

AXIS EXPLORATION

ARAPAHOE COUNTY

Sec 4-T4S-R65W

JAMASO 4-65 5-6-11

ORIGINAL WELLBORE

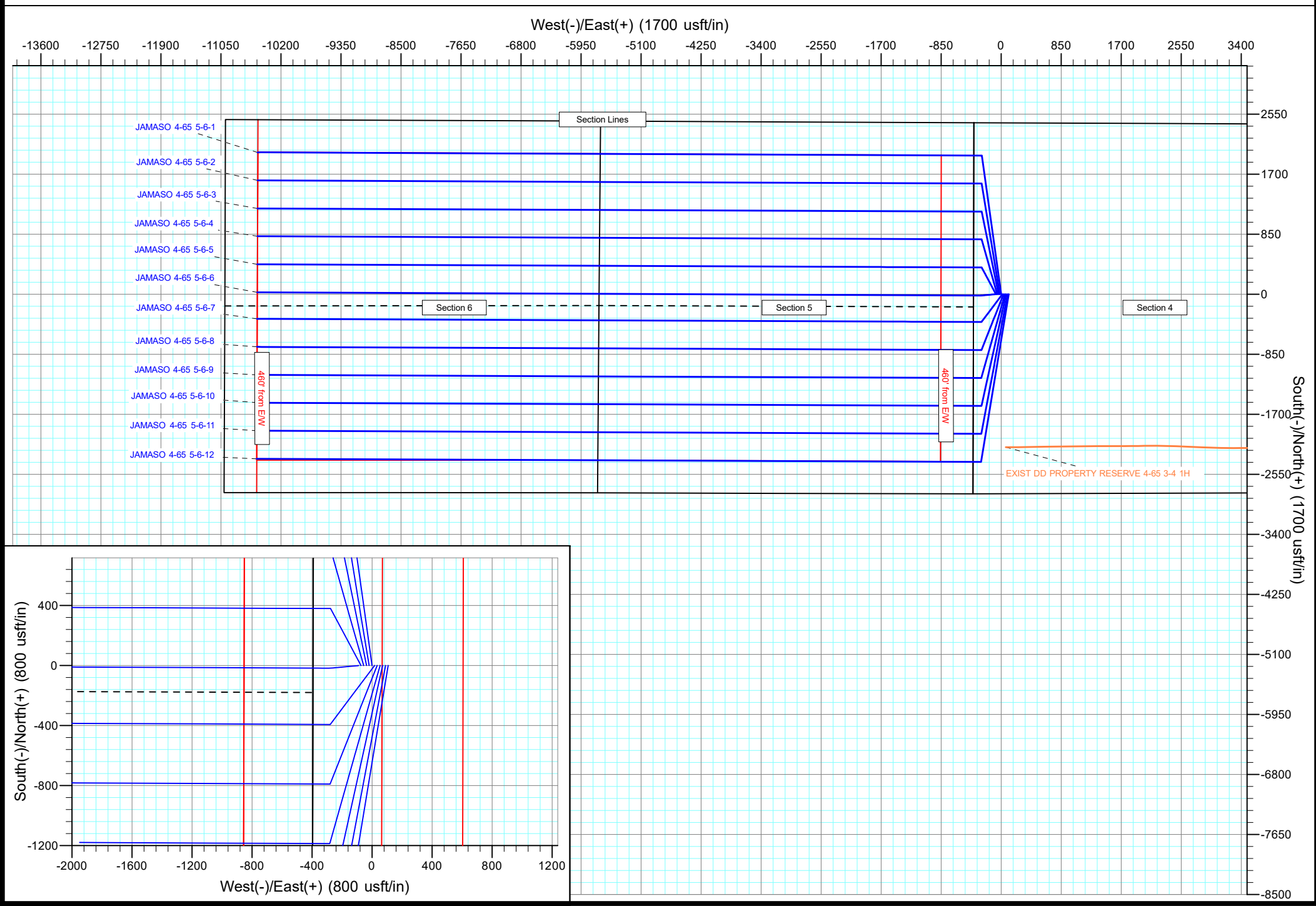
PROPOSAL 1

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 5-6-11
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 5-6-11	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	18,212.39	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	7,973.08	16,985.00	579.40	448.47	4.425	CC, ES, SF
JAMASO 4-65 5-6-1 - ORIGINAL WELLBORE - PROPO	200.00	200.00	90.00	89.01	91.296	CC
JAMASO 4-65 5-6-1 - ORIGINAL WELLBORE - PROPO	300.00	299.53	90.26	88.55	53.065	ES
JAMASO 4-65 5-6-1 - ORIGINAL WELLBORE - PROPO	18,212.39	18,239.20	3,941.68	3,383.97	7.068	SF
JAMASO 4-65 5-6-10 - ORIGINAL WELLBORE - PROPO	444.46	444.40	19.35	16.63	7.127	CC
JAMASO 4-65 5-6-10 - ORIGINAL WELLBORE - PROPO	18,212.39	18,152.96	399.83	-155.78	0.720	Level 1, ES, SF
JAMASO 4-65 5-6-12 - ORIGINAL WELLBORE - PROPO	225.45	225.49	16.65	15.49	14.388	CC
JAMASO 4-65 5-6-12 - ORIGINAL WELLBORE - PROPO	18,212.39	18,210.73	419.06	-116.23	0.783	Level 1, ES, SF
JAMASO 4-65 5-6-2 - ORIGINAL WELLBORE - PROPO	494.64	493.68	109.01	105.95	35.603	CC
JAMASO 4-65 5-6-2 - ORIGINAL WELLBORE - PROPO	500.00	498.96	109.01	105.91	35.176	ES
JAMASO 4-65 5-6-2 - ORIGINAL WELLBORE - PROPO	18,212.39	18,087.00	3,544.35	2,987.11	6.361	SF
JAMASO 4-65 5-6-3 - ORIGINAL WELLBORE - PROPO	632.15	630.94	124.51	120.45	30.709	CC, ES
JAMASO 4-65 5-6-3 - ORIGINAL WELLBORE - PROPO	18,212.39	17,885.63	3,150.14	2,593.43	5.659	SF
JAMASO 4-65 5-6-4 - ORIGINAL WELLBORE - PROPO	694.00	707.24	143.73	139.16	31.491	CC, ES
JAMASO 4-65 5-6-4 - ORIGINAL WELLBORE - PROPO	18,212.39	17,997.80	2,754.28	2,197.58	4.947	SF
JAMASO 4-65 5-6-5 - ORIGINAL WELLBORE - PROPO	716.14	714.68	160.31	155.63	34.260	CC
JAMASO 4-65 5-6-5 - ORIGINAL WELLBORE - PROPO	800.00	802.53	160.86	155.53	30.152	ES
JAMASO 4-65 5-6-5 - ORIGINAL WELLBORE - PROPO	18,212.39	17,917.28	2,356.82	1,800.26	4.235	SF
JAMASO 4-65 5-6-6 - ORIGINAL WELLBORE - PROPO	737.18	735.48	176.89	172.05	36.553	CC
JAMASO 4-65 5-6-6 - ORIGINAL WELLBORE - PROPO	800.00	802.53	177.19	171.85	33.211	ES
JAMASO 4-65 5-6-6 - ORIGINAL WELLBORE - PROPO	18,212.39	17,766.41	1,964.35	1,409.60	3.541	SF
JAMASO 4-65 5-6-7 - ORIGINAL WELLBORE - PROPO	578.45	578.01	71.86	68.20	19.608	CC
JAMASO 4-65 5-6-7 - ORIGINAL WELLBORE - PROPO	600.00	600.55	71.90	68.07	18.804	ES
JAMASO 4-65 5-6-7 - ORIGINAL WELLBORE - PROPO	18,212.39	17,966.10	1,585.26	1,027.96	2.845	SF
JAMASO 4-65 5-6-8 - ORIGINAL WELLBORE - PROPO	544.23	543.93	55.28	51.86	16.164	CC
JAMASO 4-65 5-6-8 - ORIGINAL WELLBORE - PROPO	600.00	600.55	55.53	51.71	14.524	ES
JAMASO 4-65 5-6-8 - ORIGINAL WELLBORE - PROPO	18,212.39	17,959.32	1,187.52	629.99	2.130	SF
JAMASO 4-65 5-6-9 - ORIGINAL WELLBORE - PROPO	496.88	503.27	35.93	32.83	11.574	CC, ES
JAMASO 4-65 5-6-9 - ORIGINAL WELLBORE - PROPO	18,212.39	17,889.87	801.74	251.98	1.458	Level 3, SF

Anticollision Report

Company:	AXIS EXPLORATION	Local Co-ordinate Reference:	Well JAMASO 4-65 5-6-11
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 5-6-11	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		
0.00	0.00	0.00	8,059.94	0.00	204.23	177.48	-2,164.54	95.39	8,244.72					
100.00	100.00	100.00	8,059.95	0.13	201.56	177.51	-2,164.54	94.31	8,148.28	8,069.27	79.01	103.135		
200.00	200.00	200.00	8,059.96	0.49	198.88	177.53	-2,164.55	93.23	8,051.92	7,973.53	78.39	102.713		
300.00	300.00	300.00	8,059.97	0.85	196.21	177.56	-2,164.55	92.15	7,955.65	7,877.86	77.79	102.271		
400.00	399.98	400.00	8,059.99	1.19	193.54	-14.87	-2,164.56	90.73	7,859.03	7,781.85	77.18	101.827		
500.00	499.84	500.00	8,060.01	1.54	190.87	-17.16	-2,164.57	88.66	7,761.66	7,685.13	76.54	101.412		
600.00	599.45	600.00	8,060.04	1.89	188.19	-20.23	-2,164.58	85.94	7,663.65	7,587.80	75.84	101.047		
700.00	698.70	700.00	8,060.08	2.28	185.52	-24.55	-2,164.59	82.56	7,565.07	7,489.97	75.10	100.734		
800.00	797.47	800.00	8,060.12	2.68	182.85	-31.00	-2,164.61	78.53	7,466.04	7,391.73	74.30	100.479		
900.00	895.62	900.00	8,060.17	3.12	180.18	-41.30	-2,164.63	73.86	7,366.65	7,293.20	73.46	100.286		
1,000.00	993.06	16,954.80	8,060.70	3.59	248.94	-53.89	-2,164.64	5.61	7,267.01	7,163.72	103.30	70.352		
1,100.00	1,089.64	16,959.89	8,060.72	4.10	249.08	-83.52	-2,164.62	0.51	7,167.20	7,063.72	103.48	69.262		
1,200.00	1,185.27	16,965.59	8,060.75	4.66	249.23	-117.01	-2,164.59	-5.19	7,067.37	6,963.78	103.59	68.222		
1,218.17	1,202.53	16,966.69	8,060.75	4.76	249.26	-121.97	-2,164.59	-6.29	7,049.24	6,945.63	103.61	68.038		
1,300.00	1,280.19	16,971.69	8,060.77	5.24	249.39	-122.20	-2,164.57	-11.29	6,967.59	6,863.92	103.66	67.214		
1,400.00	1,375.10	16,977.80	8,060.80	5.84	249.56	-122.49	-2,164.54	-17.39	6,867.80	6,764.07	103.73	66.206		
1,500.00	1,470.01	16,983.91	8,060.83	6.45	249.72	-122.79	-2,164.52	-23.50	6,768.02	6,664.22	103.81	65.198		
1,600.00	1,564.92	16,990.01	8,060.85	7.07	249.88	-123.10	-2,164.49	-29.61	6,668.24	6,564.36	103.88	64.190		
1,700.00	1,659.83	16,985.00	8,060.83	7.69	249.75	-122.85	-2,164.51	-24.59	6,568.48	6,464.63	103.84	63.254		
1,800.00	1,754.73	16,985.00	8,060.83	8.32	249.75	-122.85	-2,164.51	-24.59	6,468.71	6,364.85	103.86	62.284		
1,900.00	1,849.64	16,985.00	8,060.83	8.95	249.75	-122.85	-2,164.51	-24.59	6,368.96	6,265.08	103.88	61.313		
2,000.00	1,944.55	16,985.00	8,060.83	9.58	249.75	-122.85	-2,164.51	-24.59	6,269.21	6,165.31	103.89	60.342		
2,100.00	2,039.46	16,985.00	8,060.83	10.21	249.75	-122.85	-2,164.51	-24.59	6,169.47	6,065.55	103.92	59.370		
2,200.00	2,134.36	16,985.00	8,060.83	10.85	249.75	-122.85	-2,164.51	-24.59	6,069.73	5,965.80	103.94	58.398		
2,300.00	2,229.27	16,985.00	8,060.83	11.48	249.75	-122.85	-2,164.51	-24.59	5,970.01	5,866.05	103.96	57.426		
2,400.00	2,324.18	16,985.00	8,060.83	12.12	249.75	-122.85	-2,164.51	-24.59	5,870.30	5,766.31	103.99	56.453		
2,500.00	2,419.09	16,985.00	8,060.83	12.76	249.75	-122.85	-2,164.51	-24.59	5,770.59	5,666.58	104.01	55.481		
2,600.00	2,513.99	16,985.00	8,060.83	13.40	249.75	-122.85	-2,164.51	-24.59	5,670.90	5,566.87	104.04	54.509		
2,700.00	2,608.90	16,985.00	8,060.83	14.04	249.75	-122.85	-2,164.51	-24.59	5,571.22	5,467.16	104.06	53.537		
2,800.00	2,703.81	16,985.00	8,060.83	14.68	249.75	-122.85	-2,164.51	-24.59	5,471.55	5,367.46	104.09	52.566		
2,900.00	2,798.72	16,985.00	8,060.83	15.32	249.75	-122.85	-2,164.51	-24.59	5,371.89	5,267.78	104.12	51.596		
3,000.00	2,893.63	16,985.00	8,060.83	15.96	249.75	-122.85	-2,164.51	-24.59	5,272.24	5,168.10	104.14	50.626		
3,100.00	2,988.53	16,985.00	8,060.83	16.60	249.75	-122.85	-2,164.51	-24.59	5,172.61	5,068.45	104.17	49.657		
3,200.00	3,083.44	16,985.00	8,060.83	17.24	249.75	-122.85	-2,164.51	-24.59	5,073.00	4,968.80	104.19	48.688		
3,300.00	3,178.35	16,985.00	8,060.83	17.89	249.75	-122.85	-2,164.51	-24.59	4,973.39	4,869.18	104.22	47.721		
3,400.00	3,273.26	16,985.00	8,060.83	18.53	249.75	-122.85	-2,164.51	-24.59	4,873.81	4,769.57	104.24	46.755		
3,500.00	3,368.16	16,985.00	8,060.83	19.17	249.75	-122.85	-2,164.51	-24.59	4,774.24	4,669.98	104.27	45.789		
3,600.00	3,463.07	16,985.00	8,060.83	19.82	249.75	-122.85	-2,164.51	-24.59	4,674.69	4,570.40	104.29	44.825		
3,700.00	3,557.98	16,985.00	8,060.83	20.46	249.75	-122.85	-2,164.51	-24.59	4,575.16	4,470.85	104.31	43.863		
3,800.00	3,652.89	16,985.00	8,060.83	21.11	249.75	-122.85	-2,164.51	-24.59	4,475.65	4,371.33	104.32	42.901		
3,900.00	3,747.80	16,985.00	8,060.83	21.75	249.75	-122.85	-2,164.51	-24.59	4,376.16	4,271.82	104.34	41.941		
4,000.00	3,842.70	16,985.00	8,060.83	22.39	249.75	-122.85	-2,164.51	-24.59	4,276.70	4,172.35	104.35	40.983		
4,100.00	3,937.61	16,985.00	8,060.83	23.04	249.75	-122.85	-2,164.51	-24.59	4,177.26	4,072.90	104.36	40.026		
4,200.00	4,032.52	16,985.00	8,060.83	23.68	249.75	-122.85	-2,164.51	-24.59	4,077.85	3,973.48	104.37	39.071		
4,300.00	4,127.43	16,985.00	8,060.83	24.33	249.75	-122.85	-2,164.51	-24.59	3,978.47	3,874.10	104.37	38.117		
4,400.00	4,222.33	16,985.00	8,060.83	24.97	249.75	-122.85	-2,164.51	-24.59	3,879.13	3,774.75	104.37	37.166		
4,500.00	4,317.24	16,985.00	8,060.83	25.62	249.75	-122.85	-2,164.51	-24.59	3,779.81	3,675.44	104.37	36.216		
4,600.00	4,412.15	16,985.00	8,060.83	26.26	249.75	-122.85	-2,164.51	-24.59	3,680.54	3,576.18	104.36	35.268		
4,700.00	4,507.06	16,985.00	8,060.83	26.91	249.75	-122.85	-2,164.51	-24.59	3,581.30	3,476.96	104.34	34.322		
4,800.00	4,601.97	16,985.00	8,060.83	27.55	249.75	-122.85	-2,164.51	-24.59	3,482.11	3,377.78	104.32	33.378		
4,900.00	4,696.87	16,985.00	8,060.83	28.20	249.75	-122.85	-2,164.51	-24.59	3,382.96	3,278.67	104.29	32.437		
5,000.00	4,791.78	16,985.00	8,060.83	28.85	249.75	-122.85	-2,164.51	-24.59	3,283.87	3,179.61	104.26	31.498		

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 5-6-11
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 5-6-11	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	4,886.69	16,985.00	8,060.83	29.49	249.75	-122.85	-2,164.51	-24.59	3,184.83	3,080.62	104.21	30.561		
5,200.00	4,981.60	16,985.00	8,060.83	30.14	249.75	-122.85	-2,164.51	-24.59	3,085.86	2,981.70	104.16	29.626		
5,300.00	5,076.50	16,985.00	8,060.83	30.78	249.75	-122.85	-2,164.51	-24.59	2,986.95	2,882.85	104.10	28.694		
5,400.00	5,171.41	16,985.00	8,060.83	31.43	249.75	-122.85	-2,164.51	-24.59	2,888.12	2,784.10	104.02	27.765		
5,500.00	5,266.32	16,985.00	8,060.83	32.07	249.75	-122.85	-2,164.51	-24.59	2,789.37	2,685.44	103.93	26.839		
5,600.00	5,361.23	16,985.00	8,060.83	32.72	249.75	-122.85	-2,164.51	-24.59	2,690.72	2,586.89	103.83	25.915		
5,700.00	5,456.13	16,985.00	8,060.83	33.37	249.75	-122.85	-2,164.51	-24.59	2,592.16	2,488.45	103.71	24.994		
5,800.00	5,551.04	16,985.00	8,060.83	34.01	249.75	-122.85	-2,164.51	-24.59	2,493.73	2,390.15	103.57	24.077		
5,900.00	5,645.95	16,985.00	8,060.83	34.66	249.75	-122.85	-2,164.51	-24.59	2,395.42	2,292.00	103.42	23.163		
6,000.00	5,740.86	16,985.00	8,060.83	35.30	249.75	-122.85	-2,164.51	-24.59	2,297.26	2,194.02	103.24	22.252		
6,100.00	5,835.77	16,985.00	8,060.83	35.95	249.75	-122.85	-2,164.51	-24.59	2,199.26	2,096.23	103.03	21.345		
6,200.00	5,930.67	16,985.00	8,060.83	36.60	249.75	-122.85	-2,164.51	-24.59	2,101.46	1,998.65	102.80	20.442		
6,300.00	6,025.58	16,985.00	8,060.83	37.24	249.75	-122.85	-2,164.51	-24.59	2,003.87	1,901.33	102.54	19.543		
6,400.00	6,120.49	16,985.00	8,060.83	37.89	249.75	-122.85	-2,164.51	-24.59	1,906.53	1,804.29	102.24	18.648		
6,500.00	6,215.40	16,985.00	8,060.83	38.54	249.75	-122.85	-2,164.51	-24.59	1,809.48	1,707.58	101.90	17.758		
6,600.00	6,310.30	16,985.00	8,060.83	39.18	249.75	-122.85	-2,164.51	-24.59	1,712.76	1,611.26	101.51	16.873		
6,677.09	6,383.47	16,985.00	8,060.83	39.68	249.75	-122.85	-2,164.51	-24.59	1,638.48	1,537.30	101.17	16.195		
6,700.00	6,405.24	16,985.00	8,060.83	39.83	249.75	-121.48	-2,164.51	-24.59	1,616.44	1,515.37	101.07	15.993		
6,800.00	6,500.91	16,985.00	8,060.83	40.44	249.75	-115.28	-2,164.51	-24.59	1,520.24	1,419.47	100.77	15.086		
6,900.00	6,597.55	16,985.00	8,060.83	41.01	249.75	-108.83	-2,164.51	-24.59	1,424.12	1,323.43	100.69	14.143		
7,000.00	6,695.01	16,985.00	8,060.83	41.53	249.75	-102.33	-2,164.51	-24.59	1,328.24	1,227.36	100.88	13.167		
7,100.00	6,793.20	16,985.00	8,060.83	42.00	249.75	-96.00	-2,164.51	-24.59	1,232.78	1,131.40	101.38	12.160		
7,200.00	6,891.99	16,985.00	8,060.83	42.43	249.75	-90.05	-2,164.51	-24.59	1,137.98	1,035.72	102.26	11.128		
7,300.00	6,991.26	16,985.00	8,060.83	42.81	249.75	-84.62	-2,164.51	-24.59	1,044.14	940.50	103.64	10.075		
7,400.00	7,090.89	16,985.00	8,060.83	43.14	249.75	-79.81	-2,164.51	-24.59	951.69	846.00	105.69	9.005		
7,500.00	7,190.76	16,985.00	8,060.83	43.43	249.75	-75.65	-2,164.51	-24.59	861.21	752.55	108.66	7.926		
7,595.26	7,286.00	16,985.00	8,060.83	43.64	249.75	118.37	-2,164.51	-24.59	777.58	664.88	112.70	6.900		
7,600.00	7,290.74	16,985.00	8,060.83	43.65	249.75	118.37	-2,164.51	-24.59	773.50	660.56	112.93	6.849		
7,625.26	7,316.00	16,985.00	8,060.83	43.70	249.75	118.37	-2,164.51	-24.59	751.89	637.64	114.25	6.581		
7,650.00	7,340.73	16,985.00	8,060.83	43.75	249.75	-153.61	-2,164.51	-24.59	731.21	615.60	115.62	6.324		
7,700.00	7,390.53	16,985.00	8,060.83	43.86	249.75	-156.29	-2,164.51	-24.59	692.05	573.50	118.55	5.838		
7,750.00	7,439.76	16,985.00	8,060.83	43.98	249.75	-158.18	-2,164.51	-24.59	657.18	535.56	121.62	5.403		
7,800.00	7,488.04	16,985.00	8,060.83	44.11	249.75	-159.50	-2,164.51	-24.59	627.61	502.96	124.65	5.035		
7,850.00	7,535.02	16,985.00	8,060.83	44.24	249.75	-160.41	-2,164.51	-24.59	604.35	476.98	127.37	4.745		
7,900.00	7,580.33	16,985.00	8,060.83	44.38	249.75	-160.97	-2,164.51	-24.59	588.34	458.85	129.48	4.544		
7,950.00	7,623.63	16,985.00	8,060.83	44.52	249.75	-161.23	-2,164.51	-24.59	580.29	449.58	130.71	4.439		
7,973.08	7,642.85	16,985.00	8,060.83	44.59	249.75	-161.26	-2,164.51	-24.59	579.40	448.47	130.93	4.425 CC, ES, SF		
8,000.00	7,664.59	16,985.00	8,060.83	44.67	249.75	-161.22	-2,164.51	-24.59	580.62	449.74	130.87	4.436		
8,050.00	7,702.90	16,985.00	8,060.83	44.83	249.75	-160.94	-2,164.51	-24.59	589.29	459.35	129.94	4.535		
8,100.00	7,738.26	16,985.00	8,060.83	44.99	249.75	-160.35	-2,164.51	-24.59	605.89	477.83	128.06	4.731		
8,150.00	7,770.41	16,985.00	8,060.83	45.16	249.75	-159.42	-2,164.51	-24.59	629.67	504.21	125.46	5.019		
8,200.00	7,799.10	16,985.00	8,060.83	45.33	249.75	-158.05	-2,164.51	-24.59	659.69	537.25	122.44	5.388		
8,250.00	7,824.12	16,985.00	8,060.83	45.52	249.75	-156.11	-2,164.51	-24.59	694.92	575.68	119.24	5.828		
8,300.00	7,845.26	16,985.00	8,060.83	45.72	249.75	-153.36	-2,164.51	-24.59	734.37	618.32	116.05	6.328		
8,350.00	7,862.39	16,985.00	8,060.83	45.94	249.75	-149.39	-2,164.51	-24.59	777.13	664.11	113.02	6.876		
8,400.00	7,875.35	16,985.00	8,060.83	46.17	249.75	-143.50	-2,164.51	-24.59	822.37	712.17	110.19	7.463		
8,450.00	7,884.06	16,985.00	8,060.83	46.42	249.75	-134.37	-2,164.51	-24.59	869.39	761.77	107.62	8.078		
8,500.00	7,888.44	16,985.00	8,060.83	46.70	249.75	-119.87	-2,164.51	-24.59	917.59	812.28	105.31	8.713		
8,525.33	7,889.00	16,985.00	8,060.83	46.85	249.75	-109.75	-2,164.51	-24.59	942.30	838.06	104.24	9.040		
8,600.00	7,889.00	16,985.00	8,060.83	47.33	249.75	-109.75	-2,164.51	-24.59	1,015.42	914.01	101.41	10.013		
8,700.00	7,889.00	16,985.00	8,060.83	48.06	249.75	-109.75	-2,164.51	-24.59	1,113.68	1,015.39	98.29	11.331		
8,800.00	7,889.00	16,985.00	8,060.83	48.93	249.75	-109.75	-2,164.51	-24.59	1,212.22	1,116.47	95.75	12.661		

