,589.42	-5,424.00	3,943.64	3,663.13	280.51	14.059		
13,100.00	7,754.99	12,977.73	7,888.97	145.64	143.08	91.95	1,589.85	-5,523.99	3,943.64	3,657.89	285.75	13.801		
13,200.00	7,754.99	13,077.72	7,888.97	148.22	145.69	91.95	1,590.29	-5,623.99	3,943.64	3,652.64	291.00	13.552		
13,300.00	7,754.99	13,177.72	7,888.97	150.81	148.31	91.95	1,590.73	-5,723.98	3,943.64	3,647.39	296.25	13.312		
13,400.00	7,754.99	13,277.71	7,888.97	153.40	150.92	91.95	1,591.17	-5,823.98	3,943.65	3,642.13	301.51	13.080		
13,500.00	7,754.99	13,377.71	7,888.97	156.00	153.54	91.95	1,591.60	-5,923.97	3,943.65	3,636.87	306.77	12.855		
13,600.00	7,754.99	13,477.70	7,888.97	158.59	156.16	91.95	1,592.04	-6,023.96	3,943.65	3,631.61	312.04	12.638		
13,700.00	7,754.99	13,577.70	7,888.97	161.20	158.78	91.95	1,592.48	-6,123.96	3,943.65	3,626.34	317.31	12.428		
13,800.00	7,754.99	13,677.69	7,888.97	163.80	161.41	91.95	1,592.92	-6,223.95	3,943.66	3,621.07	322.58	12.225		
13,900.00	7,754.99	13,777.69	7,888.97	166.41	164.03	91.95	1,593.35	-6,323.95	3,943.66	3,615.80	327.86	12.028		

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

Anticollision Report

Company:	AXIS EXPLORATION	Local Co-ordinate Reference:	Well JAMASO 4-65 5-6-12
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5610.00usft
Reference Site:	Sec 4-T4S-R65W	MD Reference:	KB 25' @ 5610.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	JAMASO 4-65 5-6-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design Sec 4-T4S-R65W - JAMASO 4-65 5-6-2 - ORIGINAL WELLBORE - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
14,000.00	7,754.99	13,877.68	7,888.97	169.02	166.66	91.95	1,593.79	-6,423.94	3,943.66	3,610.52	333.14	11.838		
14,100.00	7,754.99	13,977.68	7,888.97	171.63	169.29	91.95	1,594.23	-6,523.94	3,943.67	3,605.24	338.43	11.653		
14,200.00	7,754.99	14,077.67	7,888.97	174.25	171.93	91.95	1,594.67	-6,623.93	3,943.67	3,599.96	343.71	11.474		
14,300.00	7,754.99	14,177.67	7,888.97	176.87	174.56	91.95	1,595.10	-6,723.92	3,943.67	3,594.67	349.00	11.300		
14,400.00	7,754.99	14,277.66	7,888.97	179.49	177.20	91.95	1,595.54	-6,823.92	3,943.68	3,589.38	354.29	11.131		
14,500.00	7,754.99	14,377.66	7,888.97	182.11	179.84	91.95	1,595.98	-6,923.91	3,943.68	3,584.09	359.59	10.967		
14,600.00	7,754.99	14,477.65	7,888.97	184.74	182.48	91.95	1,596.42	-7,023.91	3,943.68	3,578.80	364.89	10.808		
14,700.00	7,754.99	14,577.65	7,888.97	187.37	185.12	91.95	1,596.86	-7,123.90	3,943.69	3,573.50	370.18	10.653		
14,800.00	7,754.99	14,677.65	7,888.97	190.00	187.76	91.95	1,597.30	-7,223.90	3,943.69	3,568.21	375.49	10.503		
14,900.00	7,754.99	14,777.64	7,888.97	192.63	190.40	91.95	1,597.74	-7,323.89	3,943.70	3,562.91	380.79	10.357		
15,000.00	7,754.99	14,877.64	7,888.97	195.26	193.05	91.95	1,598.18	-7,423.88	3,943.70	3,557.61	386.10	10.214		
15,100.00	7,754.99	14,977.63	7,888.97	197.89	195.69	91.95	1,598.61	-7,523.88	3,943.71	3,552.30	391.40	10.076		
15,200.00	7,754.99	15,077.63	7,888.97	200.53	198.34	91.95	1,599.05	-7,623.87	3,943.71	3,547.00	396.71	9.941		
15,300.00	7,754.99	15,177.62	7,888.97	203.17	200.99	91.95	1,599.49	-7,723.87	3,943.72	3,541.69	402.03	9.810		
15,400.00	7,754.99	15,277.62	7,888.97	205.81	203.64	91.95	1,599.93	-7,823.86	3,943.72	3,536.38	407.34	9.682		
15,500.00	7,754.99	15,377.61	7,888.97	208.45	206.29	91.95	1,600.37	-7,923.86	3,943.73	3,531.07	412.66	9.557		
15,600.00	7,754.99	15,477.61	7,888.98	211.09	208.94	91.95	1,600.81	-8,023.85	3,943.73	3,525.76	417.97	9.435		
15,700.00	7,754.99	15,577.60	7,888.98	213.74	211.59	91.95	1,601.25	-8,123.84	3,943.74	3,520.45	423.29	9.317		
15,800.00	7,754.99	15,677.60	7,888.98	216.38	214.25	91.95	1,601.69	-8,223.84	3,943.74	3,515.13	428.61	9.201		
15,900.00	7,754.99	15,777.59	7,888.98	219.03	216.90	91.95	1,602.13	-8,323.83	3,943.75	3,509.81	433.93	9.088		
16,000.00	7,754.99	15,877.59	7,888.98	221.67	219.56	91.95	1,602.57	-8,423.83	3,943.75	3,504.50	439.26	8.978		
16,100.00	7,754.99	15,977.58	7,888.98	224.32	222.21	91.95	1,603.01	-8,523.82	3,943.76	3,499.18	444.58	8.871		
16,200.00	7,754.99	16,077.58	7,888.98	226.97	224.87	91.95	1,603.45	-8,623.82	3,943.76	3,493.86	449.91	8.766		
16,300.00	7,754.99	16,177.57	7,888.98	229.62	227.53	91.95	1,603.89	-8,723.81	3,943.77	3,488.54	455.23	8.663		
16,400.00	7,754.98	16,277.57	7,888.98	232.27	230.19	91.95	1,604.33	-8,823.80	3,943.78	3,483.22	460.56	8.563		
16,500.00	7,754.98	16,377.56	7,888.98	234.93	232.85	91.95	1,604.78	-8,923.80	3,943.78	3,477.89	465.89	8.465		
16,600.00	7,754.98	16,477.56	7,888.98	237.58	235.51	91.95	1,605.22	-9,023.79	3,943.79	3,472.57	471.22	8.369		
16,700.00	7,754.98	16,577.56	7,888.98	240.23	238.17	91.95	1,605.66	-9,123.79	3,943.80	3,467.24	476.55	8.276		
16,800.00	7,754.98	16,677.55	7,888.98	242.89	240.83	91.95	1,606.10	-9,223.78	3,943.80	3,461.92	481.89	8.184		
16,900.00	7,754.98	16,777.55	7,888.99	245.55	243.49	91.95	1,606.54	-9,323.78	3,943.81	3,456.59	487.22	8.095		
17,000.00	7,754.98	16,877.54	7,888.99	248.20	246.15	91.95	1,606.98	-9,423.77	3,943.82	3,451.26	492.55	8.007		
17,100.00	7,754.98	16,977.54	7,888.99	250.86	248.82	91.95	1,607.42	-9,523.76	3,943.82	3,445.93	497.89	7.921		
17,200.00	7,754.98	17,077.53	7,888.99	253.52	251.48	91.95	1,607.86	-9,623.76	3,943.83	3,440.60	503.23	7.837		
17,300.00	7,754.98	17,177.53	7,888.99	256.18	254.14	91.95	1,608.31	-9,723.75	3,943.84	3,435.27	508.56	7.755		
17,400.00	7,754.98	17,277.52	7,888.99	258.84	256.81	91.95	1,608.75	-9,823.75	3,943.85	3,429.94	513.90	7.674		
17,500.00	7,754.98	17,377.52	7,888.99	261.50	259.47	91.95	1,609.19	-9,923.74	3,943.85	3,424.61	519.24	7.595		
17,600.00	7,754.98	17,477.51	7,888.99	264.16	262.14	91.95	1,609.63	-10,023.74	3,943.86	3,419.28	524.58	7.518		
17,700.00	7,754.98	17,577.51	7,888.99	266.82	264.81	91.95	1,610.07	-10,123.73	3,943.87	3,413.95	529.92	7.442		
17,800.00	7,754.98	17,677.50	7,888.99	269.49	267.47	91.95	1,610.52	-10,223.72	3,943.88	3,408.61	535.26	7.368		
17,900.00	7,754.98	17,777.50	7,889.00	272.15	270.14	91.95	1,610.96	-10,323.72	3,943.88	3,403.28	540.61	7.295		
18,000.00	7,754.98	17,877.49	7,889.00	274.81	272.81	91.95	1,611.40	-10,423.71	3,943.89	3,397.94	545.95	7.224		
18,100.00	7,754.98	17,977.49	7,889.00	277.48	275.48	91.95	1,611.85	-10,523.71	3,943.90	3,392.61	551.29	7.154		
18,200.00	7,754.98	18,077.48	7,889.00	280.14	278.14	91.95	1,612.29	-10,623.70	3,943.91	3,387.27	556.64	7.085		
18,210.73	7,754.98	18,088.21	7,889.00	280.43	278.43	91.95	1,612.34	-10,634.43	3,943.91	3,386.70	557.21	7.078		
18,210.73	7,755.00	18,088.22	7,889.00	280.43	278.43	91.95	1,612.34	-10,634.44	3,943.69	3,386.47	557.21	7.078 SF		

Anticollision Report

Company:	AXIS EXPLORATION	Local Co-ordinate Reference:	Well JAMASO 4-65 5-6-12
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5610.00usft
Reference Site:	Sec 4-T4S-R65W	MD Reference:	KB 25' @ 5610.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	JAMASO 4-65 5-6-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	-90.00	0.00	-143.44	143.44					
100.00	100.00	100.00	100.00	0.13	0.13	-90.00	0.00	-143.44	143.44	143.17	0.27	533.513		
200.00	199.98	200.02	199.98	0.48	0.49	81.32	0.00	-143.44	143.16	142.19	0.97	146.868		
300.00	299.84	300.16	299.84	0.84	0.85	83.41	0.00	-143.44	142.47	140.78	1.69	84.196		
400.00	399.45	400.55	399.45	1.22	1.21	86.92	0.00	-143.44	141.73	139.30	2.43	58.319		
466.07	465.07	465.07	465.07	1.48	1.44	90.00	0.00	-143.44	141.52	138.60	2.93	48.359 CC		
500.00	498.70	501.30	498.70	1.62	1.57	91.81	0.00	-143.44	141.59	138.40	3.19	44.352 ES		
600.00	597.47	597.47	597.47	2.05	1.92	97.99	0.00	-143.44	142.95	138.99	3.96	36.063		
700.00	695.62	692.76	692.75	2.51	2.26	105.41	1.47	-143.74	147.79	143.03	4.76	31.080		
800.00	793.06	785.76	785.63	3.00	2.60	113.87	5.90	-144.65	158.86	153.31	5.55	28.645		
900.00	889.64	875.99	875.56	3.54	2.92	122.24	13.01	-146.10	177.76	171.45	6.31	28.159		
1,000.00	985.27	962.97	962.00	4.12	3.24	129.71	22.50	-148.05	205.16	198.12	7.04	29.145		
1,100.00	1,079.82	1,046.31	1,044.50	4.74	3.56	135.89	33.99	-150.40	240.82	233.10	7.72	31.192		
1,200.00	1,173.17	1,125.69	1,122.74	5.41	3.87	140.79	47.12	-153.09	284.09	275.73	8.36	33.976		
1,203.38	1,176.30	1,128.30	1,125.31	5.43	3.88	140.93	47.59	-153.18	285.68	277.30	8.38	34.081		
1,300.00	1,265.84	1,205.97	1,201.52	6.10	4.20	145.32	62.26	-156.19	332.77	323.77	9.00	36.977		
1,400.00	1,358.52	1,289.99	1,283.91	6.81	4.56	148.94	78.37	-159.49	383.14	373.49	9.66	39.672		
1,500.00	1,451.19	1,374.00	1,366.30	7.52	4.92	151.76	94.48	-162.79	434.45	424.13	10.32	42.088		
1,600.00	1,543.87	1,458.01	1,448.69	8.24	5.29	154.00	110.59	-166.09	486.39	475.40	10.99	44.252		
1,700.00	1,636.54	1,542.03	1,531.08	8.95	5.67	155.81	126.70	-169.39	538.79	527.13	11.66	46.190		
1,800.00	1,729.21	1,626.04	1,613.47	9.68	6.05	157.32	142.81	-172.69	591.52	579.18	12.34	47.928		
1,900.00	1,821.89	1,710.05	1,695.86	10.40	6.43	158.57	158.92	-175.99	644.50	631.47	13.02	49.491		
2,000.00	1,914.56	1,805.93	1,778.24	11.12	6.86	159.64	175.03	-179.29	697.67	683.92	13.75	50.734		
2,100.00	2,007.24	1,878.08	1,860.63	11.85	7.19	160.57	191.14	-182.59	750.99	736.60	14.39	52.174		
2,200.00	2,099.91	1,962.09	1,943.02	12.58	7.58	161.37	207.25	-185.89	804.44	789.36	15.08	53.332		
2,300.00	2,192.58	2,046.11	2,025.41	13.30	7.97	162.07	223.36	-189.19	857.99	842.21	15.78	54.386		
2,400.00	2,285.26	2,130.12	2,107.80	14.03	8.36	162.69	239.47	-192.49	911.62	895.15	16.47	55.351		
2,500.00	2,377.93	2,214.14	2,190.19	14.76	8.75	163.24	255.58	-195.79	965.31	948.15	17.17	56.235		
2,600.00	2,470.61	2,298.15	2,272.57	15.49	9.14	163.73	271.69	-199.09	1,019.06	1,001.20	17.86	57.048		
2,700.00	2,563.28	2,382.16	2,354.96	16.22	9.54	164.18	287.80	-202.39	1,072.87	1,054.30	18.56	57.798		
2,800.00	2,655.95	2,466.18	2,437.35	16.95	9.93	164.58	303.91	-205.69	1,126.71	1,107.45	19.26	58.491		
2,900.00	2,748.63	2,550.19	2,519.74	17.68	10.33	164.94	320.02	-208.99	1,180.59	1,160.63	19.96	59.134		
3,000.00	2,841.30	2,634.20	2,602.13	18.42	10.72	165.28	336.13	-212.29	1,234.50	1,213.83	20.67	59.732		
3,100.00	2,933.98	2,718.22	2,684.52	19.15	11.12	165.58	352.24	-215.59	1,288.44	1,267.07	21.37	60.288		
3,200.00	3,026.65	2,802.23	2,766.90	19.88	11.51	165.87	368.35	-218.89	1,342.40	1,320.33	22.08	60.808		
3,300.00	3,119.33	2,886.24	2,849.29	20.61	11.91	166.13	384.47	-222.19	1,396.39	1,373.60	22.78	61.294		
3,400.00	3,212.00	2,970.26	2,931.68	21.35	12.31	166.37	400.58	-225.49	1,450.39	1,426.90	23.49	61.749		
3,500.00	3,304.67	3,054.27	3,014.07	22.08	12.70	166.59	416.69	-228.79	1,504.41	1,480.21	24.20	62.177		
3,600.00	3,397.35	3,138.28	3,096.46	22.81	13.10	166.80	432.80	-232.09	1,558.44	1,533.54	24.90	62.579		
3,700.00	3,490.02	3,222.30	3,178.85	23.54	13.50	166.99	448.91	-235.39	1,612.49	1,586.88	25.61	62.958		
3,800.00	3,582.70	3,306.31	3,261.23	24.28	13.90	167.17	465.02	-238.69	1,666.55	1,640.23	26.32	63.315		
3,900.00	3,675.37	3,409.67	3,343.62	25.01	14.39	167.34	481.13	-241.99	1,720.63	1,693.52	27.11	63.477		
4,000.00	3,768.04	3,474.34	3,426.01	25.74	14.70	167.50	497.24	-245.29	1,774.71	1,746.97	27.74	63.972		
4,100.00	3,860.72	3,558.35	3,508.40	26.48	15.09	167.65	513.35	-248.59	1,828.80	1,800.35	28.45	64.274		
4,200.00	3,953.39	3,642.37	3,590.79	27.21	15.49	167.80	529.46	-251.89	1,882.90	1,853.73	29.16	64.560		
4,300.00	4,046.07	3,726.38	3,673.18	27.95	15.89	167.93	545.57	-255.19	1,937.01	1,907.13	29.88	64.833		
4,400.00	4,138.74	3,810.39	3,755.57	28.68	16.29	168.06	561.68	-258.49	1,991.12	1,960.53	30.59	65.091		
4,500.00	4,231.41	3,905.59	3,837.95	29.41	16.74	168.18	577.79	-261.79	2,045.24	2,013.90	31.35	65.247		
4,600.00	4,324.09	3,978.42	3,920.34	30.15	17.09	168.29	593.90	-265.09	2,099.37	2,067.35	32.02	65.572		
4,700.00	4,416.76	4,062.43	4,002.73	30.88	17.49	168.40	610.01	-268.39	2,153.50	2,120.77	32.73	65.795		
4,800.00	4,509.44	4,146.45	4,085.12	31.62	17.89	168.50	626.12	-271.69	2,207.64	2,174.19	33.44	66.008		
4,900.00	4,602.11	4,230.46	4,167.51	32.35	18.29	168.60	642.23	-275.00	2,261.78	2,227.62	34.16	66.212		

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

Anticollision Report

Company:	AXIS EXPLORATION	Local Co-ordinate Reference:	Well JAMASO 4-65 5-6-12
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5610.00usft
Reference Site:	Sec 4-T4S-R65W	MD Reference:	KB 25' @ 5610.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	JAMASO 4-65 5-6-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,000.00	4,694.78	4,314.47	4,249.90	33.08	18.69	168.69	658.34	-278.30	2,315.93	2,281.05	34.88	66.406		
5,100.00	4,787.46	4,398.49	4,332.28	33.82	19.09	168.78	674.45	-281.60	2,370.08	2,334.49	35.59	66.592		
5,200.00	4,880.13	4,482.50	4,414.67	34.55	19.49	168.87	690.56	-284.90	2,424.24	2,387.93	36.31	66.770		
5,300.00	4,972.81	4,566.52	4,497.06	35.29	19.89	168.95	706.67	-288.20	2,478.39	2,441.37	37.02	66.941		
5,400.00	5,065.48	4,650.53	4,579.45	36.02	20.29	169.03	722.78	-291.50	2,532.56	2,494.82	37.74	67.104		
5,500.00	5,158.15	4,734.54	4,661.84	36.76	20.69	169.10	738.89	-294.80	2,586.72	2,548.26	38.46	67.261		
5,600.00	5,250.83	4,818.56	4,744.23	37.49	21.10	169.17	755.00	-298.10	2,640.89	2,601.71	39.18	67.411		
5,700.00	5,343.50	4,902.57	4,826.61	38.22	21.50	169.24	771.11	-301.40	2,695.06	2,655.17	39.89	67.555		
5,800.00	5,436.18	4,986.58	4,909.00	38.96	21.90	169.31	787.22	-304.70	2,749.23	2,708.62	40.61	67.694		
5,900.00	5,528.85	5,070.60	4,991.39	39.69	22.30	169.37	803.33	-308.00	2,803.41	2,762.08	41.33	67.827		
6,000.00	5,621.53	5,154.61	5,073.78	40.43	22.70	169.43	819.44	-311.30	2,857.59	2,815.54	42.05	67.955		
6,100.00	5,714.20	5,238.62	5,156.17	41.16	23.10	169.49	835.55	-314.60	2,911.77	2,869.00	42.77	68.079		
6,200.00	5,806.87	5,322.64	5,238.56	41.90	23.50	169.55	851.66	-317.90	2,965.95	2,922.46	43.49	68.197		
6,300.00	5,899.55	5,406.65	5,320.95	42.63	23.90	169.60	867.77	-321.20	3,020.14	2,975.93	44.21	68.311		
6,400.00	5,992.22	5,509.34	5,403.33	43.37	24.39	169.65	883.88	-324.50	3,074.32	3,029.32	45.00	68.311		
6,490.07	6,075.70	5,566.34	5,477.54	44.03	24.67	169.70	898.39	-327.47	3,123.13	3,077.55	45.58	68.517		
6,500.00	6,084.90	5,574.69	5,485.73	44.10	24.71	169.73	899.99	-327.80	3,128.50	3,082.84	45.65	68.527		
6,600.00	6,178.34	5,659.80	5,569.20	44.81	25.11	169.98	916.31	-331.14	3,180.94	3,134.57	46.37	68.592		
6,700.00	6,272.96	5,746.68	5,654.40	45.47	25.53	170.21	932.97	-334.55	3,230.43	3,183.34	47.10	68.591		
6,800.00	6,368.65	5,835.22	5,741.22	46.08	25.95	170.40	949.95	-338.03	3,276.90	3,229.08	47.82	68.526		
6,900.00	6,465.30	5,925.31	5,829.57	46.64	26.38	170.56	967.22	-341.57	3,320.30	3,271.76	48.54	68.401		
7,000.00	6,562.78	6,016.83	5,919.32	47.15	26.82	170.70	984.77	-345.16	3,360.57	3,311.31	49.26	68.221		
7,100.00	6,660.98	6,109.69	6,010.38	47.61	27.26	170.81	1,002.58	-348.81	3,397.67	3,347.69	49.97	67.988		
7,200.00	6,759.78	6,203.76	6,102.63	48.02	27.71	170.90	1,020.62	-352.51	3,431.54	3,380.86	50.68	67.706		
7,300.00	6,859.06	6,301.07	6,195.96	48.39	28.18	170.96	1,038.87	-356.25	3,462.16	3,410.76	51.39	67.367		
7,400.00	6,958.69	6,404.92	6,290.26	48.70	28.67	171.00	1,057.31	-360.02	3,489.47	3,437.36	52.11	66.957		
7,500.00	7,058.56	6,507.90	6,385.40	48.96	29.17	171.03	1,075.91	-363.83	3,513.46	3,460.64	52.82	66.517		
7,593.46	7,152.00	6,583.46	6,474.99	49.15	29.53	0.40	1,093.43	-367.42	3,532.84	3,479.47	53.37	66.189		
7,600.00	7,158.54	6,610.13	6,481.28	49.16	29.65	0.40	1,094.66	-367.67	3,534.09	3,480.60	53.49	66.064		
7,623.46	7,182.00	6,612.88	6,503.84	49.20	29.67	0.38	1,099.07	-368.58	3,538.59	3,485.02	53.57	66.060		
7,650.00	7,208.53	6,638.92	6,529.38	49.24	29.79	89.61	1,104.07	-369.60	3,543.68	3,489.94	53.74	65.941		
7,700.00	7,258.32	7,372.03	7,257.40	49.34	32.52	89.89	1,170.47	-388.18	3,544.31	3,485.93	58.38	60.707		
7,750.00	7,307.52	7,421.43	7,306.04	49.45	32.67	89.89	1,170.51	-396.79	3,544.31	3,485.59	58.72	60.360		
7,800.00	7,355.76	7,470.85	7,353.76	49.56	32.83	89.89	1,170.57	-409.55	3,544.31	3,485.24	59.08	59.996		
7,850.00	7,402.69	7,520.28	7,400.22	49.68	32.99	89.90	1,170.64	-426.38	3,544.31	3,484.86	59.45	59.614		
7,900.00	7,447.93	7,569.74	7,445.08	49.80	33.16	89.90	1,170.73	-447.16	3,544.31	3,484.46	59.86	59.212		
7,950.00	7,491.15	7,619.21	7,488.00	49.93	33.33	89.91	1,170.84	-471.75	3,544.31	3,484.02	60.29	58.786		
8,000.00	7,532.02	7,668.71	7,528.66	50.07	33.51	89.91	1,170.97	-499.96	3,544.32	3,483.56	60.76	58.333		
8,050.00	7,570.23	7,718.25	7,566.76	50.20	33.69	89.92	1,171.10	-531.59	3,544.32	3,483.04	61.27	57.846		
8,100.00	7,605.48	7,767.82	7,602.00	50.35	33.89	89.93	1,171.26	-566.42	3,544.32	3,482.48	61.84	57.318		
8,150.00	7,637.51	7,817.42	7,634.13	50.50	34.10	89.93	1,171.42	-604.20	3,544.32	3,481.86	62.46	56.743		
8,200.00	7,666.07	7,867.07	7,662.90	50.66	34.33	89.94	1,171.60	-644.64	3,544.32	3,481.16	63.16	56.117		
8,250.00	7,690.95	7,916.77	7,688.08	50.82	34.59	89.95	1,171.79	-687.47	3,544.32	3,480.39	63.93	55.437		
8,300.00	7,711.95	7,966.50	7,709.47	51.00	34.87	89.96	1,171.99	-732.35	3,544.32	3,479.53	64.79	54.701		
8,350.00	7,728.93	8,016.29	7,726.90	51.19	35.18	89.97	1,172.19	-778.97	3,544.33	3,478.58	65.74	53.913		
8,400.00	7,741.74	8,066.13	7,740.24	51.39	35.54	89.98	1,172.40	-826.97	3,544.33	3,477.55	66.78	53.078		
8,450.00	7,750.29	8,116.02	7,749.36	51.61	35.93	89.99	1,172.62	-876.00	3,544.33	3,476.44	67.89	52.207		
8,500.00	7,754.52	8,165.96	7,754.19	51.85	36.37	89.99	1,172.84	-925.69	3,544.33	3,475.26	69.08	51.310		
8,523.52	7,755.00	8,189.47	7,754.96	51.97	36.59	90.00	1,172.94	-949.19	3,544.33	3,474.68	69.66	50.884		
8,600.00	7,755.00	8,265.95	7,755.00	52.38	37.39	90.00	1,173.28	-1,025.67	3,544.34	3,472.67	71.67	49.453		
8,700.00	7,755.00	8,365.95	7,755.00	53.00	38.57	90.00	1,173.72	-1,125.67	3,544.34	3,469.80	74.55	47.545		
8,800.00	7,755.00	8,465.95	7,755.00	53.72	39.92	90.00	1,174.16	-1,225.67	3,544.35	3,466.66	77.69	45.622		

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

Anticollision Report

Company:	AXIS EXPLORATION	Local Co-ordinate Reference:	Well JAMASO 4-65 5-6-12
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5610.00usft
Reference Site:	Sec 4-T4S-R65W	MD Reference:	KB 25' @ 5610.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	JAMASO 4-65 5-6-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design													Sec 4-T4S-R65W - JAMASO 4-6S 5-6-3 - ORIGINAL WELLBORE - PROPOSAL 1		Offset Site Error:		0.00 usft	
Survey Program: 0-MWD OWSG													Offset Well Error:		0.00 usft			
Reference		Offset		Semi Major Axis			Distance							Warning				
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre	Between Centres	Between Ellipses	Minimum Separation	Separation Factor							
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	+N/-S (usft)	+E/-W (usft)	(usft)	(usft)	(usft)							
8,900.00	7,755.00	8,565.95	7,755.00	54.54	41.43	90.00	1,174.60	-1,325.67	3,544.35	3,463.28	81.07	43.720						
9,000.00	7,755.00	8,665.95	7,754.99	55.47	43.06	90.00	1,175.04	-1,425.66	3,544.36	3,459.70	84.66	41.868						
9,100.00	7,755.00	8,765.95	7,754.99	56.53	44.81	90.00	1,175.47	-1,525.66	3,544.36	3,455.94	88.43	40.083						
9,200.00	7,755.00	8,865.95	7,754.99	57.70	46.66	90.00	1,175.91	-1,625.66	3,544.37	3,452.01	92.36	38.377						
9,300.00	7,755.00	8,965.95	7,754.99	58.99	48.60	90.00	1,176.35	-1,725.66	3,544.37	3,447.95	96.43	36.758						
9,400.00	7,755.00	9,065.95	7,754.99	60.41	50.61	90.00	1,176.79	-1,825.66	3,544.38	3,443.76	100.62	35.226						
9,500.00	7,755.00	9,165.95	7,754.99	61.93	52.68	90.00	1,177.23	-1,925.66	3,544.38	3,439.46	104.92	33.781						
9,600.00	7,755.00	9,265.95	7,754.99	63.56	54.82	90.00	1,177.67	-2,025.66	3,544.39	3,435.07	109.32	32.422						
9,700.00	7,755.00	9,365.95	7,754.99	65.28	57.00	90.00	1,178.11	-2,125.66	3,544.39	3,430.59	113.80	31.145						
9,800.00	7,755.00	9,465.95	7,754.99	67.09	59.23	90.00	1,178.55	-2,225.66	3,544.40	3,426.04	118.36	29.946						
9,900.00	7,755.00	9,565.95	7,754.98	68.98	61.50	90.00	1,178.99	-2,325.66	3,544.40	3,421.42	122.98	28.820						
10,000.00	7,755.00	9,665.95	7,754.98	70.94	63.80	90.00	1,179.43	-2,425.65	3,544.41	3,416.74	127.67	27.763						
10,100.00	7,755.00	9,765.95	7,754.98	72.96	66.13	90.00	1,179.87	-2,525.65	3,544.41	3,412.01	132.40	26.770						
10,200.00	7,755.00	9,865.95	7,754.98	75.04	68.49	90.00	1,180.31	-2,625.65	3,544.42	3,407.23	137.19	25.836						
10,300.00	7,755.00	9,965.95	7,754.98	77.17	70.87	90.00	1,180.75	-2,725.65	3,544.42	3,402.41	142.02	24.958						
10,400.00	7,755.00	10,065.95	7,754.98	79.34	73.28	90.00	1,181.19	-2,825.65	3,544.43	3,397.55	146.88	24.131						
10,500.00	7,755.00	10,165.95	7,754.98	81.55	75.70	90.00	1,181.63	-2,925.65	3,544.43	3,392.65	151.78	23.352						
10,600.00	7,755.00	10,265.95	7,754.98	83.80	78.15	90.00	1,182.07	-3,025.65	3,544.44	3,387.72	156.72	22.617						
10,700.00	7,755.00	10,365.95	7,754.97	86.08	80.61	90.00	1,182.51	-3,125.65	3,544.44	3,382.77	161.68	21.923						
10,800.00	7,755.00	10,465.95	7,754.97	88.39	83.08	90.00	1,182.95	-3,225.65	3,544.45	3,377.78	166.66	21.267						
10,900.00	7,755.00	10,565.95	7,754.97	90.73	85.57	90.00	1,183.39	-3,325.65	3,544.45	3,372.78	171.68	20.646						
11,000.00	7,755.00	10,665.95	7,754.97	93.08	88.07	90.00	1,183.83	-3,425.65	3,544.46	3,367.75	176.71	20.058						
11,100.00	7,755.00	10,765.95	7,754.97	95.46	90.58	90.00	1,184.27	-3,525.64	3,544.46	3,362.70	181.76	19.501						
11,200.00	7,754.99	10,865.95	7,754.97	97.86	93.10	90.00	1,184.71	-3,625.64	3,544.47	3,357.64	186.83	18.971						
11,300.00	7,754.99	10,965.95	7,754.97	100.28	95.63	90.00	1,185.15	-3,725.64	3,544.47	3,352.55	191.92	18.468						
11,400.00	7,754.99	11,065.95	7,754.97	102.71	98.17	90.00	1,185.59	-3,825.64	3,544.48	3,347.45	197.03	17.990						
11,500.00	7,754.99	11,165.95	7,754.96	105.16	100.72	90.00	1,186.03	-3,925.64	3,544.48	3,342.34	202.15	17.534						
11,600.00	7,754.99	11,265.95	7,754.96	107.62	103.27	90.00	1,186.47	-4,025.64	3,544.49	3,337.21	207.28	17.100						
11,700.00	7,754.99	11,365.95	7,754.96	110.10	105.83	90.00	1,186.91	-4,125.64	3,544.49	3,332.07	212.42	16.686						
11,800.00	7,754.99	11,465.95	7,754.96	112.58	108.40	90.00	1,187.35	-4,225.64	3,544.50	3,326.92	217.58	16.291						
11,900.00	7,754.99	11,565.95	7,754.96	115.08	110.97	90.00	1,187.79	-4,325.64	3,544.50	3,321.76	222.74	15.913						
12,000.00	7,754.99	11,665.95	7,754.96	117.59	113.55	90.00	1,188.23	-4,425.64	3,544.51	3,316.59	227.92	15.551						
12,100.00	7,754.99	11,765.95	7,754.96	120.10	116.14	90.00	1,188.66	-4,525.63	3,544.51	3,311.41	233.11	15.206						
12,200.00	7,754.99	11,865.95	7,754.96	122.62	118.73	90.00	1,189.10	-4,625.63	3,544.52	3,306.22	238.30	14.874						
12,300.00	7,754.99	11,965.95	7,754.96	125.16	121.32	90.00	1,189.54	-4,725.63	3,544.52	3,301.02	243.50	14.556						
12,400.00	7,754.99	12,065.95	7,754.95	127.70	123.92	90.00	1,189.98	-4,825.63	3,544.53	3,295.81	248.72	14.251						
12,500.00	7,754.99	12,165.95	7,754.95	130.24	126.52	90.00	1,190.42	-4,925.63	3,544.53	3,290.60	253.93	13.959						
12,600.00	7,754.99	12,265.95	7,754.95	132.79	129.12	90.00	1,190.86	-5,025.63	3,544.54	3,285.38	259.16	13.677						
12,700.00	7,754.99	12,365.95	7,754.95	135.35	131.73	90.00	1,191.30	-5,125.63	3,544.55	3,280.16	264.39	13.407						
12,800.00	7,754.99	12,465.95	7,754.95	137.92	134.34	90.00	1,191.74	-5,225.63	3,544.55	3,274.92	269.63	13.146						
12,900.00	7,754.99	12,565.95	7,754.95	140.48	136.96	90.00	1,192.18	-5,325.63	3,544.56	3,269.69	274.87	12.895						
13,000.00	7,754.99	12,665.95	7,754.95	143.06	139.58	90.00	1,192.62	-5,425.63	3,544.56	3,264.44	280.12	12.654						
13,100.00	7,754.99	12,765.95	7,754.95	145.64	142.20	90.00	1,193.06	-5,525.63	3,544.57	3,259.20	285.37	12.421						
13,200.00	7,754.99	12,865.95	7,754.94	148.22	144.82	90.00	1,193.50	-5,625.62	3,544.57	3,253.94	290.63	12.196						
13,300.00	7,754.99	12,965.95	7,754.94	150.81	147.44	90.00	1,193.94	-5,725.62	3,544.58	3,248.69	295.89	11.979						
13,400.00	7,754.99	13,065.95	7,754.94	153.40	150.07	90.00	1,194.38	-5,825.62	3,544.58	3,243.43	301.16	11.770						
13,500.00	7,754.99	13,165.95	7,754.94	156.00	152.70	90.00	1,194.82	-5,925.62	3,544.59	3,238.16	306.43	11.568						
13,600.00	7,754.99	13,265.95	7,754.94	158.59	155.33	90.00	1,195.26	-6,025.62	3,544.59	3,232.89	311.70	11.372						
13,700.00	7,754.99	13,365.95	7,754.94	161.20	157.97	90.00	1,195.70	-6,125.62	3,544.60	3,227.62	316.98	11.182						
13,800.00	7,754.99	13,465.95	7,754.94	163.80	160.60	90.00	1,196.14	-6,225.62	3,544.60	3,222.34	322.26	10.999						
13,900.00	7,754.99	13,565.95	7,754.94	166.41	163.24	90.00	1,196.58	-6,325.62	3,544.61	3,217.06	327.54	10.822						
14,000.00	7,754.99	13,665.95	7,754.94	169.02	165.88	90.00	1,197.02	-6,425.62	3,544.61	3,211.78	332.83	10.650						