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 5-6-11
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 5-6-11	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	7,889.00	16,985.00	8,060.83	49.92	249.75	-109.75	-2,164.51	-24.59	1,310.98	1,217.32	93.66	13.997		
9,000.00	7,888.99	16,985.00	8,060.83	51.05	249.75	-109.75	-2,164.51	-24.59	1,409.92	1,317.99	91.92	15.338		
9,100.00	7,888.99	16,985.00	8,060.83	52.31	249.75	-109.75	-2,164.51	-24.59	1,508.99	1,418.53	90.46	16.680		
9,200.00	7,888.99	16,985.00	8,060.83	53.71	249.75	-109.75	-2,164.51	-24.59	1,608.18	1,518.95	89.23	18.023		
9,300.00	7,888.99	16,985.00	8,060.83	55.23	249.75	-109.75	-2,164.51	-24.59	1,707.47	1,619.29	88.18	19.364		
9,400.00	7,888.99	16,985.00	8,060.83	56.86	249.75	-109.75	-2,164.51	-24.59	1,806.83	1,719.56	87.28	20.702		
9,500.00	7,888.99	16,985.00	8,060.83	58.60	249.75	-109.75	-2,164.51	-24.59	1,906.26	1,819.77	86.50	22.038		
9,600.00	7,888.99	16,985.00	8,060.83	60.43	249.75	-109.75	-2,164.51	-24.59	2,005.75	1,919.93	85.82	23.371		
9,700.00	7,888.99	16,985.00	8,060.83	62.34	249.75	-109.75	-2,164.51	-24.59	2,105.29	2,020.06	85.23	24.701		
9,800.00	7,888.99	16,985.00	8,060.83	64.32	249.75	-109.75	-2,164.51	-24.59	2,204.86	2,120.15	84.71	26.028		
9,900.00	7,888.99	16,985.00	8,060.83	66.37	249.75	-109.75	-2,164.51	-24.59	2,304.48	2,220.22	84.26	27.351		
10,000.00	7,888.98	16,985.00	8,060.83	68.47	249.75	-109.75	-2,164.51	-24.59	2,404.12	2,320.27	83.85	28.670		
10,100.00	7,888.98	16,985.00	8,060.83	70.62	249.75	-109.75	-2,164.51	-24.59	2,503.80	2,420.30	83.50	29.987		
10,200.00	7,888.98	16,985.00	8,060.83	72.82	249.75	-109.75	-2,164.51	-24.59	2,603.50	2,520.32	83.18	31.299		
10,300.00	7,888.98	16,985.00	8,060.83	75.05	249.75	-109.75	-2,164.51	-24.59	2,703.22	2,620.32	82.90	32.609		
10,400.00	7,888.98	16,985.00	8,060.83	77.32	249.75	-109.75	-2,164.51	-24.59	2,802.96	2,720.32	82.64	33.916		
10,500.00	7,888.98	16,985.00	8,060.83	79.63	249.75	-109.75	-2,164.51	-24.59	2,902.72	2,820.30	82.42	35.219		
10,600.00	7,888.98	16,985.00	8,060.83	81.96	249.75	-109.75	-2,164.51	-24.59	3,002.50	2,920.28	82.22	36.520		
10,700.00	7,888.98	16,985.00	8,060.83	84.31	249.75	-109.75	-2,164.51	-24.59	3,102.29	3,020.25	82.03	37.818		
10,800.00	7,888.98	16,985.00	8,060.83	86.69	249.75	-109.75	-2,164.51	-24.59	3,202.09	3,120.22	81.87	39.113		
10,900.00	7,888.98	16,985.00	8,060.83	89.09	249.75	-109.75	-2,164.51	-24.59	3,301.90	3,220.18	81.72	40.405		
11,000.00	7,888.98	16,985.00	8,060.83	91.51	249.75	-109.75	-2,164.51	-24.59	3,401.73	3,320.14	81.59	41.695		
11,100.00	7,888.98	16,985.00	8,060.83	93.94	249.75	-109.75	-2,164.51	-24.59	3,501.57	3,420.10	81.47	42.982		
11,200.00	7,888.98	16,985.00	8,060.83	96.39	249.75	-109.74	-2,164.51	-24.59	3,601.41	3,520.05	81.36	44.266		
11,300.00	7,888.98	16,985.00	8,060.83	98.86	249.75	-109.74	-2,164.51	-24.59	3,701.26	3,620.00	81.26	45.548		
11,400.00	7,888.98	16,985.00	8,060.83	101.33	249.75	-109.74	-2,164.51	-24.59	3,801.12	3,719.95	81.17	46.828		
11,500.00	7,888.98	16,985.00	8,060.83	103.82	249.75	-109.74	-2,164.51	-24.59	3,900.99	3,819.90	81.09	48.105		
11,600.00	7,888.97	16,985.00	8,060.83	106.32	249.75	-109.74	-2,164.51	-24.59	4,000.87	3,919.85	81.02	49.381		
11,700.00	7,888.97	16,985.00	8,060.83	108.83	249.75	-109.74	-2,164.51	-24.59	4,100.75	4,019.79	80.96	50.653		
11,800.00	7,888.97	16,985.00	8,060.83	111.35	249.75	-109.74	-2,164.51	-24.59	4,200.63	4,119.73	80.90	51.924		
11,900.00	7,888.97	16,985.00	8,060.83	113.88	249.75	-109.74	-2,164.51	-24.59	4,300.52	4,219.68	80.85	53.193		
12,000.00	7,888.97	16,985.00	8,060.83	116.41	249.75	-109.74	-2,164.51	-24.59	4,400.42	4,319.62	80.80	54.459		
12,100.00	7,888.97	16,985.00	8,060.83	118.96	249.75	-109.74	-2,164.51	-24.59	4,500.32	4,419.56	80.76	55.723		
12,200.00	7,888.97	16,985.00	8,060.83	121.51	249.75	-109.74	-2,164.51	-24.59	4,600.23	4,519.50	80.73	56.985		
12,300.00	7,888.97	16,985.00	8,060.83	124.06	249.75	-109.74	-2,164.51	-24.59	4,700.14	4,619.44	80.70	58.246		
12,400.00	7,888.97	16,985.00	8,060.83	126.63	249.75	-109.74	-2,164.51	-24.59	4,800.05	4,719.38	80.67	59.504		
12,500.00	7,888.97	16,985.00	8,060.83	129.20	249.75	-109.74	-2,164.51	-24.59	4,899.97	4,819.32	80.65	60.760		
12,600.00	7,888.97	16,985.00	8,060.83	131.77	249.75	-109.74	-2,164.51	-24.59	4,999.89	4,919.26	80.63	62.014		
12,700.00	7,888.97	16,985.00	8,060.83	134.35	249.75	-109.74	-2,164.51	-24.59	5,099.81	5,019.20	80.61	63.266		
12,800.00	7,888.97	16,985.00	8,060.83	136.93	249.75	-109.74	-2,164.51	-24.59	5,199.74	5,119.14	80.60	64.516		
12,900.00	7,888.97	16,985.00	8,060.83	139.52	249.75	-109.74	-2,164.51	-24.59	5,299.67	5,219.08	80.59	65.764		
13,000.00	7,888.97	16,985.00	8,060.83	142.11	249.75	-109.74	-2,164.51	-24.59	5,399.60	5,319.02	80.58	67.010		
13,100.00	7,888.97	16,985.00	8,060.83	144.71	249.75	-109.74	-2,164.51	-24.59	5,499.53	5,418.96	80.57	68.254		
13,200.00	7,888.97	16,985.00	8,060.83	147.31	249.75	-109.74	-2,164.51	-24.59	5,599.47	5,518.89	80.57	69.496		
13,300.00	7,888.97	16,985.00	8,060.83	149.91	249.75	-109.74	-2,164.51	-24.59	5,699.41	5,618.83	80.57	70.736		
13,400.00	7,888.97	16,985.00	8,060.83	152.52	249.75	-109.74	-2,164.51	-24.59	5,799.35	5,718.77	80.58	71.974		
13,500.00	7,888.97	16,985.00	8,060.83	155.13	249.75	-109.74	-2,164.51	-24.59	5,899.29	5,818.71	80.58	73.210		
13,600.00	7,888.97	16,985.00	8,060.83	157.74	249.75	-109.74	-2,164.51	-24.59	5,999.23	5,918.65	80.59	74.444		
13,700.00	7,888.97	16,985.00	8,060.83	160.36	249.75	-109.74	-2,164.51	-24.59	6,099.18	6,018.58	80.60	75.677		
13,800.00	7,888.97	16,985.00	8,060.83	162.97	249.75	-109.74	-2,164.51	-24.59	6,199.13	6,118.52	80.61	76.907		
13,900.00	7,888.97	16,985.00	8,060.83	165.59	249.75	-109.74	-2,164.51	-24.59	6,299.08	6,218.46	80.62	78.135		
14,000.00	7,888.97	16,985.00	8,060.83	168.22	249.75	-109.74	-2,164.51	-24.59	6,399.03	6,318.40	80.63	79.361		

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 5-6-11
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 5-6-11	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	
14,100.00	7,888.97	16,985.00	8,060.83	170.84	249.75	-109.73	-2,164.51	-24.59	6,498.98	6,418.34	80.65	80.586	
14,200.00	7,888.97	16,985.00	8,060.83	173.47	249.75	-109.73	-2,164.51	-24.59	6,598.94	6,518.27	80.66	81.808	
14,300.00	7,888.97	16,985.00	8,060.83	176.10	249.75	-109.73	-2,164.51	-24.59	6,698.89	6,618.21	80.68	83.028	
14,400.00	7,888.97	16,985.00	8,060.83	178.73	249.75	-109.73	-2,164.51	-24.59	6,798.85	6,718.15	80.70	84.246	
14,500.00	7,888.97	16,985.00	8,060.83	181.36	249.75	-109.73	-2,164.51	-24.59	6,898.81	6,818.08	80.72	85.462	
14,600.00	7,888.97	16,985.00	8,060.83	184.00	249.75	-109.73	-2,164.51	-24.59	6,998.77	6,918.02	80.75	86.677	
14,700.00	7,888.97	16,985.00	8,060.83	186.63	249.75	-109.73	-2,164.51	-24.59	7,098.73	7,017.96	80.77	87.889	
14,800.00	7,888.97	16,985.00	8,060.83	189.27	249.75	-109.73	-2,164.51	-24.59	7,198.69	7,117.89	80.79	89.099	
14,900.00	7,888.97	16,985.00	8,060.83	191.91	249.75	-109.73	-2,164.51	-24.59	7,298.65	7,217.83	80.82	90.307	
15,000.00	7,888.97	16,985.00	8,060.83	194.55	249.75	-109.73	-2,164.51	-24.59	7,398.62	7,317.77	80.85	91.513	
15,100.00	7,888.97	16,985.00	8,060.83	197.20	249.75	-109.73	-2,164.51	-24.59	7,498.58	7,417.70	80.88	92.717	
15,200.00	7,888.97	16,985.00	8,060.83	199.84	249.75	-109.73	-2,164.51	-24.59	7,598.55	7,517.64	80.91	93.918	
15,300.00	7,888.98	16,985.00	8,060.83	202.49	249.75	-109.73	-2,164.51	-24.59	7,698.51	7,617.58	80.94	95.118	
15,400.00	7,888.98	16,985.00	8,060.83	205.13	249.75	-109.73	-2,164.51	-24.59	7,798.48	7,717.51	80.97	96.315	
15,500.00	7,888.98	16,985.00	8,060.83	207.78	249.75	-109.73	-2,164.51	-24.59	7,898.45	7,817.45	81.00	97.511	
15,600.00	7,888.98	16,985.00	8,060.83	210.43	249.75	-109.73	-2,164.51	-24.59	7,998.42	7,917.38	81.03	98.704	
15,700.00	7,888.98	16,985.00	8,060.83	213.08	249.75	-109.73	-2,164.51	-24.59	8,098.39	8,017.32	81.07	99.895	
15,800.00	7,888.98	16,985.00	8,060.83	215.73	249.75	-109.73	-2,164.51	-24.59	8,198.36	8,117.25	81.10	101.084	
15,900.00	7,888.98	16,985.00	8,060.83	218.39	249.75	-109.73	-2,164.51	-24.59	8,298.33	8,217.19	81.14	102.271	
16,000.00	7,888.98	16,985.00	8,060.83	221.04	249.75	-109.73	-2,164.51	-24.59	8,398.30	8,317.12	81.18	103.456	
16,100.00	7,888.98	16,985.00	8,060.83	223.70	249.75	-109.72	-2,164.51	-24.59	8,498.27	8,417.06	81.22	104.638	
16,200.00	7,888.98	16,985.00	8,060.83	226.35	249.75	-109.72	-2,164.51	-24.59	8,598.24	8,516.99	81.25	105.818	
16,300.00	7,888.98	16,985.00	8,060.83	229.01	249.75	-109.72	-2,164.51	-24.59	8,698.22	8,616.92	81.29	106.996	
16,400.00	7,888.98	16,985.00	8,060.83	231.66	249.75	-109.72	-2,164.51	-24.59	8,798.19	8,716.86	81.34	108.172	
16,500.00	7,888.98	16,985.00	8,060.83	234.32	249.75	-109.72	-2,164.51	-24.59	8,898.17	8,816.79	81.38	109.346	
16,600.00	7,888.98	16,985.00	8,060.83	236.98	249.75	-109.72	-2,164.51	-24.59	8,998.14	8,916.72	81.42	110.517	
16,700.00	7,888.98	16,985.00	8,060.83	239.64	249.75	-109.72	-2,164.51	-24.59	9,098.12	9,016.66	81.46	111.686	
16,800.00	7,888.99	16,985.00	8,060.83	242.30	249.75	-109.72	-2,164.51	-24.59	9,198.10	9,116.59	81.51	112.853	
16,900.00	7,888.99	16,985.00	8,060.83	244.96	249.75	-109.72	-2,164.51	-24.59	9,298.07	9,216.52	81.55	114.017	
17,000.00	7,888.99	16,985.00	8,060.83	247.63	249.75	-109.72	-2,164.51	-24.59	9,398.05	9,316.46	81.59	115.180	
17,100.00	7,888.99	16,985.00	8,060.83	250.29	249.75	-109.72	-2,164.51	-24.59	9,498.03	9,416.39	81.64	116.340	
17,200.00	7,888.99	16,985.00	8,060.83	252.95	249.75	-109.72	-2,164.51	-24.59	9,598.01	9,516.32	81.69	117.497	
17,300.00	7,888.99	16,985.00	8,060.83	255.62	249.75	-109.72	-2,164.51	-24.59	9,697.99	9,616.25	81.73	118.653	
17,400.00	7,888.99	16,985.00	8,060.83	258.28	249.75	-109.72	-2,164.51	-24.59	9,797.96	9,716.18	81.78	119.805	
17,500.00	7,888.99	16,985.00	8,060.83	260.95	249.75	-109.72	-2,164.51	-24.59	9,897.94	9,816.11	81.83	120.956	
17,600.00	7,888.99	16,985.00	8,060.83	263.61	249.75	-109.72	-2,164.51	-24.59	9,997.92	9,916.04	81.88	122.104	

Anticollision Report

Company:	AXIS EXPLORATION	Local Co-ordinate Reference:	Well JAMASO 4-65 5-6-11
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 5-6-11	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	200.00	200.00	200.00	0.49	0.49	-90.00	0.00	-90.00	90.00	89.01	0.99	91.296 CC		
300.00	300.00	299.53	299.51	0.85	0.85	-88.91	1.71	-90.24	90.26	88.55	1.70	53.065 ES		
400.00	399.98	398.68	398.52	1.19	1.21	84.69	6.82	-90.95	91.04	88.64	2.40	37.905		
500.00	499.84	496.79	496.26	1.54	1.57	92.84	15.21	-92.12	93.54	90.43	3.11	30.110		
600.00	599.45	593.20	591.96	1.89	1.94	103.71	26.68	-93.71	100.38	96.54	3.83	26.185		
700.00	698.70	687.28	684.93	2.28	2.33	115.29	40.95	-95.70	114.27	109.71	4.57	25.012		
800.00	797.47	778.49	774.56	2.68	2.72	125.68	57.65	-98.03	136.77	131.48	5.29	25.854		
900.00	895.62	866.34	860.35	3.12	3.13	134.00	76.41	-100.64	167.93	161.95	5.98	28.069		
1,000.00	993.06	950.45	941.90	3.59	3.54	140.28	96.80	-103.47	207.05	200.40	6.65	31.152		
1,100.00	1,089.64	1,030.49	1,018.91	4.10	3.96	144.91	118.40	-106.48	253.24	245.97	7.27	34.831		
1,200.00	1,185.27	1,108.88	1,093.75	4.66	4.39	148.43	141.48	-109.69	305.59	297.69	7.90	38.674		
1,218.17	1,202.53	1,123.70	1,107.88	4.76	4.47	149.00	145.92	-110.31	315.58	307.55	8.03	39.308		
1,300.00	1,280.19	1,209.68	1,171.37	5.24	4.96	151.71	165.90	-113.09	361.13	352.49	8.64	41.810		
1,400.00	1,375.10	1,271.74	1,248.97	5.84	5.32	154.24	190.31	-116.49	417.39	408.17	9.21	45.312		
1,500.00	1,470.01	1,353.16	1,326.56	6.45	5.80	156.17	214.72	-119.89	474.08	464.21	9.87	48.036		
1,600.00	1,564.92	1,434.57	1,404.16	7.07	6.28	157.71	239.13	-123.29	531.07	520.54	10.53	50.422		
1,700.00	1,659.83	1,515.99	1,481.76	7.69	6.76	158.94	263.54	-126.69	588.27	577.07	11.20	52.523		
1,800.00	1,754.73	1,602.60	1,559.35	8.32	7.27	159.96	287.95	-130.08	645.63	633.73	11.89	54.286		
1,900.00	1,849.64	1,678.82	1,636.95	8.95	7.73	160.82	312.36	-133.48	703.10	690.55	12.55	56.038		
2,000.00	1,944.55	1,760.23	1,714.54	9.58	8.21	161.55	336.77	-136.88	760.66	747.44	13.22	57.517		
2,100.00	2,039.46	1,841.65	1,792.14	10.21	8.70	162.17	361.18	-140.28	818.29	804.39	13.91	58.847		
2,200.00	2,134.36	1,923.06	1,869.73	10.85	9.19	162.72	385.59	-143.68	875.98	861.39	14.59	60.046		
2,300.00	2,229.27	2,004.48	1,947.33	11.48	9.68	163.20	410.00	-147.07	933.72	918.45	15.27	61.134		
2,400.00	2,324.18	2,085.89	2,024.92	12.12	10.17	163.62	434.41	-150.47	991.49	975.53	15.96	62.123		
2,500.00	2,419.09	2,167.31	2,102.52	12.76	10.67	163.99	458.82	-153.87	1,049.30	1,032.65	16.65	63.027		
2,600.00	2,513.99	2,248.72	2,180.12	13.40	11.16	164.33	483.23	-157.27	1,107.13	1,089.80	17.34	63.855		
2,700.00	2,608.90	2,330.14	2,257.71	14.04	11.65	164.63	507.64	-160.67	1,164.99	1,146.96	18.03	64.617		
2,800.00	2,703.81	2,411.55	2,335.31	14.68	12.15	164.91	532.05	-164.07	1,222.87	1,204.15	18.72	65.319		
2,900.00	2,798.72	2,507.03	2,412.90	15.32	12.73	165.16	556.46	-167.46	1,280.76	1,261.29	19.47	65.770		
3,000.00	2,893.63	2,574.39	2,490.50	15.96	13.14	165.39	580.87	-170.86	1,338.67	1,318.56	20.11	66.571		
3,100.00	2,988.53	2,655.80	2,568.09	16.60	13.63	165.59	605.28	-174.26	1,396.59	1,375.79	20.80	67.130		
3,200.00	3,083.44	2,737.22	2,645.69	17.24	14.13	165.79	629.69	-177.66	1,454.52	1,433.02	21.50	67.651		
3,300.00	3,178.35	2,818.63	2,723.28	17.89	14.62	165.97	654.10	-181.06	1,512.47	1,490.27	22.20	68.138		
3,400.00	3,273.26	2,900.05	2,800.88	18.53	15.12	166.13	678.51	-184.45	1,570.42	1,547.53	22.89	68.593		
3,500.00	3,368.16	2,981.46	2,878.47	19.17	15.62	166.28	702.92	-187.85	1,628.38	1,604.79	23.59	69.019		
3,600.00	3,463.07	3,062.88	2,956.07	19.82	16.11	166.43	727.33	-191.25	1,686.35	1,662.06	24.29	69.419		
3,700.00	3,557.98	3,144.29	3,033.67	20.46	16.61	166.56	751.74	-194.65	1,744.32	1,719.33	24.99	69.796		
3,800.00	3,652.89	3,225.71	3,111.26	21.11	17.11	166.68	776.15	-198.05	1,802.30	1,776.61	25.69	70.150		
3,900.00	3,747.80	3,307.12	3,188.86	21.75	17.60	166.80	800.56	-201.44	1,860.29	1,833.89	26.39	70.484		
4,000.00	3,842.70	3,388.54	3,266.45	22.39	18.10	166.91	824.97	-204.84	1,918.28	1,891.18	27.09	70.800		
4,100.00	3,937.61	3,469.95	3,344.05	23.04	18.60	167.01	849.38	-208.24	1,976.27	1,948.47	27.80	71.098		
4,200.00	4,032.52	3,551.37	3,421.64	23.68	19.09	167.11	873.79	-211.64	2,034.27	2,005.77	28.50	71.381		
4,300.00	4,127.43	3,632.78	3,499.24	24.33	19.59	167.20	898.20	-215.04	2,092.27	2,063.07	29.20	71.649		
4,400.00	4,222.33	3,714.20	3,576.83	24.97	20.09	167.29	922.61	-218.44	2,150.28	2,120.37	29.91	71.903		
4,500.00	4,317.24	3,804.38	3,654.43	25.62	20.64	167.37	947.02	-221.83	2,208.28	2,177.64	30.65	72.057		
4,600.00	4,412.15	3,877.03	3,732.02	26.26	21.08	167.45	971.43	-225.23	2,266.30	2,234.98	31.31	72.374		
4,700.00	4,507.06	3,958.45	3,809.62	26.91	21.58	167.53	995.84	-228.63	2,324.31	2,292.29	32.02	72.592		
4,800.00	4,601.97	4,039.86	3,887.22	27.55	22.08	167.60	1,020.25	-232.03	2,382.33	2,349.60	32.72	72.800		
4,900.00	4,696.87	4,121.28	3,964.81	28.20	22.58	167.67	1,044.66	-235.43	2,440.35	2,406.92	33.43	72.999		
5,000.00	4,791.78	4,202.69	4,042.41	28.85	23.07	167.73	1,069.07	-238.82	2,498.37	2,464.23	34.14	73.188		