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

Anticollision Report

Company:	AXIS EXPLORATION	Local Co-ordinate Reference:	Well JAMASO 4-65 5-6-12
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5610.00usft
Reference Site:	Sec 4-T4S-R65W	MD Reference:	KB 25' @ 5610.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	JAMASO 4-65 5-6-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design Sec 4-T4S-R65W - JAMASO 4-65 5-6-3 - ORIGINAL WELLBORE - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
14,100.00	7,754.99	13,765.95	7,754.93	171.63	168.52	90.00	1,197.46	-6,525.62	3,544.62	3,206.49	338.12	10.483		
14,200.00	7,754.99	13,865.95	7,754.93	174.25	171.16	90.00	1,197.90	-6,625.61	3,544.62	3,201.20	343.42	10.322		
14,300.00	7,754.99	13,965.95	7,754.93	176.87	173.81	90.00	1,198.34	-6,725.61	3,544.63	3,195.91	348.71	10.165		
14,400.00	7,754.99	14,065.95	7,754.93	179.49	176.45	90.00	1,198.78	-6,825.61	3,544.63	3,190.62	354.01	10.013		
14,500.00	7,754.99	14,165.95	7,754.93	182.11	179.10	90.00	1,199.22	-6,925.61	3,544.64	3,185.32	359.31	9.865		
14,600.00	7,754.99	14,265.95	7,754.93	184.74	181.75	90.00	1,199.66	-7,025.61	3,544.64	3,180.02	364.62	9.722		
14,700.00	7,754.99	14,365.95	7,754.93	187.37	184.40	90.00	1,200.10	-7,125.61	3,544.65	3,174.72	369.92	9.582		
14,800.00	7,754.99	14,465.95	7,754.93	190.00	187.05	90.00	1,200.54	-7,225.61	3,544.65	3,169.42	375.23	9.447		
14,900.00	7,754.99	14,565.95	7,754.92	192.63	189.70	90.00	1,200.98	-7,325.61	3,544.66	3,164.11	380.54	9.315		
15,000.00	7,754.99	14,665.95	7,754.92	195.26	192.35	90.00	1,201.42	-7,425.61	3,544.66	3,158.81	385.86	9.187		
15,100.00	7,754.99	14,765.95	7,754.92	197.89	195.00	90.00	1,201.85	-7,525.61	3,544.67	3,153.50	391.17	9.062		
15,200.00	7,754.99	14,865.95	7,754.92	200.53	197.66	90.00	1,202.29	-7,625.60	3,544.67	3,148.19	396.49	8.940		
15,300.00	7,754.99	14,965.95	7,754.92	203.17	200.31	90.00	1,202.73	-7,725.60	3,544.68	3,142.87	401.80	8.822		
15,400.00	7,754.99	15,065.95	7,754.92	205.81	202.97	90.00	1,203.17	-7,825.60	3,544.68	3,137.56	407.12	8.707		
15,500.00	7,754.99	15,165.95	7,754.92	208.45	205.63	90.00	1,203.61	-7,925.60	3,544.69	3,132.24	412.45	8.594		
15,600.00	7,754.99	15,265.95	7,754.92	211.09	208.28	90.00	1,204.05	-8,025.60	3,544.69	3,126.92	417.77	8.485		
15,700.00	7,754.99	15,365.95	7,754.91	213.74	210.94	90.00	1,204.49	-8,125.60	3,544.70	3,121.60	423.09	8.378		
15,800.00	7,754.99	15,465.95	7,754.91	216.38	213.60	90.00	1,204.93	-8,225.60	3,544.70	3,116.28	428.42	8.274		
15,900.00	7,754.99	15,565.95	7,754.91	219.03	216.26	90.00	1,205.37	-8,325.60	3,544.71	3,110.96	433.75	8.172		
16,000.00	7,754.99	15,665.95	7,754.91	221.67	218.92	90.00	1,205.81	-8,425.60	3,544.71	3,105.64	439.08	8.073		
16,100.00	7,754.99	15,765.95	7,754.91	224.32	221.59	90.00	1,206.25	-8,525.60	3,544.72	3,100.31	444.41	7.976		
16,200.00	7,754.99	15,865.95	7,754.91	226.97	224.25	90.00	1,206.69	-8,625.60	3,544.72	3,094.99	449.74	7.882		
16,300.00	7,754.99	15,965.95	7,754.91	229.62	226.91	90.00	1,207.13	-8,725.59	3,544.73	3,089.66	455.07	7.789		
16,400.00	7,754.98	16,065.95	7,754.91	232.27	229.58	90.00	1,207.57	-8,825.59	3,544.73	3,084.33	460.40	7.699		
16,500.00	7,754.98	16,165.95	7,754.91	234.93	232.24	90.00	1,208.01	-8,925.59	3,544.74	3,079.00	465.74	7.611		
16,600.00	7,754.98	16,265.95	7,754.90	237.58	234.90	90.00	1,208.45	-9,025.59	3,544.74	3,073.67	471.07	7.525		
16,700.00	7,754.98	16,365.95	7,754.90	240.23	237.57	90.00	1,208.89	-9,125.59	3,544.75	3,068.34	476.41	7.441		
16,800.00	7,754.98	16,465.95	7,754.90	242.89	240.24	90.00	1,209.33	-9,225.59	3,544.75	3,063.00	481.75	7.358		
16,900.00	7,754.98	16,565.95	7,754.90	245.55	242.90	90.00	1,209.77	-9,325.59	3,544.76	3,057.67	487.09	7.277		
17,000.00	7,754.98	16,665.95	7,754.90	248.20	245.57	90.00	1,210.21	-9,425.59	3,544.76	3,052.33	492.43	7.199		
17,100.00	7,754.98	16,765.95	7,754.90	250.86	248.24	90.00	1,210.65	-9,525.59	3,544.77	3,047.00	497.77	7.121		
17,200.00	7,754.98	16,865.95	7,754.90	253.52	250.91	90.00	1,211.09	-9,625.59	3,544.77	3,041.66	503.11	7.046		
17,300.00	7,754.98	16,965.95	7,754.90	256.18	253.57	90.00	1,211.53	-9,725.58	3,544.78	3,036.32	508.45	6.972		
17,400.00	7,754.98	17,065.95	7,754.89	258.84	256.24	90.00	1,211.97	-9,825.58	3,544.78	3,030.99	513.80	6.899		
17,500.00	7,754.98	17,165.95	7,754.89	261.50	258.91	90.00	1,212.41	-9,925.58	3,544.79	3,025.65	519.14	6.828		
17,600.00	7,754.98	17,265.95	7,754.89	264.16	261.58	90.00	1,212.85	-10,025.58	3,544.79	3,020.31	524.49	6.759		
17,700.00	7,754.98	17,365.95	7,754.89	266.82	264.25	90.00	1,213.29	-10,125.58	3,544.80	3,014.97	529.83	6.690		
17,800.00	7,754.98	17,465.95	7,754.89	269.49	266.92	90.00	1,213.73	-10,225.58	3,544.80	3,009.62	535.18	6.624		
17,900.00	7,754.98	17,565.95	7,754.89	272.15	269.59	90.00	1,214.17	-10,325.58	3,544.81	3,004.28	540.53	6.558		
18,000.00	7,754.98	17,665.95	7,754.89	274.81	272.27	90.00	1,214.61	-10,425.58	3,544.81	2,998.94	545.87	6.494		
18,100.00	7,754.98	17,765.95	7,754.89	277.48	274.94	90.00	1,215.04	-10,525.58	3,544.82	2,993.60	551.22	6.431		
18,200.00	7,754.98	17,877.20	7,755.00	280.14	277.91	90.00	1,215.29	-10,636.83	3,544.60	2,987.69	556.90	6.365		
18,210.73	7,755.00	17,879.50	7,755.00	280.43	277.97	90.00	1,215.29	-10,639.13	3,544.35	2,987.12	557.23	6.361 SF		

Anticollision Report

Company:	AXIS EXPLORATION	Local Co-ordinate Reference:	Well JAMASO 4-65 5-6-12
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5610.00usft
Reference Site:	Sec 4-T4S-R65W	MD Reference:	KB 25' @ 5610.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	JAMASO 4-65 5-6-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design Sec 4-T4S-R65W - JAMASO 4-65 5-6-4 - ORIGINAL WELLBORE - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	-90.00	0.00	-163.12	163.12					
100.00	100.00	100.00	100.00	0.13	0.13	-90.00	0.00	-163.12	163.12	162.86	0.27	606.740		
200.00	199.98	200.02	199.98	0.48	0.49	81.24	0.00	-163.12	162.85	161.87	0.97	167.063		
300.00	299.84	300.16	299.84	0.84	0.85	83.08	0.00	-163.12	162.13	160.44	1.69	95.819		
400.00	399.45	400.55	399.45	1.22	1.21	86.16	0.00	-163.12	161.31	158.88	2.43	66.377		
490.42	489.21	489.21	489.21	1.58	1.53	90.00	0.00	-163.12	160.95	157.84	3.11	51.739 CC		
500.00	498.70	501.30	498.70	1.62	1.57	90.46	0.00	-163.12	160.95	157.76	3.19	50.415 ES		
600.00	597.47	602.53	597.47	2.05	1.94	95.92	0.00	-163.12	161.84	157.86	3.98	40.633		
700.00	695.62	704.38	695.62	2.51	2.30	102.35	0.00	-163.12	164.93	160.13	4.80	34.353		
800.00	793.06	793.06	793.06	3.00	2.62	109.44	0.00	-163.12	171.26	165.67	5.59	30.633		
900.00	889.64	885.30	885.29	3.54	2.95	116.65	1.22	-163.47	182.81	176.41	6.40	28.581		
1,000.00	985.27	974.60	974.49	4.12	3.27	123.82	5.12	-164.57	201.96	194.79	7.17	28.164		
1,100.00	1,079.82	1,060.76	1,060.40	4.74	3.58	130.31	11.41	-166.36	229.26	221.36	7.90	29.012		
1,200.00	1,173.17	1,143.42	1,142.60	5.41	3.88	135.81	19.78	-168.73	264.56	255.97	8.59	30.808		
1,203.38	1,176.30	1,146.15	1,145.31	5.43	3.89	135.98	20.10	-168.82	265.88	257.27	8.61	30.883		
1,300.00	1,265.84	1,228.20	1,226.68	6.10	4.20	140.99	30.24	-171.69	305.69	296.43	9.27	32.990		
1,400.00	1,358.52	1,315.67	1,313.41	6.81	4.53	145.15	41.18	-174.79	348.85	338.90	9.95	35.054		
1,500.00	1,451.19	1,403.14	1,400.13	7.52	4.86	148.43	52.12	-177.89	393.24	382.61	10.64	36.973		
1,600.00	1,543.87	1,509.40	1,486.86	8.24	5.28	151.06	63.06	-180.99	438.50	427.11	11.39	38.496		
1,700.00	1,636.54	1,578.07	1,573.58	8.95	5.55	153.21	74.00	-184.09	484.38	472.37	12.01	40.326		
1,800.00	1,729.21	1,665.54	1,660.30	9.68	5.89	155.00	84.95	-187.18	530.73	518.02	12.70	41.776		
1,900.00	1,821.89	1,753.01	1,747.03	10.40	6.24	156.51	95.89	-190.28	577.42	564.02	13.40	43.093		
2,000.00	1,914.56	1,840.47	1,833.75	11.12	6.59	157.79	106.83	-193.38	624.38	610.28	14.10	44.290		
2,100.00	2,007.24	1,927.94	1,920.48	11.85	6.94	158.90	117.77	-196.48	671.56	656.76	14.80	45.381		
2,200.00	2,099.91	2,015.41	2,007.20	12.58	7.29	159.86	128.71	-199.58	718.91	703.41	15.50	46.377		
2,300.00	2,192.58	2,102.87	2,093.93	13.30	7.64	160.71	139.65	-202.68	766.40	750.19	16.21	47.290		
2,400.00	2,285.26	2,209.66	2,180.65	14.03	8.07	161.46	150.60	-205.78	814.01	797.02	16.98	47.925		
2,500.00	2,377.93	2,277.81	2,267.38	14.76	8.35	162.13	161.54	-208.88	861.71	844.09	17.62	48.898		
2,600.00	2,470.61	2,365.28	2,354.10	15.49	8.71	162.72	172.48	-211.98	909.49	891.16	18.33	49.609		
2,700.00	2,563.28	2,452.74	2,440.83	16.22	9.06	163.26	183.42	-215.08	957.35	938.30	19.05	50.267		
2,800.00	2,655.95	2,540.21	2,527.55	16.95	9.42	163.75	194.36	-218.18	1,005.26	985.50	19.76	50.878		
2,900.00	2,748.63	2,627.68	2,614.28	17.68	9.77	164.19	205.30	-221.28	1,053.22	1,032.75	20.47	51.445		
3,000.00	2,841.30	2,715.14	2,701.00	18.42	10.13	164.59	216.25	-224.37	1,101.23	1,080.04	21.19	51.974		
3,100.00	2,933.98	2,802.61	2,787.73	19.15	10.49	164.97	227.19	-227.47	1,149.28	1,127.37	21.90	52.467		
3,200.00	3,026.65	2,909.92	2,874.45	19.88	10.93	165.31	238.13	-230.57	1,197.36	1,174.66	22.70	52.757		
3,300.00	3,119.33	2,977.54	2,961.17	20.61	11.20	165.62	249.07	-233.67	1,245.47	1,222.13	23.34	53.361		
3,400.00	3,212.00	3,065.01	3,047.90	21.35	11.56	165.91	260.01	-236.77	1,293.61	1,269.55	24.06	53.768		
3,500.00	3,304.67	3,152.48	3,134.62	22.08	11.92	166.18	270.95	-239.87	1,341.77	1,316.99	24.78	54.149		
3,600.00	3,397.35	3,239.95	3,221.35	22.81	12.28	166.44	281.90	-242.97	1,389.95	1,364.45	25.50	54.509		
3,700.00	3,490.02	3,327.41	3,308.07	23.54	12.64	166.67	292.84	-246.07	1,438.16	1,411.94	26.22	54.848		
3,800.00	3,582.70	3,414.88	3,394.80	24.28	13.00	166.89	303.78	-249.17	1,486.38	1,459.43	26.94	55.169		
3,900.00	3,675.37	3,502.35	3,481.52	25.01	13.36	167.10	314.72	-252.27	1,534.61	1,506.95	27.66	55.472		
4,000.00	3,768.04	3,589.81	3,568.25	25.74	13.72	167.29	325.66	-255.37	1,582.86	1,554.48	28.39	55.760		
4,100.00	3,860.72	3,677.28	3,654.97	26.48	14.08	167.47	336.61	-258.47	1,631.13	1,602.02	29.11	56.032		
4,200.00	3,953.39	3,764.75	3,741.70	27.21	14.44	167.65	347.55	-261.56	1,679.40	1,649.57	29.83	56.291		
4,300.00	4,046.07	3,852.22	3,828.42	27.95	14.80	167.81	358.49	-264.66	1,727.69	1,697.13	30.56	56.537		
4,400.00	4,138.74	3,939.68	3,915.15	28.68	15.16	167.96	369.43	-267.76	1,775.99	1,744.70	31.28	56.771		
4,500.00	4,231.41	4,027.15	4,001.87	29.41	15.52	168.11	380.37	-270.86	1,824.29	1,792.29	32.01	56.994		
4,600.00	4,324.09	4,114.62	4,088.60	30.15	15.88	168.24	391.31	-273.96	1,872.61	1,839.87	32.73	57.206		
4,700.00	4,416.76	4,202.08	4,175.32	30.88	16.24	168.38	402.26	-277.06	1,920.93	1,887.47	33.46	57.409		
4,800.00	4,509.44	4,289.55	4,262.04	31.62	16.60	168.50	413.20	-280.16	1,969.26	1,935.07	34.19	57.603		
4,900.00	4,602.11	4,377.02	4,348.77	32.35	16.96	168.62	424.14	-283.26	2,017.60	1,982.68	34.91	57.788		

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

Anticollision Report

Company:	AXIS EXPLORATION	Local Co-ordinate Reference:	Well JAMASO 4-65 5-6-12
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5610.00usft
Reference Site:	Sec 4-T4S-R65W	MD Reference:	KB 25' @ 5610.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	JAMASO 4-65 5-6-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,000.00	4,694.78	4,464.49	4,435.49	33.08	17.32	168.73	435.08	-286.36	2,065.94	2,030.30	35.64	57.966		
5,100.00	4,787.46	4,551.95	4,522.22	33.82	17.68	168.84	446.02	-289.46	2,114.29	2,077.92	36.37	58.135		
5,200.00	4,880.13	4,639.42	4,608.94	34.55	18.04	168.94	456.96	-292.56	2,162.65	2,125.55	37.10	58.298		
5,300.00	4,972.81	4,726.89	4,695.67	35.29	18.40	169.04	467.91	-295.66	2,211.00	2,173.18	37.82	58.454		
5,400.00	5,065.48	4,814.35	4,782.39	36.02	18.77	169.14	478.85	-298.75	2,259.37	2,220.82	38.55	58.604		
5,500.00	5,158.15	4,901.82	4,869.12	36.76	19.13	169.23	489.79	-301.85	2,307.74	2,268.46	39.28	58.748		
5,600.00	5,250.83	4,989.29	4,955.84	37.49	19.49	169.31	500.73	-304.95	2,356.11	2,316.10	40.01	58.886		
5,700.00	5,343.50	5,076.75	5,042.57	38.22	19.85	169.40	511.67	-308.05	2,404.49	2,363.75	40.74	59.019		
5,800.00	5,436.18	5,164.22	5,129.29	38.96	20.21	169.48	522.61	-311.15	2,452.87	2,411.40	41.47	59.147		
5,900.00	5,528.85	5,251.69	5,216.02	39.69	20.57	169.55	533.56	-314.25	2,501.25	2,459.05	42.20	59.270		
6,000.00	5,621.53	5,339.16	5,302.74	40.43	20.93	169.63	544.50	-317.35	2,549.64	2,506.71	42.93	59.388		
6,100.00	5,714.20	5,426.62	5,389.46	41.16	21.29	169.70	555.44	-320.45	2,598.03	2,554.37	43.66	59.502		
6,200.00	5,806.87	5,514.09	5,476.19	41.90	21.66	169.77	566.38	-323.55	2,646.43	2,602.03	44.39	59.612		
6,300.00	5,899.55	5,601.56	5,562.91	42.63	22.02	169.83	577.32	-326.65	2,694.82	2,649.70	45.13	59.718		
6,400.00	5,992.22	5,689.02	5,649.64	43.37	22.38	169.90	588.27	-329.75	2,743.22	2,697.36	45.86	59.820		
6,490.07	6,075.70	5,767.81	5,727.76	44.03	22.71	169.95	598.12	-332.54	2,786.82	2,740.30	46.52	59.910		
6,500.00	6,084.90	5,776.50	5,736.37	44.10	22.74	169.98	599.21	-332.85	2,791.61	2,745.02	46.59	59.919		
6,600.00	6,178.34	5,864.95	5,824.07	44.81	23.11	170.21	610.27	-335.98	2,838.20	2,790.88	47.32	59.977		
6,700.00	6,272.96	5,954.96	5,913.32	45.47	23.48	170.41	621.53	-339.17	2,881.72	2,833.67	48.05	59.971		
6,800.00	6,368.65	6,046.43	6,004.01	46.08	23.86	170.58	632.97	-342.41	2,922.11	2,873.33	48.78	59.904		
6,900.00	6,465.30	6,139.24	6,096.03	46.64	24.24	170.72	644.58	-345.70	2,959.34	2,909.83	49.51	59.777		
7,000.00	6,562.78	6,233.27	6,189.27	47.15	24.63	170.83	656.35	-349.03	2,993.34	2,943.12	50.23	59.596		
7,100.00	6,660.98	6,328.42	6,283.61	47.61	25.02	170.92	668.25	-352.40	3,024.09	2,973.15	50.94	59.364		
7,200.00	6,759.78	6,424.57	6,378.94	48.02	25.42	170.99	680.28	-355.81	3,051.53	2,999.89	51.65	59.083		
7,300.00	6,859.06	6,521.60	6,475.14	48.39	25.82	171.03	692.42	-359.25	3,075.65	3,023.31	52.35	58.756		
7,400.00	6,958.69	6,619.38	6,572.10	48.70	26.23	171.05	704.65	-362.71	3,096.41	3,043.38	53.03	58.386		
7,500.00	7,058.56	6,717.82	6,669.70	48.96	26.64	171.06	716.96	-366.20	3,113.79	3,060.08	53.71	57.974		
7,593.46	7,152.00	6,810.28	6,761.38	49.15	27.02	0.41	728.53	-369.48	3,126.95	3,072.64	54.32	57.568		
7,600.00	7,158.54	6,816.77	6,767.81	49.16	27.04	0.41	729.34	-369.71	3,127.77	3,073.41	54.36	57.539		
7,623.46	7,182.00	6,840.03	6,790.87	49.20	27.14	0.39	732.25	-370.53	3,130.70	3,076.19	54.51	57.437		
7,650.00	7,208.53	6,866.36	6,816.98	49.24	27.25	89.80	735.54	-371.46	3,134.02	3,079.34	54.68	57.318		
7,700.00	7,258.32	6,915.88	6,866.08	49.34	27.45	89.22	741.74	-373.22	3,140.25	3,085.24	55.01	57.090		
7,750.00	7,307.52	6,964.98	6,914.77	49.45	27.66	88.73	747.88	-374.96	3,146.43	3,091.10	55.33	56.863		
7,800.00	7,355.76	7,407.43	7,355.76	49.56	29.28	90.38	777.05	-383.22	3,150.99	3,092.73	58.26	54.089		
7,850.00	7,402.69	7,457.17	7,405.47	49.68	29.44	90.65	777.06	-384.80	3,151.13	3,092.55	58.58	53.791		
7,900.00	7,447.93	7,508.72	7,456.63	49.80	29.61	90.92	777.09	-390.92	3,151.36	3,092.42	58.94	53.471		
7,950.00	7,491.15	7,561.91	7,508.63	49.93	29.79	91.19	777.13	-402.03	3,151.66	3,092.33	59.33	53.121		
8,000.00	7,532.02	7,616.88	7,561.04	50.07	29.99	91.46	777.21	-418.53	3,152.03	3,092.27	59.77	52.740		
8,050.00	7,570.23	7,673.73	7,613.33	50.20	30.20	91.72	777.30	-440.79	3,152.46	3,092.21	60.25	52.322		
8,100.00	7,605.48	7,732.58	7,664.86	50.35	30.43	91.97	777.43	-469.17	3,152.93	3,092.13	60.80	51.861		
8,150.00	7,637.51	7,793.50	7,714.83	50.50	30.67	92.21	777.58	-503.96	3,153.43	3,092.02	61.41	51.348		
8,200.00	7,666.07	7,856.52	7,762.35	50.66	30.94	92.44	777.76	-545.31	3,153.95	3,091.83	62.12	50.772		
8,250.00	7,690.95	7,921.63	7,806.37	50.82	31.25	92.65	777.97	-593.23	3,154.45	3,091.52	62.93	50.124		
8,300.00	7,711.95	7,988.74	7,845.74	51.00	31.61	92.84	778.21	-647.53	3,154.92	3,091.05	63.87	49.399		
8,350.00	7,728.93	8,057.70	7,879.31	51.19	32.04	93.00	778.47	-707.72	3,155.34	3,090.40	64.94	48.590		
8,400.00	7,741.74	8,128.25	7,905.92	51.39	32.57	93.13	778.76	-773.01	3,155.69	3,089.52	66.16	47.698		
8,450.00	7,750.29	8,200.06	7,924.56	51.61	33.20	93.22	779.06	-842.31	3,155.94	3,088.42	67.52	46.740		
8,500.00	7,754.52	8,272.73	7,934.46	51.85	33.94	93.28	779.38	-914.25	3,156.09	3,087.07	69.02	45.727		
8,523.52	7,755.00	8,307.08	7,935.95	51.97	34.32	93.29	779.53	-948.56	3,156.12	3,086.37	69.75	45.246		
8,600.00	7,755.00	8,385.97	7,936.00	52.38	35.27	93.29	779.87	-1,027.45	3,156.13	3,084.34	71.79	43.964		
8,700.00	7,755.00	8,485.97	7,936.00	53.00	36.62	93.29	780.31	-1,127.45	3,156.13	3,081.48	74.65	42.279		
8,800.00	7,755.00	8,585.97	7,936.00	53.72	38.12	93.29	780.75	-1,227.45	3,156.13	3,078.35	77.78	40.579		