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 5-6-11
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 5-6-11	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		
5,100.00	4,886.69	4,284.11	4,120.00	29.49	23.57	167.79	1,093.48	-242.22	2,556.39	2,521.55	34.84	73.369		
5,200.00	4,981.60	4,365.52	4,197.60	30.14	24.07	167.85	1,117.89	-245.62	2,614.41	2,578.86	35.55	73.541		
5,300.00	5,076.50	4,446.94	4,275.19	30.78	24.57	167.91	1,142.30	-249.02	2,672.44	2,636.18	36.26	73.706		
5,400.00	5,171.41	4,528.35	4,352.79	31.43	25.07	167.96	1,166.71	-252.42	2,730.47	2,693.50	36.97	73.864		
5,500.00	5,266.32	4,609.77	4,430.38	32.07	25.56	168.01	1,191.12	-255.81	2,788.50	2,750.82	37.67	74.015		
5,600.00	5,361.23	4,708.82	4,507.98	32.72	26.17	168.06	1,215.53	-259.21	2,846.53	2,808.07	38.46	74.016		
5,700.00	5,456.13	4,772.60	4,585.57	33.37	26.56	168.11	1,239.94	-262.61	2,904.56	2,865.47	39.09	74.298		
5,800.00	5,551.04	4,854.01	4,663.17	34.01	27.06	168.15	1,264.35	-266.01	2,962.60	2,922.79	39.80	74.431		
5,900.00	5,645.95	4,935.43	4,740.77	34.66	27.56	168.20	1,288.76	-269.41	3,020.63	2,980.12	40.51	74.559		
6,000.00	5,740.86	5,016.85	4,818.36	35.30	28.06	168.24	1,313.17	-272.80	3,078.67	3,037.44	41.22	74.681		
6,100.00	5,835.77	5,101.74	4,895.96	35.95	28.58	168.28	1,337.58	-276.20	3,136.70	3,094.75	41.95	74.772		
6,200.00	5,930.67	5,179.68	4,973.55	36.60	29.05	168.32	1,361.99	-279.60	3,194.74	3,152.10	42.65	74.911		
6,300.00	6,025.58	5,261.09	5,051.15	37.24	29.55	168.36	1,386.40	-283.00	3,252.78	3,209.42	43.36	75.019		
6,400.00	6,120.49	5,342.51	5,128.74	37.89	30.05	168.39	1,410.81	-286.40	3,310.82	3,266.75	44.07	75.124		
6,500.00	6,215.40	5,423.92	5,206.34	38.54	30.55	168.43	1,435.22	-289.80	3,368.86	3,324.08	44.78	75.223		
6,600.00	6,310.30	5,505.34	5,283.93	39.18	31.05	168.46	1,459.63	-293.19	3,426.91	3,381.41	45.50	75.320		
6,677.09	6,383.47	5,568.10	5,343.75	39.68	31.43	168.49	1,478.45	-295.81	3,471.65	3,425.60	46.05	75.391		
6,700.00	6,405.24	5,586.80	5,361.58	39.83	31.55	168.56	1,484.06	-296.59	3,484.87	3,438.66	46.21	75.411		
6,800.00	6,500.91	5,669.65	5,440.53	40.44	32.05	168.85	1,508.90	-300.05	3,540.87	3,493.94	46.93	75.454		
6,900.00	6,597.55	5,754.36	5,521.28	41.01	32.57	169.10	1,534.30	-303.59	3,593.99	3,546.34	47.65	75.432		
7,000.00	6,695.01	5,840.85	5,603.71	41.53	33.10	169.31	1,560.23	-307.20	3,644.17	3,595.81	48.37	75.346		
7,100.00	6,793.20	5,929.01	5,687.72	42.00	33.64	169.49	1,586.66	-310.88	3,691.37	3,642.28	49.09	75.200		
7,200.00	6,891.99	6,018.72	5,773.23	42.43	34.19	169.64	1,613.56	-314.62	3,735.50	3,685.70	49.81	75.000		
7,300.00	6,991.26	6,109.88	5,860.11	42.81	34.75	169.77	1,640.89	-318.43	3,776.54	3,726.01	50.52	74.747		
7,400.00	7,090.89	6,202.38	5,948.27	43.14	35.32	169.87	1,668.62	-322.29	3,814.42	3,763.18	51.24	74.445		
7,500.00	7,190.76	6,296.11	6,037.60	43.43	35.89	169.94	1,696.72	-326.20	3,849.10	3,797.15	51.95	74.097		
7,595.26	7,286.00	6,386.43	6,123.69	43.64	36.44	0.65	1,723.80	-329.97	3,879.12	3,826.52	52.60	73.743		
7,600.00	7,290.74	6,409.05	6,127.99	43.65	36.58	0.65	1,725.16	-330.16	3,880.54	3,827.83	52.71	73.620		
7,625.26	7,316.00	6,415.02	6,150.94	43.70	36.62	0.63	1,732.38	-331.16	3,888.11	3,835.31	52.80	73.632		
7,650.00	7,340.73	6,438.62	6,173.42	43.75	36.76	89.59	1,739.45	-332.15	3,895.53	3,842.55	52.98	73.535		
7,700.00	7,390.53	6,486.26	6,218.83	43.86	37.06	88.06	1,753.74	-334.14	3,910.47	3,857.14	53.33	73.327		
7,750.00	7,439.76	6,533.55	6,263.91	43.98	37.35	86.61	1,767.91	-336.11	3,925.29	3,871.60	53.69	73.112		
7,800.00	7,488.04	6,580.13	6,308.30	44.11	37.63	85.25	1,781.88	-338.05	3,939.88	3,885.83	54.05	72.893		
7,850.00	7,535.02	6,627.35	6,353.43	44.24	37.91	83.90	1,796.67	-339.98	3,954.41	3,899.36	54.41	72.674		
7,900.00	7,580.33	6,674.37	6,398.99	44.38	38.19	82.55	1,811.46	-341.91	3,968.94	3,913.89	54.77	72.455		
7,950.00	7,623.63	6,721.46	6,444.15	44.52	38.47	81.20	1,826.25	-343.84	3,983.42	3,928.37	55.13	72.236		
8,000.00	7,664.59	6,768.92	6,489.49	44.67	38.75	79.85	1,840.96	-345.77	3,997.90	3,942.85	55.49	72.017		
8,050.00	7,702.90	6,816.46	6,534.83	44.83	39.03	78.50	1,855.67	-347.70	4,012.38	3,957.33	55.85	71.798		
8,100.00	7,738.26	6,863.99	6,580.17	44.99	39.31	77.15	1,870.38	-349.63	4,026.86	3,971.81	56.21	71.579		
8,150.00	7,770.41	6,911.51	6,625.51	45.16	39.59	75.80	1,885.09	-351.56	4,041.34	3,986.29	56.57	71.360		
8,200.00	7,799.10	6,959.04	6,670.85	45.33	39.87	74.45	1,899.80	-353.49	4,055.82	3,999.77	56.93	71.141		
8,250.00	7,824.12	6,999.00	6,709.00	45.52	40.05	73.10	1,914.51	-355.42	4,070.30	4,014.25	57.29	70.922		
8,300.00	7,845.26	7,039.00	6,747.15	45.72	40.23	71.75	1,929.22	-357.35	4,084.78	4,028.73	57.65	70.703		
8,350.00	7,862.39	7,079.00	6,785.30	45.94	40.41	70.40	1,943.93	-359.28	4,099.26	4,043.21	58.01	70.484		
8,400.00	7,875.35	7,119.00	6,823.45	46.17	40.59	69.05	1,958.64	-361.21	4,113.74	4,057.69	58.37	70.265		
8,450.00	7,884.06	7,159.00	6,861.60	46.42	40.77	67.70	1,973.35	-363.14	4,128.22	4,072.17	58.73	70.046		
8,500.00	7,888.44	7,199.00	6,899.75	46.70	40.95	66.35	1,988.06	-365.07	4,142.70	4,086.65	59.09	69.827		
8,525.33	7,889.00	7,239.00	6,937.90	46.85	41.13	65.00	1,992.77	-367.00	4,157.18	4,101.13	59.45	69.608		
8,600.00	7,889.00	7,279.00	6,976.05	47.33	41.31	63.65	1,997.48	-368.93	4,171.66	4,115.61	59.81	69.389		
8,700.00	7,889.00	7,319.00	7,014.20	48.06	41.49	62.30	1,997.81	-370.86	4,186.14	4,130.09	60.17	69.170		
8,800.00	7,889.00	7,359.00	7,052.35	48.93	41.67	60.95	1,998.14	-372.79	4,200.62	4,144.57	60.53	68.951		
8,900.00	7,889.00	7,399.00	7,090.50	49.92	41.85	59.60	1,998.47	-374.72	4,215.10	4,159.05	60.89	68.732		

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 5-6-11
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 5-6-11	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 5-6-1 - 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				
9,000.00	7,888.99	9,022.37	7,935.99	51.05	50.13	90.68	1,969.13	-1,402.37	3,941.65	3,855.57	86.08	45.791				
9,100.00	7,888.99	9,122.37	7,935.99	52.31	51.47	90.68	1,969.57	-1,502.37	3,941.65	3,851.85	89.80	43.894				
9,200.00	7,888.99	9,222.37	7,935.99	53.71	52.94	90.68	1,970.01	-1,602.37	3,941.65	3,847.96	93.68	42.075				
9,300.00	7,888.99	9,322.37	7,935.99	55.23	54.52	90.68	1,970.45	-1,702.37	3,941.64	3,843.94	97.71	40.341				
9,400.00	7,888.99	9,422.37	7,935.99	56.86	56.21	90.68	1,970.89	-1,802.37	3,941.64	3,839.78	101.86	38.697				
9,500.00	7,888.99	9,522.37	7,935.99	58.60	57.99	90.68	1,971.33	-1,902.37	3,941.64	3,835.52	106.12	37.144				
9,600.00	7,888.99	9,622.37	7,935.98	60.43	59.86	90.68	1,971.77	-2,002.37	3,941.64	3,831.16	110.48	35.678				
9,700.00	7,888.99	9,722.37	7,935.98	62.34	61.80	90.68	1,972.21	-2,102.36	3,941.64	3,826.71	114.92	34.298				
9,800.00	7,888.99	9,822.37	7,935.98	64.32	63.80	90.68	1,972.65	-2,202.36	3,941.63	3,822.19	119.45	32.999				
9,900.00	7,888.99	9,922.37	7,935.98	66.37	65.87	90.68	1,973.09	-2,302.36	3,941.63	3,817.59	124.04	31.777				
10,000.00	7,888.98	10,022.37	7,935.98	68.47	67.98	90.68	1,973.53	-2,402.36	3,941.63	3,812.94	128.69	30.628				
10,100.00	7,888.98	10,122.37	7,935.98	70.62	70.14	90.68	1,973.97	-2,502.36	3,941.63	3,808.23	133.40	29.547				
10,200.00	7,888.98	10,222.37	7,935.98	72.82	72.35	90.68	1,974.41	-2,602.36	3,941.63	3,803.47	138.16	28.530				
10,300.00	7,888.98	10,322.37	7,935.97	75.05	74.59	90.68	1,974.85	-2,702.36	3,941.63	3,798.67	142.96	27.572				
10,400.00	7,888.98	10,422.37	7,935.97	77.32	76.86	90.68	1,975.30	-2,802.36	3,941.63	3,793.83	147.80	26.668				
10,500.00	7,888.98	10,522.37	7,935.97	79.63	79.16	90.68	1,975.74	-2,902.36	3,941.63	3,788.95	152.68	25.816				
10,600.00	7,888.98	10,622.37	7,935.97	81.96	81.49	90.68	1,976.18	-3,002.36	3,941.63	3,784.04	157.59	25.012				
10,700.00	7,888.98	10,722.37	7,935.97	84.31	83.84	90.68	1,976.62	-3,102.35	3,941.63	3,779.10	162.53	24.252				
10,797.48	7,888.98	10,819.85	7,935.97	86.63	86.16	90.68	1,977.05	-3,199.83	3,941.63	3,774.26	167.37	23.550				
10,800.00	7,888.98	10,822.37	7,935.97	86.69	86.22	90.68	1,977.06	-3,202.35	3,941.63	3,774.13	167.50	23.532				
10,900.00	7,888.98	10,922.37	7,935.97	89.09	88.61	90.68	1,977.50	-3,302.35	3,941.63	3,769.14	172.49	22.851				
11,000.00	7,888.98	11,022.37	7,935.96	91.51	91.03	90.68	1,977.94	-3,402.35	3,941.63	3,764.12	177.51	22.205				
11,100.00	7,888.98	11,122.37	7,935.96	93.94	93.46	90.68	1,978.38	-3,502.35	3,941.63	3,759.09	182.54	21.593				
11,200.00	7,888.98	11,222.37	7,935.96	96.39	95.90	90.68	1,978.82	-3,602.35	3,941.63	3,754.03	187.60	21.011				
11,300.00	7,888.98	11,322.37	7,935.96	98.86	98.36	90.68	1,979.26	-3,702.35	3,941.63	3,748.96	192.67	20.458				
11,400.00	7,888.98	11,422.37	7,935.96	101.33	100.83	90.68	1,979.70	-3,802.35	3,941.63	3,743.87	197.76	19.931				
11,500.00	7,888.98	11,522.37	7,935.96	103.82	103.31	90.68	1,980.14	-3,902.35	3,941.63	3,738.76	202.87	19.430				
11,600.00	7,888.97	11,622.37	7,935.96	106.32	105.81	90.68	1,980.58	-4,002.35	3,941.63	3,733.65	207.99	18.951				
11,700.00	7,888.97	11,722.37	7,935.95	108.83	108.31	90.68	1,981.02	-4,102.34	3,941.64	3,728.52	213.12	18.495				
11,800.00	7,888.97	11,822.37	7,935.95	111.35	110.82	90.68	1,981.46	-4,202.34	3,941.64	3,723.37	218.26	18.059				
11,900.00	7,888.97	11,922.37	7,935.95	113.88	113.35	90.68	1,981.90	-4,302.34	3,941.64	3,718.22	223.42	17.642				
12,000.00	7,888.97	12,022.37	7,935.95	116.41	115.88	90.68	1,982.34	-4,402.34	3,941.64	3,713.06	228.58	17.244				
12,100.00	7,888.97	12,122.37	7,935.95	118.96	118.41	90.68	1,982.78	-4,502.34	3,941.64	3,707.88	233.76	16.862				
12,200.00	7,888.97	12,222.37	7,935.95	121.51	120.96	90.68	1,983.23	-4,602.34	3,941.64	3,702.70	238.94	16.496				
12,300.00	7,888.97	12,322.37	7,935.95	124.06	123.51	90.68	1,983.67	-4,702.34	3,941.65	3,697.51	244.14	16.145				
12,400.00	7,888.97	12,422.37	7,935.94	126.63	126.06	90.68	1,984.11	-4,802.34	3,941.65	3,692.31	249.34	15.808				
12,500.00	7,888.97	12,522.37	7,935.94	129.20	128.63	90.68	1,984.55	-4,902.34	3,941.65	3,687.10	254.55	15.485				
12,600.00	7,888.97	12,622.37	7,935.94	131.77	131.19	90.68	1,984.99	-5,002.34	3,941.65	3,681.89	259.76	15.174				
12,700.00	7,888.97	12,722.37	7,935.94	134.35	133.77	90.68	1,985.43	-5,102.34	3,941.66	3,676.67	264.99	14.875				
12,800.00	7,888.97	12,822.37	7,935.94	136.93	136.34	90.68	1,985.87	-5,202.33	3,941.66	3,671.44	270.21	14.587				
12,900.00	7,888.97	12,922.37	7,935.94	139.52	138.93	90.68	1,986.31	-5,302.33	3,941.66	3,666.21	275.45	14.310				
13,000.00	7,888.97	13,022.37	7,935.94	142.11	141.51	90.68	1,986.75	-5,402.33	3,941.66	3,660.98	280.69	14.043				
13,100.00	7,888.97	13,122.37	7,935.93	144.71	144.10	90.68	1,987.19	-5,502.33	3,941.67	3,655.73	285.93	13.785				
13,200.00	7,888.97	13,222.37	7,935.93	147.31	146.70	90.68	1,987.63	-5,602.33	3,941.67	3,650.49	291.19	13.537				
13,300.00	7,888.97	13,322.37	7,935.93	149.91	149.29	90.68	1,988.07	-5,702.33	3,941.67	3,645.23	296.44	13.297				
13,400.00	7,888.97	13,422.37	7,935.93	152.52	151.89	90.68	1,988.51	-5,802.33	3,941.68	3,639.98	301.70	13.065				
13,500.00	7,888.97	13,522.37	7,935.93	155.13	154.50	90.68	1,988.95	-5,902.33	3,941.68	3,634.72	306.96	12.841				
13,600.00	7,888.97	13,622.37	7,935.93	157.74	157.10	90.68	1,989.39	-6,002.33	3,941.69	3,629.45	312.23	12.624				
13,700.00	7,888.97	13,722.37	7,935.93	160.36	159.71	90.68	1,989.83	-6,102.33	3,941.69	3,624.19	317.50	12.415				
13,800.00	7,888.97	13,822.37	7,935.92	162.97	162.33	90.68	1,990.27	-6,202.32	3,941.69	3,618.91	322.78	12.212				
13,900.00	7,888.97	13,922.37	7,935.92	165.59	164.94	90.68	1,990.71	-6,302.32	3,941.70	3,613.64	328.06	12.015				
14,000.00	7,888.97	14,022.37	7,935.92	168.22	167.56	90.68	1,991.15	-6,402.32	3,941.70	3,608.36	333.34	11.825				

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 5-6-11
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 5-6-11	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 5-6-1 - 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	7,888.97	14,122.37	7,935.92	170.84	170.18	90.68	1,991.60	-6,502.32	3,941.71	3,603.08	338.63	11.640		
14,200.00	7,888.97	14,222.37	7,935.92	173.47	172.80	90.68	1,992.04	-6,602.32	3,941.71	3,597.80	343.92	11.461		
14,300.00	7,888.97	14,322.37	7,935.92	176.10	175.42	90.68	1,992.48	-6,702.32	3,941.72	3,592.51	349.21	11.288		
14,400.00	7,888.97	14,422.37	7,935.92	178.73	178.05	90.68	1,992.92	-6,802.32	3,941.72	3,587.22	354.50	11.119		
14,500.00	7,888.97	14,522.37	7,935.91	181.36	180.68	90.68	1,993.36	-6,902.32	3,941.73	3,581.93	359.80	10.955		
14,600.00	7,888.97	14,622.37	7,935.91	184.00	183.31	90.68	1,993.80	-7,002.32	3,941.73	3,576.64	365.10	10.796		
14,700.00	7,888.97	14,722.37	7,935.91	186.63	185.94	90.68	1,994.24	-7,102.32	3,941.74	3,571.34	370.40	10.642		
14,800.00	7,888.97	14,822.37	7,935.91	189.27	188.57	90.68	1,994.68	-7,202.31	3,941.74	3,566.04	375.70	10.492		
14,900.00	7,888.97	14,922.37	7,935.91	191.91	191.21	90.68	1,995.12	-7,302.31	3,941.75	3,560.74	381.01	10.346		
15,000.00	7,888.97	15,022.37	7,935.91	194.55	193.84	90.68	1,995.56	-7,402.31	3,941.76	3,555.44	386.32	10.203		
15,100.00	7,888.97	15,122.37	7,935.91	197.20	196.48	90.68	1,996.00	-7,502.31	3,941.76	3,550.13	391.63	10.065		
15,200.00	7,888.97	15,222.37	7,935.90	199.84	199.12	90.68	1,996.44	-7,602.31	3,941.77	3,544.83	396.94	9.930		
15,300.00	7,888.98	15,322.37	7,935.90	202.49	201.76	90.68	1,996.88	-7,702.31	3,941.77	3,539.52	402.25	9.799		
15,400.00	7,888.98	15,422.37	7,935.90	205.13	204.40	90.68	1,997.32	-7,802.31	3,941.78	3,534.21	407.57	9.671		
15,500.00	7,888.98	15,522.37	7,935.90	207.78	207.05	90.68	1,997.76	-7,902.31	3,941.79	3,528.90	412.89	9.547		
15,600.00	7,888.98	15,622.37	7,935.90	210.43	209.69	90.68	1,998.20	-8,002.31	3,941.79	3,523.59	418.21	9.425		
15,700.00	7,888.98	15,722.37	7,935.90	213.08	212.34	90.68	1,998.64	-8,102.31	3,941.80	3,518.27	423.53	9.307		
15,800.00	7,888.98	15,822.37	7,935.90	215.73	214.98	90.68	1,999.08	-8,202.31	3,941.81	3,512.96	428.85	9.192		
15,900.00	7,888.98	15,922.37	7,935.89	218.39	217.63	90.68	1,999.52	-8,302.30	3,941.81	3,507.64	434.17	9.079		
16,000.00	7,888.98	16,022.37	7,935.89	221.04	220.28	90.68	1,999.97	-8,402.30	3,941.82	3,502.32	439.50	8.969		
16,100.00	7,888.98	16,122.37	7,935.89	223.70	222.93	90.68	2,000.41	-8,502.30	3,941.83	3,497.00	444.83	8.862		
16,200.00	7,888.98	16,222.37	7,935.89	226.35	225.58	90.68	2,000.85	-8,602.30	3,941.84	3,491.68	450.15	8.757		
16,300.00	7,888.98	16,322.37	7,935.89	229.01	228.23	90.68	2,001.29	-8,702.30	3,941.84	3,486.36	455.48	8.654		
16,400.00	7,888.98	16,422.37	7,935.89	231.66	230.88	90.68	2,001.73	-8,802.30	3,941.85	3,481.04	460.81	8.554		
16,500.00	7,888.98	16,522.37	7,935.89	234.32	233.54	90.68	2,002.17	-8,902.30	3,941.86	3,475.71	466.15	8.456		
16,600.00	7,888.98	16,622.37	7,935.88	236.98	236.19	90.68	2,002.61	-9,002.30	3,941.87	3,470.39	471.48	8.361		
16,700.00	7,888.98	16,722.37	7,935.88	239.64	238.85	90.68	2,003.05	-9,102.30	3,941.88	3,465.06	476.81	8.267		
16,800.00	7,888.99	16,822.37	7,935.88	242.30	241.50	90.68	2,003.49	-9,202.30	3,941.89	3,459.74	482.15	8.176		
16,900.00	7,888.99	16,922.37	7,935.88	244.96	244.16	90.68	2,003.93	-9,302.29	3,941.89	3,454.41	487.48	8.086		
17,000.00	7,888.99	17,022.37	7,935.88	247.63	246.82	90.68	2,004.37	-9,402.29	3,941.90	3,449.08	492.82	7.999		
17,100.00	7,888.99	17,122.37	7,935.88	250.29	249.47	90.68	2,004.81	-9,502.29	3,941.91	3,443.75	498.16	7.913		
17,200.00	7,888.99	17,222.37	7,935.88	252.95	252.13	90.68	2,005.25	-9,602.29	3,941.92	3,438.42	503.50	7.829		
17,300.00	7,888.99	17,322.37	7,935.87	255.62	254.79	90.68	2,005.69	-9,702.29	3,941.93	3,433.09	508.84	7.747		
17,400.00	7,888.99	17,422.37	7,935.87	258.28	257.45	90.68	2,006.13	-9,802.29	3,941.94	3,427.76	514.18	7.666		
17,500.00	7,888.99	17,522.37	7,935.87	260.95	260.11	90.68	2,006.57	-9,902.29	3,941.95	3,422.43	519.52	7.588		
17,600.00	7,888.99	17,622.37	7,935.87	263.61	262.77	90.68	2,007.01	-10,002.29	3,941.96	3,417.09	524.86	7.510		
17,700.00	7,888.99	17,722.37	7,935.87	266.28	265.44	90.68	2,007.45	-10,102.29	3,941.97	3,411.76	530.21	7.435		
17,800.00	7,889.00	17,822.37	7,935.87	268.94	268.10	90.68	2,007.89	-10,202.29	3,941.98	3,406.43	535.55	7.361		
17,900.00	7,889.00	17,922.37	7,935.87	271.61	270.76	90.68	2,008.34	-10,302.28	3,941.99	3,401.09	540.90	7.288		
18,000.00	7,889.00	18,022.37	7,935.86	274.28	273.42	90.68	2,008.78	-10,402.28	3,942.00	3,395.76	546.24	7.217		
18,100.00	7,889.00	18,122.37	7,935.86	276.95	276.09	90.68	2,009.22	-10,502.28	3,942.01	3,390.42	551.59	7.147		
18,200.00	7,889.00	18,239.20	7,936.00	279.62	279.20	90.68	2,009.39	-10,619.11	3,941.71	3,384.34	557.38	7.072		
18,212.39	7,889.00	18,239.20	7,936.00	279.95	279.20	90.68	2,009.39	-10,619.11	3,941.68	3,383.97	557.71	7.068 SF		

Anticollision Report

Company:	AXIS EXPLORATION	Local Co-ordinate Reference:	Well JAMASO 4-65 5-6-11
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 5-6-11	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	-19.69	19.69					
100.00	100.00	100.00	100.00	0.13	0.13	-90.00	0.00	-19.69	19.69	19.42	0.27	73.227		
200.00	200.00	200.00	200.00	0.49	0.49	-90.00	0.00	-19.69	19.69	18.70	0.99	19.971		
300.00	300.00	300.00	300.00	0.85	0.85	-90.00	0.00	-19.69	19.69	17.98	1.70	11.562		
400.00	399.98	400.02	399.98	1.19	1.21	84.41	0.00	-19.69	19.44	17.04	2.40	8.087		
444.46	444.40	444.40	444.40	1.35	1.37	90.00	0.00	-19.69	19.35	16.63	2.71	7.127 CC		
500.00	499.84	499.84	499.84	1.54	1.57	99.76	0.00	-19.69	19.63	16.53	3.10	6.327		
600.00	599.45	599.81	599.79	1.89	1.91	117.95	-1.70	-20.06	21.98	18.17	3.80	5.780		
700.00	698.70	700.03	699.86	2.28	2.25	131.40	-6.82	-21.20	26.12	21.62	4.50	5.801		
800.00	797.47	800.49	799.94	2.68	2.60	140.65	-15.37	-23.09	31.35	26.14	5.22	6.010		
900.00	895.62	901.20	899.89	3.12	2.96	146.98	-27.38	-25.75	37.21	31.27	5.94	6.263		
1,000.00	993.06	1,002.16	999.59	3.59	3.36	151.40	-42.86	-29.17	43.42	36.74	6.68	6.504		
1,100.00	1,089.64	1,103.36	1,098.91	4.10	3.78	154.57	-61.81	-33.36	49.84	42.41	7.42	6.715		
1,200.00	1,185.27	1,204.82	1,197.73	4.66	4.24	156.88	-84.23	-38.32	56.37	48.19	8.18	6.892		
1,218.17	1,202.53	1,223.28	1,215.62	4.76	4.33	157.23	-88.67	-39.31	57.57	49.25	8.32	6.919		
1,300.00	1,280.19	1,305.35	1,294.95	5.24	4.73	158.47	-109.19	-43.85	62.49	53.53	8.97	6.970		
1,400.00	1,375.10	1,405.16	1,391.41	5.84	5.24	159.70	-134.24	-49.39	68.45	58.68	9.77	7.007		
1,500.00	1,470.01	1,504.97	1,487.87	6.45	5.75	160.73	-159.28	-54.93	74.44	63.86	10.58	7.038		
1,600.00	1,564.92	1,604.78	1,584.33	7.07	6.28	161.61	-184.33	-60.47	80.44	69.06	11.39	7.064		
1,700.00	1,659.83	1,704.60	1,680.79	7.69	6.81	162.36	-209.38	-66.02	86.47	74.26	12.20	7.086		
1,800.00	1,754.73	1,804.41	1,777.25	8.32	7.34	163.02	-234.42	-71.56	92.50	79.48	13.02	7.105		
1,900.00	1,849.64	1,904.22	1,873.71	8.95	7.89	163.60	-259.47	-77.10	98.55	84.71	13.84	7.122		
2,000.00	1,944.55	2,004.03	1,970.17	9.58	8.43	164.11	-284.51	-82.64	104.60	89.95	14.66	7.137		
2,100.00	2,039.46	2,103.85	2,066.63	10.21	8.98	164.56	-309.56	-88.18	110.67	95.19	15.48	7.150		
2,200.00	2,134.36	2,203.66	2,163.09	10.85	9.53	164.97	-334.60	-93.73	116.73	100.43	16.30	7.162		
2,300.00	2,229.27	2,303.47	2,259.55	11.48	10.08	165.34	-359.65	-99.27	122.81	105.68	17.12	7.172		
2,400.00	2,324.18	2,403.28	2,356.01	12.12	10.63	165.67	-384.70	-104.81	128.89	110.94	17.95	7.182		
2,500.00	2,419.09	2,503.10	2,452.47	12.76	11.18	165.97	-409.74	-110.35	134.97	116.20	18.77	7.190		
2,600.00	2,513.99	2,602.91	2,548.93	13.40	11.74	166.25	-434.79	-115.89	141.05	121.46	19.60	7.198		
2,700.00	2,608.90	2,702.72	2,645.39	14.04	12.30	166.50	-459.83	-121.43	147.14	126.72	20.42	7.205		
2,800.00	2,703.81	2,802.53	2,741.85	14.68	12.85	166.73	-484.88	-126.98	153.23	131.99	21.25	7.211		
2,900.00	2,798.72	2,902.34	2,838.31	15.32	13.41	166.95	-509.92	-132.52	159.33	137.25	22.08	7.217		
3,000.00	2,893.63	3,002.16	2,934.77	15.96	13.97	167.15	-534.97	-138.06	165.42	142.52	22.90	7.223		
3,100.00	2,988.53	3,101.97	3,031.23	16.60	14.53	167.33	-560.02	-143.60	171.52	147.79	23.73	7.228		
3,200.00	3,083.44	3,201.78	3,127.69	17.24	15.09	167.51	-585.06	-149.14	177.62	153.06	24.56	7.232		
3,300.00	3,178.35	3,301.59	3,224.15	17.89	15.65	167.67	-610.11	-154.69	183.72	158.34	25.39	7.237		
3,400.00	3,273.26	3,401.41	3,320.61	18.53	16.21	167.82	-635.15	-160.23	189.82	163.61	26.22	7.241		
3,500.00	3,368.16	3,501.22	3,417.07	19.17	16.77	167.96	-660.20	-165.77	195.93	168.88	27.04	7.245		
3,600.00	3,463.07	3,601.03	3,513.53	19.82	17.34	168.09	-685.24	-171.31	202.03	174.16	27.87	7.248		
3,700.00	3,557.98	3,700.84	3,609.99	20.46	17.90	168.22	-710.29	-176.85	208.14	179.44	28.70	7.251		
3,800.00	3,652.89	3,800.66	3,706.45	21.11	18.46	168.34	-735.34	-182.40	214.24	184.71	29.53	7.254		
3,900.00	3,747.80	3,900.47	3,802.91	21.75	19.02	168.45	-760.38	-187.94	220.35	189.99	30.36	7.257		
4,000.00	3,842.70	4,000.28	3,899.37	22.39	19.59	168.55	-785.43	-193.48	226.46	195.27	31.19	7.260		
4,100.00	3,937.61	4,100.09	3,995.83	23.04	20.15	168.65	-810.47	-199.02	232.57	200.55	32.02	7.263		
4,200.00	4,032.52	4,200.09	4,092.29	23.68	20.71	168.75	-835.52	-204.56	238.68	205.83	32.85	7.265		
4,300.00	4,127.43	4,300.28	4,188.75	24.33	21.28	168.84	-860.56	-210.10	244.79	211.10	33.69	7.267		
4,400.00	4,222.33	4,400.47	4,285.21	24.97	21.85	168.92	-885.61	-215.65	250.90	216.38	34.52	7.269		
4,500.00	4,317.24	4,500.66	4,381.67	25.62	22.41	169.00	-910.66	-221.19	257.01	221.66	35.35	7.271		
4,600.00	4,412.15	4,600.84	4,478.13	26.26	22.98	169.08	-935.70	-226.73	263.12	226.94	36.18	7.272		
4,700.00	4,507.06	4,701.03	4,574.59	26.91	23.55	169.16	-960.75	-232.27	269.24	232.22	37.01	7.274		
4,800.00	4,601.97	4,801.22	4,671.05	27.55	24.11	169.23	-985.79	-237.81	275.35	237.50	37.85	7.275		
4,900.00	4,696.87	4,901.41	4,767.51	28.20	24.68	169.29	-1,010.84	-243.36	281.46	242.78	38.68	7.277		

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 5-6-11
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 5-6-11	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	4,791.78	5,001.59	4,863.97	28.85	25.24	169.36	-1,035.88	-248.90	287.57	248.06	39.51	7.278		
5,100.00	4,886.69	5,101.78	4,960.43	29.49	25.81	169.42	-1,060.93	-254.44	293.69	253.34	40.34	7.280		
5,200.00	4,981.60	5,201.97	5,056.89	30.14	26.38	169.48	-1,085.98	-259.98	299.80	258.63	41.18	7.281		
5,300.00	5,076.50	5,302.16	5,153.35	30.78	26.95	169.54	-1,111.02	-265.52	305.92	263.91	42.01	7.282		
5,400.00	5,171.41	5,402.34	5,249.81	31.43	27.51	169.59	-1,136.07	-271.06	312.03	269.19	42.84	7.283		
5,500.00	5,266.32	5,502.53	5,346.27	32.07	28.08	169.65	-1,161.11	-276.61	318.15	274.47	43.68	7.284		
5,600.00	5,361.23	5,602.72	5,442.73	32.72	28.65	169.70	-1,186.16	-282.15	324.26	279.75	44.51	7.285		
5,700.00	5,456.13	5,702.91	5,539.19	33.37	29.21	169.75	-1,211.20	-287.69	330.38	285.03	45.34	7.286		
5,800.00	5,551.04	5,803.09	5,635.65	34.01	29.78	169.79	-1,236.25	-293.23	336.49	290.32	46.18	7.287		
5,900.00	5,645.95	5,896.72	5,732.11	34.66	30.31	169.84	-1,261.29	-298.77	342.61	295.63	46.98	7.292		
6,000.00	5,740.86	6,003.47	5,828.57	35.30	30.92	169.88	-1,286.34	-304.32	348.73	300.88	47.84	7.289		
6,100.00	5,835.77	6,103.66	5,925.03	35.95	31.48	169.93	-1,311.39	-309.86	354.84	306.17	48.68	7.290		
6,200.00	5,930.67	6,203.84	6,021.49	36.60	32.05	169.97	-1,336.43	-315.40	360.96	311.45	49.51	7.291		
6,300.00	6,025.58	6,304.03	6,117.95	37.24	32.62	170.01	-1,361.48	-320.94	367.07	316.73	50.34	7.292		
6,400.00	6,120.49	6,404.22	6,214.41	37.89	33.19	170.05	-1,386.52	-326.48	373.19	322.02	51.18	7.292		
6,500.00	6,215.40	6,495.59	6,310.87	38.54	33.71	170.08	-1,411.57	-332.03	379.31	327.34	51.97	7.298		
6,600.00	6,310.30	6,604.60	6,407.33	39.18	34.32	170.12	-1,436.61	-337.57	385.43	332.58	52.84	7.294		
6,677.09	6,383.47	6,672.35	6,481.69	39.68	34.71	170.15	-1,455.92	-341.84	390.14	336.70	53.45	7.300		
6,700.00	6,405.24	6,695.22	6,503.79	39.83	34.84	170.16	-1,461.66	-343.11	391.45	337.82	53.64	7.298		
6,800.00	6,500.91	6,795.15	6,600.37	40.44	35.40	170.14	-1,486.74	-348.66	395.07	340.59	54.47	7.253		
6,900.00	6,597.55	6,882.77	6,685.40	41.01	35.88	170.09	-1,507.34	-353.22	396.86	341.65	55.21	7.188		
7,000.00	6,695.01	6,970.80	6,771.44	41.53	36.33	170.04	-1,525.48	-357.23	398.23	342.34	55.89	7.125		
7,100.00	6,793.20	7,058.80	6,857.99	42.00	36.74	169.99	-1,541.03	-360.67	399.16	342.66	56.50	7.064		
7,200.00	6,891.99	7,146.79	6,944.97	42.43	37.12	169.94	-1,553.97	-363.53	399.67	342.61	57.05	7.005		
7,300.00	6,991.26	7,234.78	7,032.31	42.81	37.47	169.89	-1,564.30	-365.82	399.74	342.21	57.53	6.948		
7,400.00	7,090.89	7,322.77	7,119.95	43.14	37.79	169.84	-1,572.00	-367.52	399.38	341.44	57.95	6.892		
7,500.00	7,190.76	7,410.77	7,207.80	43.43	38.07	169.80	-1,577.08	-368.65	398.59	340.30	58.29	6.838		
7,595.26	7,286.00	7,494.63	7,291.62	43.64	38.31	0.42	-1,579.46	-369.17	397.44	338.89	58.55	6.788		
7,600.00	7,290.74	7,498.80	7,295.79	43.65	38.32	0.42	-1,579.51	-369.19	397.38	338.82	58.56	6.786		
7,625.26	7,316.00	7,521.05	7,318.03	43.70	38.37	0.41	-1,579.71	-369.23	397.15	338.54	58.61	6.776		
7,640.20	7,330.93	7,538.08	7,330.93	43.73	38.41	90.18	-1,579.75	-369.24	397.11	338.47	58.64	6.772		
7,650.00	7,340.73	7,543.75	7,340.73	43.75	38.43	90.23	-1,579.75	-369.24	397.11	338.44	58.67	6.768		
7,700.00	7,390.53	7,593.81	7,390.79	43.86	38.54	90.76	-1,579.75	-369.91	397.14	338.26	58.89	6.744		
7,750.00	7,439.76	7,644.29	7,441.03	43.98	38.67	91.34	-1,579.73	-374.58	397.22	338.07	59.14	6.716		
7,800.00	7,488.04	7,695.14	7,491.04	44.11	38.81	91.92	-1,579.69	-383.73	397.33	337.88	59.45	6.683		
7,850.00	7,535.02	7,746.36	7,540.38	44.24	38.95	92.49	-1,579.63	-397.39	397.48	337.68	59.80	6.646		
7,900.00	7,580.33	7,797.95	7,588.65	44.38	39.11	93.03	-1,579.55	-415.54	397.66	337.46	60.20	6.606		
7,950.00	7,623.63	7,849.90	7,635.41	44.52	39.27	93.56	-1,579.45	-438.13	397.87	337.23	60.64	6.561		
8,000.00	7,664.59	7,902.20	7,680.22	44.67	39.44	94.05	-1,579.33	-465.06	398.10	336.96	61.14	6.512		
8,050.00	7,702.90	7,954.84	7,722.66	44.83	39.62	94.52	-1,579.20	-496.17	398.34	336.65	61.69	6.457		
8,100.00	7,738.26	8,007.80	7,762.30	44.99	39.81	94.95	-1,579.04	-531.27	398.59	336.28	62.30	6.397		
8,150.00	7,770.41	8,061.06	7,798.72	45.16	40.00	95.35	-1,578.88	-570.11	398.83	335.83	63.00	6.331		
8,200.00	7,799.10	8,114.59	7,831.53	45.33	40.21	95.70	-1,578.69	-612.38	399.06	335.27	63.79	6.256		
8,250.00	7,824.12	8,168.37	7,860.38	45.52	40.43	96.00	-1,578.49	-657.74	399.28	334.59	64.68	6.173		
8,300.00	7,845.26	8,222.36	7,884.95	45.72	40.67	96.26	-1,578.28	-705.80	399.46	333.77	65.69	6.081		
8,350.00	7,862.39	8,276.53	7,904.93	45.94	40.94	96.46	-1,578.07	-756.12	399.62	332.79	66.83	5.980		
8,400.00	7,875.35	8,330.84	7,920.11	46.17	41.23	96.61	-1,577.84	-808.24	399.73	331.65	68.08	5.871		
8,450.00	7,884.06	8,385.24	7,930.31	46.42	41.55	96.71	-1,577.61	-861.66	399.81	330.36	69.45	5.757		
8,500.00	7,888.44	8,439.69	7,935.39	46.70	41.91	96.75	-1,577.37	-915.85	399.84	328.92	70.92	5.638		
8,525.33	7,889.00	8,467.29	7,936.00	46.85	42.11	96.75	-1,577.25	-943.44	399.83	328.14	71.69	5.577		
8,600.00	7,889.00	8,541.86	7,936.00	47.33	42.69	96.75	-1,576.93	-1,018.01	399.83	326.16	73.67	5.427		
8,700.00	7,889.00	8,641.86	7,936.00	48.06	43.60	96.75	-1,576.49	-1,118.01	399.82	323.26	76.55	5.223		