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

Anticollision Report

Company:	AXIS EXPLORATION	Local Co-ordinate Reference:	Well JAMASO 4-65 5-6-12
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5610.00usft
Reference Site:	Sec 4-T4S-R65W	MD Reference:	KB 25' @ 5610.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	JAMASO 4-65 5-6-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
8,900.00	7,755.00	8,685.97	7,936.00	54.54	39.76	93.29	781.19	-1,327.45	3,156.13	3,074.99	81.14	38.897		
9,000.00	7,755.00	8,785.97	7,936.00	55.47	41.51	93.29	781.62	-1,427.45	3,156.14	3,071.43	84.71	37.257		
9,100.00	7,755.00	8,885.97	7,936.00	56.53	43.35	93.29	782.06	-1,527.45	3,156.14	3,067.68	88.47	35.676		
9,200.00	7,755.00	8,985.97	7,936.00	57.70	45.29	93.29	782.50	-1,627.45	3,156.14	3,063.76	92.38	34.165		
9,300.00	7,755.00	9,085.97	7,936.00	58.99	47.30	93.29	782.94	-1,727.45	3,156.15	3,059.71	96.44	32.728		
9,400.00	7,755.00	9,185.97	7,936.00	60.41	49.38	93.29	783.38	-1,827.45	3,156.15	3,055.54	100.61	31.369		
9,500.00	7,755.00	9,285.97	7,936.00	61.93	51.52	93.29	783.81	-1,927.45	3,156.15	3,051.25	104.90	30.087		
9,600.00	7,755.00	9,385.97	7,935.99	63.56	53.70	93.29	784.25	-2,027.44	3,156.16	3,046.87	109.29	28.880		
9,700.00	7,755.00	9,485.97	7,935.99	65.28	55.94	93.29	784.69	-2,127.44	3,156.16	3,042.41	113.75	27.745		
9,800.00	7,755.00	9,585.97	7,935.99	67.09	58.21	93.29	785.13	-2,227.44	3,156.16	3,037.87	118.30	26.680		
9,900.00	7,755.00	9,685.97	7,935.99	68.98	60.51	93.29	785.57	-2,327.44	3,156.17	3,033.26	122.91	25.679		
10,000.00	7,755.00	9,785.97	7,935.99	70.94	62.85	93.29	786.00	-2,427.44	3,156.17	3,028.59	127.58	24.739		
10,100.00	7,755.00	9,885.97	7,935.99	72.96	65.21	93.29	786.44	-2,527.44	3,156.17	3,023.87	132.30	23.855		
10,200.00	7,755.00	9,985.97	7,935.99	75.04	67.60	93.29	786.88	-2,627.44	3,156.18	3,019.10	137.08	23.025		
10,300.00	7,755.00	10,085.97	7,935.99	77.17	70.01	93.29	787.32	-2,727.44	3,156.18	3,014.29	141.89	22.244		
10,400.00	7,755.00	10,185.97	7,935.99	79.34	72.44	93.29	787.76	-2,827.44	3,156.18	3,009.44	146.74	21.508		
10,500.00	7,755.00	10,285.97	7,935.99	81.55	74.89	93.29	788.19	-2,927.44	3,156.19	3,004.55	151.63	20.815		
10,600.00	7,755.00	10,385.97	7,935.99	83.80	77.36	93.29	788.63	-3,027.43	3,156.19	2,999.64	156.55	20.160		
10,700.00	7,755.00	10,485.97	7,935.99	86.08	79.84	93.29	789.07	-3,127.43	3,156.19	2,994.69	161.50	19.543		
10,800.00	7,755.00	10,585.97	7,935.99	88.39	82.33	93.29	789.51	-3,227.43	3,156.20	2,989.72	166.48	18.958		
10,900.00	7,755.00	10,685.97	7,935.99	90.73	84.84	93.29	789.95	-3,327.43	3,156.20	2,984.72	171.48	18.406		
11,000.00	7,755.00	10,785.97	7,935.99	93.08	87.35	93.29	790.38	-3,427.43	3,156.20	2,979.70	176.50	17.882		
11,100.00	7,755.00	10,885.97	7,935.99	95.46	89.88	93.29	790.82	-3,527.43	3,156.21	2,974.66	181.54	17.385		
11,200.00	7,754.99	10,985.97	7,935.99	97.86	92.41	93.29	791.26	-3,627.43	3,156.21	2,969.61	186.60	16.914		
11,300.00	7,754.99	11,085.97	7,935.99	100.28	94.96	93.29	791.70	-3,727.43	3,156.21	2,964.53	191.68	16.466		
11,400.00	7,754.99	11,185.97	7,935.99	102.71	97.51	93.29	792.13	-3,827.43	3,156.22	2,959.44	196.77	16.040		
11,500.00	7,754.99	11,285.97	7,935.99	105.16	100.07	93.29	792.57	-3,927.43	3,156.22	2,954.34	201.88	15.634		
11,600.00	7,754.99	11,385.97	7,935.99	107.62	102.63	93.29	793.01	-4,027.43	3,156.22	2,949.22	207.00	15.247		
11,700.00	7,754.99	11,485.97	7,935.98	110.10	105.21	93.29	793.45	-4,127.42	3,156.23	2,944.09	212.14	14.878		
11,800.00	7,754.99	11,585.97	7,935.98	112.58	107.78	93.29	793.89	-4,227.42	3,156.23	2,938.95	217.28	14.526		
11,900.00	7,754.99	11,685.97	7,935.98	115.08	110.37	93.29	794.32	-4,327.42	3,156.23	2,933.79	222.44	14.189		
12,000.00	7,754.99	11,785.97	7,935.98	117.59	112.96	93.29	794.76	-4,427.42	3,156.24	2,928.63	227.61	13.867		
12,100.00	7,754.99	11,885.97	7,935.98	120.10	115.55	93.29	795.20	-4,527.42	3,156.24	2,923.46	232.78	13.559		
12,200.00	7,754.99	11,985.97	7,935.98	122.62	118.15	93.29	795.64	-4,627.42	3,156.24	2,918.28	237.97	13.263		
12,300.00	7,754.99	12,085.97	7,935.98	125.16	120.75	93.29	796.08	-4,727.42	3,156.25	2,913.09	243.16	12.980		
12,400.00	7,754.99	12,185.97	7,935.98	127.70	123.35	93.29	796.51	-4,827.42	3,156.25	2,907.89	248.36	12.708		
12,500.00	7,754.99	12,285.97	7,935.98	130.24	125.96	93.29	796.95	-4,927.42	3,156.25	2,902.69	253.57	12.447		
12,600.00	7,754.99	12,385.97	7,935.98	132.79	128.57	93.29	797.39	-5,027.42	3,156.26	2,897.48	258.78	12.197		
12,700.00	7,754.99	12,485.97	7,935.98	135.35	131.19	93.29	797.83	-5,127.41	3,156.26	2,892.26	264.00	11.955		
12,800.00	7,754.99	12,585.97	7,935.98	137.92	133.81	93.29	798.27	-5,227.41	3,156.26	2,887.03	269.23	11.723		
12,900.00	7,754.99	12,685.97	7,935.98	140.48	136.43	93.29	798.70	-5,327.41	3,156.27	2,881.80	274.46	11.500		
13,000.00	7,754.99	12,785.97	7,935.98	143.06	139.05	93.29	799.14	-5,427.41	3,156.27	2,876.57	279.70	11.285		
13,100.00	7,754.99	12,885.97	7,935.98	145.64	141.68	93.29	799.58	-5,527.41	3,156.27	2,871.33	284.94	11.077		
13,200.00	7,754.99	12,985.97	7,935.98	148.22	144.31	93.29	800.02	-5,627.41	3,156.28	2,866.09	290.19	10.877		
13,300.00	7,754.99	13,085.97	7,935.98	150.81	146.94	93.29	800.46	-5,727.41	3,156.28	2,860.84	295.44	10.683		
13,400.00	7,754.99	13,185.97	7,935.98	153.40	149.57	93.29	800.89	-5,827.41	3,156.28	2,855.58	300.70	10.496		
13,500.00	7,754.99	13,285.97	7,935.98	156.00	152.20	93.29	801.33	-5,927.41	3,156.29	2,850.33	305.96	10.316		
13,600.00	7,754.99	13,385.97	7,935.98	158.59	154.84	93.29	801.77	-6,027.41	3,156.29	2,845.06	311.22	10.142		
13,700.00	7,754.99	13,485.97	7,935.98	161.20	157.48	93.29	802.21	-6,127.41	3,156.29	2,839.80	316.49	9.973		
13,800.00	7,754.99	13,585.97	7,935.97	163.80	160.12	93.29	802.65	-6,227.40	3,156.30	2,834.53	321.76	9.809		
13,900.00	7,754.99	13,685.97	7,935.97	166.41	162.76	93.29	803.08	-6,327.40	3,156.30	2,829.26	327.04	9.651		
14,000.00	7,754.99	13,785.97	7,935.97	169.02	165.41	93.29	803.52	-6,427.40	3,156.30	2,823.98	332.32	9.498		

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

Anticollision Report

Company:	AXIS EXPLORATION	Local Co-ordinate Reference:	Well JAMASO 4-65 5-6-12
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5610.00usft
Reference Site:	Sec 4-T4S-R65W	MD Reference:	KB 25' @ 5610.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	JAMASO 4-65 5-6-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
14,100.00	7,754.99	13,885.97	7,935.97	171.63	168.05	93.29	803.96	-6,527.40	3,156.31	2,818.71	337.60	9.349		
14,200.00	7,754.99	13,985.97	7,935.97	174.25	170.70	93.29	804.40	-6,627.40	3,156.31	2,813.42	342.88	9.205		
14,300.00	7,754.99	14,085.97	7,935.97	176.87	173.34	93.29	804.83	-6,727.40	3,156.31	2,808.14	348.17	9.065		
14,400.00	7,754.99	14,185.97	7,935.97	179.49	175.99	93.29	805.27	-6,827.40	3,156.32	2,802.85	353.46	8.930		
14,500.00	7,754.99	14,285.97	7,935.97	182.11	178.64	93.29	805.71	-6,927.40	3,156.32	2,797.57	358.75	8.798		
14,600.00	7,754.99	14,385.97	7,935.97	184.74	181.29	93.29	806.15	-7,027.40	3,156.32	2,792.27	364.05	8.670		
14,700.00	7,754.99	14,485.97	7,935.97	187.37	183.95	93.29	806.59	-7,127.40	3,156.32	2,786.98	369.34	8.546		
14,800.00	7,754.99	14,585.97	7,935.97	190.00	186.60	93.29	807.02	-7,227.39	3,156.33	2,781.69	374.64	8.425		
14,900.00	7,754.99	14,685.97	7,935.97	192.63	189.26	93.29	807.46	-7,327.39	3,156.33	2,776.39	379.94	8.307		
15,000.00	7,754.99	14,785.97	7,935.97	195.26	191.91	93.29	807.90	-7,427.39	3,156.33	2,771.09	385.25	8.193		
15,100.00	7,754.99	14,885.97	7,935.97	197.89	194.57	93.29	808.34	-7,527.39	3,156.34	2,765.79	390.55	8.082		
15,200.00	7,754.99	14,985.97	7,935.97	200.53	197.22	93.29	808.78	-7,627.39	3,156.34	2,760.48	395.86	7.973		
15,300.00	7,754.99	15,085.97	7,935.97	203.17	199.88	93.29	809.21	-7,727.39	3,156.34	2,755.18	401.17	7.868		
15,400.00	7,754.99	15,185.97	7,935.97	205.81	202.54	93.29	809.65	-7,827.39	3,156.35	2,749.87	406.48	7.765		
15,500.00	7,754.99	15,285.97	7,935.97	208.45	205.20	93.29	810.09	-7,927.39	3,156.35	2,744.56	411.79	7.665		
15,600.00	7,754.99	15,385.97	7,935.97	211.09	207.86	93.29	810.53	-8,027.39	3,156.35	2,739.25	417.10	7.567		
15,700.00	7,754.99	15,485.97	7,935.97	213.74	210.52	93.29	810.97	-8,127.39	3,156.36	2,733.94	422.42	7.472		
15,800.00	7,754.99	15,585.97	7,935.96	216.38	213.19	93.29	811.40	-8,227.39	3,156.36	2,728.62	427.74	7.379		
15,900.00	7,754.99	15,685.97	7,935.96	219.03	215.85	93.29	811.84	-8,327.38	3,156.36	2,723.31	433.05	7.289		
16,000.00	7,754.99	15,785.97	7,935.96	221.67	218.51	93.29	812.28	-8,427.38	3,156.37	2,717.99	438.37	7.200		
16,100.00	7,754.99	15,885.97	7,935.96	224.32	221.18	93.29	812.72	-8,527.38	3,156.37	2,712.68	443.69	7.114		
16,200.00	7,754.99	15,985.97	7,935.96	226.97	223.84	93.29	813.16	-8,627.38	3,156.37	2,707.36	449.02	7.030		
16,300.00	7,754.99	16,085.97	7,935.96	229.62	226.51	93.29	813.59	-8,727.38	3,156.38	2,702.04	454.34	6.947		
16,400.00	7,754.98	16,185.97	7,935.96	232.27	229.17	93.29	814.03	-8,827.38	3,156.38	2,696.72	459.66	6.867		
16,500.00	7,754.98	16,285.97	7,935.96	234.93	231.84	93.29	814.47	-8,927.38	3,156.38	2,691.39	464.99	6.788		
16,600.00	7,754.98	16,385.97	7,935.96	237.58	234.51	93.29	814.91	-9,027.38	3,156.39	2,686.07	470.32	6.711		
16,700.00	7,754.98	16,485.97	7,935.96	240.23	237.17	93.29	815.34	-9,127.38	3,156.39	2,680.75	475.65	6.636		
16,800.00	7,754.98	16,585.97	7,935.96	242.89	239.84	93.29	815.78	-9,227.38	3,156.39	2,675.42	480.97	6.563		
16,900.00	7,754.98	16,685.97	7,935.96	245.55	242.51	93.29	816.22	-9,327.37	3,156.40	2,670.09	486.30	6.491		
17,000.00	7,754.98	16,785.97	7,935.96	248.20	245.18	93.29	816.66	-9,427.37	3,156.40	2,664.77	491.63	6.420		
17,100.00	7,754.98	16,885.97	7,935.96	250.86	247.85	93.29	817.10	-9,527.37	3,156.40	2,659.44	496.97	6.351		
17,200.00	7,754.98	16,985.97	7,935.96	253.52	250.52	93.29	817.53	-9,627.37	3,156.41	2,654.11	502.30	6.284		
17,300.00	7,754.98	17,085.97	7,935.96	256.18	253.19	93.29	817.97	-9,727.37	3,156.41	2,648.78	507.63	6.218		
17,400.00	7,754.98	17,185.97	7,935.96	258.84	255.86	93.29	818.41	-9,827.37	3,156.41	2,643.45	512.97	6.153		
17,500.00	7,754.98	17,285.97	7,935.96	261.50	258.53	93.29	818.85	-9,927.37	3,156.42	2,638.11	518.30	6.090		
17,600.00	7,754.98	17,385.97	7,935.96	264.16	261.20	93.29	819.29	-10,027.37	3,156.42	2,632.78	523.64	6.028		
17,700.00	7,754.98	17,485.97	7,935.96	266.82	263.87	93.29	819.72	-10,127.37	3,156.42	2,627.45	528.97	5.967		
17,800.00	7,754.98	17,585.97	7,935.96	269.49	266.54	93.29	820.16	-10,227.37	3,156.43	2,622.11	534.31	5.907		
17,900.00	7,754.98	17,685.97	7,935.95	272.15	269.22	93.29	820.60	-10,327.37	3,156.43	2,616.78	539.65	5.849		
18,000.00	7,754.98	17,785.97	7,935.95	274.81	271.89	93.29	821.04	-10,427.36	3,156.43	2,611.44	544.99	5.792		
18,100.00	7,754.98	17,885.97	7,935.95	277.48	274.56	93.29	821.48	-10,527.36	3,156.44	2,606.11	550.33	5.736		
18,200.00	7,754.98	17,988.59	7,936.00	280.14	277.31	93.29	821.85	-10,629.98	3,156.37	2,600.62	555.75	5.679		
18,210.73	7,755.00	17,999.32	7,936.00	280.43	277.59	93.29	821.89	-10,640.71	3,156.14	2,599.81	556.32	5.673 SF		

Anticollision Report

Company:	AXIS EXPLORATION	Local Co-ordinate Reference:	Well JAMASO 4-65 5-6-12
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5610.00usft
Reference Site:	Sec 4-T4S-R65W	MD Reference:	KB 25' @ 5610.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	JAMASO 4-65 5-6-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design Sec 4-T4S-R65W - JAMASO 4-65 5-6-5 - ORIGINAL WELLBORE - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	-90.00	0.00	-180.00	180.00					
100.00	100.00	100.00	100.00	0.13	0.13	-90.00	0.00	-180.00	180.00	179.73	0.27	669.506		
200.00	199.98	200.02	199.98	0.48	0.49	81.18	0.00	-180.00	179.72	178.75	0.97	184.374		
300.00	299.84	300.16	299.84	0.84	0.85	82.85	0.00	-180.00	179.00	177.30	1.69	105.783		
400.00	399.45	400.55	399.45	1.22	1.21	85.64	0.00	-180.00	178.12	175.69	2.43	73.293		
500.00	498.70	501.30	498.70	1.62	1.57	89.54	0.00	-180.00	177.60	174.41	3.19	55.631		
510.15	508.75	508.75	508.75	1.66	1.60	90.00	0.00	-180.00	177.60	174.33	3.26	54.433	CC	
600.00	597.47	602.53	597.47	2.05	1.94	94.51	0.00	-180.00	178.16	174.18	3.98	44.727	ES	
700.00	695.62	704.38	695.62	2.51	2.30	100.39	0.00	-180.00	180.69	175.89	4.80	37.616		
800.00	793.06	806.94	793.06	3.00	2.67	106.95	0.00	-180.00	186.15	180.50	5.65	32.958		
900.00	889.64	889.64	889.64	3.54	2.97	113.85	0.00	-180.00	195.47	189.04	6.43	30.392		
1,000.00	985.27	985.27	985.27	4.12	3.31	120.71	0.00	-180.00	209.38	202.12	7.26	28.849		
1,100.00	1,079.82	1,074.06	1,074.05	4.74	3.63	126.85	0.84	-180.45	229.30	221.26	8.04	28.525		
1,200.00	1,173.17	1,159.09	1,159.00	5.41	3.93	132.32	3.89	-182.08	257.13	248.36	8.77	29.309		
1,203.38	1,176.30	1,161.91	1,161.82	5.43	3.94	132.49	4.03	-182.16	258.21	249.42	8.80	29.353		
1,300.00	1,265.84	1,245.55	1,245.27	6.10	4.24	137.52	8.99	-184.81	291.22	281.74	9.49	30.702		
1,400.00	1,358.52	1,335.89	1,335.39	6.81	4.57	141.89	14.62	-187.82	327.66	317.46	10.20	32.118		
1,500.00	1,451.19	1,426.22	1,425.50	7.52	4.89	145.41	20.25	-190.83	365.51	354.60	10.91	33.495		
1,600.00	1,543.87	1,516.56	1,515.61	8.24	5.22	148.29	25.88	-193.84	404.36	392.74	11.62	34.798		
1,700.00	1,636.54	1,606.90	1,605.72	8.95	5.55	150.68	31.51	-196.85	443.96	431.63	12.33	36.010		
1,800.00	1,729.21	1,702.77	1,695.83	9.68	5.90	152.68	37.14	-199.86	484.12	471.06	13.06	37.074		
1,900.00	1,821.89	1,787.57	1,785.94	10.40	6.21	154.39	42.76	-202.87	524.71	510.96	13.75	38.162		
2,000.00	1,914.56	1,877.91	1,876.05	11.12	6.55	155.85	48.39	-205.88	565.63	551.17	14.46	39.110		
2,100.00	2,007.24	1,968.24	1,966.16	11.85	6.88	157.12	54.02	-208.89	606.83	591.66	15.18	39.982		
2,200.00	2,099.91	2,058.58	2,056.27	12.58	7.21	158.22	59.65	-211.90	648.25	632.36	15.89	40.785		
2,300.00	2,192.58	2,148.92	2,146.38	13.30	7.55	159.20	65.28	-214.91	689.85	673.24	16.61	41.524		
2,400.00	2,285.26	2,239.25	2,236.49	14.03	7.88	160.07	70.91	-217.92	731.60	714.26	17.33	42.206		
2,500.00	2,377.93	2,329.59	2,326.60	14.76	8.22	160.84	76.54	-220.93	773.47	755.41	18.06	42.837		
2,600.00	2,470.61	2,419.93	2,416.71	15.49	8.55	161.54	82.17	-223.94	815.44	796.67	18.78	43.422		
2,700.00	2,563.28	2,510.26	2,506.82	16.22	8.89	162.16	87.80	-226.96	857.51	838.01	19.50	43.965		
2,800.00	2,655.95	2,600.60	2,596.94	16.95	9.22	162.73	93.42	-229.97	899.66	879.43	20.23	44.471		
2,900.00	2,748.63	2,709.06	2,687.05	17.68	9.63	163.25	99.05	-232.98	941.87	920.84	21.02	44.801		
3,000.00	2,841.30	2,781.27	2,777.16	18.42	9.90	163.73	104.68	-235.99	984.14	962.45	21.69	45.382		
3,100.00	2,933.98	2,871.61	2,867.27	19.15	10.23	164.16	110.31	-239.00	1,026.46	1,004.04	22.41	45.794		
3,200.00	3,026.65	2,961.95	2,957.38	19.88	10.57	164.56	115.94	-242.01	1,068.83	1,045.68	23.14	46.180		
3,300.00	3,119.33	3,052.28	3,047.49	20.61	10.91	164.94	121.57	-245.02	1,111.23	1,087.36	23.88	46.542		
3,400.00	3,212.00	3,142.62	3,137.60	21.35	11.24	165.28	127.20	-248.03	1,153.67	1,129.07	24.61	46.884		
3,500.00	3,304.67	3,232.95	3,227.71	22.08	11.58	165.60	132.83	-251.04	1,196.15	1,170.81	25.34	47.205		
3,600.00	3,397.35	3,323.29	3,317.82	22.81	11.92	165.90	138.46	-254.05	1,238.65	1,212.58	26.07	47.508		
3,700.00	3,490.02	3,413.63	3,407.93	23.54	12.25	166.17	144.08	-257.06	1,281.18	1,254.37	26.81	47.794		
3,800.00	3,582.70	3,503.96	3,498.04	24.28	12.59	166.43	149.71	-260.07	1,323.73	1,296.19	27.54	48.065		
3,900.00	3,675.37	3,605.70	3,588.15	25.01	12.97	166.68	155.34	-263.08	1,366.30	1,337.98	28.32	48.251		
4,000.00	3,768.04	3,684.64	3,678.26	25.74	13.27	166.91	160.97	-266.09	1,408.89	1,379.88	29.01	48.565		
4,100.00	3,860.72	3,774.97	3,768.38	26.48	13.60	167.12	166.60	-269.10	1,451.50	1,421.75	29.75	48.797		
4,200.00	3,953.39	3,865.31	3,858.49	27.21	13.94	167.33	172.23	-272.11	1,494.12	1,463.64	30.48	49.016		
4,300.00	4,046.07	3,955.65	3,948.60	27.95	14.28	167.52	177.86	-275.12	1,536.76	1,505.55	31.22	49.226		
4,400.00	4,138.74	4,045.98	4,038.71	28.68	14.62	167.70	183.49	-278.13	1,579.42	1,547.46	31.96	49.425		
4,500.00	4,231.41	4,136.32	4,128.82	29.41	14.95	167.87	189.12	-281.14	1,622.08	1,589.39	32.69	49.615		
4,600.00	4,324.09	4,226.66	4,218.93	30.15	15.29	168.04	194.74	-284.15	1,664.76	1,631.33	33.43	49.797		
4,700.00	4,416.76	4,316.99	4,309.04	30.88	15.63	168.19	200.37	-287.17	1,707.44	1,673.28	34.17	49.970		
4,800.00	4,509.44	4,407.33	4,399.15	31.62	15.97	168.34	206.00	-290.18	1,750.14	1,715.23	34.91	50.136		
4,900.00	4,602.11	4,497.67	4,489.26	32.35	16.31	168.48	211.63	-293.19	1,792.85	1,757.20	35.65	50.295		

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

Anticollision Report

Company:	AXIS EXPLORATION	Local Co-ordinate Reference:	Well JAMASO 4-65 5-6-12
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5610.00usft
Reference Site:	Sec 4-T4S-R65W	MD Reference:	KB 25' @ 5610.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	JAMASO 4-65 5-6-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,000.00	4,694.78	4,588.00	4,579.37	33.08	16.64	168.61	217.26	-296.20	1,835.56	1,799.18	36.39	50.447		
5,100.00	4,787.46	4,678.34	4,669.48	33.82	16.98	168.74	222.89	-299.21	1,878.28	1,841.16	37.13	50.592		
5,200.00	4,880.13	4,768.68	4,759.59	34.55	17.32	168.87	228.52	-302.22	1,921.01	1,883.15	37.87	50.732		
5,300.00	4,972.81	4,859.01	4,849.70	35.29	17.66	168.98	234.15	-305.23	1,963.75	1,925.14	38.61	50.867		
5,400.00	5,065.48	4,949.35	4,939.81	36.02	18.00	169.09	239.78	-308.24	2,006.49	1,967.15	39.35	50.995		
5,500.00	5,158.15	5,039.69	5,029.93	36.76	18.33	169.20	245.40	-311.25	2,049.24	2,009.15	40.09	51.119		
5,600.00	5,250.83	5,130.02	5,120.04	37.49	18.67	169.31	251.03	-314.26	2,092.00	2,051.17	40.83	51.239		
5,700.00	5,343.50	5,220.36	5,210.15	38.22	19.01	169.40	256.66	-317.27	2,134.76	2,093.19	41.57	51.353		
5,800.00	5,436.18	5,310.70	5,300.26	38.96	19.35	169.50	262.29	-320.28	2,177.52	2,135.21	42.31	51.464		
5,900.00	5,528.85	5,401.03	5,390.37	39.69	19.69	169.59	267.92	-323.29	2,220.29	2,177.24	43.05	51.570		
6,000.00	5,621.53	5,508.63	5,480.48	40.43	20.09	169.68	273.55	-326.30	2,263.06	2,219.20	43.86	51.599		
6,100.00	5,714.20	5,581.71	5,570.59	41.16	20.36	169.76	279.18	-329.31	2,305.84	2,261.30	44.54	51.772		
6,200.00	5,806.87	5,672.04	5,660.70	41.90	20.70	169.85	284.81	-332.32	2,348.62	2,303.34	45.28	51.867		
6,300.00	5,899.55	5,762.38	5,750.81	42.63	21.04	169.92	290.44	-335.33	2,391.41	2,345.39	46.02	51.959		
6,400.00	5,992.22	5,852.71	5,840.92	43.37	21.38	170.00	296.06	-338.34	2,434.20	2,387.43	46.77	52.049		
6,490.07	6,075.70	5,934.08	5,922.09	44.03	21.68	170.07	301.13	-341.06	2,472.74	2,425.31	47.44	52.126		
6,500.00	6,084.90	5,943.06	5,931.04	44.10	21.72	170.09	301.69	-341.35	2,476.98	2,429.47	47.51	52.134		
6,600.00	6,178.34	6,034.26	6,022.02	44.81	22.06	170.30	307.38	-344.39	2,517.90	2,469.65	48.25	52.181		
6,700.00	6,272.96	6,126.84	6,114.36	45.47	22.40	170.49	313.14	-347.48	2,555.66	2,506.67	48.99	52.164		
6,800.00	6,368.65	6,220.66	6,207.95	46.08	22.76	170.64	318.99	-350.61	2,590.21	2,540.48	49.73	52.087		
6,900.00	6,465.30	6,315.63	6,302.68	46.64	23.11	170.76	324.91	-353.77	2,621.51	2,571.05	50.46	51.952		
7,000.00	6,562.78	6,411.62	6,398.43	47.15	23.47	170.86	330.89	-356.97	2,649.53	2,598.34	51.19	51.764		
7,100.00	6,660.98	6,508.52	6,495.09	47.61	23.83	170.93	336.93	-360.20	2,674.21	2,622.31	51.90	51.524		
7,200.00	6,759.78	6,606.21	6,592.53	48.02	24.20	170.98	343.01	-363.45	2,695.55	2,642.94	52.61	51.236		
7,300.00	6,859.06	6,704.56	6,690.64	48.39	24.57	171.00	349.14	-366.73	2,713.50	2,660.19	53.31	50.903		
7,400.00	6,958.69	6,803.47	6,789.30	48.70	24.94	171.01	355.31	-370.03	2,728.06	2,674.06	53.99	50.526		
7,500.00	7,058.56	6,902.81	6,888.40	48.96	25.31	170.99	361.50	-373.34	2,739.19	2,684.53	54.67	50.107		
7,593.46	7,152.00	7,004.07	6,981.28	49.15	25.69	0.32	367.30	-376.44	2,746.50	2,691.20	55.30	49.666		
7,600.00	7,158.54	7,002.46	6,987.80	49.16	25.69	0.32	367.70	-376.66	2,746.91	2,691.60	55.31	49.663		
7,623.46	7,182.00	7,025.86	7,011.13	49.20	25.77	0.30	369.16	-377.44	2,748.37	2,692.91	55.46	49.558		
7,650.00	7,208.53	7,052.35	7,037.56	49.24	25.87	89.88	370.81	-378.32	2,750.02	2,694.39	55.63	49.437		
7,700.00	7,258.32	7,122.24	7,107.28	49.34	26.13	89.67	375.08	-380.60	2,753.10	2,697.00	56.10	49.076		
7,750.00	7,307.52	7,172.59	7,157.52	49.45	26.85	90.21	380.00	-383.24	2,753.88	2,696.44	57.45	47.939		
7,800.00	7,355.76	7,222.47	7,207.36	49.56	27.02	90.45	380.01	-384.73	2,753.95	2,696.19	57.76	47.675		
7,850.00	7,402.69	7,272.58	7,257.10	49.68	27.20	90.68	380.03	-390.69	2,754.07	2,695.96	58.11	47.392		
7,900.00	7,447.93	7,317.84	7,302.23	49.80	27.40	90.92	380.08	-401.43	2,754.24	2,695.74	58.49	47.087		
7,950.00	7,491.15	7,362.30	7,346.29	49.93	27.61	91.15	380.15	-417.18	2,754.44	2,695.54	58.91	46.759		
8,000.00	7,532.02	7,403.01	7,387.00	50.07	27.83	91.37	380.24	-438.16	2,754.69	2,695.33	59.36	46.404		
8,050.00	7,570.23	7,440.01	7,424.00	50.20	28.07	91.59	380.36	-464.52	2,754.97	2,695.10	59.87	46.017		
8,100.00	7,605.48	7,479.30	7,463.29	50.35	28.33	91.79	380.50	-496.34	2,755.26	2,694.83	60.43	45.594		
8,150.00	7,637.51	7,515.89	7,499.88	50.50	28.62	91.98	380.66	-533.63	2,755.57	2,694.51	61.07	45.124		
8,200.00	7,666.07	7,551.75	7,535.74	50.66	28.95	92.16	380.85	-576.28	2,755.88	2,694.10	61.79	44.602		
8,250.00	7,690.95	7,576.82	7,560.81	50.82	29.33	92.32	381.06	-624.06	2,756.18	2,693.57	62.61	44.021		
8,300.00	7,711.95	7,599.00	7,582.99	51.00	29.78	92.46	381.29	-676.59	2,756.46	2,692.91	63.54	43.378		
8,350.00	7,728.93	7,616.17	7,599.16	51.19	30.30	92.58	381.53	-733.31	2,756.70	2,692.10	64.60	42.673		
8,400.00	7,741.74	7,628.18	7,611.17	51.39	30.91	92.68	381.80	-793.54	2,756.90	2,691.10	65.79	41.904		
8,450.00	7,750.29	7,633.82	7,616.81	51.61	31.59	92.74	382.07	-856.42	2,757.04	2,689.94	67.10	41.088		
8,500.00	7,754.52	7,638.05	7,621.04	51.85	32.34	92.78	382.35	-920.99	2,757.12	2,688.61	68.51	40.241		
8,523.52	7,755.00	7,638.57	7,621.56	51.97	32.71	92.79	382.49	-951.66	2,757.14	2,687.93	69.21	39.837		
8,600.00	7,755.00	7,638.12	7,621.11	52.38	33.72	92.79	382.83	-1,029.20	2,757.14	2,685.91	71.23	38.710		
8,700.00	7,755.00	7,638.12	7,621.11	53.00	35.16	92.79	383.27	-1,129.20	2,757.14	2,683.04	74.10	37.209		
8,800.00	7,755.00	7,638.12	7,621.11	53.72	36.75	92.79	383.70	-1,229.20	2,757.15	2,679.90	77.24	35.695		