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 5-6-11
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 5-6-11	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		
8,800.00	7,889.00	8,741.86	7,936.00	48.93	44.66	96.75	-1,576.06	-1,218.01	399.81	320.12	79.69	5.017		
8,900.00	7,889.00	8,841.86	7,935.99	49.92	45.88	96.75	-1,575.62	-1,318.01	399.80	316.75	83.06	4.814		
9,000.00	7,888.99	8,941.86	7,935.99	51.05	47.24	96.75	-1,575.18	-1,418.01	399.79	313.17	86.62	4.615		
9,100.00	7,888.99	9,041.86	7,935.99	52.31	48.75	96.75	-1,574.75	-1,518.01	399.79	309.43	90.36	4.424		
9,200.00	7,888.99	9,141.86	7,935.99	53.71	50.37	96.75	-1,574.31	-1,618.00	399.78	305.52	94.26	4.241		
9,300.00	7,888.99	9,241.86	7,935.99	55.23	52.11	96.75	-1,573.88	-1,718.00	399.77	301.48	98.29	4.067		
9,400.00	7,888.99	9,341.86	7,935.98	56.86	53.95	96.75	-1,573.44	-1,818.00	399.76	297.32	102.45	3.902		
9,500.00	7,888.99	9,441.86	7,935.98	58.60	55.87	96.75	-1,573.01	-1,918.00	399.76	293.05	106.71	3.746		
9,600.00	7,888.99	9,541.86	7,935.98	60.43	57.87	96.75	-1,572.57	-2,018.00	399.75	288.69	111.06	3.599		
9,700.00	7,888.99	9,641.86	7,935.98	62.34	59.93	96.75	-1,572.14	-2,118.00	399.74	284.24	115.50	3.461		
9,800.00	7,888.99	9,741.86	7,935.98	64.32	62.05	96.75	-1,571.70	-2,218.00	399.74	279.72	120.01	3.331		
9,900.00	7,888.99	9,841.86	7,935.98	66.37	64.22	96.75	-1,571.27	-2,318.00	399.73	275.14	124.59	3.208		
10,000.00	7,888.98	9,941.86	7,935.97	68.47	66.44	96.75	-1,570.83	-2,418.00	399.72	270.49	129.23	3.093		
10,100.00	7,888.98	10,041.86	7,935.97	70.62	68.69	96.75	-1,570.40	-2,518.00	399.72	265.79	133.93	2.985		
10,200.00	7,888.98	10,141.86	7,935.97	72.82	70.98	96.75	-1,569.96	-2,617.99	399.71	261.05	138.67	2.883		
10,300.00	7,888.98	10,241.86	7,935.97	75.05	73.30	96.75	-1,569.53	-2,717.99	399.71	256.26	143.45	2.786		
10,400.00	7,888.98	10,341.86	7,935.97	77.32	75.65	96.75	-1,569.09	-2,817.99	399.70	251.43	148.27	2.696		
10,500.00	7,888.98	10,441.86	7,935.96	79.63	78.02	96.75	-1,568.66	-2,917.99	399.69	246.57	153.13	2.610		
10,600.00	7,888.98	10,541.86	7,935.96	81.96	80.41	96.75	-1,568.22	-3,017.99	399.69	241.67	158.02	2.529		
10,700.00	7,888.98	10,641.86	7,935.96	84.31	82.83	96.75	-1,567.78	-3,117.99	399.68	236.75	162.94	2.453		
10,800.00	7,888.98	10,741.86	7,935.96	86.69	85.26	96.75	-1,567.35	-3,217.99	399.68	231.80	167.88	2.381		
10,900.00	7,888.98	10,841.86	7,935.96	89.09	87.71	96.75	-1,566.91	-3,317.99	399.67	226.82	172.85	2.312		
11,000.00	7,888.98	10,941.86	7,935.96	91.51	90.17	96.75	-1,566.48	-3,417.99	399.67	221.83	177.84	2.247		
11,100.00	7,888.98	11,041.86	7,935.95	93.94	92.65	96.75	-1,566.04	-3,517.99	399.66	216.81	182.85	2.186		
11,200.00	7,888.98	11,141.86	7,935.95	96.39	95.14	96.75	-1,565.61	-3,617.99	399.66	211.78	187.88	2.127		
11,300.00	7,888.98	11,241.86	7,935.95	98.86	97.64	96.75	-1,565.17	-3,717.98	399.65	206.72	192.93	2.072		
11,400.00	7,888.98	11,341.86	7,935.95	101.33	100.15	96.75	-1,564.74	-3,817.98	399.65	201.66	197.99	2.019		
11,500.00	7,888.98	11,441.86	7,935.95	103.82	102.68	96.75	-1,564.30	-3,917.98	399.64	196.57	203.07	1.968		
11,600.00	7,888.97	11,541.86	7,935.94	106.32	105.21	96.75	-1,563.87	-4,017.98	399.64	191.48	208.16	1.920		
11,700.00	7,888.97	11,641.86	7,935.94	108.83	107.75	96.75	-1,563.43	-4,117.98	399.64	186.37	213.27	1.874		
11,800.00	7,888.97	11,741.86	7,935.94	111.35	110.29	96.75	-1,563.00	-4,217.98	399.63	181.25	218.38	1.830		
11,900.00	7,888.97	11,841.86	7,935.94	113.88	112.85	96.75	-1,562.56	-4,317.98	399.63	176.12	223.51	1.788		
12,000.00	7,888.97	11,941.86	7,935.94	116.41	115.41	96.75	-1,562.13	-4,417.98	399.62	170.98	228.65	1.748		
12,100.00	7,888.97	12,041.86	7,935.94	118.96	117.97	96.75	-1,561.69	-4,517.98	399.62	165.83	233.79	1.709		
12,200.00	7,888.97	12,141.86	7,935.93	121.51	120.55	96.75	-1,561.26	-4,617.98	399.62	160.67	238.95	1.672		
12,300.00	7,888.97	12,241.86	7,935.93	124.06	123.12	96.75	-1,560.82	-4,717.97	399.61	155.50	244.11	1.637		
12,400.00	7,888.97	12,341.86	7,935.93	126.63	125.71	96.75	-1,560.39	-4,817.97	399.61	150.32	249.29	1.603		
12,500.00	7,888.97	12,441.86	7,935.93	129.20	128.30	96.75	-1,559.95	-4,917.97	399.61	145.14	254.47	1.570		
12,600.00	7,888.97	12,541.86	7,935.93	131.77	130.89	96.75	-1,559.51	-5,017.97	399.60	139.95	259.65	1.539		
12,700.00	7,888.97	12,641.86	7,935.92	134.35	133.48	96.75	-1,559.08	-5,117.97	399.60	134.76	264.85	1.509		
12,800.00	7,888.97	12,741.86	7,935.92	136.93	136.08	96.75	-1,558.64	-5,217.97	399.60	129.55	270.05	1.480 Level 3		
12,900.00	7,888.97	12,841.86	7,935.92	139.52	138.69	96.75	-1,558.21	-5,317.97	399.60	124.35	275.25	1.452 Level 3		
13,000.00	7,888.97	12,941.86	7,935.92	142.11	141.30	96.75	-1,557.77	-5,417.97	399.59	119.13	280.46	1.425 Level 3		
13,100.00	7,888.97	13,041.86	7,935.92	144.71	143.91	96.75	-1,557.34	-5,517.97	399.59	113.92	285.68	1.399 Level 3		
13,200.00	7,888.97	13,141.86	7,935.92	147.31	146.52	96.75	-1,556.90	-5,617.97	399.59	108.69	290.90	1.374 Level 3		
13,300.00	7,888.97	13,241.86	7,935.91	149.91	149.14	96.75	-1,556.47	-5,717.97	399.59	103.46	296.12	1.349 Level 3		
13,400.00	7,888.97	13,341.86	7,935.91	152.52	151.76	96.75	-1,556.03	-5,817.96	399.59	98.23	301.35	1.326 Level 3		
13,500.00	7,888.97	13,441.86	7,935.91	155.13	154.38	96.75	-1,555.60	-5,917.96	399.59	93.00	306.59	1.303 Level 3		
13,600.00	7,888.97	13,541.86	7,935.91	157.74	157.00	96.75	-1,555.16	-6,017.96	399.58	87.76	311.83	1.281 Level 3		
13,700.00	7,888.97	13,641.86	7,935.91	160.36	159.63	96.75	-1,554.73	-6,117.96	399.58	82.51	317.07	1.260 Level 3		
13,800.00	7,888.97	13,741.86	7,935.90	162.97	162.26	96.75	-1,554.29	-6,217.96	399.58	77.27	322.31	1.240 Level 2		
13,900.00	7,888.97	13,841.86	7,935.90	165.59	164.89	96.75	-1,553.86	-6,317.96	399.58	72.02	327.56	1.220 Level 2		

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 5-6-11
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 5-6-11	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		
14,000.00	7,888.97	13,941.86	7,935.90	168.22	167.52	96.74	-1,553.42	-6,417.96	399.58	66.76	332.81	1.201	Level 2	
14,100.00	7,888.97	14,041.86	7,935.90	170.84	170.16	96.74	-1,552.99	-6,517.96	399.58	61.51	338.07	1.182	Level 2	
14,200.00	7,888.97	14,141.86	7,935.90	173.47	172.79	96.74	-1,552.55	-6,617.96	399.58	56.25	343.33	1.164	Level 2	
14,300.00	7,888.97	14,241.86	7,935.90	176.10	175.43	96.74	-1,552.11	-6,717.96	399.58	50.99	348.59	1.146	Level 2	
14,400.00	7,888.97	14,341.86	7,935.89	178.73	178.07	96.74	-1,551.68	-6,817.96	399.58	45.72	353.85	1.129	Level 2	
14,500.00	7,888.97	14,441.86	7,935.89	181.36	180.72	96.74	-1,551.24	-6,917.95	399.58	40.46	359.12	1.113	Level 2	
14,600.00	7,888.97	14,541.86	7,935.89	184.00	183.36	96.74	-1,550.81	-7,017.95	399.58	35.19	364.39	1.097	Level 2	
14,700.00	7,888.97	14,641.86	7,935.89	186.63	186.00	96.74	-1,550.37	-7,117.95	399.58	29.92	369.66	1.081	Level 2	
14,700.00	7,888.97	14,641.86	7,935.89	186.63	186.00	96.74	-1,550.37	-7,117.95	399.58	29.92	369.66	1.081	Level 2	
14,800.00	7,888.97	14,741.86	7,935.89	189.27	188.65	96.74	-1,549.94	-7,217.95	399.58	24.64	374.93	1.066	Level 2	
14,900.00	7,888.97	14,841.86	7,935.88	191.91	191.30	96.74	-1,549.50	-7,317.95	399.58	19.37	380.21	1.051	Level 2	
15,000.00	7,888.97	14,941.86	7,935.88	194.55	193.95	96.74	-1,549.07	-7,417.95	399.58	14.09	385.49	1.037	Level 2	
15,100.00	7,888.97	15,041.86	7,935.88	197.20	196.60	96.74	-1,548.63	-7,517.95	399.58	8.81	390.77	1.023	Level 2	
15,200.00	7,888.97	15,141.86	7,935.88	199.84	199.25	96.74	-1,548.20	-7,617.95	399.58	3.53	396.05	1.009	Level 2	
15,300.00	7,888.98	15,241.86	7,935.88	202.49	201.90	96.74	-1,547.76	-7,717.95	399.58	-1.75	401.33	0.996	Level 1	
15,400.00	7,888.98	15,341.86	7,935.88	205.13	204.56	96.74	-1,547.33	-7,817.95	399.58	-7.04	406.62	0.983	Level 1	
15,500.00	7,888.98	15,441.86	7,935.87	207.78	207.21	96.74	-1,546.89	-7,917.94	399.58	-12.32	411.90	0.970	Level 1	
15,600.00	7,888.98	15,541.86	7,935.87	210.43	209.87	96.74	-1,546.46	-8,017.94	399.58	-17.61	417.19	0.958	Level 1	
15,700.00	7,888.98	15,641.86	7,935.87	213.08	212.52	96.74	-1,546.02	-8,117.94	399.58	-22.90	422.48	0.946	Level 1	
15,800.00	7,888.98	15,741.86	7,935.87	215.73	215.18	96.74	-1,545.59	-8,217.94	399.58	-28.19	427.77	0.934	Level 1	
15,900.00	7,888.98	15,841.86	7,935.87	218.39	217.84	96.74	-1,545.15	-8,317.94	399.59	-33.48	433.07	0.923	Level 1	
16,000.00	7,888.98	15,941.86	7,935.86	221.04	220.50	96.74	-1,544.72	-8,417.94	399.59	-38.77	438.36	0.912	Level 1	
16,100.00	7,888.98	16,041.86	7,935.86	223.70	223.16	96.74	-1,544.28	-8,517.94	399.59	-44.07	443.66	0.901	Level 1	
16,200.00	7,888.98	16,141.86	7,935.86	226.35	225.82	96.74	-1,543.84	-8,617.94	399.59	-49.36	448.96	0.890	Level 1	
16,300.00	7,888.98	16,241.86	7,935.86	229.01	228.48	96.74	-1,543.41	-8,717.94	399.59	-54.66	454.25	0.880	Level 1	
16,400.00	7,888.98	16,341.86	7,935.86	231.66	231.14	96.74	-1,542.97	-8,817.94	399.60	-59.96	459.55	0.870	Level 1	
16,500.00	7,888.98	16,441.86	7,935.86	234.32	233.81	96.74	-1,542.54	-8,917.94	399.60	-65.26	464.86	0.860	Level 1	
16,600.00	7,888.98	16,541.86	7,935.85	236.98	236.47	96.74	-1,542.10	-9,017.93	399.60	-70.56	470.16	0.850	Level 1	
16,700.00	7,888.98	16,641.86	7,935.85	239.64	239.13	96.74	-1,541.67	-9,117.93	399.60	-75.86	475.46	0.840	Level 1	
16,800.00	7,888.99	16,741.86	7,935.85	242.30	241.80	96.73	-1,541.23	-9,217.93	399.61	-81.16	480.77	0.831	Level 1	
16,900.00	7,888.99	16,841.86	7,935.85	244.96	244.46	96.73	-1,540.80	-9,317.93	399.61	-86.46	486.07	0.822	Level 1	
17,000.00	7,888.99	16,941.86	7,935.85	247.63	247.13	96.73	-1,540.36	-9,417.93	399.61	-91.76	491.38	0.813	Level 1	
17,100.00	7,888.99	17,041.86	7,935.84	250.29	249.80	96.73	-1,539.93	-9,517.93	399.62	-97.07	496.69	0.805	Level 1	
17,200.00	7,888.99	17,141.86	7,935.84	252.95	252.47	96.73	-1,539.49	-9,617.93	399.62	-102.37	501.99	0.796	Level 1	
17,300.00	7,888.99	17,241.86	7,935.84	255.62	255.13	96.73	-1,539.06	-9,717.93	399.62	-107.68	507.30	0.788	Level 1	
17,400.00	7,888.99	17,341.86	7,935.84	258.28	257.80	96.73	-1,538.62	-9,817.93	399.63	-112.99	512.61	0.780	Level 1	
17,500.00	7,888.99	17,441.86	7,935.84	260.95	260.47	96.73	-1,538.19	-9,917.93	399.63	-118.29	517.92	0.772	Level 1	
17,600.00	7,888.99	17,541.86	7,935.84	263.61	263.14	96.73	-1,537.75	-10,017.92	399.63	-123.60	523.24	0.764	Level 1	
17,700.00	7,888.99	17,641.86	7,935.83	266.28	265.81	96.73	-1,537.32	-10,117.92	399.64	-128.91	528.55	0.756	Level 1	
17,800.00	7,889.00	17,741.86	7,935.83	268.94	268.48	96.73	-1,536.88	-10,217.92	399.64	-134.22	533.86	0.749	Level 1	
17,900.00	7,889.00	17,841.86	7,935.83	271.61	271.15	96.73	-1,536.44	-10,317.92	399.65	-139.53	539.18	0.741	Level 1	
18,000.00	7,889.00	17,941.86	7,935.83	274.28	273.82	96.73	-1,536.01	-10,417.92	399.65	-144.84	544.49	0.734	Level 1	
18,100.00	7,889.00	18,041.86	7,935.83	276.95	276.50	96.73	-1,535.57	-10,517.92	399.66	-150.15	549.81	0.727	Level 1	
18,200.00	7,889.00	18,140.57	7,935.96	279.62	279.13	96.75	-1,535.03	-10,616.63	399.79	-155.17	554.96	0.720	Level 1	
18,212.39	7,889.00	18,152.96	7,936.00	279.95	279.46	96.75	-1,534.94	-10,629.02	399.83	-155.78	555.62	0.720	Level 1, ES, SF	

Anticollision Report

Company:	AXIS EXPLORATION	Local Co-ordinate Reference:	Well JAMASO 4-65 5-6-11
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 5-6-11	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	200.00	200.06	200.03	0.49	0.48	95.93	-1.72	16.59	16.68	15.70	0.97	17.110		
225.45	225.45	225.49	225.45	0.58	0.58	99.37	-2.71	16.43	16.65	15.49	1.16	14.388 CC		
300.00	300.00	299.87	299.71	0.85	0.84	113.60	-6.88	15.74	17.18	15.49	1.69	10.155		
400.00	399.98	399.36	398.81	1.19	1.22	-57.50	-15.42	14.33	20.10	17.69	2.41	8.350		
500.00	499.84	498.61	497.32	1.54	1.61	-44.17	-27.32	12.37	24.73	21.61	3.12	7.934		
600.00	599.45	597.62	595.12	1.89	2.04	-35.50	-42.54	9.85	30.28	26.44	3.83	7.896		
700.00	698.70	696.40	692.10	2.28	2.49	-29.74	-61.03	6.80	36.30	31.74	4.56	7.965		
800.00	797.47	794.95	788.16	2.68	2.98	-25.76	-82.76	3.22	42.58	37.29	5.29	8.051		
900.00	895.62	893.27	883.18	3.12	3.50	-22.92	-107.67	-0.90	48.98	42.95	6.03	8.127		
1,000.00	993.06	991.37	977.06	3.59	4.07	-20.83	-135.72	-5.52	55.44	48.67	6.77	8.186		
1,100.00	1,089.64	1,089.25	1,069.71	4.10	4.67	-19.26	-166.85	-10.66	61.92	54.39	7.53	8.221		
1,200.00	1,185.27	1,186.91	1,161.02	4.66	5.32	-18.06	-201.01	-16.30	68.39	60.08	8.30	8.235		
1,218.17	1,202.53	1,204.66	1,177.49	4.76	5.44	-17.88	-207.55	-17.38	69.56	61.11	8.44	8.237		
1,300.00	1,280.19	1,286.32	1,253.17	5.24	6.01	-17.14	-237.82	-22.37	74.80	65.67	9.13	8.190		
1,400.00	1,375.10	1,386.11	1,345.65	5.84	6.71	-16.37	-274.81	-28.48	81.22	71.24	9.98	8.137		
1,500.00	1,470.01	1,485.90	1,438.12	6.45	7.42	-15.71	-311.80	-34.58	87.66	76.82	10.83	8.091		
1,600.00	1,564.92	1,585.69	1,530.60	7.07	8.13	-15.14	-348.79	-40.69	94.10	82.41	11.69	8.050		
1,700.00	1,659.83	1,685.47	1,623.08	7.69	8.85	-14.64	-385.78	-46.79	100.55	88.01	12.55	8.013		
1,800.00	1,754.73	1,785.26	1,715.56	8.32	9.57	-14.21	-422.77	-52.90	107.01	93.60	13.41	7.981		
1,900.00	1,849.64	1,885.05	1,808.03	8.95	10.29	-13.82	-459.76	-59.00	113.48	99.21	14.27	7.951		
2,000.00	1,944.55	1,984.84	1,900.51	9.58	11.01	-13.48	-496.75	-65.11	119.95	104.81	15.14	7.925		
2,100.00	2,039.46	2,084.63	1,992.99	10.21	11.74	-13.17	-533.74	-71.21	126.42	110.42	16.00	7.901		
2,200.00	2,134.36	2,184.42	2,085.47	10.85	12.46	-12.89	-570.73	-77.32	132.89	116.03	16.87	7.879		
2,300.00	2,229.27	2,284.20	2,177.94	11.48	13.19	-12.64	-607.72	-83.42	139.37	121.64	17.73	7.859		
2,400.00	2,324.18	2,383.99	2,270.42	12.12	13.92	-12.40	-644.71	-89.53	145.85	127.25	18.60	7.841		
2,500.00	2,419.09	2,483.78	2,362.90	12.76	14.64	-12.19	-681.70	-95.63	152.34	132.87	19.47	7.824		
2,600.00	2,513.99	2,583.57	2,455.38	13.40	15.37	-12.00	-718.69	-101.74	158.82	138.48	20.34	7.808		
2,700.00	2,608.90	2,683.36	2,547.86	14.04	16.10	-11.82	-755.68	-107.84	165.31	144.10	21.21	7.794		
2,800.00	2,703.81	2,783.14	2,640.33	14.68	16.83	-11.66	-792.67	-113.95	171.80	149.72	22.08	7.781		
2,900.00	2,798.72	2,882.93	2,732.81	15.32	17.56	-11.50	-829.66	-120.05	178.29	155.34	22.95	7.768		
3,000.00	2,893.63	2,982.72	2,825.29	15.96	18.29	-11.36	-866.65	-126.16	184.78	160.96	23.82	7.757		
3,100.00	2,988.53	3,082.51	2,917.77	16.60	19.02	-11.23	-903.64	-132.26	191.27	166.58	24.69	7.746		
3,200.00	3,083.44	3,182.30	3,010.24	17.24	19.75	-11.10	-940.63	-138.37	197.77	172.20	25.57	7.736		
3,300.00	3,178.35	3,282.08	3,102.72	17.89	20.48	-10.99	-977.62	-144.47	204.26	177.82	26.44	7.726		
3,400.00	3,273.26	3,381.87	3,195.20	18.53	21.21	-10.88	-1,014.61	-150.58	210.75	183.44	27.31	7.717		
3,500.00	3,368.16	3,481.66	3,287.68	19.17	21.94	-10.78	-1,051.60	-156.68	217.25	189.07	28.18	7.709		
3,600.00	3,463.07	3,581.45	3,380.15	19.82	22.68	-10.68	-1,088.59	-162.79	223.75	194.69	29.06	7.701		
3,700.00	3,557.98	3,681.24	3,472.63	20.46	23.41	-10.59	-1,125.58	-168.89	230.24	200.31	29.93	7.693		
3,800.00	3,652.89	3,781.02	3,565.11	21.11	24.14	-10.50	-1,162.57	-174.99	236.74	205.94	30.80	7.686		
3,900.00	3,747.80	3,880.81	3,657.59	21.75	24.87	-10.42	-1,199.56	-181.10	243.24	211.56	31.67	7.679		
4,000.00	3,842.70	3,980.60	3,750.07	22.39	25.60	-10.34	-1,236.55	-187.20	249.74	217.19	32.55	7.673		
4,100.00	3,937.61	4,080.39	3,842.54	23.04	26.33	-10.27	-1,273.54	-193.31	256.23	222.81	33.42	7.667		
4,200.00	4,032.52	4,180.18	3,935.02	23.68	27.07	-10.20	-1,310.53	-199.41	262.73	228.44	34.30	7.661		
4,300.00	4,127.43	4,279.97	4,027.50	24.33	27.80	-10.13	-1,347.52	-205.52	269.23	234.06	35.17	7.655		
4,400.00	4,222.33	4,379.75	4,119.98	24.97	28.53	-10.07	-1,384.51	-211.62	275.73	239.69	36.04	7.650		
4,500.00	4,317.24	4,479.54	4,212.45	25.62	29.26	-10.01	-1,421.50	-217.73	282.23	245.32	36.92	7.645		
4,600.00	4,412.15	4,579.33	4,304.93	26.26	30.00	-9.95	-1,458.49	-223.83	288.73	250.94	37.79	7.640		
4,700.00	4,507.06	4,679.12	4,397.41	26.91	30.73	-9.90	-1,495.48	-229.94	295.23	256.57	38.67	7.636		
4,800.00	4,601.97	4,778.91	4,489.89	27.55	31.46	-9.85	-1,532.47	-236.04	301.73	262.19	39.54	7.631		
4,900.00	4,696.87	4,878.69	4,582.36	28.20	32.19	-9.80	-1,569.46	-242.15	308.24	267.82	40.41	7.627		

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 5-6-11
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 5-6-11	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	4,791.78	4,978.48	4,674.84	28.85	32.93	-9.75	-1,606.45	-248.25	314.74	273.45	41.29	7.623		
5,100.00	4,886.69	5,078.27	4,767.32	29.49	33.66	-9.70	-1,643.44	-254.36	321.24	279.07	42.16	7.619		
5,200.00	4,981.60	5,178.06	4,859.80	30.14	34.39	-9.66	-1,680.43	-260.46	327.74	284.70	43.04	7.615		
5,300.00	5,076.50	5,277.85	4,952.28	30.78	35.12	-9.61	-1,717.42	-266.57	334.24	290.33	43.91	7.611		
5,400.00	5,171.41	5,377.63	5,044.75	31.43	35.86	-9.57	-1,754.41	-272.67	340.74	295.96	44.79	7.608		
5,500.00	5,266.32	5,477.42	5,137.23	32.07	36.59	-9.53	-1,791.40	-278.78	347.25	301.58	45.66	7.605		
5,600.00	5,361.23	5,577.21	5,229.71	32.72	37.32	-9.49	-1,828.39	-284.88	353.75	307.21	46.54	7.601		
5,700.00	5,456.13	5,677.00	5,322.19	33.37	38.06	-9.46	-1,865.38	-290.99	360.25	312.84	47.41	7.598		
5,800.00	5,551.04	5,776.79	5,414.66	34.01	38.79	-9.42	-1,902.37	-297.09	366.75	318.47	48.29	7.595		
5,900.00	5,645.95	5,876.57	5,507.14	34.66	39.52	-9.39	-1,939.36	-303.20	373.26	324.09	49.16	7.592		
6,000.00	5,740.86	5,976.36	5,599.62	35.30	40.25	-9.35	-1,976.35	-309.30	379.76	329.72	50.04	7.589		
6,100.00	5,835.77	6,076.15	5,692.10	35.95	40.99	-9.32	-2,013.34	-315.41	386.26	335.35	50.91	7.587		
6,200.00	5,930.67	6,175.94	5,784.57	36.60	41.72	-9.29	-2,050.33	-321.51	392.77	340.98	51.79	7.584		
6,300.00	6,025.58	6,275.73	5,877.05	37.24	42.45	-9.26	-2,087.32	-327.62	399.27	346.61	52.66	7.581		
6,400.00	6,120.49	6,375.52	5,969.53	37.89	43.19	-9.23	-2,124.31	-333.72	405.77	352.23	53.54	7.579		
6,500.00	6,215.40	6,475.30	6,062.01	38.54	43.92	-9.20	-2,161.30	-339.82	412.28	357.86	54.41	7.577		
6,600.00	6,310.30	6,589.44	6,168.41	39.18	44.73	-9.21	-2,202.03	-346.55	417.32	361.90	55.42	7.530		
6,677.09	6,383.47	6,679.54	6,253.51	39.68	45.33	-9.27	-2,231.23	-351.37	418.49	362.33	56.16	7.451		
6,700.00	6,405.24	6,706.32	6,278.98	39.83	45.50	-9.29	-2,239.41	-352.71	418.47	362.09	56.37	7.423		
6,800.00	6,500.91	6,823.22	6,391.01	40.44	46.21	-9.41	-2,272.30	-358.14	417.99	360.76	57.23	7.304		
6,900.00	6,597.55	6,940.06	6,504.26	41.01	46.84	-9.52	-2,300.65	-362.82	416.93	358.96	57.97	7.192		
7,000.00	6,695.01	7,056.83	6,618.51	41.53	47.41	-9.64	-2,324.41	-366.74	415.27	356.67	58.60	7.087		
7,100.00	6,793.20	7,173.48	6,733.53	42.00	47.92	-9.75	-2,343.53	-369.90	413.02	353.91	59.11	6.987		
7,200.00	6,891.99	7,290.00	6,849.11	42.43	48.35	-9.87	-2,358.01	-372.29	410.19	350.68	59.51	6.892		
7,300.00	6,991.26	7,406.34	6,965.02	42.81	48.72	-9.99	-2,367.82	-373.91	406.79	346.99	59.80	6.802		
7,400.00	7,090.89	7,522.48	7,081.03	43.14	49.01	-10.11	-2,372.98	-374.76	402.81	342.84	59.97	6.717		
7,500.00	7,190.76	7,632.19	7,190.74	43.43	49.21	-10.21	-2,373.85	-374.97	398.57	338.33	60.24	6.616		
7,585.00	7,275.74	7,716.20	7,274.34	43.62	49.38	-9.17	-2,373.82	-382.39	397.12	336.57	60.56	6.558		
7,595.26	7,286.00	7,726.14	7,284.14	43.64	49.40	-178.27	-2,373.81	-384.08	397.15	336.56	60.58	6.555		
7,600.00	7,290.74	7,730.72	7,288.63	43.65	49.41	-178.15	-2,373.81	-384.91	397.17	336.57	60.60	6.554		
7,625.26	7,316.00	7,754.85	7,312.24	43.70	49.46	-177.43	-2,373.79	-389.90	397.35	336.69	60.66	6.550		
7,650.00	7,340.73	7,778.16	7,334.83	43.75	49.51	-86.90	-2,373.76	-395.66	397.63	336.87	60.75	6.545		
7,700.00	7,390.53	7,824.66	7,379.10	43.86	49.62	-85.34	-2,373.70	-409.87	398.40	337.36	61.04	6.527		
7,750.00	7,439.76	7,870.40	7,421.37	43.98	49.73	-83.82	-2,373.62	-427.30	399.44	338.01	61.43	6.502		
7,800.00	7,488.04	7,915.45	7,461.52	44.11	49.84	-82.37	-2,373.53	-447.70	400.72	338.82	61.90	6.474		
7,850.00	7,535.02	7,959.85	7,499.40	44.24	49.96	-80.98	-2,373.43	-470.84	402.19	339.78	62.40	6.445		
7,900.00	7,580.33	8,003.67	7,534.92	44.38	50.08	-79.66	-2,373.32	-496.49	403.80	340.86	62.94	6.416		
7,950.00	7,623.63	8,046.97	7,567.99	44.52	50.20	-78.42	-2,373.20	-524.42	405.52	342.03	63.49	6.388		
8,000.00	7,664.59	8,089.80	7,598.54	44.67	50.32	-77.27	-2,373.07	-554.42	407.28	343.24	64.04	6.359		
8,050.00	7,702.90	8,132.20	7,626.49	44.83	50.45	-76.21	-2,372.93	-586.30	409.06	344.44	64.62	6.330		
8,100.00	7,738.26	8,174.23	7,651.79	44.99	50.57	-75.25	-2,372.79	-619.84	410.79	345.57	65.23	6.298		
8,150.00	7,770.41	8,215.93	7,674.40	45.16	50.71	-74.39	-2,372.63	-654.87	412.45	346.56	65.88	6.260		
8,200.00	7,799.10	8,257.34	7,694.28	45.33	50.85	-73.63	-2,372.48	-691.19	413.98	347.37	66.61	6.215		
8,250.00	7,824.12	8,298.51	7,711.39	45.52	51.00	-72.98	-2,372.31	-728.63	415.36	347.92	67.44	6.159		
8,300.00	7,845.26	8,339.48	7,725.70	45.72	51.15	-72.44	-2,372.15	-767.01	416.56	348.17	68.39	6.091		
8,350.00	7,862.39	8,380.29	7,737.19	45.94	51.31	-72.00	-2,371.98	-806.15	417.54	348.07	69.47	6.011		
8,400.00	7,875.35	8,420.97	7,745.85	46.17	51.48	-71.68	-2,371.80	-845.89	418.29	347.61	70.68	5.918		
8,450.00	7,884.06	8,461.56	7,751.65	46.42	51.67	-71.46	-2,371.63	-886.06	418.79	346.75	72.04	5.813		
8,500.00	7,888.44	8,502.10	7,754.60	46.70	51.86	-71.36	-2,371.45	-926.48	419.04	345.50	73.54	5.698		
8,525.33	7,889.00	8,524.63	7,755.00	46.85	51.97	-71.35	-2,371.37	-946.80	419.06	344.69	74.38	5.634		
8,600.00	7,889.00	8,602.91	7,755.00	47.33	52.40	-71.35	-2,371.04	-1,021.46	419.07	342.77	76.30	5.493		
8,700.00	7,889.00	8,702.91	7,755.00	48.06	53.02	-71.35	-2,370.61	-1,121.46	419.08	340.04	79.03	5.303		

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 5-6-11
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 5-6-11	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		
8,800.00	7,889.00	8,802.91	7,755.00	48.93	53.74	-71.35	-2,370.17	-1,221.46	419.08	337.09	82.00	5.111		
8,900.00	7,889.00	8,902.91	7,755.00	49.92	54.56	-71.35	-2,369.74	-1,321.46	419.09	333.92	85.17	4.921		
9,000.00	7,888.99	9,002.91	7,755.00	51.05	55.50	-71.35	-2,369.30	-1,421.46	419.10	330.58	88.52	4.734		
9,100.00	7,888.99	9,102.91	7,755.00	52.31	56.56	-71.35	-2,368.87	-1,521.46	419.11	327.07	92.04	4.554		
9,200.00	7,888.99	9,202.91	7,755.00	53.71	57.74	-71.35	-2,368.43	-1,621.46	419.12	323.42	95.70	4.379		
9,300.00	7,888.99	9,302.91	7,755.00	55.23	59.03	-71.36	-2,368.00	-1,721.46	419.12	319.63	99.49	4.213		
9,400.00	7,888.99	9,402.91	7,755.00	56.86	60.45	-71.36	-2,367.56	-1,821.46	419.13	315.73	103.40	4.054		
9,500.00	7,888.99	9,502.91	7,755.00	58.60	61.97	-71.36	-2,367.13	-1,921.45	419.14	311.73	107.41	3.902		
9,600.00	7,888.99	9,602.91	7,755.00	60.43	63.61	-71.36	-2,366.70	-2,021.45	419.14	307.64	111.51	3.759		
9,700.00	7,888.99	9,702.91	7,755.00	62.34	65.33	-71.36	-2,366.26	-2,121.45	419.15	303.46	115.69	3.623		
9,800.00	7,888.99	9,802.91	7,755.00	64.32	67.14	-71.36	-2,365.83	-2,221.45	419.16	299.21	119.95	3.495		
9,900.00	7,888.99	9,897.09	7,755.00	66.37	68.92	-71.36	-2,365.39	-2,321.45	419.16	295.02	124.14	3.377		
10,000.00	7,888.98	10,002.91	7,755.00	68.47	71.00	-71.36	-2,364.96	-2,421.45	419.17	290.52	128.65	3.258		
10,100.00	7,888.98	10,102.91	7,755.00	70.62	73.02	-71.36	-2,364.52	-2,521.45	419.18	286.10	133.08	3.150		
10,200.00	7,888.98	10,202.91	7,755.00	72.82	75.10	-71.36	-2,364.09	-2,621.45	419.18	281.62	137.56	3.047		
10,300.00	7,888.98	10,302.91	7,755.00	75.05	77.23	-71.36	-2,363.65	-2,721.45	419.19	277.10	142.09	2.950		
10,400.00	7,888.98	10,402.91	7,755.00	77.32	79.40	-71.36	-2,363.22	-2,821.45	419.20	272.54	146.65	2.858		
10,500.00	7,888.98	10,502.91	7,755.00	79.63	81.62	-71.36	-2,362.78	-2,921.44	419.20	267.95	151.25	2.772		
10,600.00	7,888.98	10,602.91	7,755.00	81.96	83.87	-71.36	-2,362.35	-3,021.44	419.21	263.32	155.88	2.689		
10,700.00	7,888.98	10,702.91	7,755.00	84.31	86.15	-71.36	-2,361.92	-3,121.44	419.21	258.67	160.55	2.611		
10,800.00	7,888.98	10,802.91	7,755.00	86.69	88.46	-71.36	-2,361.48	-3,221.44	419.22	253.98	165.24	2.537		
10,900.00	7,888.98	10,902.91	7,755.00	89.09	90.79	-71.36	-2,361.05	-3,321.44	419.22	249.27	169.95	2.467		
11,000.00	7,888.98	11,002.91	7,755.00	91.51	93.15	-71.36	-2,360.61	-3,421.44	419.23	244.54	174.69	2.400		
11,100.00	7,888.98	11,102.91	7,755.00	93.94	95.53	-71.36	-2,360.18	-3,521.44	419.23	239.78	179.45	2.336		
11,200.00	7,888.98	11,202.91	7,754.99	96.39	97.93	-71.36	-2,359.74	-3,621.44	419.24	235.01	184.23	2.276		
11,300.00	7,888.98	11,302.91	7,754.99	98.86	100.35	-71.36	-2,359.31	-3,721.44	419.24	230.21	189.03	2.218		
11,400.00	7,888.98	11,397.09	7,754.99	101.33	102.64	-71.36	-2,358.87	-3,821.44	419.25	225.54	193.70	2.164		
11,500.00	7,888.98	11,502.91	7,754.99	103.82	105.23	-71.36	-2,358.44	-3,921.44	419.25	220.58	198.67	2.110		
11,600.00	7,888.97	11,602.91	7,754.99	106.32	107.70	-71.36	-2,358.00	-4,021.43	419.26	215.74	203.52	2.060		
11,700.00	7,888.97	11,702.91	7,754.99	108.83	110.17	-71.36	-2,357.57	-4,121.43	419.26	210.89	208.38	2.012		
11,800.00	7,888.97	11,802.91	7,754.99	111.35	112.66	-71.36	-2,357.13	-4,221.43	419.27	206.02	213.25	1.966		
11,900.00	7,888.97	11,902.91	7,754.99	113.88	115.15	-71.36	-2,356.70	-4,321.43	419.27	201.14	218.13	1.922		
12,000.00	7,888.97	12,002.91	7,754.99	116.41	117.66	-71.36	-2,356.27	-4,421.43	419.27	196.25	223.02	1.880		
12,100.00	7,888.97	12,102.91	7,754.99	118.96	120.17	-71.36	-2,355.83	-4,521.43	419.28	191.35	227.93	1.840		
12,200.00	7,888.97	12,202.91	7,754.99	121.51	122.70	-71.36	-2,355.40	-4,621.43	419.28	186.44	232.84	1.801		
12,300.00	7,888.97	12,302.91	7,754.99	124.06	125.23	-71.36	-2,354.96	-4,721.43	419.29	181.53	237.76	1.763		
12,400.00	7,888.97	12,402.91	7,754.99	126.63	127.77	-71.36	-2,354.53	-4,821.43	419.29	176.60	242.69	1.728		
12,500.00	7,888.97	12,502.91	7,754.99	129.20	130.32	-71.37	-2,354.09	-4,921.43	419.29	171.67	247.63	1.693		
12,600.00	7,888.97	12,602.91	7,754.99	131.77	132.87	-71.37	-2,353.66	-5,021.42	419.30	166.72	252.57	1.660		
12,700.00	7,888.97	12,702.91	7,754.99	134.35	135.43	-71.37	-2,353.22	-5,121.42	419.30	161.77	257.53	1.628		
12,800.00	7,888.97	12,797.09	7,754.99	136.93	137.84	-71.37	-2,352.79	-5,221.42	419.30	156.96	262.34	1.598		
12,900.00	7,888.97	12,902.91	7,754.99	139.52	140.56	-71.37	-2,352.35	-5,321.42	419.31	151.85	267.45	1.568		
13,000.00	7,888.97	13,002.91	7,754.99	142.11	143.13	-71.37	-2,351.92	-5,421.42	419.31	146.89	272.42	1.539		
13,100.00	7,888.97	13,102.91	7,754.99	144.71	145.71	-71.37	-2,351.49	-5,521.42	419.31	141.91	277.40	1.512		
13,200.00	7,888.97	13,202.91	7,754.99	147.31	148.30	-71.37	-2,351.05	-5,621.42	419.31	136.93	282.38	1.485 Level 3		
13,300.00	7,888.97	13,302.91	7,754.99	149.91	150.88	-71.37	-2,350.62	-5,721.42	419.32	131.95	287.37	1.459 Level 3		
13,400.00	7,888.97	13,402.91	7,754.99	152.52	153.48	-71.37	-2,350.18	-5,821.42	419.32	126.96	292.36	1.434 Level 3		
13,500.00	7,888.97	13,502.91	7,754.99	155.13	156.07	-71.37	-2,349.75	-5,921.42	419.32	121.96	297.36	1.410 Level 3		
13,600.00	7,888.97	13,602.91	7,754.99	157.74	158.67	-71.37	-2,349.31	-6,021.42	419.32	116.96	302.36	1.387 Level 3		
13,700.00	7,888.97	13,702.91	7,754.99	160.36	161.27	-71.37	-2,348.88	-6,121.41	419.32	111.96	307.36	1.364 Level 3		
13,800.00	7,888.97	13,802.91	7,754.99	162.97	163.88	-71.37	-2,348.44	-6,221.41	419.33	106.95	312.37	1.342 Level 3		
13,900.00	7,888.97	13,902.91	7,754.99	165.59	166.49	-71.37	-2,348.01	-6,321.41	419.33	101.94	317.38	1.321 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 5-6-11
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 5-6-11	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 5-6-12 - 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	7,888.97	14,002.91	7,754.99	168.22	169.10	-71.37	-2,347.57	-6,421.41	419.33	96.93	322.40	1.301	Level 3	
14,100.00	7,888.97	14,102.91	7,754.99	170.84	171.71	-71.37	-2,347.14	-6,521.41	419.33	91.91	327.42	1.281	Level 3	
14,200.00	7,888.97	14,202.91	7,754.99	173.47	174.33	-71.37	-2,346.71	-6,621.41	419.33	86.89	332.44	1.261	Level 3	
14,300.00	7,888.97	14,297.09	7,754.99	176.10	176.79	-71.37	-2,346.27	-6,721.41	419.33	82.01	337.32	1.243	Level 2	
14,400.00	7,888.97	14,402.91	7,754.99	178.73	179.57	-71.37	-2,345.84	-6,821.41	419.33	76.84	342.50	1.224	Level 2	
14,500.00	7,888.97	14,502.91	7,754.99	181.36	182.19	-71.37	-2,345.40	-6,921.41	419.33	71.81	347.53	1.207	Level 2	
14,600.00	7,888.97	14,602.91	7,754.99	184.00	184.82	-71.37	-2,344.97	-7,021.41	419.34	66.77	352.56	1.189	Level 2	
14,700.00	7,888.97	14,702.91	7,754.99	186.63	187.44	-71.37	-2,344.53	-7,121.41	419.34	61.74	357.60	1.173	Level 2	
14,800.00	7,888.97	14,802.91	7,754.99	189.27	190.07	-71.37	-2,344.10	-7,221.40	419.34	56.70	362.64	1.156	Level 2	
14,900.00	7,888.97	14,902.91	7,754.99	191.91	192.70	-71.37	-2,343.66	-7,321.40	419.34	51.66	367.68	1.140	Level 2	
15,000.00	7,888.97	15,002.91	7,754.99	194.55	195.34	-71.37	-2,343.23	-7,421.40	419.34	46.61	372.72	1.125	Level 2	
15,100.00	7,888.97	15,102.91	7,754.99	197.20	197.97	-71.37	-2,342.79	-7,521.40	419.34	41.57	377.77	1.110	Level 2	
15,200.00	7,888.97	15,202.91	7,754.99	199.84	200.61	-71.37	-2,342.36	-7,621.40	419.34	36.52	382.82	1.095	Level 2	
15,300.00	7,888.98	15,302.91	7,754.99	202.49	203.25	-71.37	-2,341.93	-7,721.40	419.34	31.47	387.87	1.081	Level 2	
15,400.00	7,888.98	15,402.91	7,754.99	205.13	205.89	-71.37	-2,341.49	-7,821.40	419.34	26.42	392.92	1.067	Level 2	
15,500.00	7,888.98	15,502.91	7,754.99	207.78	208.53	-71.37	-2,341.06	-7,921.40	419.34	21.36	397.97	1.054	Level 2	
15,600.00	7,888.98	15,602.91	7,754.99	210.43	211.17	-71.37	-2,340.62	-8,021.40	419.34	16.31	403.03	1.040	Level 2	
15,700.00	7,888.98	15,702.91	7,754.99	213.08	213.81	-71.37	-2,340.19	-8,121.40	419.34	11.25	408.09	1.028	Level 2	
15,800.00	7,888.98	15,802.91	7,754.99	215.73	216.46	-71.37	-2,339.75	-8,221.39	419.33	6.19	413.15	1.015	Level 2	
15,900.00	7,888.98	15,902.91	7,754.99	218.39	219.10	-71.37	-2,339.32	-8,321.39	419.33	1.13	418.21	1.003	Level 2	
16,000.00	7,888.98	15,997.09	7,754.99	221.04	221.60	-71.36	-2,338.88	-8,421.39	419.33	-3.79	423.12	0.991	Level 1	
16,100.00	7,888.98	16,102.91	7,754.99	223.70	224.40	-71.36	-2,338.45	-8,521.39	419.33	-9.00	428.33	0.979	Level 1	
16,200.00	7,888.98	16,202.91	7,754.99	226.35	227.05	-71.36	-2,338.01	-8,621.39	419.33	-14.07	433.40	0.968	Level 1	
16,300.00	7,888.98	16,302.91	7,754.99	229.01	229.70	-71.36	-2,337.58	-8,721.39	419.33	-19.13	438.46	0.956	Level 1	
16,400.00	7,888.98	16,402.91	7,754.98	231.66	232.35	-71.36	-2,337.15	-8,821.39	419.33	-24.20	443.53	0.945	Level 1	
16,500.00	7,888.98	16,502.91	7,754.98	234.32	235.00	-71.36	-2,336.71	-8,921.39	419.33	-29.27	448.60	0.935	Level 1	
16,600.00	7,888.98	16,602.91	7,754.98	236.98	237.66	-71.36	-2,336.28	-9,021.39	419.32	-34.34	453.67	0.924	Level 1	
16,700.00	7,888.98	16,702.91	7,754.98	239.64	240.31	-71.36	-2,335.84	-9,121.39	419.32	-39.42	458.74	0.914	Level 1	
16,800.00	7,888.99	16,802.91	7,754.98	242.30	242.97	-71.36	-2,335.41	-9,221.39	419.32	-44.49	463.81	0.904	Level 1	
16,900.00	7,888.99	16,902.91	7,754.98	244.96	245.62	-71.36	-2,334.97	-9,321.38	419.32	-49.57	468.89	0.894	Level 1	
17,000.00	7,888.99	17,002.91	7,754.98	247.63	248.28	-71.36	-2,334.54	-9,421.38	419.32	-54.64	473.96	0.885	Level 1	
17,100.00	7,888.99	17,102.91	7,754.98	250.29	250.94	-71.36	-2,334.10	-9,521.38	419.31	-59.72	479.04	0.875	Level 1	
17,200.00	7,888.99	17,202.91	7,754.98	252.95	253.60	-71.36	-2,333.67	-9,621.38	419.31	-64.80	484.11	0.866	Level 1	
17,300.00	7,888.99	17,302.91	7,754.98	255.62	256.26	-71.36	-2,333.23	-9,721.38	419.31	-69.88	489.19	0.857	Level 1	
17,400.00	7,888.99	17,402.91	7,754.98	258.28	258.92	-71.36	-2,332.80	-9,821.38	419.31	-74.96	494.27	0.848	Level 1	
17,500.00	7,888.99	17,502.91	7,754.98	260.95	261.58	-71.36	-2,332.37	-9,921.38	419.30	-80.04	499.35	0.840	Level 1	
17,600.00	7,888.99	17,602.91	7,754.98	263.61	264.24	-71.36	-2,331.93	-10,021.38	419.30	-85.13	504.43	0.831	Level 1	
17,700.00	7,888.99	17,702.91	7,754.98	266.28	266.90	-71.36	-2,331.50	-10,121.38	419.30	-90.21	509.51	0.823	Level 1	
17,800.00	7,889.00	17,802.91	7,754.98	268.94	269.56	-71.36	-2,331.06	-10,221.38	419.29	-95.30	514.59	0.815	Level 1	
17,900.00	7,889.00	17,902.91	7,754.98	271.61	272.23	-71.36	-2,330.63	-10,321.37	419.29	-100.38	519.67	0.807	Level 1	
18,000.00	7,889.00	18,002.91	7,754.98	274.28	274.89	-71.36	-2,330.19	-10,421.37	419.29	-105.47	524.76	0.799	Level 1	
18,100.00	7,889.00	18,102.91	7,754.98	276.95	277.56	-71.36	-2,329.76	-10,521.37	419.28	-110.56	529.84	0.791	Level 1	
18,200.00	7,889.00	18,205.57	7,754.99	279.62	280.29	-71.36	-2,329.17	-10,629.85	419.25	-114.81	534.06	0.785	Level 1	
18,212.39	7,889.00	18,210.73	7,755.00	279.95	280.43	-71.35	-2,329.04	-10,635.02	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 5-6-11
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 5-6-11	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		
0.00	0.00	0.00	0.00	0.00	0.00	-90.00	0.00	-109.69	109.69					
100.00	100.00	100.00	100.00	0.13	0.13	-90.00	0.00	-109.69	109.69	109.42	0.27	407.980		
200.00	200.00	200.00	200.00	0.49	0.49	-90.00	0.00	-109.69	109.69	108.70	0.99	111.267		
300.00	300.00	300.00	300.00	0.85	0.85	-90.00	0.00	-109.69	109.69	107.98	1.70	64.418		
400.00	399.98	399.98	399.98	1.19	1.21	80.25	0.00	-109.69	109.38	106.97	2.40	45.505		
494.64	494.49	493.68	493.66	1.52	1.55	83.54	1.51	-109.93	109.01	105.95	3.06	35.603 CC		
500.00	499.84	498.96	498.94	1.54	1.57	83.82	1.69	-109.96	109.01	105.91	3.10	35.176 ES		
600.00	599.45	596.91	596.75	1.89	1.92	90.77	6.68	-110.78	110.15	106.34	3.81	28.906		
700.00	698.70	693.16	692.65	2.28	2.27	100.35	14.79	-112.11	115.13	110.59	4.54	25.350		
800.00	797.47	787.12	785.94	2.68	2.62	111.11	25.77	-113.91	126.64	121.35	5.28	23.965		
900.00	895.62	878.23	876.01	3.12	2.98	121.34	39.30	-116.12	146.56	140.54	6.02	24.363		
1,000.00	993.06	966.01	962.34	3.59	3.35	129.97	55.00	-118.69	175.39	168.67	6.72	26.112		
1,100.00	1,089.64	1,050.07	1,044.51	4.10	3.72	136.72	72.48	-121.55	212.60	205.22	7.38	28.799		
1,200.00	1,185.27	1,130.70	1,122.81	4.66	4.09	141.87	91.46	-124.66	257.30	249.28	8.02	32.096		
1,218.17	1,202.53	1,146.09	1,137.70	4.76	4.16	142.72	95.25	-125.28	266.08	257.94	8.14	32.672		
1,300.00	1,280.19	1,215.24	1,204.67	5.24	4.50	146.48	112.29	-128.07	306.49	297.81	8.68	35.293		
1,400.00	1,375.10	1,300.26	1,286.49	5.84	4.92	149.96	133.12	-131.48	356.95	347.60	9.35	38.181		
1,500.00	1,470.01	1,384.25	1,368.32	6.45	5.34	152.59	153.94	-134.89	408.17	398.15	10.01	40.764		
1,600.00	1,564.92	1,468.76	1,450.15	7.07	5.77	154.66	174.77	-138.30	459.90	449.21	10.68	43.046		
1,700.00	1,659.83	1,553.26	1,531.98	7.69	6.20	156.31	195.60	-141.71	511.99	500.63	11.36	45.073		
1,800.00	1,754.73	1,637.77	1,613.81	8.32	6.64	157.66	216.42	-145.12	564.34	552.30	12.04	46.879		
1,900.00	1,849.64	1,722.27	1,695.63	8.95	7.08	158.78	237.25	-148.53	616.87	604.15	12.72	48.494		
2,000.00	1,944.55	1,806.78	1,777.46	9.58	7.53	159.73	258.07	-151.94	669.56	656.15	13.41	49.944		
2,100.00	2,039.46	1,908.72	1,859.29	10.21	8.06	160.54	278.90	-155.35	722.36	708.20	14.16	51.003		
2,200.00	2,134.36	1,975.79	1,941.12	10.85	8.42	161.25	299.73	-158.76	775.25	760.47	14.79	52.435		
2,300.00	2,229.27	2,060.30	2,022.95	11.48	8.86	161.86	320.55	-162.16	828.22	812.74	15.48	53.510		
2,400.00	2,324.18	2,144.80	2,104.78	12.12	9.31	162.40	341.38	-165.57	881.25	865.08	16.17	54.491		
2,500.00	2,419.09	2,229.31	2,186.60	12.76	9.76	162.88	362.20	-168.98	934.33	917.46	16.87	55.388		
2,600.00	2,513.99	2,313.81	2,268.43	13.40	10.21	163.31	383.03	-172.39	987.45	969.88	17.57	56.212		
2,700.00	2,608.90	2,401.68	2,350.26	14.04	10.68	163.69	403.86	-175.80	1,040.60	1,022.32	18.28	56.930		
2,800.00	2,703.81	2,482.82	2,432.09	14.68	11.12	164.04	424.68	-179.21	1,093.79	1,074.82	18.97	57.672		
2,900.00	2,798.72	2,567.33	2,513.92	15.32	11.57	164.35	445.51	-182.62	1,147.00	1,127.33	19.67	58.321		
3,000.00	2,893.63	2,651.83	2,595.74	15.96	12.02	164.64	466.34	-186.03	1,200.23	1,179.86	20.37	58.923		
3,100.00	2,988.53	2,736.34	2,677.57	16.60	12.47	164.90	487.16	-189.44	1,253.49	1,232.41	21.07	59.484		
3,200.00	3,083.44	2,820.85	2,759.40	17.24	12.93	165.15	507.99	-192.85	1,306.76	1,284.98	21.78	60.006		
3,300.00	3,178.35	2,905.35	2,841.23	17.89	13.38	165.37	528.81	-196.26	1,360.05	1,337.56	22.48	60.495		
3,400.00	3,273.26	2,989.86	2,923.06	18.53	13.84	165.57	549.64	-199.67	1,413.35	1,390.16	23.19	60.952		
3,500.00	3,368.16	3,074.36	3,004.89	19.17	14.29	165.77	570.47	-203.08	1,466.66	1,442.77	23.89	61.381		
3,600.00	3,463.07	3,158.87	3,086.71	19.82	14.75	165.94	591.29	-206.49	1,519.98	1,495.38	24.60	61.785		
3,700.00	3,557.98	3,243.37	3,168.54	20.46	15.20	166.11	612.12	-209.90	1,573.32	1,548.01	25.31	62.164		
3,800.00	3,652.89	3,327.88	3,250.37	21.11	15.66	166.26	632.94	-213.31	1,626.66	1,600.64	26.02	62.522		
3,900.00	3,747.80	3,412.38	3,332.20	21.75	16.11	166.41	653.77	-216.72	1,680.01	1,653.28	26.73	62.859		
4,000.00	3,842.70	3,496.89	3,414.03	22.39	16.57	166.54	674.60	-220.13	1,733.37	1,705.93	27.44	63.179		
4,100.00	3,937.61	3,581.40	3,495.85	23.04	17.03	166.67	695.42	-223.53	1,786.73	1,758.59	28.15	63.481		
4,200.00	4,032.52	3,665.90	3,577.68	23.68	17.48	166.79	716.25	-226.94	1,840.10	1,811.25	28.86	63.767		
4,300.00	4,127.43	3,750.41	3,659.51	24.33	17.94	166.91	737.08	-230.35	1,893.48	1,863.91	29.57	64.039		
4,400.00	4,222.33	3,834.91	3,741.34	24.97	18.40	167.01	757.90	-233.76	1,946.86	1,916.58	30.28	64.297		
4,500.00	4,317.24	3,919.42	3,823.17	25.62	18.85	167.12	778.73	-237.17	2,000.24	1,969.25	30.99	64.543		
4,600.00	4,412.15	4,003.92	3,904.99	26.26	19.31	167.21	799.55	-240.58	2,053.63	2,021.93	31.70	64.777		
4,700.00	4,507.06	4,088.43	3,986.82	26.91	19.77	167.30	820.38	-243.99	2,107.03	2,074.61	32.42	64.999		
4,800.00	4,601.97	4,172.94	4,068.65	27.55	20.22	167.39	841.21	-247.40	2,160.42	2,127.29	33.13	65.212		
4,900.00	4,696.87	4,257.44	4,150.48	28.20	20.68	167.47	862.03	-250.81	2,213.83	2,179.98	33.84	65.414		