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

Anticollision Report

Company:	AXIS EXPLORATION	Local Co-ordinate Reference:	Well JAMASO 4-65 5-6-12
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5610.00usft
Reference Site:	Sec 4-T4S-R65W	MD Reference:	KB 25' @ 5610.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	JAMASO 4-65 5-6-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
8,900.00	7,755.00	8,604.12	7,889.00	54.54	38.45	92.79	384.14	-1,329.20	2,757.15	2,676.53	80.62	34.199		
9,000.00	7,755.00	8,704.12	7,889.00	55.47	40.27	92.79	384.58	-1,429.20	2,757.15	2,672.94	84.21	32.742		
9,100.00	7,755.00	8,804.12	7,889.00	56.53	42.18	92.79	385.02	-1,529.20	2,757.15	2,669.18	87.98	31.339		
9,200.00	7,755.00	8,904.12	7,889.00	57.70	44.17	92.79	385.45	-1,629.20	2,757.16	2,665.25	91.91	29.999		
9,300.00	7,755.00	9,004.12	7,889.00	58.99	46.23	92.79	385.89	-1,729.20	2,757.16	2,661.18	95.98	28.727		
9,400.00	7,755.00	9,104.12	7,889.00	60.41	48.35	92.79	386.33	-1,829.20	2,757.16	2,656.99	100.17	27.525		
9,500.00	7,755.00	9,204.12	7,889.00	61.93	50.53	92.79	386.77	-1,929.20	2,757.17	2,652.69	104.47	26.391		
9,600.00	7,755.00	9,304.12	7,889.00	63.56	52.75	92.79	387.20	-2,029.20	2,757.17	2,648.30	108.87	25.325		
9,700.00	7,755.00	9,404.12	7,889.00	65.28	55.02	92.79	387.64	-2,129.19	2,757.17	2,643.82	113.35	24.324		
9,800.00	7,755.00	9,504.12	7,889.00	67.09	57.32	92.79	388.08	-2,229.19	2,757.17	2,639.27	117.91	23.384		
9,900.00	7,755.00	9,604.12	7,889.00	68.98	59.66	92.79	388.51	-2,329.19	2,757.18	2,634.65	122.53	22.502		
10,000.00	7,755.00	9,704.12	7,889.00	70.94	62.02	92.79	388.95	-2,429.19	2,757.18	2,629.97	127.21	21.674		
10,100.00	7,755.00	9,804.12	7,889.00	72.96	64.41	92.79	389.39	-2,529.19	2,757.18	2,625.23	131.95	20.896		
10,200.00	7,755.00	9,904.12	7,889.00	75.04	66.83	92.79	389.83	-2,629.19	2,757.19	2,620.45	136.73	20.165		
10,300.00	7,755.00	10,004.12	7,889.00	77.17	69.26	92.79	390.26	-2,729.19	2,757.19	2,615.63	141.56	19.478		
10,400.00	7,755.00	10,104.12	7,889.00	79.34	71.71	92.79	390.70	-2,829.19	2,757.19	2,610.77	146.42	18.831		
10,500.00	7,755.00	10,204.12	7,889.00	81.55	74.18	92.79	391.14	-2,929.19	2,757.19	2,605.88	151.32	18.221		
10,600.00	7,755.00	10,304.12	7,889.00	83.80	76.66	92.79	391.58	-3,029.19	2,757.20	2,600.95	156.25	17.647		
10,700.00	7,755.00	10,404.12	7,889.00	86.08	79.16	92.79	392.01	-3,129.18	2,757.20	2,596.00	161.20	17.104		
10,800.00	7,755.00	10,504.12	7,889.00	88.39	81.67	92.79	392.45	-3,229.18	2,757.20	2,591.01	166.19	16.591		
10,900.00	7,755.00	10,604.12	7,889.00	90.73	84.19	92.79	392.89	-3,329.18	2,757.21	2,586.01	171.20	16.106		
11,000.00	7,755.00	10,704.12	7,889.00	93.08	86.72	92.79	393.33	-3,429.18	2,757.21	2,580.98	176.22	15.646		
11,100.00	7,755.00	10,804.12	7,889.00	95.46	89.26	92.79	393.76	-3,529.18	2,757.21	2,575.94	181.27	15.210		
11,200.00	7,754.99	10,904.12	7,889.00	97.86	91.81	92.79	394.20	-3,629.18	2,757.21	2,570.87	186.34	14.797		
11,300.00	7,754.99	11,004.12	7,889.00	100.28	94.36	92.79	394.64	-3,729.18	2,757.22	2,565.79	191.43	14.404		
11,400.00	7,754.99	11,104.12	7,889.00	102.71	96.93	92.79	395.08	-3,829.18	2,757.22	2,560.69	196.53	14.030		
11,500.00	7,754.99	11,204.12	7,889.00	105.16	99.50	92.79	395.51	-3,929.18	2,757.22	2,555.58	201.64	13.674		
11,600.00	7,754.99	11,304.12	7,889.00	107.62	102.07	92.79	395.95	-4,029.18	2,757.22	2,550.46	206.77	13.335		
11,700.00	7,754.99	11,404.12	7,889.00	110.10	104.65	92.79	396.39	-4,129.18	2,757.23	2,545.32	211.91	13.011		
11,800.00	7,754.99	11,504.12	7,889.00	112.58	107.24	92.79	396.83	-4,229.17	2,757.23	2,540.17	217.06	12.703		
11,900.00	7,754.99	11,604.12	7,889.00	115.08	109.83	92.79	397.26	-4,329.17	2,757.23	2,535.01	222.22	12.408		
12,000.00	7,754.99	11,704.12	7,889.00	117.59	112.43	92.79	397.70	-4,429.17	2,757.24	2,529.84	227.39	12.125		
12,100.00	7,754.99	11,804.12	7,889.00	120.10	115.03	92.79	398.14	-4,529.17	2,757.24	2,524.67	232.57	11.855		
12,200.00	7,754.99	11,904.12	7,889.00	122.62	117.64	92.79	398.58	-4,629.17	2,757.24	2,519.48	237.76	11.597		
12,300.00	7,754.99	12,004.12	7,889.00	125.16	120.24	92.79	399.01	-4,729.17	2,757.24	2,514.28	242.96	11.348		
12,400.00	7,754.99	12,104.12	7,889.00	127.70	122.86	92.79	399.45	-4,829.17	2,757.25	2,509.08	248.17	11.110		
12,500.00	7,754.99	12,204.12	7,889.00	130.24	125.47	92.79	399.89	-4,929.17	2,757.25	2,503.87	253.38	10.882		
12,600.00	7,754.99	12,304.12	7,889.00	132.79	128.09	92.79	400.33	-5,029.17	2,757.25	2,498.65	258.60	10.662		
12,700.00	7,754.99	12,404.12	7,888.99	135.35	130.71	92.79	400.76	-5,129.17	2,757.26	2,493.43	263.83	10.451		
12,800.00	7,754.99	12,504.12	7,888.99	137.92	133.34	92.79	401.20	-5,229.16	2,757.26	2,488.20	269.06	10.248		
12,900.00	7,754.99	12,604.12	7,888.99	140.48	135.96	92.79	401.64	-5,329.16	2,757.26	2,482.97	274.29	10.052		
13,000.00	7,754.99	12,704.12	7,888.99	143.06	138.59	92.79	402.08	-5,429.16	2,757.26	2,477.73	279.54	9.864		
13,100.00	7,754.99	12,804.12	7,888.99	145.64	141.22	92.79	402.51	-5,529.16	2,757.27	2,472.48	284.78	9.682		
13,200.00	7,754.99	12,904.12	7,888.99	148.22	143.86	92.79	402.95	-5,629.16	2,757.27	2,467.23	290.04	9.507		
13,300.00	7,754.99	13,004.12	7,888.99	150.81	146.49	92.79	403.39	-5,729.16	2,757.27	2,461.98	295.29	9.337		
13,400.00	7,754.99	13,104.12	7,888.99	153.40	149.13	92.79	403.83	-5,829.16	2,757.28	2,456.72	300.55	9.174		
13,500.00	7,754.99	13,204.12	7,888.99	156.00	151.77	92.79	404.26	-5,929.16	2,757.28	2,451.46	305.82	9.016		
13,600.00	7,754.99	13,304.12	7,888.99	158.59	154.41	92.79	404.70	-6,029.16	2,757.28	2,446.19	311.09	8.863		
13,700.00	7,754.99	13,404.12	7,888.99	161.20	157.05	92.79	405.14	-6,129.16	2,757.28	2,440.92	316.36	8.716		
13,800.00	7,754.99	13,504.12	7,888.99	163.80	159.70	92.79	405.58	-6,229.16	2,757.29	2,435.65	321.64	8.573		
13,900.00	7,754.99	13,604.12	7,888.99	166.41	162.34	92.79	406.01	-6,329.15	2,757.29	2,430.37	326.92	8.434		
14,000.00	7,754.99	13,704.12	7,888.99	169.02	164.99	92.79	406.45	-6,429.15	2,757.29	2,425.10	332.20	8.300		

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

Anticollision Report

Company:	AXIS EXPLORATION	Local Co-ordinate Reference:	Well JAMASO 4-65 5-6-12
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5610.00usft
Reference Site:	Sec 4-T4S-R65W	MD Reference:	KB 25' @ 5610.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	JAMASO 4-65 5-6-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
14,100.00	7,754.99	13,804.12	7,888.99	171.63	167.64	92.79	406.89	-6,529.15	2,757.30	2,419.81	337.48	8.170		
14,200.00	7,754.99	13,904.12	7,888.99	174.25	170.29	92.79	407.33	-6,629.15	2,757.30	2,414.53	342.77	8.044		
14,300.00	7,754.99	14,004.12	7,888.99	176.87	172.94	92.79	407.76	-6,729.15	2,757.30	2,409.24	348.06	7.922		
14,400.00	7,754.99	14,104.12	7,888.99	179.49	175.59	92.79	408.20	-6,829.15	2,757.30	2,403.95	353.35	7.803		
14,500.00	7,754.99	14,204.12	7,888.99	182.11	178.25	92.79	408.64	-6,929.15	2,757.31	2,398.66	358.65	7.688		
14,600.00	7,754.99	14,304.12	7,888.99	184.74	180.90	92.79	409.08	-7,029.15	2,757.31	2,393.36	363.95	7.576		
14,700.00	7,754.99	14,404.12	7,888.99	187.37	183.56	92.79	409.51	-7,129.15	2,757.31	2,388.06	369.25	7.467		
14,800.00	7,754.99	14,504.12	7,888.99	190.00	186.21	92.79	409.95	-7,229.15	2,757.32	2,382.76	374.55	7.362		
14,900.00	7,754.99	14,604.12	7,888.99	192.63	188.87	92.79	410.39	-7,329.14	2,757.32	2,377.46	379.86	7.259		
15,000.00	7,754.99	14,704.12	7,888.99	195.26	191.53	92.79	410.83	-7,429.14	2,757.32	2,372.16	385.16	7.159		
15,100.00	7,754.99	14,804.12	7,888.99	197.89	194.19	92.79	411.26	-7,529.14	2,757.32	2,366.85	390.47	7.062		
15,200.00	7,754.99	14,904.12	7,888.99	200.53	196.85	92.79	411.70	-7,629.14	2,757.33	2,361.54	395.78	6.967		
15,300.00	7,754.99	15,004.12	7,888.99	203.17	199.51	92.79	412.14	-7,729.14	2,757.33	2,356.23	401.09	6.875		
15,400.00	7,754.99	15,104.12	7,888.99	205.81	202.17	92.79	412.57	-7,829.14	2,757.33	2,350.92	406.41	6.785		
15,500.00	7,754.99	15,204.12	7,888.99	208.45	204.83	92.79	413.01	-7,929.14	2,757.34	2,345.61	411.72	6.697		
15,600.00	7,754.99	15,304.12	7,888.99	211.09	207.50	92.79	413.45	-8,029.14	2,757.34	2,340.30	417.04	6.612		
15,700.00	7,754.99	15,404.12	7,888.99	213.74	210.16	92.79	413.89	-8,129.14	2,757.34	2,334.98	422.36	6.528		
15,800.00	7,754.99	15,504.12	7,888.99	216.38	212.82	92.79	414.32	-8,229.14	2,757.34	2,329.66	427.68	6.447		
15,900.00	7,754.99	15,604.12	7,888.99	219.03	215.49	92.79	414.76	-8,329.14	2,757.35	2,324.35	433.00	6.368		
16,000.00	7,754.99	15,704.12	7,888.99	221.67	218.16	92.79	415.20	-8,429.13	2,757.35	2,319.03	438.32	6.291		
16,100.00	7,754.99	15,804.12	7,888.99	224.32	220.82	92.79	415.64	-8,529.13	2,757.35	2,313.70	443.65	6.215		
16,200.00	7,754.99	15,904.12	7,888.99	226.97	223.49	92.79	416.07	-8,629.13	2,757.36	2,308.38	448.97	6.141		
16,300.00	7,754.99	16,004.12	7,888.99	229.62	226.16	92.79	416.51	-8,729.13	2,757.36	2,303.06	454.30	6.069		
16,400.00	7,754.98	16,104.12	7,888.99	232.27	228.82	92.79	416.95	-8,829.13	2,757.36	2,297.73	459.63	5.999		
16,500.00	7,754.98	16,204.12	7,888.99	234.93	231.49	92.79	417.39	-8,929.13	2,757.36	2,292.41	464.96	5.930		
16,600.00	7,754.98	16,304.12	7,888.99	237.58	234.16	92.79	417.82	-9,029.13	2,757.37	2,287.08	470.29	5.863		
16,700.00	7,754.98	16,404.12	7,888.99	240.23	236.83	92.79	418.26	-9,129.13	2,757.37	2,281.75	475.62	5.797		
16,800.00	7,754.98	16,504.12	7,888.99	242.89	239.50	92.79	418.70	-9,229.13	2,757.37	2,276.42	480.95	5.733		
16,900.00	7,754.98	16,604.12	7,888.99	245.55	242.17	92.79	419.14	-9,329.13	2,757.38	2,271.09	486.28	5.670		
17,000.00	7,754.98	16,704.12	7,888.99	248.20	244.84	92.79	419.57	-9,429.12	2,757.38	2,265.76	491.62	5.609		
17,100.00	7,754.98	16,804.12	7,888.99	250.86	247.51	92.79	420.01	-9,529.12	2,757.38	2,260.43	496.95	5.549		
17,200.00	7,754.98	16,904.12	7,888.99	253.52	250.18	92.79	420.45	-9,629.12	2,757.38	2,255.10	502.29	5.490		
17,300.00	7,754.98	17,004.12	7,888.99	256.18	252.86	92.79	420.89	-9,729.12	2,757.39	2,249.76	507.62	5.432		
17,400.00	7,754.98	17,104.12	7,888.99	258.84	255.53	92.79	421.32	-9,829.12	2,757.39	2,244.43	512.96	5.375		
17,500.00	7,754.98	17,204.12	7,888.99	261.50	258.20	92.79	421.76	-9,929.12	2,757.39	2,239.09	518.30	5.320		
17,600.00	7,754.98	17,304.12	7,888.99	264.16	260.87	92.79	422.20	-10,029.12	2,757.40	2,233.76	523.64	5.266		
17,700.00	7,754.98	17,404.12	7,888.99	266.82	263.55	92.79	422.64	-10,129.12	2,757.40	2,228.42	528.98	5.213		
17,800.00	7,754.98	17,504.12	7,888.99	269.49	266.22	92.79	423.07	-10,229.12	2,757.40	2,223.08	534.32	5.161		
17,900.00	7,754.98	17,604.12	7,888.99	272.15	268.89	92.79	423.51	-10,329.12	2,757.40	2,217.74	539.66	5.110		
18,000.00	7,754.98	17,704.12	7,888.99	274.81	271.57	92.79	423.95	-10,429.12	2,757.41	2,212.40	545.00	5.059		
18,100.00	7,754.98	17,804.12	7,888.99	277.48	274.24	92.79	424.39	-10,529.11	2,757.41	2,207.06	550.35	5.010		
18,200.00	7,754.98	17,912.10	7,889.00	280.14	277.13	92.79	424.82	-10,637.10	2,757.39	2,201.43	555.95	4.960		
18,210.73	7,755.00	17,917.28	7,889.00	280.43	277.27	92.79	424.83	-10,642.28	2,757.14	2,200.80	556.34	4.956 SF		

Anticollision Report

Company:	AXIS EXPLORATION	Local Co-ordinate Reference:	Well JAMASO 4-65 5-6-12
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5610.00usft
Reference Site:	Sec 4-T4S-R65W	MD Reference:	KB 25' @ 5610.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	JAMASO 4-65 5-6-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	-90.00	0.00	-196.87	196.87					
100.00	100.00	100.00	100.00	0.13	0.13	-90.00	0.00	-196.87	196.87	196.61	0.27	732.272		
200.00	199.98	200.02	199.98	0.48	0.49	81.14	0.00	-196.87	196.60	195.62	0.97	201.684		
300.00	299.84	300.16	299.84	0.84	0.85	82.66	0.00	-196.87	195.86	194.17	1.69	115.749		
400.00	399.45	400.55	399.45	1.22	1.21	85.21	0.00	-196.87	194.93	192.50	2.43	80.213		
500.00	498.70	501.30	498.70	1.62	1.57	88.78	0.00	-196.87	194.29	191.10	3.19	60.858		
528.98	527.37	527.37	527.37	1.74	1.67	90.00	0.00	-196.87	194.25	190.84	3.41	56.962	CC	
600.00	597.47	602.53	597.47	2.05	1.94	93.33	0.00	-196.87	194.58	190.60	3.98	48.846	ES	
700.00	695.62	704.38	695.62	2.51	2.30	98.74	0.00	-196.87	196.63	191.83	4.81	40.920		
800.00	793.06	806.94	793.06	3.00	2.67	104.84	0.00	-196.87	201.36	195.70	5.65	35.614		
900.00	889.64	889.64	889.64	3.54	2.97	111.33	0.00	-196.87	209.67	203.22	6.45	32.528		
1,000.00	985.27	985.27	985.27	4.12	3.31	117.90	0.00	-196.87	222.33	215.04	7.28	30.520		
1,100.00	1,079.82	1,079.82	1,079.82	4.74	3.65	124.24	0.00	-196.87	239.86	231.75	8.11	29.584		
1,200.00	1,173.17	1,173.17	1,173.17	5.41	3.98	130.12	0.00	-196.87	262.49	253.58	8.91	29.468		
1,203.38	1,176.30	1,176.30	1,176.30	5.43	3.99	130.31	0.00	-196.87	263.34	254.41	8.93	29.478		
1,300.00	1,265.84	1,262.88	1,262.88	6.10	4.30	135.33	-0.06	-197.56	289.43	279.77	9.66	29.964		
1,400.00	1,358.52	1,354.40	1,354.35	6.81	4.61	139.43	-0.31	-200.36	319.34	308.95	10.40	30.717		
1,500.00	1,451.19	1,447.33	1,447.24	7.52	4.93	142.89	-0.58	-203.36	350.66	339.53	11.13	31.510		
1,600.00	1,543.87	1,540.26	1,540.12	8.24	5.26	145.79	-0.85	-206.36	382.98	371.12	11.86	32.303		
1,700.00	1,636.54	1,633.19	1,633.00	8.95	5.58	148.25	-1.12	-209.36	416.06	403.48	12.58	33.071		
1,800.00	1,729.21	1,726.12	1,725.88	9.68	5.90	150.35	-1.39	-212.36	449.75	436.44	13.31	33.801		
1,900.00	1,821.89	1,819.06	1,818.76	10.40	6.23	152.16	-1.66	-215.35	483.91	469.88	14.03	34.489		
2,000.00	1,914.56	1,911.99	1,911.64	11.12	6.56	153.74	-1.93	-218.35	518.45	503.69	14.76	35.132		
2,100.00	2,007.24	2,004.92	2,004.53	11.85	6.89	155.12	-2.21	-221.35	553.29	537.81	15.48	35.732		
2,200.00	2,099.91	2,102.15	2,097.41	12.58	7.23	156.35	-2.48	-224.35	588.40	572.17	16.23	36.256		
2,300.00	2,192.58	2,209.22	2,190.29	13.30	7.61	157.43	-2.75	-227.35	623.71	606.70	17.01	36.667		
2,400.00	2,285.26	2,283.71	2,283.17	14.03	7.88	158.40	-3.02	-230.35	659.20	641.52	17.68	37.292		
2,500.00	2,377.93	2,376.64	2,376.05	14.76	8.21	159.27	-3.29	-233.35	694.84	676.43	18.41	37.742		
2,600.00	2,470.61	2,469.57	2,468.94	15.49	8.54	160.06	-3.56	-236.35	730.61	711.46	19.15	38.161		
2,700.00	2,563.28	2,562.50	2,561.82	16.22	8.87	160.78	-3.83	-239.35	766.49	746.61	19.88	38.552		
2,800.00	2,655.95	2,655.43	2,654.70	16.95	9.21	161.43	-4.10	-242.35	802.46	781.84	20.62	38.917		
2,900.00	2,748.63	2,748.36	2,747.58	17.68	9.54	162.02	-4.37	-245.35	838.52	817.16	21.36	39.259		
3,000.00	2,841.30	2,841.29	2,840.46	18.42	9.87	162.57	-4.64	-248.35	874.65	852.55	22.10	39.579		
3,100.00	2,933.98	2,934.22	2,933.35	19.15	10.21	163.07	-4.91	-251.34	910.85	888.01	22.84	39.879		
3,200.00	3,026.65	3,027.15	3,026.23	19.88	10.54	163.54	-5.18	-254.34	947.10	923.52	23.58	40.161		
3,300.00	3,119.33	3,120.08	3,119.11	20.61	10.87	163.97	-5.45	-257.34	983.40	959.08	24.33	40.427		
3,400.00	3,212.00	3,213.02	3,211.99	21.35	11.21	164.37	-5.72	-260.34	1,019.75	994.68	25.07	40.677		
3,500.00	3,304.67	3,305.95	3,304.87	22.08	11.54	164.74	-5.99	-263.34	1,056.14	1,030.32	25.81	40.913		
3,600.00	3,397.35	3,401.12	3,397.75	22.81	11.88	165.09	-6.26	-266.34	1,092.56	1,065.99	26.57	41.124		
3,700.00	3,490.02	3,508.19	3,490.64	23.54	12.27	165.42	-6.53	-269.34	1,129.02	1,101.65	27.36	41.258		
3,800.00	3,582.70	3,584.74	3,583.52	24.28	12.55	165.72	-6.80	-272.34	1,165.51	1,137.45	28.05	41.547		
3,900.00	3,675.37	3,677.67	3,676.40	25.01	12.88	166.01	-7.07	-275.34	1,202.02	1,173.22	28.80	41.737		
4,000.00	3,768.04	3,770.60	3,769.28	25.74	13.22	166.28	-7.34	-278.34	1,238.56	1,209.01	29.55	41.917		
4,100.00	3,860.72	3,863.53	3,862.16	26.48	13.55	166.54	-7.61	-281.34	1,275.12	1,244.82	30.30	42.088		
4,200.00	3,953.39	3,956.46	3,955.05	27.21	13.89	166.78	-7.88	-284.33	1,311.70	1,280.66	31.05	42.251		
4,300.00	4,046.07	4,049.39	4,047.93	27.95	14.22	167.00	-8.15	-287.33	1,348.30	1,316.51	31.80	42.406		
4,400.00	4,138.74	4,142.32	4,140.81	28.68	14.56	167.22	-8.42	-290.33	1,384.92	1,352.38	32.55	42.554		
4,500.00	4,231.41	4,235.25	4,233.69	29.41	14.89	167.42	-8.69	-293.33	1,421.56	1,388.26	33.30	42.695		
4,600.00	4,324.09	4,328.18	4,326.57	30.15	15.23	167.62	-8.96	-296.33	1,458.21	1,424.16	34.05	42.830		
4,700.00	4,416.76	4,421.11	4,419.45	30.88	15.56	167.80	-9.23	-299.33	1,494.87	1,460.07	34.80	42.959		
4,800.00	4,509.44	4,514.04	4,512.34	31.62	15.90	167.98	-9.50	-302.33	1,531.55	1,496.00	35.55	43.082		
4,900.00	4,602.11	4,606.97	4,605.22	32.35	16.23	168.15	-9.77	-305.33	1,568.24	1,531.93	36.30	43.200		

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

Anticollision Report

Company:	AXIS EXPLORATION	Local Co-ordinate Reference:	Well JAMASO 4-65 5-6-12
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5610.00usft
Reference Site:	Sec 4-T4S-R65W	MD Reference:	KB 25' @ 5610.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	JAMASO 4-65 5-6-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,000.00	4,694.78	4,700.09	4,698.10	33.08	16.57	168.31	-10.04	-308.33	1,604.94	1,567.88	37.05	43.313		
5,100.00	4,787.46	4,807.16	4,790.98	33.82	16.96	168.46	-10.31	-311.33	1,641.65	1,603.79	37.86	43.362		
5,200.00	4,880.13	4,885.77	4,883.86	34.55	17.24	168.61	-10.58	-314.33	1,678.37	1,639.80	38.56	43.526		
5,300.00	4,972.81	4,978.70	4,976.75	35.29	17.58	168.75	-10.85	-317.33	1,715.09	1,675.78	39.31	43.626		
5,400.00	5,065.48	5,071.63	5,069.63	36.02	17.91	168.88	-11.12	-320.32	1,751.83	1,711.76	40.07	43.722		
5,500.00	5,158.15	5,164.56	5,162.51	36.76	18.25	169.01	-11.39	-323.32	1,788.58	1,747.75	40.82	43.815		
5,600.00	5,250.83	5,257.49	5,255.39	37.49	18.59	169.13	-11.66	-326.32	1,825.33	1,783.75	41.58	43.904		
5,700.00	5,343.50	5,350.42	5,348.27	38.22	18.92	169.25	-11.93	-329.32	1,862.09	1,819.76	42.33	43.989		
5,800.00	5,436.18	5,443.35	5,441.16	38.96	19.26	169.36	-12.20	-332.32	1,898.86	1,855.77	43.09	44.072		
5,900.00	5,528.85	5,536.28	5,534.04	39.69	19.60	169.47	-12.47	-335.32	1,935.63	1,891.79	43.84	44.151		
6,000.00	5,621.53	5,629.21	5,626.92	40.43	19.93	169.58	-12.75	-338.32	1,972.41	1,927.81	44.60	44.228		
6,100.00	5,714.20	5,722.14	5,719.80	41.16	20.27	169.68	-13.02	-341.32	2,009.19	1,963.84	45.35	44.302		
6,200.00	5,806.87	5,815.07	5,812.68	41.90	20.60	169.78	-13.29	-344.32	2,045.98	1,999.87	46.11	44.374		
6,300.00	5,899.55	5,908.00	5,905.56	42.63	20.94	169.87	-13.56	-347.32	2,082.77	2,035.91	46.86	44.443		
6,400.00	5,992.22	6,000.93	5,998.45	43.37	21.28	169.97	-13.83	-350.32	2,119.57	2,071.95	47.62	44.510		
6,490.07	6,075.70	6,084.64	6,082.11	44.03	21.58	170.05	-14.07	-353.02	2,152.72	2,104.42	48.30	44.568		
6,500.00	6,084.90	6,106.13	6,091.33	44.10	21.66	170.07	-14.10	-353.31	2,156.36	2,107.94	48.42	44.533		
6,600.00	6,178.34	6,187.55	6,184.96	44.81	21.95	170.27	-14.37	-356.34	2,191.24	2,142.11	49.13	44.599		
6,700.00	6,272.96	6,282.38	6,279.74	45.47	22.30	170.44	-14.64	-359.40	2,222.88	2,173.00	49.88	44.563		
6,800.00	6,368.65	6,378.26	6,375.57	46.08	22.64	170.58	-14.92	-362.49	2,251.24	2,200.62	50.63	44.467		
6,900.00	6,465.30	6,475.06	6,472.33	46.64	22.99	170.68	-15.21	-365.62	2,276.28	2,224.92	51.37	44.314		
7,000.00	6,562.78	6,572.68	6,569.89	47.15	23.35	170.77	-15.49	-368.77	2,297.98	2,245.88	52.10	44.109		
7,100.00	6,660.98	6,670.98	6,668.14	47.61	23.70	170.82	-15.77	-371.94	2,316.29	2,263.47	52.82	43.852		
7,200.00	6,759.78	6,769.85	6,766.96	48.02	24.06	170.85	-16.06	-375.13	2,331.21	2,277.68	53.53	43.548		
7,300.00	6,859.06	6,869.17	6,866.23	48.39	24.42	170.85	-16.35	-378.34	2,342.72	2,288.49	54.23	43.198		
7,400.00	6,958.69	6,968.82	6,965.83	48.70	24.78	170.83	-16.64	-381.55	2,350.80	2,295.88	54.92	42.805		
7,500.00	7,058.56	7,068.22	7,065.18	48.96	25.14	170.79	-16.93	-384.75	2,355.44	2,299.85	55.59	42.373		
7,593.46	7,152.00	7,155.06	7,152.00	49.15	25.45	0.14	-17.05	-386.06	2,356.81	2,300.68	56.13	41.988		
7,600.00	7,158.54	7,161.61	7,158.54	49.16	25.47	0.14	-17.05	-386.06	2,356.81	2,300.64	56.17	41.959		
7,623.46	7,182.00	7,185.06	7,182.00	49.20	25.55	0.14	-17.05	-386.06	2,356.81	2,300.50	56.31	41.855		
7,650.00	7,208.53	7,211.40	7,208.32	49.24	25.65	89.89	-17.05	-386.67	2,356.81	2,300.33	56.47	41.732		
7,700.00	7,258.32	7,261.00	7,257.72	49.34	25.83	89.89	-17.03	-391.09	2,356.81	2,300.00	56.81	41.489		
7,750.00	7,307.52	7,310.61	7,306.55	49.45	26.03	89.89	-16.99	-399.76	2,356.81	2,299.65	57.16	41.235		
7,800.00	7,355.76	7,360.23	7,354.45	49.56	26.23	89.90	-16.93	-412.63	2,356.81	2,299.29	57.52	40.971		
7,850.00	7,402.69	7,409.85	7,401.07	49.68	26.44	89.90	-16.86	-429.59	2,356.81	2,298.90	57.91	40.697		
7,900.00	7,447.93	7,459.49	7,446.06	49.80	26.66	89.90	-16.77	-450.54	2,356.81	2,298.49	58.32	40.410		
7,950.00	7,491.15	7,509.15	7,489.08	49.93	26.89	89.91	-16.66	-475.30	2,356.81	2,298.05	58.76	40.110		
8,000.00	7,532.02	7,558.82	7,529.82	50.07	27.14	89.91	-16.53	-503.70	2,356.81	2,297.58	59.23	39.791		
8,050.00	7,570.23	7,608.52	7,567.95	50.20	27.41	89.92	-16.39	-535.54	2,356.81	2,297.07	59.74	39.451		
8,100.00	7,605.48	7,658.24	7,603.20	50.35	27.70	89.93	-16.24	-570.58	2,356.81	2,296.51	60.30	39.082		
8,150.00	7,637.51	7,707.98	7,635.30	50.50	28.02	89.93	-16.08	-608.56	2,356.81	2,295.88	60.93	38.682		
8,200.00	7,666.07	7,757.75	7,663.99	50.66	28.38	89.94	-15.90	-649.21	2,356.81	2,295.19	61.62	38.246		
8,250.00	7,690.95	7,807.55	7,689.07	50.82	28.77	89.95	-15.71	-692.21	2,356.81	2,294.42	62.40	37.772		
8,300.00	7,711.95	7,857.38	7,710.33	51.00	29.21	89.96	-15.51	-737.26	2,356.81	2,293.56	63.25	37.259		
8,350.00	7,728.93	7,907.24	7,727.61	51.19	29.70	89.97	-15.31	-784.02	2,356.81	2,292.61	64.20	36.709		
8,400.00	7,741.74	7,957.14	7,740.76	51.39	30.22	89.98	-15.10	-832.13	2,356.82	2,291.58	65.24	36.127		
8,450.00	7,750.29	8,007.07	7,749.69	51.61	30.79	89.99	-14.88	-881.24	2,356.82	2,290.46	66.36	35.518		
8,500.00	7,754.52	8,057.03	7,754.31	51.85	31.40	90.00	-14.67	-930.97	2,356.82	2,289.27	67.55	34.891		
8,523.52	7,755.00	8,080.55	7,754.98	51.97	31.69	90.00	-14.56	-954.48	2,356.82	2,288.69	68.13	34.593		
8,600.00	7,755.00	8,157.02	7,755.00	52.38	32.73	90.00	-14.23	-1,030.95	2,356.82	2,286.66	70.16	33.593		
8,700.00	7,755.00	8,257.02	7,755.00	53.00	34.20	90.00	-13.79	-1,130.95	2,356.82	2,283.77	73.05	32.262		
8,800.00	7,755.00	8,357.02	7,755.00	53.72	35.82	90.00	-13.36	-1,230.95	2,356.83	2,280.61	76.22	30.922		