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 5-6-11
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 5-6-11	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	4,791.78	4,341.95	4,232.31	28.85	21.14	167.55	882.86	-254.22	2,267.23	2,232.67	34.56	65.608		
5,100.00	4,886.69	4,426.45	4,314.14	29.49	21.60	167.63	903.69	-257.63	2,320.64	2,285.36	35.27	65.793		
5,200.00	4,981.60	4,510.96	4,395.96	30.14	22.05	167.70	924.51	-261.04	2,374.05	2,338.06	35.99	65.970		
5,300.00	5,076.50	4,604.54	4,477.79	30.78	22.56	167.77	945.34	-264.45	2,427.46	2,390.72	36.74	66.074		
5,400.00	5,171.41	4,679.97	4,559.62	31.43	22.97	167.84	966.16	-267.86	2,480.87	2,443.45	37.42	66.302		
5,500.00	5,266.32	4,764.47	4,641.45	32.07	23.43	167.90	986.99	-271.27	2,534.29	2,496.15	38.13	66.458		
5,600.00	5,361.23	4,848.98	4,723.28	32.72	23.88	167.96	1,007.82	-274.68	2,587.71	2,548.86	38.85	66.607		
5,700.00	5,456.13	4,933.49	4,805.10	33.37	24.34	168.02	1,028.64	-278.09	2,641.13	2,601.56	39.57	66.750		
5,800.00	5,551.04	5,017.99	4,886.93	34.01	24.80	168.07	1,049.47	-281.50	2,694.55	2,654.27	40.28	66.888		
5,900.00	5,645.95	5,102.50	4,968.76	34.66	25.26	168.13	1,070.29	-284.90	2,747.98	2,706.97	41.00	67.020		
6,000.00	5,740.86	5,187.00	5,050.59	35.30	25.72	168.18	1,091.12	-288.31	2,801.40	2,759.68	41.72	67.147		
6,100.00	5,835.77	5,271.51	5,132.42	35.95	26.17	168.23	1,111.95	-291.72	2,854.83	2,812.39	42.44	67.269		
6,200.00	5,930.67	5,356.01	5,214.25	36.60	26.63	168.28	1,132.77	-295.13	2,908.26	2,865.10	43.16	67.387		
6,300.00	6,025.58	5,440.52	5,296.07	37.24	27.09	168.32	1,153.60	-298.54	2,961.69	2,917.81	43.88	67.500		
6,400.00	6,120.49	5,525.03	5,377.90	37.89	27.55	168.37	1,174.43	-301.95	3,015.12	2,970.52	44.60	67.609		
6,500.00	6,215.40	5,609.53	5,459.73	38.54	28.01	168.41	1,195.25	-305.36	3,068.55	3,023.24	45.32	67.714		
6,600.00	6,310.30	5,705.96	5,541.56	39.18	28.53	168.45	1,216.08	-308.77	3,121.99	3,075.90	46.09	67.744		
6,677.09	6,383.47	5,759.18	5,604.64	39.68	28.82	168.48	1,232.13	-311.40	3,163.18	3,116.59	46.59	67.890		
6,700.00	6,405.24	5,778.59	5,623.43	39.83	28.92	168.55	1,236.92	-312.18	3,175.35	3,128.59	46.76	67.911		
6,800.00	6,500.91	5,864.41	5,706.53	40.44	29.39	168.81	1,258.07	-315.64	3,226.66	3,179.18	47.48	67.960		
6,900.00	6,597.55	5,951.94	5,791.29	41.01	29.86	169.04	1,279.64	-319.18	3,275.00	3,226.80	48.20	67.945		
7,000.00	6,695.01	6,041.08	5,877.60	41.53	30.35	169.23	1,301.60	-322.77	3,320.31	3,271.39	48.92	67.868		
7,100.00	6,793.20	6,131.72	5,965.37	42.00	30.84	169.39	1,323.94	-326.43	3,362.54	3,312.90	49.64	67.732		
7,200.00	6,891.99	6,223.74	6,054.48	42.43	31.34	169.52	1,346.62	-330.14	3,401.64	3,351.27	50.36	67.542		
7,300.00	6,991.26	6,317.04	6,144.83	42.81	31.84	169.63	1,369.62	-333.91	3,437.55	3,386.48	51.08	67.300		
7,400.00	7,090.89	6,411.51	6,236.30	43.14	32.36	169.70	1,392.90	-337.72	3,470.25	3,418.46	51.79	67.010		
7,500.00	7,190.76	6,507.02	6,328.78	43.43	32.88	169.76	1,416.44	-341.57	3,499.68	3,447.19	52.49	66.674		
7,595.26	7,286.00	6,601.13	6,417.73	43.64	33.39	0.45	1,439.07	-345.28	3,524.65	3,471.50	53.15	66.319		
7,600.00	7,290.74	6,603.46	6,422.17	43.65	33.40	0.45	1,440.20	-345.46	3,525.82	3,472.65	53.17	66.314		
7,625.26	7,316.00	6,627.92	6,445.86	43.70	33.53	0.43	1,446.23	-346.45	3,532.04	3,478.70	53.34	66.221		
7,650.00	7,340.73	6,651.89	6,469.07	43.75	33.66	89.54	1,452.14	-347.42	3,538.13	3,484.63	53.50	66.127		
7,700.00	7,390.53	7,583.32	7,389.32	43.86	37.33	89.84	1,567.57	-371.02	3,544.41	3,485.49	58.92	60.159		
7,750.00	7,439.76	7,632.52	7,437.78	43.98	37.46	89.84	1,567.61	-379.40	3,544.40	3,485.15	59.25	59.817		
7,800.00	7,488.04	7,681.73	7,485.36	44.11	37.60	89.85	1,567.66	-391.91	3,544.40	3,484.79	59.61	59.458		
7,850.00	7,535.02	7,730.96	7,531.70	44.24	37.75	89.85	1,567.73	-408.46	3,544.40	3,484.41	59.99	59.081		
7,900.00	7,580.33	7,780.21	7,576.48	44.38	37.89	89.86	1,567.82	-428.94	3,544.40	3,484.00	60.40	58.685		
7,950.00	7,623.63	7,829.50	7,619.37	44.52	38.05	89.86	1,567.93	-453.20	3,544.39	3,483.56	60.83	58.266		
8,000.00	7,664.59	7,878.82	7,660.03	44.67	38.21	89.87	1,568.05	-481.08	3,544.39	3,483.09	61.30	57.820		
8,050.00	7,702.90	7,928.19	7,698.19	44.83	38.37	89.88	1,568.18	-512.39	3,544.38	3,482.57	61.81	57.341		
8,100.00	7,738.26	7,977.60	7,733.54	44.99	38.55	89.89	1,568.33	-546.89	3,544.38	3,482.00	62.38	56.823		
8,150.00	7,770.41	8,027.06	7,765.81	45.16	38.73	89.90	1,568.49	-584.35	3,544.37	3,481.37	63.00	56.260		
8,200.00	7,799.10	8,076.58	7,794.77	45.33	38.93	89.91	1,568.67	-624.50	3,544.36	3,480.67	63.69	55.647		
8,250.00	7,824.12	8,126.16	7,820.19	45.52	39.15	89.92	1,568.85	-667.05	3,544.36	3,479.89	64.46	54.981		
8,300.00	7,845.26	8,175.80	7,841.85	45.72	39.38	89.94	1,569.04	-711.69	3,544.35	3,479.03	65.32	54.262		
8,350.00	7,862.39	8,225.50	7,859.59	45.94	39.64	89.95	1,569.24	-758.10	3,544.35	3,478.09	66.26	53.492		
8,400.00	7,875.35	8,275.27	7,873.27	46.17	39.93	89.96	1,569.45	-805.95	3,544.34	3,477.05	67.28	52.677		
8,450.00	7,884.06	8,325.12	7,882.74	46.42	40.25	89.98	1,569.66	-854.86	3,544.33	3,475.94	68.39	51.825		
8,500.00	7,888.44	8,375.03	7,887.94	46.70	40.60	89.99	1,569.87	-904.49	3,544.33	3,474.76	69.57	50.948		
8,525.33	7,889.00	8,400.35	7,888.92	46.85	40.79	90.00	1,569.98	-929.78	3,544.32	3,474.14	70.18	50.500		
8,600.00	7,889.00	8,475.01	7,889.00	47.33	41.42	90.00	1,570.30	-1,004.45	3,544.31	3,472.18	72.13	49.135		
8,700.00	7,889.00	8,575.01	7,889.00	48.06	42.38	90.00	1,570.74	-1,104.44	3,544.30	3,469.31	74.99	47.264		
8,800.00	7,889.00	8,675.00	7,889.00	48.93	43.51	90.00	1,571.17	-1,204.44	3,544.29	3,466.18	78.11	45.376		

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 5-6-11
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 5-6-11	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 5-6-2 - 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					
8,900.00	7,889.00	8,775.00	7,889.00	49.92	44.79	90.00	1,571.60	-1,304.43	3,544.28	3,462.81	81.47	43.505					
9,000.00	7,888.99	8,875.00	7,888.99	51.05	46.21	90.00	1,572.03	-1,404.43	3,544.27	3,459.23	85.03	41.681					
9,100.00	7,888.99	8,974.99	7,888.99	52.31	47.76	90.00	1,572.46	-1,504.42	3,544.26	3,455.47	88.78	39.921					
9,200.00	7,888.99	9,074.99	7,888.99	53.71	49.43	90.00	1,572.89	-1,604.42	3,544.25	3,451.55	92.69	38.236					
9,300.00	7,888.99	9,174.98	7,888.99	55.23	51.21	90.00	1,573.33	-1,704.41	3,544.24	3,447.49	96.75	36.635					
9,400.00	7,888.99	9,274.98	7,888.99	56.86	53.07	90.00	1,573.76	-1,804.41	3,544.23	3,443.30	100.92	35.118					
9,500.00	7,888.99	9,374.97	7,888.99	58.60	55.02	90.00	1,574.19	-1,904.40	3,544.22	3,439.01	105.21	33.688					
9,600.00	7,888.99	9,474.97	7,888.99	60.43	57.03	90.00	1,574.62	-2,004.40	3,544.21	3,434.61	109.59	32.340					
9,700.00	7,888.99	9,574.97	7,888.99	62.34	59.11	90.00	1,575.06	-2,104.39	3,544.20	3,430.14	114.06	31.073					
9,800.00	7,888.99	9,674.96	7,888.99	64.32	61.24	90.00	1,575.49	-2,204.39	3,544.19	3,425.58	118.61	29.882					
9,900.00	7,888.99	9,774.96	7,888.98	66.37	63.41	90.00	1,575.92	-2,304.38	3,544.18	3,420.96	123.22	28.764					
10,000.00	7,888.98	9,874.95	7,888.98	68.47	65.63	90.00	1,576.36	-2,404.38	3,544.17	3,416.28	127.89	27.713					
10,100.00	7,888.98	9,974.95	7,888.98	70.62	67.89	90.00	1,576.79	-2,504.37	3,544.16	3,411.54	132.62	26.725					
10,200.00	7,888.98	10,074.94	7,888.98	72.82	70.18	90.00	1,577.22	-2,604.36	3,544.15	3,406.76	137.39	25.796					
10,300.00	7,888.98	10,174.94	7,888.98	75.05	72.50	90.00	1,577.66	-2,704.36	3,544.15	3,401.94	142.21	24.922					
10,400.00	7,888.98	10,274.94	7,888.98	77.32	74.85	90.00	1,578.09	-2,804.35	3,544.14	3,397.07	147.07	24.099					
10,500.00	7,888.98	10,374.93	7,888.98	79.63	77.22	90.00	1,578.52	-2,904.35	3,544.13	3,392.17	151.96	23.323					
10,600.00	7,888.98	10,474.93	7,888.98	81.96	79.61	90.00	1,578.96	-3,004.34	3,544.12	3,387.24	156.89	22.591					
10,700.00	7,888.98	10,574.92	7,888.98	84.31	82.02	90.00	1,579.39	-3,104.34	3,544.12	3,382.28	161.84	21.899					
10,800.00	7,888.98	10,674.92	7,888.98	86.69	84.45	90.00	1,579.82	-3,204.33	3,544.11	3,377.29	166.82	21.245					
10,900.00	7,888.98	10,774.91	7,888.98	89.09	86.90	90.00	1,580.26	-3,304.33	3,544.10	3,372.28	171.83	20.626					
11,000.00	7,888.98	10,874.91	7,888.98	91.51	89.36	90.00	1,580.69	-3,404.32	3,544.10	3,367.25	176.85	20.040					
11,100.00	7,888.98	10,974.91	7,888.98	93.94	91.83	90.00	1,581.13	-3,504.32	3,544.09	3,362.19	181.90	19.484					
11,200.00	7,888.98	11,074.90	7,888.97	96.39	94.32	90.00	1,581.56	-3,604.31	3,544.09	3,357.12	186.97	18.956					
11,300.00	7,888.98	11,174.90	7,888.97	98.86	96.82	90.00	1,582.00	-3,704.31	3,544.08	3,352.03	192.05	18.454					
11,400.00	7,888.98	11,274.89	7,888.97	101.33	99.33	90.00	1,582.43	-3,804.30	3,544.08	3,346.93	197.15	17.977					
11,500.00	7,888.98	11,374.89	7,888.97	103.82	101.84	90.00	1,582.86	-3,904.30	3,544.07	3,341.81	202.26	17.522					
11,600.00	7,888.97	11,474.89	7,888.97	106.32	104.37	90.00	1,583.30	-4,004.29	3,544.07	3,336.68	207.39	17.089					
11,700.00	7,888.97	11,574.88	7,888.97	108.83	106.91	90.00	1,583.73	-4,104.29	3,544.06	3,331.53	212.53	16.675					
11,800.00	7,888.97	11,674.88	7,888.97	111.35	109.45	90.00	1,584.17	-4,204.28	3,544.06	3,326.38	217.68	16.281					
11,900.00	7,888.97	11,774.87	7,888.97	113.88	112.00	90.00	1,584.61	-4,304.28	3,544.06	3,321.21	222.85	15.904					
12,000.00	7,888.97	11,874.87	7,888.97	116.41	114.56	90.00	1,585.04	-4,404.27	3,544.05	3,316.03	228.02	15.543					
12,100.00	7,888.97	11,974.86	7,888.97	118.96	117.12	90.00	1,585.48	-4,504.27	3,544.05	3,310.85	233.20	15.197					
12,200.00	7,888.97	12,074.86	7,888.97	121.51	119.69	90.00	1,585.91	-4,604.26	3,544.05	3,305.65	238.39	14.866					
12,300.00	7,888.97	12,174.86	7,888.97	124.06	122.26	90.00	1,586.35	-4,704.26	3,544.04	3,300.45	243.59	14.549					
12,400.00	7,888.97	12,274.85	7,888.97	126.63	124.84	90.00	1,586.78	-4,804.25	3,544.04	3,295.24	248.80	14.244					
12,500.00	7,888.97	12,374.85	7,888.97	129.20	127.42	90.00	1,587.22	-4,904.25	3,544.04	3,290.02	254.02	13.952					
12,600.00	7,888.97	12,474.84	7,888.97	131.77	130.01	90.00	1,587.66	-5,004.24	3,544.04	3,284.80	259.24	13.671					
12,700.00	7,888.97	12,574.84	7,888.97	134.35	132.60	90.00	1,588.09	-5,104.24	3,544.04	3,279.57	264.47	13.401					
12,800.00	7,888.97	12,674.83	7,888.97	136.93	135.20	90.00	1,588.53	-5,204.23	3,544.03	3,274.33	269.70	13.141					
12,900.00	7,888.97	12,774.83	7,888.97	139.52	137.80	90.00	1,588.96	-5,304.23	3,544.03	3,269.09	274.94	12.890					
13,000.00	7,888.97	12,874.83	7,888.97	142.11	140.40	90.00	1,589.40	-5,404.22	3,544.03	3,263.85	280.19	12.649					
13,100.00	7,888.97	12,974.82	7,888.97	144.71	143.01	90.00	1,589.84	-5,504.22	3,544.03	3,258.60	285.44	12.416					
13,200.00	7,888.97	13,074.82	7,888.97	147.31	145.62	90.00	1,590.27	-5,604.21	3,544.03	3,253.34	290.69	12.192					
13,299.39	7,888.97	13,174.20	7,888.97	149.90	148.21	90.00	1,590.71	-5,703.59	3,544.03	3,248.11	295.92	11.976					
13,300.00	7,888.97	13,174.81	7,888.97	149.91	148.23	90.00	1,590.71	-5,704.20	3,544.03	3,248.08	295.95	11.975					
13,400.00	7,888.97	13,274.81	7,888.97	152.52	150.85	90.00	1,591.15	-5,804.20	3,544.03	3,242.82	301.22	11.766					
13,500.00	7,888.97	13,374.81	7,888.97	155.13	153.46	90.00	1,591.59	-5,904.19	3,544.03	3,237.55	306.48	11.564					
13,600.00	7,888.97	13,474.80	7,888.97	157.74	156.08	90.00	1,592.02	-6,004.19	3,544.03	3,232.28	311.76	11.368					
13,700.00	7,888.97	13,574.80	7,888.97	160.36	158.71	90.00	1,592.46	-6,104.18	3,544.03	3,227.00	317.03	11.179					
13,800.00	7,888.97	13,674.79	7,888.97	162.97	161.33	90.00	1,592.90	-6,204.18	3,544.03	3,221.72	322.31	10.996					
13,900.00	7,888.97	13,774.79	7,888.97	165.59	163.96	90.00	1,593.34	-6,304.17	3,544.04	3,216.44	327.60	10.818					