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

Anticollision Report

Company:	AXIS EXPLORATION	Local Co-ordinate Reference:	Well JAMASO 4-65 5-6-12
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5610.00usft
Reference Site:	Sec 4-T4S-R65W	MD Reference:	KB 25' @ 5610.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	JAMASO 4-65 5-6-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design													Sec 4-T4S-R65W - JAMASO 4-6S 5-6-6 - ORIGINAL WELLBORE - PROPOSAL 1		Offset Site Error: 0.00 usft	
Survey Program: 0-MWD OWSG															Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis		Distance								Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor				
8,900.00	7,755.00	8,457.02	7,755.00	54.54	37.56	90.00	-12.92	-1,330.95	2,356.83	2,277.20	79.62	29.599				
9,000.00	7,755.00	8,557.02	7,755.00	55.47	39.40	90.00	-12.48	-1,430.95	2,356.83	2,273.59	83.24	28.314				
9,100.00	7,755.00	8,657.02	7,755.00	56.53	41.34	90.00	-12.04	-1,530.95	2,356.83	2,269.80	87.04	27.079				
9,200.00	7,755.00	8,757.02	7,755.00	57.70	43.36	90.00	-11.61	-1,630.95	2,356.83	2,265.84	90.99	25.901				
9,300.00	7,755.00	8,857.02	7,755.00	58.99	45.45	90.00	-11.17	-1,730.95	2,356.84	2,261.74	95.09	24.785				
9,400.00	7,755.00	8,957.02	7,755.00	60.41	47.60	90.00	-10.73	-1,830.94	2,356.84	2,257.53	99.31	23.731				
9,500.00	7,755.00	9,057.02	7,755.00	61.93	49.80	90.00	-10.30	-1,930.94	2,356.84	2,253.20	103.64	22.740				
9,600.00	7,755.00	9,157.02	7,755.00	63.56	52.05	90.00	-9.86	-2,030.94	2,356.84	2,248.78	108.06	21.810				
9,700.00	7,755.00	9,257.02	7,755.00	65.28	54.34	90.00	-9.42	-2,130.94	2,356.85	2,244.28	112.57	20.937				
9,800.00	7,755.00	9,357.02	7,755.00	67.09	56.66	90.00	-8.99	-2,230.94	2,356.85	2,239.70	117.15	20.118				
9,900.00	7,755.00	9,457.02	7,755.00	68.98	59.02	90.00	-8.55	-2,330.94	2,356.85	2,235.05	121.80	19.351				
10,000.00	7,755.00	9,557.02	7,755.00	70.94	61.40	90.00	-8.11	-2,430.94	2,356.85	2,230.35	126.50	18.631				
10,100.00	7,755.00	9,657.02	7,755.00	72.96	63.81	90.00	-7.67	-2,530.94	2,356.86	2,225.60	131.26	17.956				
10,200.00	7,755.00	9,757.02	7,755.00	75.04	66.23	90.00	-7.24	-2,630.94	2,356.86	2,220.80	136.06	17.322				
10,300.00	7,755.00	9,857.02	7,755.00	77.17	68.68	90.00	-6.80	-2,730.94	2,356.86	2,215.95	140.91	16.726				
10,400.00	7,755.00	9,957.02	7,755.00	79.34	71.15	90.00	-6.36	-2,830.94	2,356.86	2,211.07	145.79	16.166				
10,500.00	7,755.00	10,057.02	7,755.00	81.55	73.63	90.00	-5.93	-2,930.93	2,356.87	2,206.16	150.71	15.639				
10,600.00	7,755.00	10,157.02	7,755.00	83.80	76.12	90.00	-5.49	-3,030.93	2,356.87	2,201.22	155.65	15.142				
10,700.00	7,755.00	10,257.02	7,755.00	86.08	78.63	90.00	-5.05	-3,130.93	2,356.87	2,196.24	160.63	14.673				
10,800.00	7,755.00	10,357.02	7,755.00	88.39	81.15	90.00	-4.62	-3,230.93	2,356.87	2,191.24	165.63	14.230				
10,900.00	7,755.00	10,457.02	7,755.00	90.73	83.68	90.00	-4.18	-3,330.93	2,356.88	2,186.22	170.65	13.811				
11,000.00	7,755.00	10,557.02	7,755.00	93.08	86.22	90.00	-3.74	-3,430.93	2,356.88	2,181.18	175.70	13.414				
11,100.00	7,755.00	10,657.02	7,755.00	95.46	88.77	90.00	-3.30	-3,530.93	2,356.88	2,176.12	180.76	13.039				
11,200.00	7,754.99	10,757.02	7,755.00	97.86	91.33	90.00	-2.87	-3,630.93	2,356.88	2,171.04	185.85	12.682				
11,300.00	7,754.99	10,857.02	7,755.00	100.28	93.89	90.00	-2.43	-3,730.93	2,356.88	2,165.94	190.94	12.343				
11,400.00	7,754.99	10,957.02	7,755.00	102.71	96.46	90.00	-1.99	-3,830.93	2,356.89	2,160.83	196.06	12.021				
11,500.00	7,754.99	11,057.02	7,755.00	105.16	99.04	90.00	-1.56	-3,930.92	2,356.89	2,155.70	201.19	11.715				
11,600.00	7,754.99	11,157.02	7,755.00	107.62	101.63	90.00	-1.12	-4,030.92	2,356.89	2,150.56	206.33	11.423				
11,700.00	7,754.99	11,257.02	7,755.00	110.10	104.21	90.00	-0.68	-4,130.92	2,356.89	2,145.41	211.48	11.145				
11,800.00	7,754.99	11,357.02	7,755.00	112.58	106.81	90.00	-0.25	-4,230.92	2,356.90	2,140.25	216.65	10.879				
11,900.00	7,754.99	11,457.02	7,755.00	115.08	109.41	90.00	0.19	-4,330.92	2,356.90	2,135.08	221.82	10.625				
12,000.00	7,754.99	11,557.02	7,755.00	117.59	112.01	90.00	0.63	-4,430.92	2,356.90	2,129.90	227.00	10.383				
12,100.00	7,754.99	11,657.02	7,755.00	120.10	114.62	90.00	1.07	-4,530.92	2,356.90	2,124.71	232.20	10.150				
12,200.00	7,754.99	11,757.02	7,755.00	122.62	117.23	90.00	1.50	-4,630.92	2,356.91	2,119.51	237.40	9.928				
12,300.00	7,754.99	11,857.02	7,755.00	125.16	119.84	90.00	1.94	-4,730.92	2,356.91	2,114.30	242.61	9.715				
12,400.00	7,754.99	11,957.02	7,755.00	127.70	122.46	90.00	2.38	-4,830.92	2,356.91	2,109.09	247.83	9.510				
12,500.00	7,754.99	12,057.02	7,755.00	130.24	125.08	90.00	2.81	-4,930.92	2,356.91	2,103.86	253.05	9.314				
12,600.00	7,754.99	12,157.02	7,755.00	132.79	127.70	90.00	3.25	-5,030.91	2,356.92	2,098.64	258.28	9.125				
12,700.00	7,754.99	12,257.02	7,755.00	135.35	130.33	90.00	3.69	-5,130.91	2,356.92	2,093.40	263.52	8.944				
12,800.00	7,754.99	12,357.02	7,755.00	137.92	132.96	90.00	4.12	-5,230.91	2,356.92	2,088.16	268.76	8.770				
12,900.00	7,754.99	12,457.02	7,755.00	140.48	135.59	90.00	4.56	-5,330.91	2,356.92	2,082.92	274.01	8.602				
13,000.00	7,754.99	12,557.02	7,755.00	143.06	138.22	90.00	5.00	-5,430.91	2,356.93	2,077.66	279.26	8.440				
13,100.00	7,754.99	12,657.02	7,755.00	145.64	140.85	90.00	5.44	-5,530.91	2,356.93	2,072.41	284.52	8.284				
13,200.00	7,754.99	12,757.02	7,755.00	148.22	143.49	90.00	5.87	-5,630.91	2,356.93	2,067.15	289.78	8.133				
13,300.00	7,754.99	12,857.02	7,755.00	150.81	146.13	90.00	6.31	-5,730.91	2,356.93	2,061.88	295.05	7.988				
13,400.00	7,754.99	12,957.02	7,754.99	153.40	148.77	90.00	6.75	-5,830.91	2,356.93	2,056.62	300.32	7.848				
13,500.00	7,754.99	13,057.02	7,754.99	156.00	151.41	90.00	7.18	-5,930.91	2,356.94	2,051.34	305.59	7.713				
13,600.00	7,754.99	13,157.02	7,754.99	158.59	154.06	90.00	7.62	-6,030.90	2,356.94	2,046.07	310.87	7.582				
13,700.00	7,754.99	13,257.02	7,754.99	161.20	156.71	90.00	8.06	-6,130.90	2,356.94	2,040.79	316.15	7.455				
13,800.00	7,754.99	13,357.02	7,754.99	163.80	159.35	90.00	8.49	-6,230.90	2,356.94	2,035.50	321.44	7.332				
13,900.00	7,754.99	13,457.02	7,754.99	166.41	162.00	90.00	8.93	-6,330.90	2,356.95	2,030.22	326.73	7.214				
14,000.00	7,754.99	13,557.02	7,754.99	169.02	164.65	90.00	9.37	-6,430.90	2,356.95	2,024.93	332.02	7.099				

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

Anticollision Report

Company:	AXIS EXPLORATION	Local Co-ordinate Reference:	Well JAMASO 4-65 5-6-12
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5610.00usft
Reference Site:	Sec 4-T4S-R65W	MD Reference:	KB 25' @ 5610.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	JAMASO 4-65 5-6-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design Sec 4-T4S-R65W - JAMASO 4-65 5-6-6 - ORIGINAL WELLBORE - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
14,100.00	7,754.99	13,657.02	7,754.99	171.63	167.30	90.00	9.81	-6,530.90	2,356.95	2,019.64	337.31	6.987		
14,200.00	7,754.99	13,757.02	7,754.99	174.25	169.96	90.00	10.24	-6,630.90	2,356.95	2,014.34	342.61	6.879		
14,300.00	7,754.99	13,857.02	7,754.99	176.87	172.61	90.00	10.68	-6,730.90	2,356.96	2,009.04	347.91	6.775		
14,400.00	7,754.99	13,957.02	7,754.99	179.49	175.26	90.00	11.12	-6,830.90	2,356.96	2,003.74	353.21	6.673		
14,500.00	7,754.99	14,057.02	7,754.99	182.11	177.92	90.00	11.55	-6,930.90	2,356.96	1,998.44	358.52	6.574		
14,600.00	7,754.99	14,157.02	7,754.99	184.74	180.58	90.00	11.99	-7,030.90	2,356.96	1,993.14	363.83	6.478		
14,700.00	7,754.99	14,257.02	7,754.99	187.37	183.23	90.00	12.43	-7,130.89	2,356.97	1,987.83	369.14	6.385		
14,800.00	7,754.99	14,357.02	7,754.99	190.00	185.89	90.00	12.87	-7,230.89	2,356.97	1,982.52	374.45	6.295		
14,900.00	7,754.99	14,457.02	7,754.99	192.63	188.55	90.00	13.30	-7,330.89	2,356.97	1,977.21	379.76	6.206		
15,000.00	7,754.99	14,557.02	7,754.99	195.26	191.21	90.00	13.74	-7,430.89	2,356.97	1,971.90	385.08	6.121		
15,100.00	7,754.99	14,657.02	7,754.99	197.89	193.87	90.00	14.18	-7,530.89	2,356.98	1,966.58	390.39	6.037		
15,200.00	7,754.99	14,757.02	7,754.99	200.53	196.54	90.00	14.61	-7,630.89	2,356.98	1,961.27	395.71	5.956		
15,300.00	7,754.99	14,857.02	7,754.99	203.17	199.20	90.00	15.05	-7,730.89	2,356.98	1,955.95	401.03	5.877		
15,400.00	7,754.99	14,957.02	7,754.99	205.81	201.86	90.00	15.49	-7,830.89	2,356.98	1,950.63	406.35	5.800		
15,500.00	7,754.99	15,057.02	7,754.99	208.45	204.53	90.00	15.92	-7,930.89	2,356.99	1,945.31	411.68	5.725		
15,600.00	7,754.99	15,157.02	7,754.99	211.09	207.19	90.00	16.36	-8,030.89	2,356.99	1,939.98	417.00	5.652		
15,700.00	7,754.99	15,257.02	7,754.99	213.74	209.86	90.00	16.80	-8,130.88	2,356.99	1,934.66	422.33	5.581		
15,800.00	7,754.99	15,357.02	7,754.99	216.38	212.52	90.00	17.24	-8,230.88	2,356.99	1,929.33	427.66	5.511		
15,900.00	7,754.99	15,457.02	7,754.99	219.03	215.19	90.00	17.67	-8,330.88	2,356.99	1,924.01	432.99	5.444		
16,000.00	7,754.99	15,557.02	7,754.99	221.67	217.86	90.00	18.11	-8,430.88	2,357.00	1,918.68	438.32	5.377		
16,100.00	7,754.99	15,657.02	7,754.99	224.32	220.53	90.00	18.55	-8,530.88	2,357.00	1,913.35	443.65	5.313		
16,200.00	7,754.99	15,757.02	7,754.99	226.97	223.19	90.00	18.98	-8,630.88	2,357.00	1,908.02	448.98	5.250		
16,300.00	7,754.99	15,857.02	7,754.99	229.62	225.86	90.00	19.42	-8,730.88	2,357.00	1,902.68	454.32	5.188		
16,400.00	7,754.98	15,957.02	7,754.99	232.27	228.53	90.00	19.86	-8,830.88	2,357.01	1,897.35	459.66	5.128		
16,500.00	7,754.98	16,057.02	7,754.99	234.93	231.20	90.00	20.29	-8,930.88	2,357.01	1,892.02	464.99	5.069		
16,600.00	7,754.98	16,157.02	7,754.99	237.58	233.87	90.00	20.73	-9,030.88	2,357.01	1,886.68	470.33	5.011		
16,700.00	7,754.98	16,257.02	7,754.99	240.23	236.54	90.00	21.17	-9,130.88	2,357.01	1,881.35	475.67	4.955		
16,800.00	7,754.98	16,357.02	7,754.99	242.89	239.21	90.00	21.61	-9,230.87	2,357.02	1,876.01	481.01	4.900		
16,900.00	7,754.98	16,457.02	7,754.99	245.55	241.89	90.00	22.04	-9,330.87	2,357.02	1,870.67	486.35	4.846		
17,000.00	7,754.98	16,557.02	7,754.99	248.20	244.56	90.00	22.48	-9,430.87	2,357.02	1,865.33	491.69	4.794		
17,100.00	7,754.98	16,657.02	7,754.99	250.86	247.23	90.00	22.92	-9,530.87	2,357.02	1,859.99	497.03	4.742		
17,200.00	7,754.98	16,757.02	7,754.99	253.52	249.90	90.00	23.35	-9,630.87	2,357.03	1,854.65	502.38	4.692		
17,300.00	7,754.98	16,857.02	7,754.99	256.18	252.58	90.00	23.79	-9,730.87	2,357.03	1,849.31	507.72	4.642		
17,400.00	7,754.98	16,957.02	7,754.99	258.84	255.25	90.00	24.23	-9,830.87	2,357.03	1,843.96	513.07	4.594		
17,500.00	7,754.98	17,057.02	7,754.99	261.50	257.92	90.00	24.66	-9,930.87	2,357.03	1,838.62	518.41	4.547		
17,600.00	7,754.98	17,157.02	7,754.99	264.16	260.60	90.00	25.10	-10,030.87	2,357.04	1,833.28	523.76	4.500		
17,700.00	7,754.98	17,257.02	7,754.99	266.82	263.27	90.00	25.54	-10,130.87	2,357.04	1,827.93	529.11	4.455		
17,800.00	7,754.98	17,357.02	7,754.99	269.49	265.95	90.00	25.98	-10,230.86	2,357.04	1,822.59	534.45	4.410		
17,900.00	7,754.98	17,457.02	7,754.99	272.15	268.62	90.00	26.41	-10,330.86	2,357.04	1,817.24	539.80	4.366		
18,000.00	7,754.98	17,557.02	7,754.99	274.81	271.30	90.00	26.85	-10,430.86	2,357.04	1,811.89	545.15	4.324		
18,100.00	7,754.98	17,657.02	7,754.99	277.48	273.97	90.00	27.29	-10,530.86	2,357.05	1,806.54	550.50	4.282		
18,200.00	7,754.98	17,756.88	7,755.00	280.14	276.64	90.00	27.73	-10,630.72	2,357.05	1,801.20	555.85	4.240		
18,210.73	7,754.98	17,767.61	7,755.00	280.43	276.93	90.00	27.77	-10,641.44	2,357.05	1,800.63	556.42	4.236		
18,210.73	7,755.00	17,767.61	7,755.00	280.43	276.93	90.00	27.77	-10,641.45	2,356.83	1,800.41	556.42	4.236 SF		

Anticollision Report

Company:	AXIS EXPLORATION	Local Co-ordinate Reference:	Well JAMASO 4-65 5-6-12
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5610.00usft
Reference Site:	Sec 4-T4S-R65W	MD Reference:	KB 25' @ 5610.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	JAMASO 4-65 5-6-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	-90.00	0.00	-90.00	90.00					
100.00	100.00	100.00	100.00	0.13	0.13	-90.00	0.00	-90.00	90.00	89.73	0.27	334.753		
200.00	199.98	200.02	199.98	0.48	0.49	81.74	0.00	-90.00	89.73	88.76	0.97	92.054		
300.00	299.84	300.16	299.84	0.84	0.85	85.07	0.00	-90.00	89.13	87.44	1.69	52.675		
389.85	389.36	389.36	389.36	1.18	1.17	90.00	0.00	-90.00	88.80	86.45	2.35	37.759 CC		
400.00	399.45	400.55	399.45	1.22	1.21	90.67	0.00	-90.00	88.81	86.37	2.43	36.541 ES		
500.00	498.70	501.30	498.70	1.62	1.57	98.39	0.00	-90.00	89.78	86.59	3.19	28.129		
600.00	597.47	602.53	597.47	2.05	1.94	107.75	0.00	-90.00	93.37	89.40	3.98	23.490		
700.00	695.62	704.38	695.62	2.51	2.30	117.84	0.00	-90.00	100.92	96.15	4.77	21.156		
800.00	793.06	806.94	793.06	3.00	2.67	127.59	0.00	-90.00	113.35	107.79	5.56	20.376		
900.00	889.64	889.64	889.64	3.54	2.97	136.20	0.00	-90.00	131.01	124.74	6.27	20.890		
1,000.00	985.27	985.27	985.27	4.12	3.31	143.37	0.00	-90.00	153.79	146.78	7.01	21.927		
1,100.00	1,079.82	1,079.82	1,079.82	4.74	3.65	149.14	0.00	-90.00	181.35	173.60	7.75	23.414		
1,200.00	1,173.17	1,176.64	1,176.63	5.41	3.98	153.66	-0.81	-90.62	212.72	204.24	8.48	25.092		
1,203.38	1,176.30	1,179.96	1,179.95	5.43	3.99	153.78	-0.89	-90.67	213.82	205.31	8.50	25.148		
1,300.00	1,265.84	1,275.68	1,275.57	6.10	4.31	156.88	-4.29	-93.24	244.64	235.42	9.22	26.546		
1,400.00	1,358.52	1,374.01	1,373.61	6.81	4.64	158.82	-10.23	-97.72	275.02	265.06	9.96	27.613		
1,500.00	1,451.19	1,469.09	1,468.38	7.52	4.97	160.24	-16.42	-102.40	305.23	294.53	10.70	28.528		
1,600.00	1,543.87	1,564.17	1,563.14	8.24	5.30	161.40	-22.62	-107.08	335.58	324.13	11.44	29.323		
1,700.00	1,636.54	1,659.25	1,657.90	8.95	5.64	162.37	-28.82	-111.75	366.03	353.84	12.19	30.019		
1,800.00	1,729.21	1,754.33	1,752.67	9.68	5.98	163.19	-35.01	-116.43	396.56	383.62	12.95	30.632		
1,900.00	1,821.89	1,849.41	1,847.43	10.40	6.32	163.90	-41.21	-121.11	427.16	413.46	13.70	31.174		
2,000.00	1,914.56	1,944.49	1,942.20	11.12	6.67	164.51	-47.41	-125.78	457.81	443.35	14.46	31.658		
2,100.00	2,007.24	2,039.58	2,036.96	11.85	7.01	165.04	-53.60	-130.46	488.50	473.28	15.22	32.091		
2,200.00	2,099.91	2,134.66	2,131.72	12.58	7.36	165.51	-59.80	-135.14	519.23	503.24	15.99	32.480		
2,300.00	2,192.58	2,229.74	2,226.49	13.30	7.72	165.93	-65.99	-139.82	549.98	533.23	16.75	32.832		
2,400.00	2,285.26	2,324.82	2,321.25	14.03	8.07	166.31	-72.19	-144.49	580.76	563.24	17.52	33.152		
2,500.00	2,377.93	2,419.90	2,416.01	14.76	8.42	166.64	-78.39	-149.17	611.55	593.27	18.29	33.443		
2,600.00	2,470.61	2,514.98	2,510.78	15.49	8.78	166.95	-84.58	-153.85	642.37	623.31	19.06	33.710		
2,700.00	2,563.28	2,610.06	2,605.54	16.22	9.13	167.22	-90.78	-158.53	673.20	653.37	19.83	33.955		
2,800.00	2,655.95	2,705.15	2,700.31	16.95	9.49	167.48	-96.98	-163.20	704.04	683.44	20.60	34.181		
2,900.00	2,748.63	2,800.23	2,795.07	17.68	9.85	167.71	-103.17	-167.88	734.89	713.52	21.37	34.389		
3,000.00	2,841.30	2,904.69	2,898.83	18.42	10.24	167.92	-109.37	-172.56	765.75	743.58	22.18	34.528		
3,100.00	2,933.98	3,009.61	2,984.60	19.15	10.64	168.11	-115.57	-177.23	796.63	773.64	22.99	34.655		
3,200.00	3,026.65	3,085.47	3,079.36	19.88	10.93	168.30	-121.76	-181.91	827.50	803.81	23.69	34.928		
3,300.00	3,119.33	3,180.55	3,174.13	20.61	11.29	168.46	-127.96	-186.59	858.39	833.92	24.47	35.083		
3,400.00	3,212.00	3,275.63	3,268.89	21.35	11.65	168.62	-134.16	-191.27	889.28	864.04	25.24	35.229		
3,500.00	3,304.67	3,370.71	3,363.65	22.08	12.01	168.77	-140.35	-195.94	920.18	894.16	26.02	35.365		
3,600.00	3,397.35	3,465.80	3,458.42	22.81	12.37	168.90	-146.55	-200.62	951.09	924.29	26.80	35.493		
3,700.00	3,490.02	3,560.88	3,553.18	23.54	12.73	169.03	-152.75	-205.30	981.99	954.42	27.57	35.614		
3,800.00	3,582.70	3,655.96	3,647.95	24.28	13.09	169.15	-158.94	-209.97	1,012.91	984.56	28.35	35.727		
3,900.00	3,675.37	3,751.04	3,742.71	25.01	13.45	169.27	-165.14	-214.65	1,043.82	1,014.69	29.13	35.834		
4,000.00	3,768.04	3,846.12	3,837.47	25.74	13.82	169.37	-171.34	-219.33	1,074.74	1,044.83	29.91	35.935		
4,100.00	3,860.72	3,941.20	3,932.24	26.48	14.18	169.47	-177.53	-224.01	1,105.67	1,074.98	30.69	36.031		
4,200.00	3,953.39	4,036.28	4,027.00	27.21	14.54	169.57	-183.73	-228.68	1,136.59	1,105.13	31.47	36.122		
4,300.00	4,046.07	4,131.37	4,121.76	27.95	14.91	169.66	-189.93	-233.36	1,167.52	1,135.27	32.24	36.208		
4,400.00	4,138.74	4,226.45	4,216.53	28.68	15.27	169.74	-196.12	-238.04	1,198.45	1,165.43	33.02	36.290		
4,500.00	4,231.41	4,321.53	4,311.29	29.41	15.63	169.82	-202.32	-242.71	1,229.38	1,195.58	33.80	36.367		
4,600.00	4,324.09	4,416.61	4,406.06	30.15	16.00	169.90	-208.51	-247.39	1,260.32	1,225.73	34.58	36.441		
4,700.00	4,416.76	4,511.69	4,500.82	30.88	16.36	169.98	-214.71	-252.07	1,291.26	1,255.89	35.37	36.512		
4,800.00	4,509.44	4,606.77	4,595.58	31.62	16.73	170.05	-220.91	-256.75	1,322.19	1,286.05	36.15	36.579		
4,900.00	4,602.11	4,701.85	4,690.35	32.35	17.09	170.11	-227.10	-261.42	1,353.14	1,316.21	36.93	36.644		

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

Anticollision Report

Company:	AXIS EXPLORATION	Local Co-ordinate Reference:	Well JAMASO 4-65 5-6-12
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5610.00usft
Reference Site:	Sec 4-T4S-R65W	MD Reference:	KB 25' @ 5610.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	JAMASO 4-65 5-6-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,000.00	4,694.78	4,803.07	4,785.11	33.08	17.48	170.18	-233.30	-266.10	1,384.08	1,346.35	37.73	36.683		
5,100.00	4,787.46	4,907.98	4,879.88	33.82	17.88	170.24	-239.50	-270.78	1,415.02	1,376.47	38.55	36.708		
5,200.00	4,880.13	4,987.10	4,974.64	34.55	18.18	170.30	-245.69	-275.45	1,445.97	1,406.70	39.27	36.820		
5,300.00	4,972.81	5,082.18	5,069.40	35.29	18.55	170.35	-251.89	-280.13	1,476.91	1,436.86	40.05	36.874		
5,400.00	5,065.48	5,177.26	5,164.17	36.02	18.91	170.41	-258.09	-284.81	1,507.86	1,467.03	40.83	36.926		
5,500.00	5,158.15	5,272.34	5,258.93	36.76	19.28	170.46	-264.28	-289.49	1,538.81	1,497.19	41.62	36.976		
5,600.00	5,250.83	5,367.42	5,353.70	37.49	19.64	170.51	-270.48	-294.16	1,569.76	1,527.36	42.40	37.023		
5,700.00	5,343.50	5,462.50	5,448.46	38.22	20.01	170.55	-276.68	-298.84	1,600.71	1,557.53	43.18	37.069		
5,800.00	5,436.18	5,557.59	5,543.22	38.96	20.37	170.60	-282.87	-303.52	1,631.66	1,587.70	43.96	37.113		
5,900.00	5,528.85	5,652.67	5,637.99	39.69	20.74	170.64	-289.07	-308.19	1,662.62	1,617.87	44.75	37.156		
6,000.00	5,621.53	5,747.75	5,732.75	40.43	21.11	170.69	-295.27	-312.87	1,693.57	1,648.04	45.53	37.197		
6,100.00	5,714.20	5,842.83	5,827.51	41.16	21.47	170.73	-301.46	-317.55	1,724.52	1,678.21	46.31	37.236		
6,200.00	5,806.87	5,937.91	5,922.28	41.90	21.84	170.77	-307.66	-322.23	1,755.48	1,708.38	47.10	37.274		
6,300.00	5,899.55	6,032.99	6,017.04	42.63	22.20	170.81	-313.86	-326.90	1,786.44	1,738.56	47.88	37.310		
6,400.00	5,992.22	6,128.07	6,111.81	43.37	22.57	170.84	-320.05	-331.58	1,817.39	1,768.73	48.66	37.346		
6,490.07	6,075.70	6,213.72	6,197.16	44.03	22.90	170.87	-325.63	-335.79	1,845.28	1,795.91	49.37	37.376		
6,500.00	6,084.90	6,223.16	6,206.58	44.10	22.93	170.89	-326.25	-336.26	1,848.33	1,798.89	49.45	37.379		
6,600.00	6,178.34	6,318.86	6,301.95	44.81	23.30	171.01	-332.49	-340.97	1,877.32	1,827.09	50.23	37.376		
6,700.00	6,272.96	6,415.50	6,398.28	45.47	23.67	171.10	-338.78	-345.72	1,902.99	1,851.99	51.00	37.310		
6,800.00	6,368.65	6,512.97	6,495.42	46.08	24.05	171.16	-345.14	-350.51	1,925.31	1,873.54	51.77	37.187		
6,900.00	6,465.30	6,611.15	6,593.27	46.64	24.43	171.19	-351.53	-355.34	1,944.26	1,891.72	52.54	37.008		
7,000.00	6,562.78	6,709.92	6,691.71	47.15	24.81	171.19	-357.97	-360.20	1,959.81	1,906.52	53.29	36.777		
7,100.00	6,660.98	6,809.16	6,790.62	47.61	25.19	171.18	-364.44	-365.08	1,971.95	1,917.92	54.03	36.496		
7,200.00	6,759.78	6,908.74	6,889.87	48.02	25.57	171.13	-370.93	-369.98	1,980.66	1,925.90	54.76	36.168		
7,300.00	6,859.06	7,008.55	6,989.35	48.39	25.96	171.06	-377.43	-374.89	1,985.93	1,930.45	55.48	35.795		
7,400.00	6,958.69	7,108.47	7,088.93	48.70	26.34	170.96	-383.95	-379.81	1,987.76	1,931.58	56.19	35.379		
7,500.00	7,058.56	7,176.32	7,156.60	48.96	26.60	170.89	-387.91	-382.80	1,986.88	1,930.25	56.63	35.084		
7,593.46	7,152.00	7,236.37	7,216.57	49.15	26.82	0.21	-390.36	-384.65	1,984.56	1,927.58	56.98	34.830		
7,600.00	7,158.54	7,240.58	7,220.77	49.16	26.83	0.20	-390.49	-384.75	1,984.35	1,927.35	57.00	34.813		
7,623.46	7,182.00	7,255.66	7,235.84	49.20	26.89	0.19	-390.93	-385.08	1,983.66	1,926.58	57.08	34.753		
7,650.00	7,208.53	7,272.73	7,252.91	49.24	26.95	90.01	-391.35	-385.40	1,983.01	1,925.84	57.17	34.687		
7,700.00	7,258.32	7,300.00	7,280.17	49.34	27.05	90.16	-391.86	-385.78	1,982.12	1,924.83	57.29	34.596		
7,750.00	7,307.52	7,336.46	7,316.63	49.45	27.17	90.37	-392.21	-386.04	1,981.70	1,924.22	57.48	34.479		
7,765.55	7,322.65	7,346.19	7,326.35	49.48	27.20	90.44	-392.24	-386.07	1,981.68	1,924.16	57.52	34.453		
7,800.00	7,355.76	7,375.60	7,355.76	49.56	27.29	90.66	-392.24	-386.07	1,981.76	1,924.09	57.67	34.363		
7,850.00	7,402.69	7,425.52	7,405.65	49.68	27.47	91.09	-392.24	-387.66	1,982.01	1,924.04	57.97	34.190		
7,900.00	7,447.93	7,477.30	7,457.04	49.80	27.66	91.52	-392.21	-393.84	1,982.39	1,924.07	58.32	33.994		
7,950.00	7,491.15	7,530.74	7,509.27	49.93	27.87	91.95	-392.16	-405.05	1,982.88	1,924.17	58.71	33.774		
8,000.00	7,532.02	7,585.98	7,561.91	50.07	28.09	92.38	-392.09	-421.70	1,983.48	1,924.33	59.16	33.530		
8,050.00	7,570.23	7,643.12	7,614.42	50.20	28.34	92.79	-391.99	-444.18	1,984.17	1,924.51	59.66	33.258		
8,100.00	7,605.48	7,702.26	7,666.14	50.35	28.61	93.19	-391.87	-472.82	1,984.93	1,924.70	60.23	32.953		
8,150.00	7,637.51	7,763.48	7,716.26	50.50	28.91	93.57	-391.71	-507.92	1,985.73	1,924.84	60.89	32.610		
8,200.00	7,666.07	7,826.80	7,763.86	50.66	29.25	93.93	-391.53	-549.63	1,986.54	1,924.89	61.65	32.222		
8,250.00	7,690.95	7,892.20	7,807.88	50.82	29.64	94.26	-391.32	-597.95	1,987.33	1,924.81	62.53	31.784		
8,300.00	7,711.95	7,959.59	7,847.18	51.00	30.10	94.55	-391.08	-652.64	1,988.07	1,924.53	63.54	31.286		
8,350.00	7,728.93	8,028.78	7,880.57	51.19	30.64	94.80	-390.81	-713.20	1,988.72	1,924.00	64.72	30.727		
8,400.00	7,741.74	8,099.53	7,906.91	51.39	31.29	94.99	-390.53	-778.81	1,989.25	1,923.19	66.06	30.112		
8,450.00	7,750.29	8,171.48	7,925.20	51.61	32.05	95.13	-390.22	-848.35	1,989.63	1,922.05	67.58	29.442		
8,500.00	7,754.52	8,244.23	7,934.70	51.85	32.89	95.21	-389.91	-920.42	1,989.84	1,920.61	69.23	28.742		
8,523.52	7,755.00	8,278.59	7,935.98	51.97	33.32	95.22	-389.76	-954.75	1,989.87	1,919.82	70.05	28.407		
8,600.00	7,755.00	8,356.43	7,936.00	52.38	34.37	95.22	-389.42	-1,032.59	1,989.88	1,917.74	72.13	27.587		
8,700.00	7,755.00	8,456.43	7,936.00	53.00	35.85	95.22	-388.98	-1,132.59	1,989.88	1,914.83	75.05	26.514		

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

Anticollision Report

Company:	AXIS EXPLORATION	Local Co-ordinate Reference:	Well JAMASO 4-65 5-6-12
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5610.00usft
Reference Site:	Sec 4-T4S-R65W	MD Reference:	KB 25' @ 5610.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	JAMASO 4-65 5-6-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design Sec 4-T4S-R65W - JAMASO 4-65 5-6-7 - ORIGINAL WELLBORE - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
8,800.00	7,755.00	8,556.43	7,936.00	53.72	37.46	95.22	-388.54	-1,232.59	1,989.88	1,911.66	78.23	25.438		
8,900.00	7,755.00	8,656.43	7,935.99	54.54	39.19	95.22	-388.11	-1,332.59	1,989.88	1,908.25	81.63	24.377		
9,000.00	7,755.00	8,756.43	7,935.99	55.47	41.02	95.22	-387.67	-1,432.59	1,989.89	1,904.65	85.24	23.345		
9,100.00	7,755.00	8,856.43	7,935.99	56.53	42.95	95.22	-387.23	-1,532.59	1,989.89	1,900.87	89.02	22.353		
9,200.00	7,755.00	8,956.43	7,935.99	57.70	44.96	95.22	-386.80	-1,632.59	1,989.89	1,896.93	92.96	21.406		
9,300.00	7,755.00	9,056.43	7,935.99	58.99	47.04	95.22	-386.36	-1,732.59	1,989.89	1,892.86	97.03	20.507		
9,400.00	7,755.00	9,156.43	7,935.99	60.41	49.17	95.22	-385.92	-1,832.59	1,989.89	1,888.67	101.23	19.657		
9,500.00	7,755.00	9,256.43	7,935.99	61.93	51.36	95.22	-385.49	-1,932.58	1,989.90	1,884.37	105.53	18.856		
9,600.00	7,755.00	9,356.43	7,935.98	63.56	53.60	95.22	-385.05	-2,032.58	1,989.90	1,879.98	109.92	18.103		
9,700.00	7,755.00	9,456.43	7,935.98	65.28	55.87	95.22	-384.61	-2,132.58	1,989.90	1,875.50	114.40	17.394		
9,800.00	7,755.00	9,556.43	7,935.98	67.09	58.19	95.22	-384.17	-2,232.58	1,989.90	1,870.95	118.95	16.729		
9,900.00	7,755.00	9,656.43	7,935.98	68.98	60.53	95.22	-383.74	-2,332.58	1,989.91	1,866.34	123.56	16.104		
10,000.00	7,755.00	9,756.43	7,935.98	70.94	62.90	95.22	-383.30	-2,432.58	1,989.91	1,861.67	128.24	15.518		
10,100.00	7,755.00	9,856.43	7,935.98	72.96	65.29	95.22	-382.86	-2,532.58	1,989.91	1,856.95	132.96	14.966		
10,200.00	7,755.00	9,956.43	7,935.98	75.04	67.71	95.22	-382.43	-2,632.58	1,989.91	1,852.18	137.73	14.448		
10,300.00	7,755.00	10,056.43	7,935.97	77.17	70.15	95.22	-381.99	-2,732.58	1,989.92	1,847.37	142.54	13.960		
10,400.00	7,755.00	10,156.43	7,935.97	79.34	72.61	95.22	-381.55	-2,832.58	1,989.92	1,842.52	147.40	13.501		
10,500.00	7,755.00	10,256.43	7,935.97	81.55	75.08	95.22	-381.11	-2,932.58	1,989.92	1,837.64	152.28	13.068		
10,600.00	7,755.00	10,356.43	7,935.97	83.80	77.56	95.22	-380.68	-3,032.57	1,989.92	1,832.73	157.20	12.659		
10,700.00	7,755.00	10,456.43	7,935.97	86.08	80.06	95.22	-380.24	-3,132.57	1,989.92	1,827.78	162.14	12.273		
10,800.00	7,755.00	10,556.43	7,935.97	88.39	82.58	95.22	-379.80	-3,232.57	1,989.93	1,822.82	167.11	11.908		
10,900.00	7,755.00	10,656.43	7,935.97	90.73	85.10	95.22	-379.37	-3,332.57	1,989.93	1,817.83	172.10	11.562		
11,000.00	7,755.00	10,756.43	7,935.96	93.08	87.63	95.22	-378.93	-3,432.57	1,989.93	1,812.81	177.12	11.235		
11,100.00	7,755.00	10,856.43	7,935.96	95.46	90.17	95.22	-378.49	-3,532.57	1,989.93	1,807.78	182.15	10.925		
11,200.00	7,754.99	10,956.43	7,935.96	97.86	92.72	95.22	-378.06	-3,632.57	1,989.94	1,802.73	187.21	10.630		
11,300.00	7,754.99	11,056.43	7,935.96	100.28	95.28	95.22	-377.62	-3,732.57	1,989.94	1,797.66	192.27	10.349		
11,400.00	7,754.99	11,156.43	7,935.96	102.71	97.85	95.22	-377.18	-3,832.57	1,989.94	1,792.58	197.36	10.083		
11,500.00	7,754.99	11,256.43	7,935.96	105.16	100.42	95.22	-376.74	-3,932.57	1,989.94	1,787.49	202.46	9.829		
11,600.00	7,754.99	11,356.43	7,935.96	107.62	103.00	95.22	-376.31	-4,032.56	1,989.95	1,782.38	207.57	9.587		
11,700.00	7,754.99	11,456.43	7,935.95	110.10	105.58	95.22	-375.87	-4,132.56	1,989.95	1,777.25	212.70	9.356		
11,800.00	7,754.99	11,556.43	7,935.95	112.58	108.17	95.22	-375.43	-4,232.56	1,989.95	1,772.12	217.83	9.135		
11,900.00	7,754.99	11,656.43	7,935.95	115.08	110.76	95.22	-375.00	-4,332.56	1,989.95	1,766.97	222.98	8.924		
12,000.00	7,754.99	11,756.43	7,935.95	117.59	113.36	95.22	-374.56	-4,432.56	1,989.96	1,761.82	228.13	8.723		
12,100.00	7,754.99	11,856.43	7,935.95	120.10	115.96	95.22	-374.12	-4,532.56	1,989.96	1,756.66	233.30	8.530		
12,200.00	7,754.99	11,956.43	7,935.95	122.62	118.57	95.22	-373.68	-4,632.56	1,989.96	1,751.49	238.47	8.345		
12,300.00	7,754.99	12,056.43	7,935.95	125.16	121.18	95.22	-373.25	-4,732.56	1,989.96	1,746.31	243.66	8.167		
12,400.00	7,754.99	12,156.43	7,935.94	127.70	123.79	95.22	-372.81	-4,832.56	1,989.96	1,741.12	248.85	7.997		
12,500.00	7,754.99	12,256.43	7,935.94	130.24	126.40	95.22	-372.37	-4,932.56	1,989.97	1,735.92	254.04	7.833		
12,600.00	7,754.99	12,356.43	7,935.94	132.79	129.02	95.22	-371.94	-5,032.56	1,989.97	1,730.72	259.25	7.676		
12,700.00	7,754.99	12,456.43	7,935.94	135.35	131.65	95.22	-371.50	-5,132.55	1,989.97	1,725.51	264.46	7.525		
12,800.00	7,754.99	12,556.43	7,935.94	137.92	134.27	95.22	-371.06	-5,232.55	1,989.97	1,720.30	269.67	7.379		
12,900.00	7,754.99	12,656.43	7,935.94	140.48	136.90	95.22	-370.63	-5,332.55	1,989.98	1,715.08	274.90	7.239		
13,000.00	7,754.99	12,756.43	7,935.93	143.06	139.53	95.22	-370.19	-5,432.55	1,989.98	1,709.86	280.12	7.104		
13,100.00	7,754.99	12,856.43	7,935.93	145.64	142.16	95.22	-369.75	-5,532.55	1,989.98	1,704.63	285.35	6.974		
13,200.00	7,754.99	12,956.43	7,935.93	148.22	144.79	95.22	-369.31	-5,632.55	1,989.98	1,699.39	290.59	6.848		
13,300.00	7,754.99	13,056.43	7,935.93	150.81	147.43	95.22	-368.88	-5,732.55	1,989.99	1,694.15	295.83	6.727		
13,400.00	7,754.99	13,156.43	7,935.93	153.40	150.07	95.22	-368.44	-5,832.55	1,989.99	1,688.91	301.08	6.610		
13,500.00	7,754.99	13,256.43	7,935.93	156.00	152.71	95.22	-368.00	-5,932.55	1,989.99	1,683.66	306.33	6.496		
13,600.00	7,754.99	13,356.43	7,935.93	158.59	155.35	95.22	-367.57	-6,032.55	1,989.99	1,678.41	311.58	6.387		
13,700.00	7,754.99	13,456.43	7,935.92	161.20	157.99	95.22	-367.13	-6,132.54	1,989.99	1,673.16	316.84	6.281		
13,800.00	7,754.99	13,556.43	7,935.92	163.80	160.64	95.22	-366.69	-6,232.54	1,990.00	1,667.90	322.10	6.178		
13,900.00	7,754.99	13,656.43	7,935.92	166.41	163.28	95.22	-366.25	-6,332.54	1,990.00	1,662.64	327.36	6.079		

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

Anticollision Report

Company:	AXIS EXPLORATION	Local Co-ordinate Reference:	Well JAMASO 4-65 5-6-12
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5610.00usft
Reference Site:	Sec 4-T4S-R65W	MD Reference:	KB 25' @ 5610.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	JAMASO 4-65 5-6-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design Sec 4-T4S-R65W - JAMASO 4-65 5-6-7 - ORIGINAL WELLBORE - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
14,000.00	7,754.99	13,756.43	7,935.92	169.02	165.93	95.22	-365.82	-6,432.54	1,990.00	1,657.37	332.63	5.983		
14,100.00	7,754.99	13,856.43	7,935.92	171.63	168.58	95.22	-365.38	-6,532.54	1,990.00	1,652.11	337.90	5.889		
14,200.00	7,754.99	13,956.43	7,935.92	174.25	171.23	95.22	-364.94	-6,632.54	1,990.01	1,646.84	343.17	5.799		
14,300.00	7,754.99	14,056.43	7,935.92	176.87	173.88	95.22	-364.51	-6,732.54	1,990.01	1,641.56	348.44	5.711		
14,400.00	7,754.99	14,156.43	7,935.91	179.49	176.53	95.22	-364.07	-6,832.54	1,990.01	1,636.29	353.72	5.626		
14,500.00	7,754.99	14,256.43	7,935.91	182.11	179.19	95.22	-363.63	-6,932.54	1,990.01	1,631.01	359.00	5.543		
14,600.00	7,754.99	14,356.43	7,935.91	184.74	181.84	95.22	-363.20	-7,032.54	1,990.02	1,625.73	364.29	5.463		
14,700.00	7,754.99	14,456.43	7,935.91	187.37	184.50	95.22	-362.76	-7,132.54	1,990.02	1,620.45	369.57	5.385		
14,800.00	7,754.99	14,556.43	7,935.91	190.00	187.15	95.22	-362.32	-7,232.53	1,990.02	1,615.16	374.86	5.309		
14,900.00	7,754.99	14,656.43	7,935.91	192.63	189.81	95.22	-361.88	-7,332.53	1,990.02	1,609.88	380.15	5.235		
15,000.00	7,754.99	14,756.43	7,935.91	195.26	192.47	95.22	-361.45	-7,432.53	1,990.02	1,604.59	385.44	5.163		
15,100.00	7,754.99	14,856.43	7,935.90	197.89	195.13	95.22	-361.01	-7,532.53	1,990.03	1,599.30	390.73	5.093		
15,200.00	7,754.99	14,956.43	7,935.90	200.53	197.79	95.22	-360.57	-7,632.53	1,990.03	1,594.00	396.03	5.025		
15,300.00	7,754.99	15,056.43	7,935.90	203.17	200.45	95.22	-360.14	-7,732.53	1,990.03	1,588.71	401.32	4.959		
15,400.00	7,754.99	15,156.43	7,935.90	205.81	203.11	95.22	-359.70	-7,832.53	1,990.03	1,583.41	406.62	4.894		
15,500.00	7,754.99	15,256.43	7,935.90	208.45	205.78	95.22	-359.26	-7,932.53	1,990.04	1,578.11	411.92	4.831		
15,600.00	7,754.99	15,356.43	7,935.90	211.09	208.44	95.22	-358.82	-8,032.53	1,990.04	1,572.82	417.22	4.770		
15,700.00	7,754.99	15,456.43	7,935.90	213.74	211.10	95.22	-358.39	-8,132.53	1,990.04	1,567.51	422.53	4.710		
15,800.00	7,754.99	15,556.43	7,935.89	216.38	213.77	95.22	-357.95	-8,232.52	1,990.04	1,562.21	427.83	4.651		
15,900.00	7,754.99	15,656.43	7,935.89	219.03	216.43	95.22	-357.51	-8,332.52	1,990.05	1,556.91	433.14	4.594		
16,000.00	7,754.99	15,756.43	7,935.89	221.67	219.10	95.22	-357.08	-8,432.52	1,990.05	1,551.60	438.44	4.539		
16,100.00	7,754.99	15,856.43	7,935.89	224.32	221.76	95.22	-356.64	-8,532.52	1,990.05	1,546.30	443.75	4.485		
16,200.00	7,754.99	15,956.43	7,935.89	226.97	224.43	95.22	-356.20	-8,632.52	1,990.05	1,540.99	449.06	4.432		
16,300.00	7,754.99	16,056.43	7,935.89	229.62	227.10	95.22	-355.77	-8,732.52	1,990.05	1,535.68	454.37	4.380		
16,400.00	7,754.98	16,156.43	7,935.89	232.27	229.77	95.22	-355.33	-8,832.52	1,990.06	1,530.37	459.69	4.329		
16,500.00	7,754.98	16,256.43	7,935.88	234.93	232.44	95.22	-354.89	-8,932.52	1,990.06	1,525.06	465.00	4.280		
16,600.00	7,754.98	16,356.43	7,935.88	237.58	235.10	95.22	-354.45	-9,032.52	1,990.06	1,519.75	470.31	4.231		
16,700.00	7,754.98	16,456.43	7,935.88	240.23	237.77	95.22	-354.02	-9,132.52	1,990.06	1,514.43	475.63	4.184		
16,800.00	7,754.98	16,556.43	7,935.88	242.89	240.44	95.22	-353.58	-9,232.52	1,990.07	1,509.12	480.95	4.138		
16,900.00	7,754.98	16,656.43	7,935.88	245.55	243.11	95.22	-353.14	-9,332.51	1,990.07	1,503.80	486.26	4.093		
17,000.00	7,754.98	16,756.43	7,935.88	248.20	245.78	95.22	-352.71	-9,432.51	1,990.07	1,498.49	491.58	4.048		
17,100.00	7,754.98	16,856.43	7,935.87	250.86	248.46	95.22	-352.27	-9,532.51	1,990.07	1,493.17	496.90	4.005		
17,200.00	7,754.98	16,956.43	7,935.87	253.52	251.13	95.22	-351.83	-9,632.51	1,990.08	1,487.85	502.22	3.963		
17,300.00	7,754.98	17,056.43	7,935.87	256.18	253.80	95.22	-351.39	-9,732.51	1,990.08	1,482.53	507.54	3.921		
17,400.00	7,754.98	17,156.43	7,935.87	258.84	256.47	95.22	-350.96	-9,832.51	1,990.08	1,477.21	512.87	3.880		
17,500.00	7,754.98	17,256.43	7,935.87	261.50	259.14	95.22	-350.52	-9,932.51	1,990.08	1,471.89	518.19	3.840		
17,600.00	7,754.98	17,356.43	7,935.87	264.16	261.82	95.21	-350.08	-10,032.51	1,990.08	1,466.57	523.51	3.801		
17,700.00	7,754.98	17,456.43	7,935.87	266.82	264.49	95.21	-349.65	-10,132.51	1,990.09	1,461.25	528.84	3.763		
17,800.00	7,754.98	17,556.43	7,935.86	269.49	267.16	95.21	-349.21	-10,232.51	1,990.09	1,455.93	534.16	3.726		
17,900.00	7,754.98	17,656.43	7,935.86	272.15	269.84	95.21	-348.77	-10,332.50	1,990.09	1,450.60	539.49	3.689		
18,000.00	7,754.98	17,756.43	7,935.86	274.81	272.51	95.21	-348.34	-10,432.50	1,990.09	1,445.28	544.81	3.653		
18,100.00	7,754.98	17,856.43	7,935.86	277.48	275.19	95.21	-347.90	-10,532.50	1,990.10	1,439.95	550.14	3.617		
18,200.00	7,754.98	17,956.42	7,935.97	280.14	277.86	95.22	-347.47	-10,632.49	1,990.10	1,434.63	555.47	3.583		
18,210.73	7,754.98	17,967.15	7,936.00	280.43	278.15	95.22	-347.43	-10,643.22	1,990.10	1,434.06	556.04	3.579		
18,210.73	7,755.00	17,967.15	7,936.00	280.43	278.15	95.22	-347.43	-10,643.22	1,989.88	1,433.84	556.04	3.579 SF		

Anticollision Report

Company:	AXIS EXPLORATION	Local Co-ordinate Reference:	Well JAMASO 4-65 5-6-12
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5610.00usft
Reference Site:	Sec 4-T4S-R65W	MD Reference:	KB 25' @ 5610.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	JAMASO 4-65 5-6-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design Sec 4-T4S-R65W - JAMASO 4-65 5-6-8 - ORIGINAL WELLBORE - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	-90.00	0.00	-73.12	73.12					
100.00	100.00	100.00	100.00	0.13	0.13	-90.00	0.00	-73.12	73.12	72.86	0.27	271.987		
200.00	199.98	200.02	199.98	0.48	0.49	81.99	0.00	-73.12	72.86	71.89	0.97	74.747		
300.00	299.84	300.16	299.84	0.84	0.85	86.10	0.00	-73.12	72.32	70.62	1.69	42.739		
361.29	360.93	360.93	360.93	1.07	1.07	90.00	0.00	-73.12	72.15	70.01	2.14	33.688 CC		
400.00	399.45	400.55	399.45	1.22	1.21	92.99	0.00	-73.12	72.25	69.82	2.43	29.728 ES		
500.00	498.70	501.30	498.70	1.62	1.57	102.37	0.00	-73.12	73.90	70.70	3.19	23.159		
600.00	597.47	602.53	597.47	2.05	1.94	113.34	0.00	-73.12	78.77	74.80	3.97	19.847		
700.00	695.62	704.38	695.62	2.51	2.30	124.50	0.00	-73.12	88.18	83.43	4.75	18.557		
800.00	793.06	806.94	793.06	3.00	2.67	134.55	0.00	-73.12	102.77	97.24	5.53	18.593		
900.00	889.64	889.64	889.64	3.54	2.97	142.85	0.00	-73.12	122.56	116.34	6.22	19.703		
1,000.00	985.27	988.65	988.63	4.12	3.31	149.26	-1.27	-73.63	146.22	139.26	6.95	21.029		
1,100.00	1,079.82	1,088.91	1,088.77	4.74	3.64	153.68	-5.79	-75.42	171.56	163.88	7.69	22.323		
1,200.00	1,173.17	1,190.15	1,189.65	5.41	3.98	156.76	-13.65	-78.54	197.96	189.52	8.44	23.467		
1,203.38	1,176.30	1,193.59	1,193.08	5.43	3.99	156.84	-13.97	-78.67	198.87	190.41	8.46	23.504		
1,300.00	1,265.84	1,292.84	1,291.61	6.10	4.34	158.96	-25.00	-83.04	223.57	214.37	9.20	24.293		
1,400.00	1,358.52	1,409.52	1,388.29	6.81	4.77	160.36	-37.74	-88.09	247.61	237.57	10.04	24.673		
1,500.00	1,451.19	1,487.40	1,484.24	7.52	5.06	161.50	-50.40	-93.11	271.75	261.01	10.74	25.310		
1,600.00	1,543.87	1,584.31	1,580.19	8.24	5.43	162.46	-63.06	-98.13	295.97	284.46	11.51	25.712		
1,700.00	1,636.54	1,681.23	1,676.14	8.95	5.81	163.27	-75.72	-103.15	320.25	307.96	12.29	26.060		
1,800.00	1,729.21	1,778.14	1,772.10	9.68	6.20	163.96	-88.38	-108.17	344.59	331.52	13.07	26.365		
1,900.00	1,821.89	1,875.05	1,868.05	10.40	6.59	164.57	-101.04	-113.19	368.97	355.12	13.85	26.633		
2,000.00	1,914.56	1,971.97	1,964.00	11.12	6.98	165.10	-113.70	-118.21	393.38	378.74	14.64	26.871		
2,100.00	2,007.24	2,068.88	2,059.95	11.85	7.37	165.56	-126.36	-123.23	417.83	402.40	15.43	27.082		
2,200.00	2,099.91	2,165.79	2,155.90	12.58	7.77	165.98	-139.02	-128.25	442.29	426.07	16.22	27.272		
2,300.00	2,192.58	2,262.71	2,251.86	13.30	8.17	166.35	-151.68	-133.27	466.78	449.77	17.01	27.443		
2,400.00	2,285.26	2,359.62	2,347.81	14.03	8.57	166.69	-164.34	-138.29	491.28	473.48	17.80	27.597		
2,500.00	2,377.93	2,456.54	2,443.76	14.76	8.98	166.99	-177.01	-143.31	515.79	497.20	18.60	27.738		
2,600.00	2,470.61	2,553.45	2,539.71	15.49	9.38	167.27	-189.67	-148.33	540.32	520.93	19.39	27.866		
2,700.00	2,563.28	2,650.36	2,635.66	16.22	9.79	167.52	-202.33	-153.35	564.86	544.67	20.19	27.983		
2,800.00	2,655.95	2,747.28	2,731.62	16.95	10.20	167.75	-214.99	-158.37	589.41	568.42	20.98	28.091		
2,900.00	2,748.63	2,844.19	2,827.57	17.68	10.61	167.96	-227.65	-163.40	613.96	592.18	21.78	28.191		
3,000.00	2,841.30	2,941.11	2,923.52	18.42	11.02	168.16	-240.31	-168.42	638.53	615.95	22.58	28.283		
3,100.00	2,933.98	3,038.02	3,019.47	19.15	11.43	168.34	-252.97	-173.44	663.10	639.72	23.37	28.368		
3,200.00	3,026.65	3,134.93	3,115.43	19.88	11.84	168.51	-265.63	-178.46	687.67	663.50	24.17	28.447		
3,300.00	3,119.33	3,231.85	3,211.38	20.61	12.25	168.66	-278.29	-183.48	712.25	687.28	24.97	28.521		
3,400.00	3,212.00	3,328.76	3,307.33	21.35	12.66	168.81	-290.95	-188.50	736.84	711.07	25.77	28.590		
3,500.00	3,304.67	3,425.68	3,403.28	22.08	13.07	168.95	-303.62	-193.52	761.43	734.86	26.57	28.654		
3,600.00	3,397.35	3,522.59	3,499.23	22.81	13.49	169.08	-316.28	-198.54	786.02	758.65	27.37	28.714		
3,700.00	3,490.02	3,619.50	3,595.19	23.54	13.90	169.20	-328.94	-203.56	810.62	782.45	28.17	28.771		
3,800.00	3,582.70	3,716.42	3,691.14	24.28	14.31	169.31	-341.60	-208.58	835.22	806.24	28.98	28.825		
3,900.00	3,675.37	3,813.33	3,787.09	25.01	14.73	169.42	-354.26	-213.60	859.82	830.05	29.78	28.875		
4,000.00	3,768.04	3,910.25	3,883.04	25.74	15.14	169.52	-366.92	-218.62	884.43	853.85	30.58	28.922		
4,100.00	3,860.72	4,007.16	3,978.99	26.48	15.56	169.61	-379.58	-223.64	909.04	877.66	31.38	28.967		
4,200.00	3,953.39	4,104.07	4,074.95	27.21	15.97	169.70	-392.24	-228.66	933.65	901.47	32.18	29.010		
4,300.00	4,046.07	4,200.99	4,170.90	27.95	16.39	169.79	-404.90	-233.68	958.26	925.28	32.99	29.050		
4,400.00	4,138.74	4,302.10	4,266.85	28.68	16.82	169.87	-417.56	-238.70	982.88	949.07	33.81	29.075		
4,500.00	4,231.41	4,405.18	4,362.80	29.41	17.27	169.95	-430.23	-243.72	1,007.49	972.86	34.63	29.092		
4,600.00	4,324.09	4,508.27	4,458.75	30.15	17.71	170.02	-442.89	-248.74	1,032.11	996.65	35.46	29.108		
4,700.00	4,416.76	4,588.64	4,554.71	30.88	18.05	170.09	-455.55	-253.76	1,056.73	1,020.53	36.20	29.192		
4,800.00	4,509.44	4,685.56	4,650.66	31.62	18.47	170.16	-468.21	-258.78	1,081.35	1,044.35	37.00	29.223		
4,900.00	4,602.11	4,782.47	4,746.61	32.35	18.89	170.23	-480.87	-263.80	1,105.98	1,068.17	37.81	29.253		

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

Anticollision Report

Company:	AXIS EXPLORATION	Local Co-ordinate Reference:	Well JAMASO 4-65 5-6-12
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5610.00usft
Reference Site:	Sec 4-T4S-R65W	MD Reference:	KB 25' @ 5610.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	JAMASO 4-65 5-6-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design Sec 4-T4S-R65W - JAMASO 4-65 5-6-8 - ORIGINAL WELLBORE - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,000.00	4,694.78	4,879.39	4,842.56	33.08	19.30	170.29	-493.53	-268.83	1,130.60	1,091.99	38.61	29.282		
5,100.00	4,787.46	4,976.30	4,938.52	33.82	19.72	170.35	-506.19	-273.85	1,155.23	1,115.81	39.41	29.309		
5,200.00	4,880.13	5,073.21	5,034.47	34.55	20.14	170.40	-518.85	-278.87	1,179.85	1,139.63	40.22	29.335		
5,300.00	4,972.81	5,170.13	5,130.42	35.29	20.56	170.46	-531.51	-283.89	1,204.48	1,163.45	41.02	29.361		
5,400.00	5,065.48	5,267.04	5,226.37	36.02	20.97	170.51	-544.17	-288.91	1,229.11	1,187.28	41.83	29.385		
5,500.00	5,158.15	5,363.96	5,322.32	36.76	21.39	170.56	-556.83	-293.93	1,253.74	1,211.10	42.63	29.408		
5,600.00	5,250.83	5,460.87	5,418.28	37.49	21.81	170.61	-569.50	-298.95	1,278.37	1,234.93	43.44	29.430		
5,700.00	5,343.50	5,557.78	5,514.23	38.22	22.23	170.65	-582.16	-303.97	1,303.00	1,258.75	44.24	29.451		
5,800.00	5,436.18	5,654.70	5,610.18	38.96	22.64	170.70	-594.82	-308.99	1,327.63	1,282.58	45.05	29.471		
5,900.00	5,528.85	5,751.61	5,706.13	39.69	23.06	170.74	-607.48	-314.01	1,352.26	1,306.41	45.85	29.491		
6,000.00	5,621.53	5,848.52	5,802.08	40.43	23.48	170.78	-620.14	-319.03	1,376.89	1,330.23	46.66	29.510		
6,100.00	5,714.20	5,945.44	5,898.04	41.16	23.90	170.82	-632.80	-324.05	1,401.53	1,354.06	47.46	29.528		
6,200.00	5,806.87	6,042.35	5,993.99	41.90	24.32	170.86	-645.46	-329.07	1,426.16	1,377.89	48.27	29.546		
6,300.00	5,899.55	6,139.27	6,089.94	42.63	24.73	170.90	-658.12	-334.09	1,450.80	1,401.72	49.08	29.563		
6,400.00	5,992.22	6,236.18	6,185.89	43.37	25.15	170.93	-670.78	-339.11	1,475.43	1,425.55	49.88	29.579		
6,490.07	6,075.70	6,323.48	6,272.32	44.03	25.53	170.96	-682.19	-343.63	1,497.62	1,447.01	50.61	29.593		
6,500.00	6,084.90	6,333.10	6,281.85	44.10	25.57	170.98	-683.45	-344.13	1,500.05	1,449.36	50.69	29.594		
6,600.00	6,178.34	6,430.50	6,378.28	44.81	25.99	171.07	-696.17	-349.18	1,522.68	1,471.19	51.49	29.572		
6,700.00	6,272.96	6,528.62	6,475.43	45.47	26.41	171.13	-708.99	-354.26	1,541.93	1,489.65	52.29	29.490		
6,800.00	6,368.65	6,627.35	6,573.18	46.08	26.84	171.16	-721.89	-359.38	1,557.79	1,504.72	53.08	29.350		
6,900.00	6,465.30	6,726.56	6,671.41	46.64	27.27	171.16	-734.85	-364.52	1,570.24	1,516.39	53.86	29.156		
7,000.00	6,562.78	6,826.13	6,769.99	47.15	27.70	171.13	-747.86	-369.67	1,579.26	1,524.63	54.63	28.909		
7,100.00	6,660.98	6,925.95	6,868.82	47.61	28.13	171.07	-760.90	-374.84	1,584.85	1,529.46	55.39	28.613		
7,200.00	6,759.78	7,000.00	6,942.21	48.02	28.45	171.01	-770.00	-378.46	1,587.77	1,531.83	55.94	28.382		
7,300.00	6,859.06	7,062.75	7,004.59	48.39	28.70	170.97	-776.37	-380.98	1,589.36	1,532.99	56.37	28.195		
7,400.00	6,958.69	7,128.65	7,070.24	48.70	28.95	170.93	-781.69	-383.09	1,589.66	1,532.88	56.78	27.996		
7,500.00	7,058.56	7,200.00	7,141.44	48.96	29.22	170.88	-785.86	-384.74	1,588.67	1,531.47	57.20	27.774		
7,593.46	7,152.00	7,256.19	7,197.59	49.15	29.41	0.22	-787.98	-385.58	1,586.54	1,529.10	57.44	27.620		
7,600.00	7,158.54	7,260.51	7,201.90	49.16	29.42	0.22	-788.10	-385.63	1,586.35	1,528.89	57.46	27.608		
7,623.46	7,182.00	7,275.98	7,217.37	49.20	29.47	0.22	-788.48	-385.78	1,585.77	1,528.25	57.52	27.567		
7,650.00	7,208.53	7,300.00	7,241.39	49.24	29.56	90.04	-788.93	-385.96	1,585.27	1,527.61	57.66	27.493		
7,700.00	7,258.32	7,326.35	7,267.73	49.34	29.64	90.19	-789.19	-386.07	1,584.70	1,526.98	57.71	27.458		
7,725.13	7,283.14	7,347.48	7,283.14	49.39	29.70	90.28	-789.25	-386.09	1,584.63	1,526.86	57.77	27.428		
7,750.00	7,307.52	7,366.14	7,307.52	49.45	29.75	90.45	-789.25	-386.09	1,584.66	1,526.78	57.88	27.378		
7,800.00	7,355.76	7,416.19	7,357.54	49.56	29.91	90.86	-789.24	-387.59	1,584.80	1,526.64	58.16	27.250		
7,850.00	7,402.69	7,467.53	7,408.51	49.68	30.08	91.27	-789.22	-393.60	1,585.02	1,526.54	58.48	27.104		
7,900.00	7,447.93	7,520.04	7,459.86	49.80	30.26	91.67	-789.17	-404.44	1,585.32	1,526.47	58.85	26.940		
7,950.00	7,491.15	7,573.75	7,511.15	49.93	30.46	92.07	-789.10	-420.34	1,585.69	1,526.44	59.26	26.759		
8,000.00	7,532.02	7,628.72	7,561.86	50.07	30.68	92.45	-789.01	-441.51	1,586.13	1,526.41	59.72	26.560		
8,050.00	7,570.23	7,684.98	7,611.41	50.20	30.90	92.82	-788.90	-468.10	1,586.61	1,526.37	60.24	26.338		
8,100.00	7,605.48	7,742.54	7,659.16	50.35	31.15	93.18	-788.76	-500.20	1,587.13	1,526.30	60.83	26.092		
8,150.00	7,637.51	7,801.39	7,704.40	50.50	31.41	93.51	-788.60	-537.81	1,587.67	1,526.17	61.50	25.816		
8,200.00	7,666.07	7,861.50	7,746.38	50.66	31.70	93.81	-788.41	-580.79	1,588.20	1,525.93	62.27	25.505		
8,250.00	7,690.95	7,922.80	7,784.31	50.82	32.02	94.08	-788.21	-628.91	1,588.70	1,525.55	63.16	25.155		
8,300.00	7,711.95	7,985.20	7,817.42	51.00	32.39	94.32	-787.98	-681.76	1,589.17	1,524.99	64.17	24.764		
8,350.00	7,728.93	8,048.55	7,844.96	51.19	32.82	94.52	-787.74	-738.78	1,589.56	1,524.24	65.33	24.333		
8,400.00	7,741.74	8,112.70	7,866.26	51.39	33.33	94.67	-787.48	-799.25	1,589.88	1,523.25	66.63	23.860		
8,450.00	7,750.29	8,177.44	7,880.77	51.61	33.91	94.77	-787.21	-862.30	1,590.10	1,522.02	68.08	23.357		
8,500.00	7,754.52	8,242.55	7,888.10	51.85	34.57	94.83	-786.93	-926.97	1,590.22	1,520.58	69.64	22.834		
8,523.52	7,755.00	8,273.25	7,889.00	51.97	34.91	94.83	-786.80	-957.65	1,590.23	1,519.82	70.41	22.586		
8,600.00	7,755.00	8,350.06	7,889.00	52.38	35.84	94.83	-786.47	-1,034.46	1,590.23	1,517.75	72.47	21.942		
8,700.00	7,755.00	8,450.06	7,889.00	53.00	37.19	94.83	-786.04	-1,134.45	1,590.22	1,514.83	75.39	21.093		

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

Anticollision Report

Company:	AXIS EXPLORATION	Local Co-ordinate Reference:	Well JAMASO 4-65 5-6-12
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5610.00usft
Reference Site:	Sec 4-T4S-R65W	MD Reference:	KB 25' @ 5610.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	JAMASO 4-65 5-6-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design Sec 4-T4S-R65W - JAMASO 4-65 5-6-8 - ORIGINAL WELLBORE - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
8,800.00	7,755.00	8,550.06	7,889.00	53.72	38.70	94.83	-785.61	-1,234.45	1,590.22	1,511.65	78.57	20.240		
8,900.00	7,755.00	8,650.05	7,889.00	54.54	40.34	94.83	-785.18	-1,334.45	1,590.21	1,508.24	81.97	19.399		
9,000.00	7,755.00	8,750.05	7,888.99	55.47	42.10	94.83	-784.75	-1,434.44	1,590.21	1,504.63	85.58	18.581		
9,100.00	7,755.00	8,850.05	7,888.99	56.53	43.96	94.83	-784.32	-1,534.44	1,590.20	1,500.84	89.36	17.795		
9,200.00	7,755.00	8,950.04	7,888.99	57.70	45.91	94.83	-783.89	-1,634.44	1,590.20	1,496.89	93.30	17.044		
9,300.00	7,755.00	9,050.04	7,888.99	58.99	47.94	94.83	-783.46	-1,734.43	1,590.19	1,492.82	97.38	16.330		
9,400.00	7,755.00	9,150.04	7,888.99	60.41	50.03	94.83	-783.03	-1,834.43	1,590.19	1,488.62	101.57	15.656		
9,500.00	7,755.00	9,250.04	7,888.99	61.93	52.18	94.83	-782.60	-1,934.43	1,590.18	1,484.31	105.87	15.020		
9,600.00	7,755.00	9,350.03	7,888.99	63.56	54.38	94.83	-782.17	-2,034.42	1,590.18	1,479.92	110.26	14.422		
9,700.00	7,755.00	9,450.03	7,888.99	65.28	56.62	94.83	-781.74	-2,134.42	1,590.17	1,475.44	114.74	13.859		
9,800.00	7,755.00	9,550.03	7,888.99	67.09	58.90	94.83	-781.31	-2,234.41	1,590.17	1,470.88	119.29	13.331		
9,900.00	7,755.00	9,650.03	7,888.98	68.98	61.22	94.83	-780.88	-2,334.41	1,590.17	1,466.27	123.90	12.834		
10,000.00	7,755.00	9,750.02	7,888.98	70.94	63.56	94.83	-780.45	-2,434.41	1,590.16	1,461.59	128.57	12.368		
10,100.00	7,755.00	9,850.02	7,888.98	72.96	65.94	94.83	-780.02	-2,534.40	1,590.16	1,456.86	133.30	11.929		
10,200.00	7,755.00	9,950.02	7,888.98	75.04	68.33	94.83	-779.59	-2,634.40	1,590.16	1,452.09	138.07	11.517		
10,300.00	7,755.00	10,050.01	7,888.98	77.17	70.75	94.83	-779.16	-2,734.40	1,590.15	1,447.27	142.88	11.129		
10,400.00	7,755.00	10,150.01	7,888.98	79.34	73.19	94.83	-778.72	-2,834.39	1,590.15	1,442.42	147.73	10.764		
10,500.00	7,755.00	10,250.01	7,888.98	81.55	75.64	94.83	-778.29	-2,934.39	1,590.15	1,437.53	152.62	10.419		
10,600.00	7,755.00	10,350.01	7,888.98	83.80	78.11	94.83	-777.86	-3,034.39	1,590.14	1,432.61	157.53	10.094		
10,700.00	7,755.00	10,450.00	7,888.98	86.08	80.60	94.83	-777.43	-3,134.38	1,590.14	1,427.67	162.48	9.787		
10,800.00	7,755.00	10,550.00	7,888.98	88.39	83.10	94.83	-776.99	-3,234.38	1,590.14	1,422.69	167.45	9.496		
10,900.00	7,755.00	10,650.00	7,888.98	90.73	85.61	94.83	-776.56	-3,334.37	1,590.14	1,417.70	172.44	9.221		
11,000.00	7,755.00	10,750.00	7,888.98	93.08	88.13	94.83	-776.13	-3,434.37	1,590.14	1,412.68	177.46	8.961		
11,100.00	7,755.00	10,849.99	7,888.98	95.46	90.66	94.83	-775.70	-3,534.37	1,590.13	1,407.64	182.49	8.713		
11,200.00	7,754.99	10,949.99	7,888.97	97.86	93.20	94.83	-775.26	-3,634.36	1,590.13	1,402.59	187.55	8.479		
11,300.00	7,754.99	11,049.99	7,888.97	100.28	95.74	94.83	-774.83	-3,734.36	1,590.13	1,397.51	192.62	8.255		
11,400.00	7,754.99	11,149.98	7,888.97	102.71	98.30	94.83	-774.40	-3,834.36	1,590.13	1,392.43	197.70	8.043		
11,500.00	7,754.99	11,249.98	7,888.97	105.16	100.86	94.83	-773.96	-3,934.35	1,590.13	1,387.33	202.80	7.841		
11,600.00	7,754.99	11,349.98	7,888.97	107.62	103.43	94.83	-773.53	-4,034.35	1,590.13	1,382.21	207.92	7.648		
11,700.00	7,754.99	11,449.98	7,888.97	110.10	106.01	94.83	-773.09	-4,134.35	1,590.13	1,377.09	213.04	7.464		
11,800.00	7,754.99	11,549.97	7,888.97	112.58	108.59	94.83	-772.66	-4,234.34	1,590.13	1,371.95	218.18	7.288		
11,900.00	7,754.99	11,649.97	7,888.97	115.08	111.17	94.83	-772.23	-4,334.34	1,590.13	1,366.80	223.33	7.120		
12,000.00	7,754.99	11,749.97	7,888.97	117.59	113.76	94.83	-771.79	-4,434.33	1,590.13	1,361.64	228.49	6.959		
12,040.04	7,754.99	11,810.00	7,888.97	118.59	115.32	94.83	-771.62	-4,474.37	1,590.13	1,359.05	231.07	6.881		
12,100.00	7,754.99	11,849.97	7,888.97	120.10	116.36	94.83	-771.36	-4,534.33	1,590.13	1,356.47	233.65	6.805		
12,200.00	7,754.99	11,949.96	7,888.97	122.62	118.96	94.83	-770.92	-4,634.33	1,590.13	1,351.30	238.83	6.658		
12,300.00	7,754.99	12,049.96	7,888.97	125.16	121.56	94.83	-770.49	-4,734.32	1,590.13	1,346.11	244.01	6.517		
12,400.00	7,754.99	12,149.96	7,888.97	127.70	124.17	94.83	-770.05	-4,834.32	1,590.13	1,340.92	249.21	6.381		
12,500.00	7,754.99	12,249.95	7,888.97	130.24	126.78	94.83	-769.62	-4,934.32	1,590.13	1,335.73	254.40	6.250		
12,600.00	7,754.99	12,349.95	7,888.97	132.79	129.39	94.83	-769.18	-5,034.31	1,590.13	1,330.52	259.61	6.125		
12,700.00	7,754.99	12,449.95	7,888.97	135.35	132.01	94.83	-768.75	-5,134.31	1,590.13	1,325.31	264.82	6.005		
12,800.00	7,754.99	12,549.95	7,888.97	137.92	134.63	94.83	-768.31	-5,234.30	1,590.13	1,320.09	270.04	5.889		
12,900.00	7,754.99	12,649.94	7,888.97	140.48	137.25	94.83	-767.87	-5,334.30	1,590.13	1,314.87	275.26	5.777		
13,000.00	7,754.99	12,749.94	7,888.97	143.06	139.88	94.83	-767.44	-5,434.30	1,590.14	1,309.64	280.49	5.669		
13,100.00	7,754.99	12,849.94	7,888.97	145.64	142.51	94.83	-767.00	-5,534.29	1,590.14	1,304.41	285.73	5.565		
13,200.00	7,754.99	12,949.94	7,888.97	148.22	145.14	94.83	-766.56	-5,634.29	1,590.14	1,299.17	290.96	5.465		
13,300.00	7,754.99	13,049.93	7,888.97	150.81	147.77	94.83	-766.13	-5,734.29	1,590.14	1,293.93	296.21	5.368		
13,400.00	7,754.99	13,149.93	7,888.97	153.40	150.40	94.83	-765.69	-5,834.28	1,590.14	1,288.69	301.46	5.275		
13,500.00	7,754.99	13,249.93	7,888.97	156.00	153.04	94.83	-765.25	-5,934.28	1,590.15	1,283.44	306.71	5.185		
13,600.00	7,754.99	13,349.92	7,888.97	158.59	155.68	94.83	-764.82	-6,034.28	1,590.15	1,278.19	311.96	5.097		
13,700.00	7,754.99	13,449.92	7,888.97	161.20	158.32	94.83	-764.38	-6,134.27	1,590.15	1,272.93	317.22	5.013		
13,800.00	7,754.99	13,549.92	7,888.97	163.80	160.96	94.83	-763.94	-6,234.27	1,590.15	1,267.67	322.48	4.931		

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

Anticollision Report

Company:	AXIS EXPLORATION	Local Co-ordinate Reference:	Well JAMASO 4-65 5-6-12
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5610.00usft
Reference Site:	Sec 4-T4S-R65W	MD Reference:	KB 25' @ 5610.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	JAMASO 4-65 5-6-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design Sec 4-T4S-R65W - JAMASO 4-65 5-6-8 - ORIGINAL WELLBORE - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
13,900.00	7,754.99	13,649.92	7,888.97	166.41	163.60	94.83	-763.50	-6,334.26	1,590.16	1,262.41	327.75	4.852		
14,000.00	7,754.99	13,749.91	7,888.97	169.02	166.25	94.83	-763.07	-6,434.26	1,590.16	1,257.14	333.02	4.775		
14,100.00	7,754.99	13,849.91	7,888.97	171.63	168.89	94.83	-762.63	-6,534.26	1,590.16	1,251.87	338.29	4.701		
14,200.00	7,754.99	13,949.91	7,888.97	174.25	171.54	94.83	-762.19	-6,634.25	1,590.17	1,246.60	343.56	4.628		
14,300.00	7,754.99	14,049.91	7,888.97	176.87	174.19	94.83	-761.75	-6,734.25	1,590.17	1,241.33	348.84	4.558		
14,400.00	7,754.99	14,149.90	7,888.97	179.49	176.84	94.83	-761.31	-6,834.25	1,590.18	1,236.05	354.12	4.490		
14,500.00	7,754.99	14,249.90	7,888.97	182.11	179.49	94.83	-760.87	-6,934.24	1,590.18	1,230.78	359.40	4.424		
14,600.00	7,754.99	14,349.90	7,888.97	184.74	182.14	94.83	-760.44	-7,034.24	1,590.18	1,225.50	364.69	4.360		
14,700.00	7,754.99	14,449.89	7,888.97	187.37	184.79	94.83	-760.00	-7,134.23	1,590.19	1,220.21	369.98	4.298		
14,800.00	7,754.99	14,549.89	7,888.97	190.00	187.45	94.83	-759.56	-7,234.23	1,590.19	1,214.93	375.27	4.238		
14,900.00	7,754.99	14,649.89	7,888.97	192.63	190.10	94.83	-759.12	-7,334.23	1,590.20	1,209.64	380.56	4.179		
15,000.00	7,754.99	14,749.89	7,888.97	195.26	192.76	94.83	-758.68	-7,434.22	1,590.20	1,204.35	385.85	4.121		
15,100.00	7,754.99	14,849.88	7,888.97	197.89	195.42	94.83	-758.24	-7,534.22	1,590.21	1,199.06	391.15	4.066		
15,200.00	7,754.99	14,949.88	7,888.97	200.53	198.07	94.83	-757.80	-7,634.22	1,590.21	1,193.77	396.44	4.011		
15,300.00	7,754.99	15,049.88	7,888.97	203.17	200.73	94.83	-757.36	-7,734.21	1,590.22	1,188.48	401.74	3.958		
15,400.00	7,754.99	15,149.88	7,888.97	205.81	203.39	94.83	-756.92	-7,834.21	1,590.23	1,183.18	407.04	3.907		
15,500.00	7,754.99	15,249.87	7,888.97	208.45	206.05	94.83	-756.48	-7,934.21	1,590.23	1,177.89	412.35	3.857		
15,600.00	7,754.99	15,349.87	7,888.98	211.09	208.71	94.83	-756.04	-8,034.20	1,590.24	1,172.59	417.65	3.808		
15,700.00	7,754.99	15,449.87	7,888.98	213.74	211.38	94.83	-755.60	-8,134.20	1,590.24	1,167.29	422.96	3.760		
15,800.00	7,754.99	15,549.86	7,888.98	216.38	214.04	94.83	-755.15	-8,234.19	1,590.25	1,161.99	428.26	3.713		
15,900.00	7,754.99	15,649.86	7,888.98	219.03	216.70	94.83	-754.71	-8,334.19	1,590.26	1,156.69	433.57	3.668		
16,000.00	7,754.99	15,749.86	7,888.98	221.67	219.37	94.83	-754.27	-8,434.19	1,590.26	1,151.38	438.88	3.623		
16,100.00	7,754.99	15,849.86	7,888.98	224.32	222.03	94.83	-753.83	-8,534.18	1,590.27	1,146.08	444.19	3.580		
16,200.00	7,754.99	15,949.85	7,888.98	226.97	224.70	94.83	-753.39	-8,634.18	1,590.28	1,140.77	449.50	3.538		
16,300.00	7,754.99	16,049.85	7,888.98	229.62	227.36	94.83	-752.95	-8,734.18	1,590.28	1,135.47	454.82	3.497		
16,400.00	7,754.98	16,149.85	7,888.98	232.27	230.03	94.83	-752.51	-8,834.17	1,590.29	1,130.16	460.13	3.456		
16,500.00	7,754.98	16,249.85	7,888.98	234.93	232.70	94.83	-752.06	-8,934.17	1,590.30	1,124.85	465.45	3.417		
16,600.00	7,754.98	16,349.84	7,888.98	237.58	235.36	94.83	-751.62	-9,034.16	1,590.31	1,119.54	470.77	3.378		
16,700.00	7,754.98	16,449.84	7,888.98	240.23	238.03	94.83	-751.18	-9,134.16	1,590.32	1,114.23	476.08	3.340		
16,800.00	7,754.98	16,549.84	7,888.98	242.89	240.70	94.83	-750.74	-9,234.16	1,590.32	1,108.92	481.40	3.304		
16,900.00	7,754.98	16,649.83	7,888.99	245.55	243.37	94.83	-750.29	-9,334.15	1,590.33	1,103.61	486.72	3.267		
17,000.00	7,754.98	16,749.83	7,888.99	248.20	246.04	94.83	-749.85	-9,434.15	1,590.34	1,098.30	492.04	3.232		
17,100.00	7,754.98	16,849.83	7,888.99	250.86	248.71	94.83	-749.41	-9,534.15	1,590.35	1,092.98	497.37	3.198		
17,200.00	7,754.98	16,949.83	7,888.99	253.52	251.38	94.83	-748.96	-9,634.14	1,590.36	1,087.67	502.69	3.164		
17,300.00	7,754.98	17,049.82	7,888.99	256.18	254.05	94.83	-748.52	-9,734.14	1,590.37	1,082.35	508.01	3.131		
17,400.00	7,754.98	17,149.82	7,888.99	258.84	256.72	94.83	-748.08	-9,834.13	1,590.38	1,077.04	513.34	3.098		
17,500.00	7,754.98	17,249.82	7,888.99	261.50	259.39	94.83	-747.63	-9,934.13	1,590.39	1,071.72	518.66	3.066		
17,600.00	7,754.98	17,349.82	7,888.99	264.16	262.06	94.83	-747.19	-10,034.13	1,590.39	1,066.41	523.99	3.035		
17,700.00	7,754.98	17,449.81	7,888.99	266.82	264.73	94.83	-746.74	-10,134.12	1,590.40	1,061.09	529.32	3.005		
17,800.00	7,754.98	17,549.81	7,889.00	269.49	267.41	94.83	-746.30	-10,234.12	1,590.41	1,055.77	534.64	2.975		
17,900.00	7,754.98	17,649.81	7,889.00	272.15	270.08	94.83	-745.86	-10,334.12	1,590.42	1,050.45	539.97	2.945		
18,000.00	7,754.98	17,749.80	7,889.00	274.81	272.75	94.83	-745.41	-10,434.11	1,590.43	1,045.13	545.30	2.917		
18,100.00	7,754.98	17,849.80	7,889.00	277.48	275.43	94.83	-744.97	-10,534.11	1,590.44	1,039.81	550.63	2.888		
18,200.00	7,754.98	17,949.80	7,889.00	280.14	278.10	94.83	-744.52	-10,634.11	1,590.46	1,034.49	555.96	2.861		
18,210.73	7,754.98	17,960.52	7,889.00	280.43	278.39	94.83	-744.47	-10,644.83	1,590.46	1,033.92	556.53	2.858		
18,210.73	7,755.00	17,960.53	7,889.00	280.43	278.39	94.83	-744.47	-10,644.84	1,590.23	1,033.70	556.53	2.857 SF		

Anticollision Report

Company:	AXIS EXPLORATION	Local Co-ordinate Reference:	Well JAMASO 4-65 5-6-12
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5610.00usft
Reference Site:	Sec 4-T4S-R65W	MD Reference:	KB 25' @ 5610.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	JAMASO 4-65 5-6-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design Sec 4-T4S-R65W - JAMASO 4-65 5-6-9 - ORIGINAL WELLBORE - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	-90.00	0.00	-53.44	53.44					
100.00	100.00	100.00	100.00	0.13	0.13	-90.00	0.00	-53.44	53.44	53.17	0.27	198.760		
200.00	199.98	200.02	199.98	0.48	0.49	82.49	0.00	-53.44	53.18	52.21	0.97	54.558		
300.00	299.84	300.16	299.84	0.84	0.85	88.13	0.00	-53.44	52.75	51.06	1.69	31.177		
323.34	323.11	323.11	323.11	0.93	0.93	90.00	0.00	-53.44	52.72	50.86	1.86	28.305 CC		
400.00	399.45	400.55	399.45	1.22	1.21	97.51	0.00	-53.44	53.19	50.76	2.43	21.885 ES		
500.00	498.70	501.30	498.70	1.62	1.57	109.81	0.00	-53.44	56.10	52.92	3.19	17.598		
600.00	597.47	602.53	597.47	2.05	1.94	123.04	0.00	-53.44	63.18	59.23	3.96	15.973		
700.00	695.62	695.62	695.62	2.51	2.27	135.00	0.00	-53.44	75.40	70.71	4.69	16.083		
800.00	793.06	795.35	795.33	3.00	2.61	144.12	-1.53	-53.87	91.66	86.24	5.42	16.916		
900.00	889.64	895.89	895.74	3.54	2.95	150.26	-6.44	-55.26	109.73	103.59	6.14	17.864		
1,000.00	985.27	997.19	996.66	4.12	3.29	154.48	-14.82	-57.63	128.83	121.95	6.88	18.724		
1,100.00	1,079.82	1,099.25	1,097.96	4.74	3.66	157.45	-26.73	-61.00	148.56	140.92	7.64	19.457		
1,200.00	1,173.17	1,202.09	1,199.53	5.41	4.05	159.58	-42.23	-65.38	168.65	160.24	8.41	20.060		
1,203.38	1,176.30	1,205.59	1,202.97	5.43	4.06	159.64	-42.82	-65.55	169.33	160.90	8.43	20.078		
1,300.00	1,265.84	1,305.37	1,300.88	6.10	4.46	161.08	-61.30	-70.77	187.46	178.27	9.20	20.384		
1,400.00	1,358.52	1,403.75	1,397.14	6.81	4.88	162.08	-80.80	-76.29	205.08	195.09	9.99	20.526		
1,500.00	1,451.19	1,502.12	1,493.41	7.52	5.32	162.92	-100.31	-81.80	222.75	211.96	10.79	20.638		
1,600.00	1,543.87	1,600.50	1,589.68	8.24	5.76	163.64	-119.81	-87.32	240.46	228.86	11.60	20.729		
1,700.00	1,636.54	1,701.12	1,685.95	8.95	6.22	164.26	-139.32	-92.83	258.20	245.78	12.42	20.791		
1,800.00	1,729.21	1,802.74	1,782.21	9.68	6.69	164.81	-158.82	-98.35	275.96	262.72	13.24	20.837		
1,900.00	1,821.89	1,904.36	1,878.48	10.40	7.17	165.28	-178.33	-103.87	293.75	279.68	14.07	20.874		
2,000.00	1,914.56	2,005.99	1,974.75	11.12	7.66	165.70	-197.83	-109.38	311.55	296.65	14.90	20.906		
2,100.00	2,007.24	2,107.61	2,071.01	11.85	8.14	166.08	-217.34	-114.90	329.37	313.64	15.73	20.934		
2,200.00	2,099.91	2,209.23	2,167.28	12.58	8.63	166.42	-236.84	-120.41	347.20	330.63	16.57	20.957		
2,300.00	2,192.58	2,289.15	2,263.55	13.30	9.02	166.72	-256.35	-125.93	365.04	347.72	17.32	21.080		
2,400.00	2,285.26	2,387.53	2,359.82	14.03	9.50	167.00	-275.85	-131.44	382.89	364.75	18.14	21.108		
2,500.00	2,377.93	2,485.90	2,456.08	14.76	9.98	167.25	-295.36	-136.96	400.75	381.79	18.96	21.132		
2,600.00	2,470.61	2,584.28	2,552.35	15.49	10.46	167.48	-314.86	-142.48	418.61	398.83	19.79	21.155		
2,700.00	2,563.28	2,682.66	2,648.62	16.22	10.94	167.69	-334.36	-147.99	436.49	415.87	20.61	21.175		
2,800.00	2,655.95	2,781.04	2,744.88	16.95	11.42	167.88	-353.87	-153.51	454.36	432.92	21.44	21.193		
2,900.00	2,748.63	2,879.42	2,841.15	17.68	11.91	168.06	-373.37	-159.02	472.24	449.98	22.27	21.209		
3,000.00	2,841.30	2,977.79	2,937.42	18.42	12.39	168.23	-392.88	-164.54	490.13	467.03	23.09	21.224		
3,100.00	2,933.98	3,076.17	3,033.69	19.15	12.88	168.38	-412.38	-170.05	508.02	484.10	23.92	21.238		
3,200.00	3,026.65	3,174.55	3,129.95	19.88	13.37	168.53	-431.89	-175.57	525.91	501.16	24.75	21.250		
3,300.00	3,119.33	3,272.93	3,226.22	20.61	13.85	168.66	-451.39	-181.08	543.80	518.23	25.58	21.262		
3,400.00	3,212.00	3,371.31	3,322.49	21.35	14.34	168.79	-470.90	-186.60	561.70	535.30	26.41	21.272		
3,500.00	3,304.67	3,469.68	3,418.76	22.08	14.83	168.91	-490.40	-192.12	579.60	552.37	27.23	21.282		
3,600.00	3,397.35	3,568.06	3,515.02	22.81	15.32	169.02	-509.91	-197.63	597.50	569.44	28.06	21.291		
3,700.00	3,490.02	3,666.44	3,611.29	23.54	15.81	169.13	-529.41	-203.15	615.41	586.52	28.89	21.299		
3,800.00	3,582.70	3,764.82	3,707.56	24.28	16.30	169.22	-548.92	-208.66	633.32	603.59	29.72	21.307		
3,900.00	3,675.37	3,863.20	3,803.82	25.01	16.79	169.32	-568.42	-214.18	651.22	620.67	30.55	21.314		
4,000.00	3,768.04	3,961.57	3,900.09	25.74	17.28	169.41	-587.93	-219.69	669.13	637.75	31.38	21.321		
4,100.00	3,860.72	4,059.95	3,996.36	26.48	17.77	169.49	-607.43	-225.21	687.04	654.83	32.21	21.327		
4,200.00	3,953.39	4,158.33	4,092.63	27.21	18.26	169.57	-626.93	-230.73	704.96	671.91	33.04	21.333		
4,300.00	4,046.07	4,256.71	4,188.89	27.95	18.75	169.65	-646.44	-236.24	722.87	689.00	33.88	21.339		
4,400.00	4,138.74	4,355.09	4,285.16	28.68	19.25	169.72	-665.94	-241.76	740.79	706.08	34.71	21.344		
4,500.00	4,231.41	4,453.46	4,381.43	29.41	19.74	169.79	-685.45	-247.27	758.70	723.16	35.54	21.349		
4,600.00	4,324.09	4,551.84	4,477.69	30.15	20.23	169.85	-704.95	-252.79	776.62	740.25	36.37	21.354		
4,700.00	4,416.76	4,650.22	4,573.96	30.88	20.72	169.91	-724.46	-258.30	794.54	757.34	37.20	21.358		
4,800.00	4,509.44	4,748.60	4,670.23	31.62	21.22	169.97	-743.96	-263.82	812.46	774.42	38.03	21.362		
4,900.00	4,602.11	4,846.98	4,766.50	32.35	21.71	170.03	-763.47	-269.33	830.38	791.51	38.86	21.366		

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

Anticollision Report

Company:	AXIS EXPLORATION	Local Co-ordinate Reference:	Well JAMASO 4-65 5-6-12
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5610.00usft
Reference Site:	Sec 4-T4S-R65W	MD Reference:	KB 25' @ 5610.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	JAMASO 4-65 5-6-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,000.00	4,694.78	4,945.35	4,862.76	33.08	22.20	170.09	-782.97	-274.85	848.30	808.60	39.70	21.370		
5,100.00	4,787.46	5,043.73	4,959.03	33.82	22.69	170.14	-802.48	-280.37	866.22	825.69	40.53	21.373		
5,200.00	4,880.13	5,142.11	5,055.30	34.55	23.19	170.19	-821.98	-285.88	884.14	842.78	41.36	21.377		
5,300.00	4,972.81	5,240.49	5,151.57	35.29	23.68	170.24	-841.49	-291.40	902.06	859.87	42.19	21.380		
5,400.00	5,065.48	5,338.87	5,247.83	36.02	24.17	170.28	-860.99	-296.91	919.99	876.96	43.02	21.383		
5,500.00	5,158.15	5,437.24	5,344.10	36.76	24.67	170.33	-880.50	-302.43	937.91	894.05	43.86	21.386		
5,600.00	5,250.83	5,535.62	5,440.37	37.49	25.16	170.37	-900.00	-307.94	955.83	911.14	44.69	21.388		
5,700.00	5,343.50	5,634.00	5,536.63	38.22	25.65	170.41	-919.50	-313.46	973.76	928.24	45.52	21.391		
5,800.00	5,436.18	5,732.38	5,632.90	38.96	26.15	170.45	-939.01	-318.98	991.68	945.33	46.35	21.393		
5,900.00	5,528.85	5,830.76	5,729.17	39.69	26.64	170.49	-958.51	-324.49	1,009.61	962.42	47.19	21.396		
6,000.00	5,621.53	5,929.13	5,825.44	40.43	27.14	170.53	-978.02	-330.01	1,027.54	979.52	48.02	21.398		
6,100.00	5,714.20	6,027.51	5,921.70	41.16	27.63	170.56	-997.52	-335.52	1,045.46	996.61	48.85	21.400		
6,200.00	5,806.87	6,125.89	6,017.97	41.90	28.12	170.60	-1,017.03	-341.04	1,063.39	1,013.70	49.69	21.402		
6,300.00	5,899.55	6,224.27	6,114.24	42.63	28.62	170.63	-1,036.53	-346.55	1,081.32	1,030.80	50.52	21.404		
6,400.00	5,992.22	6,322.65	6,210.50	43.37	29.11	170.67	-1,056.04	-352.07	1,099.24	1,047.89	51.35	21.406		
6,490.07	6,075.70	6,411.26	6,297.22	44.03	29.56	170.69	-1,073.61	-357.04	1,115.39	1,063.29	52.10	21.407		
6,500.00	6,084.90	6,421.03	6,306.77	44.10	29.61	170.70	-1,075.54	-357.59	1,117.16	1,064.97	52.19	21.407		
6,600.00	6,178.34	6,519.75	6,403.38	44.81	30.10	170.77	-1,095.12	-363.12	1,133.05	1,080.03	53.02	21.372		
6,700.00	6,272.96	6,618.96	6,500.46	45.47	30.60	170.79	-1,114.79	-368.68	1,145.53	1,091.69	53.84	21.277		
6,800.00	6,368.65	6,708.20	6,587.82	46.08	31.05	170.79	-1,132.36	-373.65	1,154.75	1,100.17	54.58	21.156		
6,900.00	6,465.30	6,779.94	6,658.32	46.64	31.39	170.78	-1,145.11	-377.26	1,162.47	1,107.31	55.16	21.073		
7,000.00	6,562.78	6,851.61	6,729.06	47.15	31.71	170.78	-1,156.14	-380.38	1,169.16	1,113.46	55.70	20.991		
7,100.00	6,660.98	6,923.23	6,800.02	47.61	32.02	170.77	-1,165.46	-383.01	1,174.82	1,118.63	56.18	20.910		
7,200.00	6,759.78	7,000.00	6,876.33	48.02	32.32	170.77	-1,173.56	-385.30	1,179.45	1,122.78	56.67	20.811		
7,300.00	6,859.06	7,066.32	6,942.41	48.39	32.56	170.77	-1,178.96	-386.83	1,183.01	1,126.01	57.01	20.752		
7,400.00	6,958.69	7,137.82	7,013.78	48.70	32.81	170.77	-1,183.14	-388.01	1,185.55	1,128.21	57.34	20.675		
7,500.00	7,058.56	7,209.30	7,085.21	48.96	33.04	170.77	-1,185.60	-388.71	1,187.05	1,129.42	57.63	20.598		
7,593.46	7,152.00	7,276.10	7,152.00	49.15	33.22	0.14	-1,186.35	-388.92	1,187.50	1,129.67	57.83	20.534		
7,600.00	7,158.54	7,282.64	7,158.54	49.16	33.24	0.14	-1,186.35	-388.92	1,187.50	1,129.64	57.87	20.521		
7,623.46	7,182.00	7,306.10	7,182.00	49.20	33.29	0.14	-1,186.35	-388.92	1,187.50	1,129.51	58.00	20.475		
7,625.14	7,183.68	7,307.78	7,183.68	49.20	33.30	89.89	-1,186.35	-388.92	1,187.50	1,129.50	58.01	20.471		
7,650.00	7,208.53	7,332.54	7,208.43	49.24	33.36	89.89	-1,186.35	-389.53	1,187.50	1,129.35	58.15	20.420		
7,700.00	7,258.32	7,382.34	7,258.01	49.34	33.51	89.89	-1,186.33	-393.98	1,187.50	1,129.04	58.47	20.311		
7,750.00	7,307.52	7,432.14	7,307.02	49.45	33.66	89.89	-1,186.29	-402.73	1,187.50	1,128.70	58.80	20.194		
7,800.00	7,355.76	7,481.94	7,355.09	49.56	33.82	89.89	-1,186.23	-415.69	1,187.50	1,128.34	59.16	20.072		
7,850.00	7,402.69	7,531.75	7,401.86	49.68	33.99	89.90	-1,186.16	-432.78	1,187.50	1,127.96	59.54	19.944		
7,900.00	7,447.93	7,581.57	7,446.98	49.80	34.17	89.90	-1,186.07	-453.87	1,187.51	1,127.56	59.95	19.809		
7,950.00	7,491.15	7,631.39	7,490.10	49.93	34.35	89.91	-1,185.96	-478.80	1,187.51	1,127.12	60.38	19.666		
8,000.00	7,532.02	7,681.23	7,530.90	50.07	34.54	89.91	-1,185.83	-507.39	1,187.51	1,126.65	60.85	19.514		
8,050.00	7,570.23	7,731.07	7,569.07	50.20	34.74	89.92	-1,185.69	-539.42	1,187.51	1,126.14	61.37	19.350		
8,100.00	7,605.48	7,780.93	7,604.32	50.35	34.94	89.93	-1,185.54	-574.65	1,187.51	1,125.57	61.94	19.172		
8,150.00	7,637.51	7,830.80	7,636.38	50.50	35.16	89.93	-1,185.37	-612.83	1,187.51	1,124.94	62.57	18.979		
8,200.00	7,666.07	7,880.68	7,665.02	50.66	35.40	89.94	-1,185.19	-653.66	1,187.51	1,124.23	63.28	18.767		
8,250.00	7,690.95	7,930.58	7,690.00	50.82	35.66	89.95	-1,185.00	-696.83	1,187.51	1,123.45	64.06	18.537		
8,300.00	7,711.95	7,980.49	7,711.13	51.00	35.94	89.96	-1,184.81	-742.03	1,187.51	1,122.57	64.94	18.287		
8,350.00	7,728.93	8,030.42	7,728.26	51.19	36.25	89.97	-1,184.60	-788.92	1,187.51	1,121.61	65.90	18.019		
8,400.00	7,741.74	8,080.37	7,741.25	51.39	36.59	89.98	-1,184.39	-837.13	1,187.51	1,120.56	66.96	17.736		
8,450.00	7,750.29	8,130.34	7,749.99	51.61	36.97	89.99	-1,184.18	-886.30	1,187.51	1,119.42	68.09	17.439		
8,500.00	7,754.52	8,180.32	7,754.42	51.85	37.39	90.00	-1,183.96	-936.07	1,187.52	1,118.21	69.31	17.134		
8,523.52	7,755.00	8,208.50	7,755.00	51.97	37.65	90.00	-1,183.86	-959.59	1,187.52	1,117.56	69.96	16.974		
8,600.00	7,755.00	8,280.32	7,755.00	52.38	38.36	90.00	-1,183.52	-1,036.06	1,187.52	1,115.57	71.95	16.505		
8,700.00	7,755.00	8,380.32	7,755.00	53.00	39.51	90.00	-1,183.08	-1,136.06	1,187.52	1,112.64	74.88	15.859		

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

Anticollision Report

Company:	AXIS EXPLORATION	Local Co-ordinate Reference:	Well JAMASO 4-65 5-6-12
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5610.00usft
Reference Site:	Sec 4-T4S-R65W	MD Reference:	KB 25' @ 5610.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	JAMASO 4-65 5-6-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design Sec 4-T4S-R65W - JAMASO 4-65 5-6-9 - ORIGINAL WELLBORE - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
8,800.00	7,755.00	8,480.32	7,755.00	53.72	40.82	90.00	-1,182.65	-1,236.06	1,187.52	1,109.46	78.07	15.212		
8,900.00	7,755.00	8,580.32	7,755.00	54.54	42.29	90.00	-1,182.21	-1,336.06	1,187.52	1,106.04	81.49	14.573		
9,000.00	7,755.00	8,680.32	7,755.00	55.47	43.90	90.00	-1,181.77	-1,436.06	1,187.53	1,102.41	85.11	13.952		
9,100.00	7,755.00	8,780.32	7,755.00	56.53	45.63	90.00	-1,181.34	-1,536.06	1,187.53	1,098.61	88.92	13.356		
9,200.00	7,755.00	8,880.32	7,755.00	57.70	47.47	90.00	-1,180.90	-1,636.06	1,187.53	1,094.66	92.88	12.786		
9,300.00	7,755.00	8,980.32	7,755.00	58.99	49.39	90.00	-1,180.46	-1,736.06	1,187.53	1,090.56	96.97	12.246		
9,400.00	7,755.00	9,080.32	7,755.00	60.41	51.40	90.00	-1,180.02	-1,836.05	1,187.54	1,086.34	101.19	11.735		
9,500.00	7,755.00	9,180.32	7,755.00	61.93	53.47	90.00	-1,179.59	-1,936.05	1,187.54	1,082.02	105.52	11.254		
9,600.00	7,755.00	9,280.32	7,754.99	63.56	55.60	90.00	-1,179.15	-2,036.05	1,187.54	1,077.61	109.94	10.802		
9,700.00	7,755.00	9,380.32	7,754.99	65.28	57.79	90.00	-1,178.71	-2,136.05	1,187.54	1,073.11	114.44	10.377		
9,800.00	7,755.00	9,480.32	7,754.99	67.09	60.02	90.00	-1,178.28	-2,236.05	1,187.55	1,068.54	119.01	9.978		
9,900.00	7,755.00	9,580.32	7,754.99	68.98	62.29	90.00	-1,177.84	-2,336.05	1,187.55	1,063.90	123.65	9.604		
10,000.00	7,755.00	9,680.32	7,754.99	70.94	64.59	90.00	-1,177.40	-2,436.05	1,187.55	1,059.20	128.35	9.252		
10,100.00	7,755.00	9,780.32	7,754.99	72.96	66.93	90.00	-1,176.97	-2,536.05	1,187.55	1,054.45	133.10	8.922		
10,200.00	7,755.00	9,880.32	7,754.99	75.04	69.29	90.00	-1,176.53	-2,636.05	1,187.56	1,049.66	137.90	8.612		
10,300.00	7,755.00	9,980.32	7,754.99	77.17	71.68	90.00	-1,176.09	-2,736.05	1,187.56	1,044.82	142.74	8.320		
10,400.00	7,755.00	10,080.32	7,754.99	79.34	74.09	90.00	-1,175.65	-2,836.04	1,187.56	1,039.95	147.61	8.045		
10,500.00	7,755.00	10,180.32	7,754.99	81.55	76.52	90.00	-1,175.22	-2,936.04	1,187.56	1,035.04	152.52	7.786		
10,600.00	7,755.00	10,280.32	7,754.99	83.80	78.97	90.00	-1,174.78	-3,036.04	1,187.57	1,030.10	157.47	7.542		
10,700.00	7,755.00	10,380.32	7,754.99	86.08	81.43	90.00	-1,174.34	-3,136.04	1,187.57	1,025.13	162.44	7.311		
10,800.00	7,755.00	10,480.32	7,754.99	88.39	83.91	90.00	-1,173.91	-3,236.04	1,187.57	1,020.14	167.43	7.093		
10,900.00	7,755.00	10,580.32	7,754.99	90.73	86.40	90.00	-1,173.47	-3,336.04	1,187.57	1,015.12	172.45	6.886		
11,000.00	7,755.00	10,680.32	7,754.99	93.08	88.91	90.00	-1,173.03	-3,436.04	1,187.58	1,010.08	177.50	6.691		
11,100.00	7,755.00	10,780.32	7,754.99	95.46	91.42	90.00	-1,172.59	-3,536.04	1,187.58	1,005.02	182.56	6.505		
11,200.00	7,754.99	10,880.32	7,754.99	97.86	93.95	90.00	-1,172.16	-3,636.04	1,187.58	999.95	187.64	6.329		
11,300.00	7,754.99	10,980.32	7,754.99	100.28	96.48	90.00	-1,171.72	-3,736.04	1,187.58	994.85	192.73	6.162		
11,400.00	7,754.99	11,080.32	7,754.99	102.71	99.02	90.00	-1,171.28	-3,836.04	1,187.59	989.74	197.84	6.003		
11,500.00	7,754.99	11,180.32	7,754.99	105.16	101.58	90.00	-1,170.85	-3,936.03	1,187.59	984.62	202.97	5.851		
11,600.00	7,754.99	11,280.32	7,754.99	107.62	104.14	90.00	-1,170.41	-4,036.03	1,187.59	979.48	208.11	5.707		
11,700.00	7,754.99	11,380.32	7,754.98	110.10	106.70	90.00	-1,169.97	-4,136.03	1,187.59	974.34	213.26	5.569		
11,800.00	7,754.99	11,480.32	7,754.98	112.58	109.27	90.00	-1,169.54	-4,236.03	1,187.60	969.18	218.42	5.437		
11,900.00	7,754.99	11,580.32	7,754.98	115.08	111.85	90.00	-1,169.10	-4,336.03	1,187.60	964.01	223.59	5.311		
12,000.00	7,754.99	11,680.32	7,754.98	117.59	114.43	90.00	-1,168.66	-4,436.03	1,187.60	958.83	228.77	5.191		
12,100.00	7,754.99	11,780.32	7,754.98	120.10	117.02	90.00	-1,168.22	-4,536.03	1,187.60	953.64	233.97	5.076		
12,200.00	7,754.99	11,880.32	7,754.98	122.62	119.62	90.00	-1,167.79	-4,636.03	1,187.60	948.44	239.17	4.966		
12,300.00	7,754.99	11,980.32	7,754.98	125.16	122.21	90.00	-1,167.35	-4,736.03	1,187.61	943.23	244.37	4.860		
12,400.00	7,754.99	12,080.32	7,754.98	127.70	124.82	90.00	-1,166.91	-4,836.03	1,187.61	938.02	249.59	4.758		
12,500.00	7,754.99	12,180.32	7,754.98	130.24	127.42	90.00	-1,166.48	-4,936.02	1,187.61	932.80	254.81	4.661		
12,600.00	7,754.99	12,280.32	7,754.98	132.79	130.03	90.00	-1,166.04	-5,036.02	1,187.61	927.57	260.04	4.567		
12,700.00	7,754.99	12,380.32	7,754.98	135.35	132.64	90.00	-1,165.60	-5,136.02	1,187.62	922.34	265.28	4.477		
12,800.00	7,754.99	12,480.32	7,754.98	137.92	135.26	90.00	-1,165.17	-5,236.02	1,187.62	917.10	270.52	4.390		
12,900.00	7,754.99	12,580.32	7,754.98	140.48	137.88	90.00	-1,164.73	-5,336.02	1,187.62	911.85	275.77	4.307		
13,000.00	7,754.99	12,680.32	7,754.98	143.06	140.50	90.00	-1,164.29	-5,436.02	1,187.62	906.60	281.02	4.226		
13,100.00	7,754.99	12,780.32	7,754.98	145.64	143.12	90.00	-1,163.85	-5,536.02	1,187.63	901.35	286.28	4.148		
13,200.00	7,754.99	12,880.32	7,754.98	148.22	145.75	90.00	-1,163.42	-5,636.02	1,187.63	896.09	291.54	4.074		
13,300.00	7,754.99	12,980.32	7,754.98	150.81	148.38	90.00	-1,162.98	-5,736.02	1,187.63	890.82	296.81	4.001		
13,400.00	7,754.99	13,080.32	7,754.98	153.40	151.01	90.00	-1,162.54	-5,836.02	1,187.63	885.55	302.08	3.932		
13,500.00	7,754.99	13,180.32	7,754.98	156.00	153.65	90.00	-1,162.11	-5,936.02	1,187.64	880.28	307.35	3.864		
13,600.00	7,754.99	13,280.32	7,754.98	158.59	156.28	90.00	-1,161.67	-6,036.01	1,187.64	875.00	312.63	3.799		
13,700.00	7,754.99	13,380.32	7,754.98	161.20	158.92	90.00	-1,161.23	-6,136.01	1,187.64	869.72	317.92	3.736		
13,800.00	7,754.99	13,480.32	7,754.97	163.80	161.56	90.00	-1,160.79	-6,236.01	1,187.64	864.44	323.20	3.675		
13,900.00	7,754.99	13,580.32	7,754.97	166.41	164.20	90.00	-1,160.36	-6,336.01	1,187.65	859.15	328.49	3.615		

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

Anticollision Report

Company:	AXIS EXPLORATION	Local Co-ordinate Reference:	Well JAMASO 4-65 5-6-12
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5610.00usft
Reference Site:	Sec 4-T4S-R65W	MD Reference:	KB 25' @ 5610.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	JAMASO 4-65 5-6-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
14,000.00	7,754.99	13,680.32	7,754.97	169.02	166.84	90.00	-1,159.92	-6,436.01	1,187.65	853.86	333.78	3.558		
14,100.00	7,754.99	13,780.32	7,754.97	171.63	169.49	90.00	-1,159.48	-6,536.01	1,187.65	848.57	339.08	3.503		
14,200.00	7,754.99	13,880.32	7,754.97	174.25	172.14	90.00	-1,159.05	-6,636.01	1,187.65	843.28	344.38	3.449		
14,300.00	7,754.99	13,980.32	7,754.97	176.87	174.78	90.00	-1,158.61	-6,736.01	1,187.66	837.98	349.68	3.396		
14,400.00	7,754.99	14,080.32	7,754.97	179.49	177.43	90.00	-1,158.17	-6,836.01	1,187.66	832.68	354.98	3.346		
14,500.00	7,754.99	14,180.32	7,754.97	182.11	180.08	90.00	-1,157.74	-6,936.01	1,187.66	827.37	360.29	3.296		
14,600.00	7,754.99	14,280.32	7,754.97	184.74	182.74	90.00	-1,157.30	-7,036.00	1,187.66	822.07	365.60	3.249		
14,700.00	7,754.99	14,380.32	7,754.97	187.37	185.39	90.00	-1,156.86	-7,136.00	1,187.67	816.76	370.91	3.202		
14,800.00	7,754.99	14,480.32	7,754.97	190.00	188.04	90.00	-1,156.42	-7,236.00	1,187.67	811.45	376.22	3.157		
14,900.00	7,754.99	14,580.32	7,754.97	192.63	190.70	90.00	-1,155.99	-7,336.00	1,187.67	806.14	381.53	3.113		
15,000.00	7,754.99	14,680.32	7,754.97	195.26	193.35	90.00	-1,155.55	-7,436.00	1,187.67	800.82	386.85	3.070		
15,100.00	7,754.99	14,780.32	7,754.97	197.89	196.01	90.00	-1,155.11	-7,536.00	1,187.68	795.51	392.17	3.028		
15,200.00	7,754.99	14,880.32	7,754.97	200.53	198.67	90.00	-1,154.68	-7,636.00	1,187.68	790.19	397.49	2.988		
15,300.00	7,754.99	14,980.32	7,754.97	203.17	201.33	90.00	-1,154.24	-7,736.00	1,187.68	784.87	402.81	2.948		
15,400.00	7,754.99	15,080.32	7,754.97	205.81	203.99	90.00	-1,153.80	-7,836.00	1,187.68	779.55	408.13	2.910		
15,500.00	7,754.99	15,180.32	7,754.97	208.45	206.65	90.00	-1,153.37	-7,936.00	1,187.68	774.22	413.46	2.873		
15,600.00	7,754.99	15,280.32	7,754.97	211.09	209.31	90.00	-1,152.93	-8,036.00	1,187.69	768.90	418.79	2.836		
15,700.00	7,754.99	15,380.32	7,754.97	213.74	211.97	90.00	-1,152.49	-8,135.99	1,187.69	763.57	424.12	2.800		
15,800.00	7,754.99	15,480.32	7,754.97	216.38	214.64	90.00	-1,152.05	-8,235.99	1,187.69	758.25	429.45	2.766		
15,900.00	7,754.99	15,580.32	7,754.96	219.03	217.30	90.00	-1,151.62	-8,335.99	1,187.69	752.92	434.78	2.732		
16,000.00	7,754.99	15,680.32	7,754.96	221.67	219.97	90.00	-1,151.18	-8,435.99	1,187.70	747.59	440.11	2.699		
16,100.00	7,754.99	15,780.32	7,754.96	224.32	222.63	90.00	-1,150.74	-8,535.99	1,187.70	742.26	445.44	2.666		
16,200.00	7,754.99	15,880.32	7,754.96	226.97	225.30	90.00	-1,150.31	-8,635.99	1,187.70	736.92	450.78	2.635		
16,300.00	7,754.99	15,980.32	7,754.96	229.62	227.97	90.00	-1,149.87	-8,735.99	1,187.70	731.59	456.12	2.604		
16,400.00	7,754.98	16,080.32	7,754.96	232.27	230.63	90.00	-1,149.43	-8,835.99	1,187.71	726.25	461.45	2.574		
16,500.00	7,754.98	16,180.32	7,754.96	234.93	233.30	90.00	-1,148.99	-8,935.99	1,187.71	720.92	466.79	2.544		
16,600.00	7,754.98	16,280.32	7,754.96	237.58	235.97	90.00	-1,148.56	-9,035.99	1,187.71	715.58	472.13	2.516		
16,700.00	7,754.98	16,380.32	7,754.96	240.23	238.64	90.00	-1,148.12	-9,135.98	1,187.71	710.24	477.47	2.488		
16,800.00	7,754.98	16,480.32	7,754.96	242.89	241.31	90.00	-1,147.68	-9,235.98	1,187.72	704.90	482.81	2.460		
16,900.00	7,754.98	16,580.32	7,754.96	245.55	243.98	90.00	-1,147.25	-9,335.98	1,187.72	699.56	488.16	2.433		
17,000.00	7,754.98	16,680.32	7,754.96	248.20	246.65	90.00	-1,146.81	-9,435.98	1,187.72	694.22	493.50	2.407		
17,100.00	7,754.98	16,780.32	7,754.96	250.86	249.32	90.00	-1,146.37	-9,535.98	1,187.72	688.88	498.85	2.381		
17,200.00	7,754.98	16,880.32	7,754.96	253.52	251.99	90.00	-1,145.94	-9,635.98	1,187.73	683.53	504.19	2.356		
17,300.00	7,754.98	16,980.32	7,754.96	256.18	254.66	90.00	-1,145.50	-9,735.98	1,187.73	678.19	509.54	2.331		
17,400.00	7,754.98	17,080.32	7,754.96	258.84	257.34	90.00	-1,145.06	-9,835.98	1,187.73	672.85	514.88	2.307		
17,500.00	7,754.98	17,180.32	7,754.96	261.50	260.01	90.00	-1,144.62	-9,935.98	1,187.73	667.50	520.23	2.283		
17,600.00	7,754.98	17,280.32	7,754.96	264.16	262.68	90.00	-1,144.19	-10,035.98	1,187.74	662.15	525.58	2.260		
17,700.00	7,754.98	17,380.32	7,754.96	266.82	265.36	90.00	-1,143.75	-10,135.98	1,187.74	656.81	530.93	2.237		
17,800.00	7,754.98	17,480.32	7,754.96	269.49	268.03	90.00	-1,143.31	-10,235.97	1,187.74	651.46	536.28	2.215		
17,900.00	7,754.98	17,580.32	7,754.95	272.15	270.71	90.00	-1,142.88	-10,335.97	1,187.74	646.11	541.63	2.193		
18,000.00	7,754.98	17,680.32	7,754.95	274.81	273.38	90.00	-1,142.44	-10,435.97	1,187.75	640.76	546.98	2.171		
18,100.00	7,754.98	17,780.32	7,754.95	277.48	276.06	90.00	-1,142.00	-10,535.97	1,187.75	635.41	552.34	2.150		
18,200.00	7,754.98	17,880.31	7,755.00	280.14	278.73	90.00	-1,141.56	-10,635.97	1,187.75	630.06	557.69	2.130		
18,210.73	7,754.98	17,891.04	7,755.00	280.43	279.02	90.00	-1,141.52	-10,646.70	1,187.75	629.49	558.26	2.128		
18,210.73	7,755.00	17,891.05	7,755.00	280.43	279.02	90.00	-1,141.52	-10,646.70	1,187.53	629.26	558.26	2.127 SF		

Anticollision Report

Company:	AXIS EXPLORATION	Local Co-ordinate Reference:	Well JAMASO 4-65 5-6-12
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5610.00usft
Reference Site:	Sec 4-T4S-R65W	MD Reference:	KB 25' @ 5610.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	JAMASO 4-65 5-6-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KB 25' @ 5610.00usft

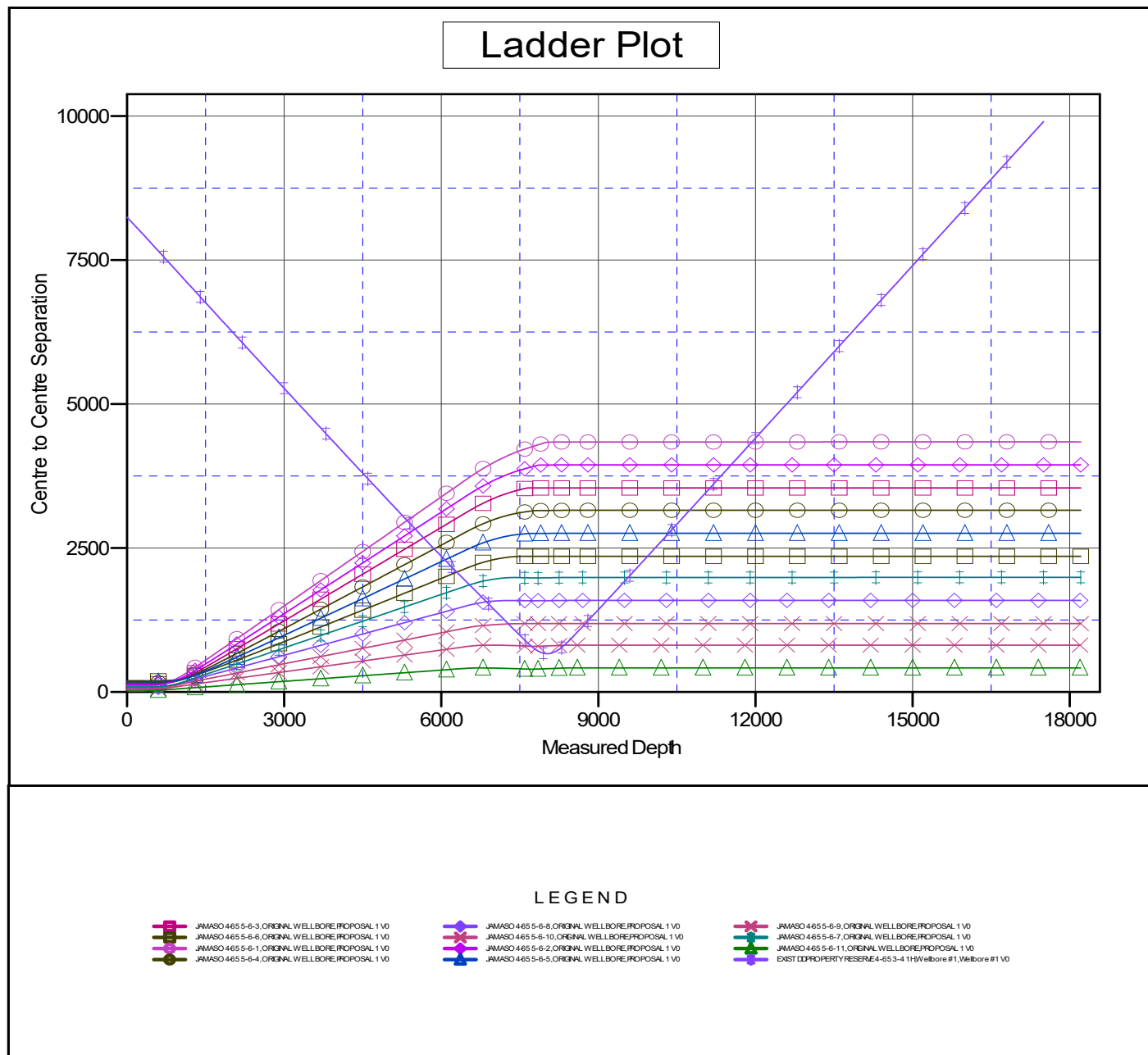
Offset Depths are relative to Offset Datum

Central Meridian is 105° 30' 0.000 W

Coordinates are relative to: JAMASO 4-65 5-6-12

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.53°



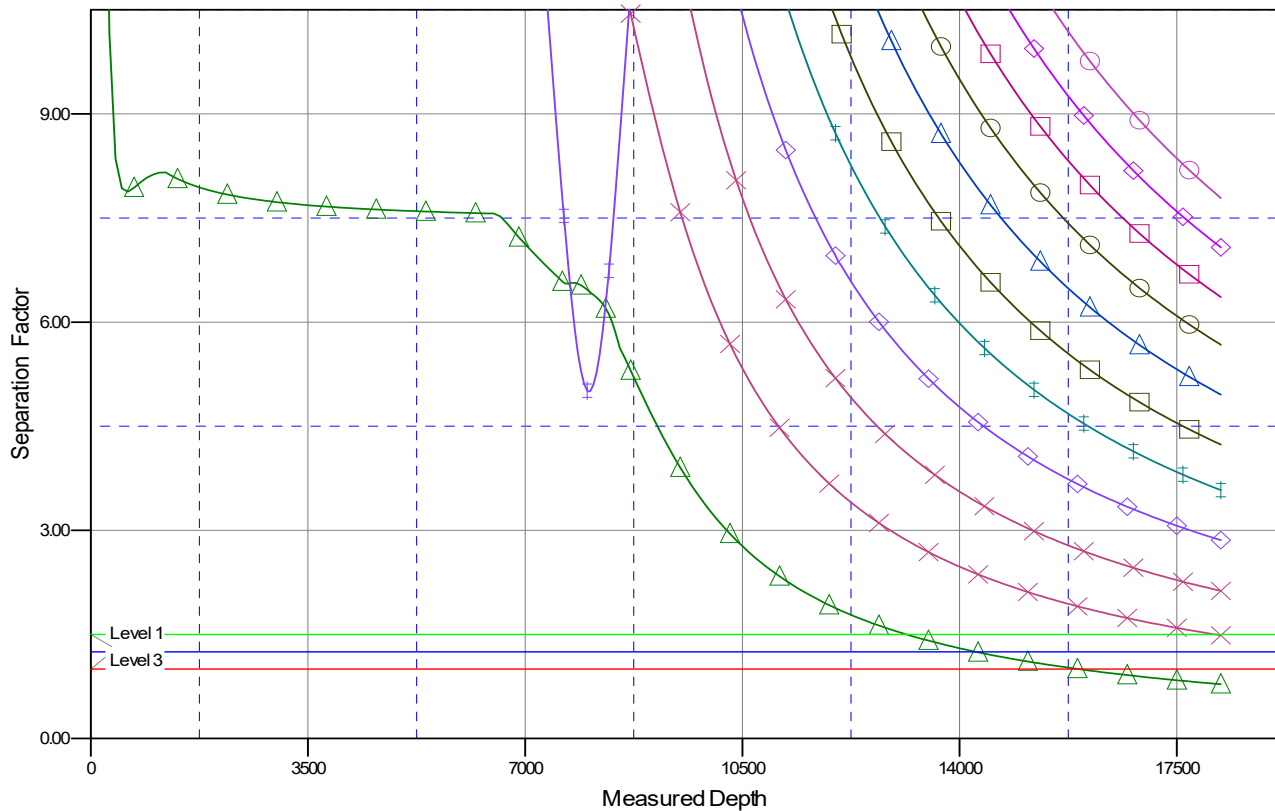
Anticollision Report

Company:	AXIS EXPLORATION	Local Co-ordinate Reference:	Well JAMASO 4-65 5-6-12
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5610.00usft
Reference Site:	Sec 4-T4S-R65W	MD Reference:	KB 25' @ 5610.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	JAMASO 4-65 5-6-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KB 25' @ 5610.00usft
 Offset Depths are relative to Offset Datum
 Central Meridian is 105° 30' 0.000 W

Coordinates are relative to: JAMASO 4-65 5-6-12
 Coordinate System is US State Plane 1983, Colorado Northern Zone
 Grid Convergence at Surface is: 0.53°

Separation Factor Plot



LEGEND

JAMASO 4-65 5-6-3, ORIGINAL WELLBORE, PROPOSAL 1 V0	JAMASO 4-65 5-6-8, ORIGINAL WELLBORE, PROPOSAL 1 V0	JAMASO 4-65 5-6-9, ORIGINAL WELLBORE, PROPOSAL 1 V0
JAMASO 4-65 5-6-6, ORIGINAL WELLBORE, PROPOSAL 1 V0	JAMASO 4-65 5-6-10, ORIGINAL WELLBORE, PROPOSAL 1 V0	JAMASO 4-65 5-6-7, ORIGINAL WELLBORE, PROPOSAL 1 V0
JAMASO 4-65 5-6-1, ORIGINAL WELLBORE, PROPOSAL 1 V0	JAMASO 4-65 5-6-2, ORIGINAL WELLBORE, PROPOSAL 1 V0	JAMASO 4-65 5-6-11, ORIGINAL WELLBORE, PROPOSAL 1 V0
JAMASO 4-65 5-6-4, ORIGINAL WELLBORE, PROPOSAL 1 V0	JAMASO 4-65 5-6-5, ORIGINAL WELLBORE, PROPOSAL 1 V0	EXIST CO-PROPERTY RESERVE 4-65 3-4 11 Wellbore #1, Wellbore #1 V0