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 5-6-11
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 5-6-11	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	7,888.97	13,874.78	7,888.97	168.22	166.59	90.00	1,593.77	-6,404.17	3,544.04	3,211.16	332.88	10.647		
14,100.00	7,888.97	13,974.78	7,888.97	170.84	169.22	90.00	1,594.21	-6,504.16	3,544.04	3,205.87	338.17	10.480		
14,200.00	7,888.97	14,074.78	7,888.97	173.47	171.85	90.00	1,594.65	-6,604.16	3,544.04	3,200.58	343.46	10.319		
14,300.00	7,888.97	14,174.77	7,888.97	176.10	174.49	90.00	1,595.09	-6,704.15	3,544.04	3,195.29	348.76	10.162		
14,400.00	7,888.97	14,274.77	7,888.97	178.73	177.12	90.00	1,595.53	-6,804.15	3,544.05	3,189.99	354.06	10.010		
14,500.00	7,888.97	14,374.76	7,888.97	181.36	179.76	90.00	1,595.96	-6,904.14	3,544.05	3,184.70	359.36	9.862		
14,600.00	7,888.97	14,474.76	7,888.97	184.00	182.40	90.00	1,596.40	-7,004.14	3,544.05	3,179.40	364.66	9.719		
14,700.00	7,888.97	14,574.75	7,888.97	186.63	185.04	90.00	1,596.84	-7,104.13	3,544.06	3,174.09	369.96	9.579		
14,800.00	7,888.97	14,674.75	7,888.97	189.27	187.68	90.00	1,597.28	-7,204.13	3,544.06	3,168.79	375.27	9.444		
14,900.00	7,888.97	14,774.75	7,888.97	191.91	190.33	90.00	1,597.72	-7,304.12	3,544.07	3,163.49	380.58	9.312		
15,000.00	7,888.97	14,874.74	7,888.97	194.55	192.97	90.00	1,598.16	-7,404.12	3,544.07	3,158.18	385.89	9.184		
15,100.00	7,888.97	14,974.74	7,888.97	197.20	195.62	90.00	1,598.60	-7,504.11	3,544.07	3,152.87	391.20	9.059		
15,200.00	7,888.97	15,074.73	7,888.97	199.84	198.27	90.00	1,599.04	-7,604.11	3,544.08	3,147.56	396.52	8.938		
15,300.00	7,888.98	15,174.73	7,888.97	202.49	200.91	90.00	1,599.48	-7,704.10	3,544.08	3,142.25	401.84	8.820		
15,400.00	7,888.98	15,274.72	7,888.97	205.13	203.56	90.00	1,599.92	-7,804.10	3,544.09	3,136.94	407.15	8.705		
15,500.00	7,888.98	15,374.72	7,888.97	207.78	206.21	90.00	1,600.35	-7,904.09	3,544.10	3,131.62	412.47	8.592		
15,600.00	7,888.98	15,474.72	7,888.98	210.43	208.87	90.00	1,600.79	-8,004.09	3,544.10	3,126.31	417.80	8.483		
15,700.00	7,888.98	15,574.71	7,888.98	213.08	211.52	90.00	1,601.23	-8,104.08	3,544.11	3,120.99	423.12	8.376		
15,800.00	7,888.98	15,674.71	7,888.98	215.73	214.17	90.00	1,601.67	-8,204.08	3,544.11	3,115.67	428.44	8.272		
15,900.00	7,888.98	15,774.70	7,888.98	218.39	216.83	90.00	1,602.11	-8,304.07	3,544.12	3,110.35	433.77	8.170		
16,000.00	7,888.98	15,874.70	7,888.98	221.04	219.48	90.00	1,602.55	-8,404.06	3,544.13	3,105.03	439.10	8.071		
16,100.00	7,888.98	15,974.70	7,888.98	223.70	222.14	90.00	1,602.99	-8,504.06	3,544.13	3,099.71	444.43	7.975		
16,200.00	7,888.98	16,074.69	7,888.98	226.35	224.79	90.00	1,603.43	-8,604.05	3,544.14	3,094.38	449.76	7.880		
16,300.00	7,888.98	16,174.69	7,888.98	229.01	227.45	90.00	1,603.88	-8,704.05	3,544.15	3,089.06	455.09	7.788		
16,400.00	7,888.98	16,274.68	7,888.98	231.66	230.11	90.00	1,604.32	-8,804.04	3,544.16	3,083.74	460.42	7.698		
16,500.00	7,888.98	16,374.68	7,888.98	234.32	232.77	90.00	1,604.76	-8,904.04	3,544.17	3,078.41	465.76	7.609		
16,600.00	7,888.98	16,474.67	7,888.98	236.98	235.43	90.00	1,605.20	-9,004.03	3,544.17	3,073.08	471.09	7.523		
16,700.00	7,888.98	16,574.67	7,888.98	239.64	238.09	90.00	1,605.64	-9,104.03	3,544.18	3,067.76	476.43	7.439		
16,800.00	7,888.99	16,674.67	7,888.98	242.30	240.75	90.00	1,606.08	-9,204.02	3,544.19	3,062.43	481.76	7.357		
16,900.00	7,888.99	16,774.66	7,888.99	244.96	243.41	90.00	1,606.52	-9,304.02	3,544.20	3,057.10	487.10	7.276		
17,000.00	7,888.99	16,874.66	7,888.99	247.63	246.08	90.00	1,606.96	-9,404.01	3,544.21	3,051.77	492.44	7.197		
17,100.00	7,888.99	16,974.65	7,888.99	250.29	248.74	90.00	1,607.40	-9,504.01	3,544.22	3,046.44	497.78	7.120		
17,200.00	7,888.99	17,074.65	7,888.99	252.95	251.40	90.00	1,607.85	-9,604.00	3,544.23	3,041.11	503.12	7.044		
17,300.00	7,888.99	17,174.64	7,888.99	255.62	254.07	90.00	1,608.29	-9,704.00	3,544.24	3,035.78	508.46	6.970		
17,400.00	7,888.99	17,274.64	7,888.99	258.28	256.73	90.00	1,608.73	-9,803.99	3,544.25	3,030.45	513.81	6.898		
17,500.00	7,888.99	17,374.64	7,888.99	260.95	259.40	90.00	1,609.17	-9,903.99	3,544.26	3,025.11	519.15	6.827		
17,600.00	7,888.99	17,474.63	7,888.99	263.61	262.06	90.00	1,609.61	-10,003.98	3,544.27	3,019.78	524.50	6.757		
17,700.00	7,888.99	17,574.63	7,888.99	266.28	264.73	90.00	1,610.06	-10,103.98	3,544.29	3,014.45	529.84	6.689		
17,800.00	7,889.00	17,674.62	7,888.99	268.94	267.40	90.00	1,610.50	-10,203.97	3,544.30	3,009.11	535.19	6.623		
17,900.00	7,889.00	17,774.62	7,889.00	271.61	270.06	90.00	1,610.94	-10,303.97	3,544.31	3,003.78	540.53	6.557		
18,000.00	7,889.00	17,874.62	7,889.00	274.28	272.73	90.00	1,611.38	-10,403.96	3,544.32	2,998.44	545.88	6.493		
18,100.00	7,889.00	17,974.61	7,889.00	276.95	275.40	90.00	1,611.83	-10,503.96	3,544.33	2,993.11	551.23	6.430		
18,200.00	7,889.00	18,074.61	7,889.00	279.62	278.07	90.00	1,612.27	-10,603.95	3,544.35	2,987.77	556.58	6.368		
18,212.39	7,889.00	18,087.00	7,889.00	279.95	278.40	90.00	1,612.32	-10,616.34	3,544.35	2,987.11	557.24	6.361 SF		

Anticollision Report

Company:	AXIS EXPLORATION	Local Co-ordinate Reference:	Well JAMASO 4-65 5-6-11
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 5-6-11	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	200.00	200.00	200.00	0.49	0.49	-90.00	0.00	-126.56	126.56	125.58	0.99	128.385		
300.00	300.00	300.00	300.00	0.85	0.85	-90.00	0.00	-126.56	126.56	124.86	1.70	74.328		
400.00	399.98	400.02	399.98	1.19	1.21	80.13	0.00	-126.56	126.25	123.85	2.40	52.521		
500.00	499.84	500.16	499.84	1.54	1.57	82.49	0.00	-126.56	125.46	122.35	3.10	40.419		
600.00	599.45	599.45	599.45	1.89	1.92	86.47	0.00	-126.56	124.62	120.80	3.82	32.627		
632.15	631.40	630.94	630.94	2.02	2.04	88.14	0.16	-126.60	124.51	120.45	4.05	30.709	CC, ES	
700.00	698.70	696.93	696.91	2.28	2.27	92.60	1.61	-126.89	125.15	120.61	4.55	27.511		
800.00	797.47	792.75	792.60	2.68	2.62	101.10	6.35	-127.86	129.58	124.29	5.30	24.465		
900.00	895.62	886.31	885.83	3.12	2.96	110.78	14.00	-129.43	140.32	134.27	6.05	23.186		
1,000.00	993.06	977.07	975.98	3.59	3.29	120.24	24.28	-131.53	159.20	152.40	6.79	23.437		
1,100.00	1,089.64	1,064.57	1,062.53	4.10	3.63	128.47	36.82	-134.10	186.86	179.36	7.50	24.916		
1,200.00	1,185.27	1,148.40	1,145.05	4.66	3.97	135.11	51.26	-137.06	222.96	214.79	8.17	27.303		
1,218.17	1,202.53	1,165.67	1,159.50	4.76	4.04	136.14	54.04	-137.63	230.36	222.06	8.30	27.768		
1,300.00	1,280.19	1,234.61	1,229.60	5.24	4.33	140.94	67.75	-140.44	265.11	256.26	8.85	29.972		
1,400.00	1,375.10	1,321.97	1,315.28	5.84	4.70	145.39	84.51	-143.87	309.24	299.72	9.52	32.488		
1,500.00	1,470.01	1,409.33	1,400.95	6.45	5.08	148.76	101.26	-147.30	354.55	344.36	10.20	34.772		
1,600.00	1,564.92	1,503.30	1,486.63	7.07	5.49	151.39	118.01	-150.74	400.65	389.75	10.90	36.752		
1,700.00	1,659.83	1,584.06	1,572.30	7.69	5.86	153.48	134.76	-154.17	447.30	435.74	11.56	38.690		
1,800.00	1,754.73	1,671.43	1,657.97	8.32	6.25	155.19	151.52	-157.60	494.33	482.08	12.25	40.359		
1,900.00	1,849.64	1,758.79	1,743.65	8.95	6.65	156.60	168.27	-161.03	541.65	528.71	12.94	41.862		
2,000.00	1,944.55	1,846.15	1,829.32	9.58	7.05	157.79	185.02	-164.46	589.18	575.55	13.63	43.219		
2,100.00	2,039.46	1,933.52	1,915.00	10.21	7.45	158.80	201.77	-167.89	636.89	622.56	14.33	44.449		
2,200.00	2,134.36	2,020.88	2,000.67	10.85	7.85	159.67	218.53	-171.33	684.73	669.70	15.03	45.567		
2,300.00	2,229.27	2,108.25	2,086.34	11.48	8.26	160.43	235.28	-174.76	732.68	716.95	15.73	46.587		
2,400.00	2,324.18	2,195.61	2,172.02	12.12	8.67	161.10	252.03	-178.19	780.71	764.28	16.43	47.519		
2,500.00	2,419.09	2,282.97	2,257.69	12.76	9.07	161.69	268.78	-181.62	828.82	811.69	17.13	48.374		
2,600.00	2,513.99	2,370.34	2,343.37	13.40	9.48	162.22	285.54	-185.05	876.99	859.15	17.84	49.162		
2,700.00	2,608.90	2,457.70	2,429.04	14.04	9.89	162.69	302.29	-188.49	925.21	906.66	18.55	49.888		
2,800.00	2,703.81	2,545.06	2,514.71	14.68	10.30	163.11	319.04	-191.92	973.47	954.22	19.25	50.560		
2,900.00	2,798.72	2,632.43	2,600.39	15.32	10.71	163.50	335.79	-195.35	1,021.77	1,001.81	19.96	51.184		
3,000.00	2,893.63	2,719.79	2,686.06	15.96	11.12	163.85	352.55	-198.78	1,070.10	1,049.43	20.67	51.764		
3,100.00	2,988.53	2,807.16	2,771.74	16.60	11.54	164.17	369.30	-202.21	1,118.47	1,097.08	21.38	52.304		
3,200.00	3,083.44	2,905.48	2,857.41	17.24	12.00	164.46	386.05	-205.64	1,166.85	1,144.71	22.14	52.708		
3,300.00	3,178.35	2,981.88	2,943.08	17.89	12.36	164.73	402.80	-209.08	1,215.26	1,192.45	22.81	53.281		
3,400.00	3,273.26	3,069.25	3,028.76	18.53	12.77	164.98	419.56	-212.51	1,263.69	1,240.16	23.52	53.723		
3,500.00	3,368.16	3,156.61	3,114.43	19.17	13.19	165.22	436.31	-215.94	1,312.13	1,287.89	24.24	54.139		
3,600.00	3,463.07	3,243.98	3,200.10	19.82	13.60	165.43	453.06	-219.37	1,360.59	1,335.64	24.95	54.530		
3,700.00	3,557.98	3,331.34	3,285.78	20.46	14.02	165.63	469.81	-222.80	1,409.06	1,383.40	25.67	54.899		
3,800.00	3,652.89	3,418.70	3,371.45	21.11	14.43	165.82	486.57	-226.23	1,457.55	1,431.16	26.38	55.247		
3,900.00	3,747.80	3,506.07	3,457.13	21.75	14.85	165.99	503.32	-229.67	1,506.04	1,478.94	27.10	55.576		
4,000.00	3,842.70	3,606.57	3,542.80	22.39	15.32	166.16	520.07	-233.10	1,554.55	1,526.68	27.87	55.785		
4,100.00	3,937.61	3,680.79	3,628.47	23.04	15.68	166.31	536.83	-236.53	1,603.06	1,574.53	28.53	56.182		
4,200.00	4,032.52	3,768.16	3,714.15	23.68	16.09	166.46	553.58	-239.96	1,651.59	1,622.34	29.25	56.461		
4,300.00	4,127.43	3,855.52	3,799.82	24.33	16.51	166.59	570.33	-243.39	1,700.12	1,670.15	29.97	56.727		
4,400.00	4,222.33	3,942.89	3,885.50	24.97	16.92	166.72	587.08	-246.82	1,748.66	1,717.97	30.69	56.980		
4,500.00	4,317.24	4,030.25	3,971.17	25.62	17.34	166.84	603.84	-250.26	1,797.20	1,765.80	31.41	57.220		
4,600.00	4,412.15	4,117.61	4,056.84	26.26	17.75	166.96	620.59	-253.69	1,845.75	1,813.63	32.13	57.450		
4,700.00	4,507.06	4,204.98	4,142.52	26.91	18.17	167.07	637.34	-257.12	1,894.31	1,861.46	32.85	57.668		
4,800.00	4,601.97	4,307.66	4,228.19	27.55	18.66	167.17	654.09	-260.55	1,942.87	1,909.24	33.63	57.775		
4,900.00	4,696.87	4,379.71	4,313.87	28.20	19.00	167.27	670.85	-263.98	1,991.44	1,957.15	34.29	58.076		

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 5-6-11
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 5-6-11	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	4,791.78	4,467.07	4,399.54	28.85	19.42	167.37	687.60	-267.41	2,040.01	2,005.00	35.01	58.267		
5,100.00	4,886.69	4,554.43	4,485.21	29.49	19.84	167.46	704.35	-270.85	2,088.58	2,052.85	35.73	58.450		
5,200.00	4,981.60	4,641.80	4,570.89	30.14	20.25	167.54	721.10	-274.28	2,137.16	2,100.71	36.46	58.625		
5,300.00	5,076.50	4,729.16	4,656.56	30.78	20.67	167.63	737.86	-277.71	2,185.74	2,148.57	37.18	58.792		
5,400.00	5,171.41	4,816.52	4,742.23	31.43	21.09	167.70	754.61	-281.14	2,234.33	2,196.43	37.90	58.953		
5,500.00	5,266.32	4,903.89	4,827.91	32.07	21.50	167.78	771.36	-284.57	2,282.92	2,244.29	38.62	59.107		
5,600.00	5,361.23	5,008.75	4,913.58	32.72	22.00	167.85	788.11	-288.01	2,331.51	2,292.09	39.41	59.153		
5,700.00	5,456.13	5,078.62	4,999.26	33.37	22.34	167.92	804.87	-291.44	2,380.10	2,340.03	40.07	59.398		
5,800.00	5,551.04	5,165.98	5,084.93	34.01	22.75	167.99	821.62	-294.87	2,428.70	2,387.90	40.79	59.534		
5,900.00	5,645.95	5,253.34	5,170.60	34.66	23.17	168.05	838.37	-298.30	2,477.30	2,435.78	41.52	59.666		
6,000.00	5,740.86	5,340.71	5,256.28	35.30	23.59	168.11	855.12	-301.73	2,525.90	2,483.65	42.24	59.793		
6,100.00	5,835.77	5,428.07	5,341.95	35.95	24.01	168.17	871.88	-305.16	2,574.50	2,531.53	42.97	59.915		
6,200.00	5,930.67	5,515.44	5,427.63	36.60	24.42	168.23	888.63	-308.60	2,623.11	2,579.41	43.69	60.032		
6,300.00	6,025.58	5,602.80	5,513.30	37.24	24.84	168.28	905.38	-312.03	2,671.71	2,627.29	44.42	60.146		
6,400.00	6,120.49	5,709.84	5,598.97	37.89	25.35	168.34	922.13	-315.46	2,720.32	2,675.10	45.22	60.153		
6,500.00	6,215.40	5,777.53	5,684.65	38.54	25.67	168.39	938.89	-318.89	2,768.93	2,723.06	45.87	60.360		
6,600.00	6,310.30	5,864.89	5,770.32	39.18	26.09	168.44	955.64	-322.32	2,817.54	2,770.94	46.60	60.462		
6,677.09	6,383.47	5,932.24	5,836.37	39.68	26.41	168.47	968.55	-324.97	2,855.02	2,807.86	47.16	60.538		
6,700.00	6,405.24	5,952.30	5,856.04	39.83	26.51	168.53	972.40	-325.76	2,866.08	2,818.75	47.33	60.559		
6,800.00	6,500.91	6,040.85	5,942.88	40.44	26.93	168.78	989.38	-329.23	2,912.50	2,864.44	48.05	60.610		
6,900.00	6,597.55	6,130.95	6,031.24	41.01	27.36	168.98	1,006.66	-332.77	2,955.86	2,907.08	48.78	60.597		
7,000.00	6,695.01	6,222.49	6,121.01	41.53	27.80	169.15	1,024.21	-336.37	2,996.10	2,946.60	49.50	60.523		
7,100.00	6,793.20	6,315.35	6,212.07	42.00	28.25	169.29	1,042.02	-340.02	3,033.19	2,982.96	50.23	60.391		
7,200.00	6,891.99	6,409.43	6,304.33	42.43	28.70	169.40	1,060.06	-343.71	3,067.07	3,016.13	50.94	60.206		
7,300.00	6,991.26	6,504.60	6,397.66	42.81	29.15	169.49	1,078.31	-347.45	3,097.70	3,046.05	51.66	59.969		
7,400.00	7,090.89	6,600.75	6,491.95	43.14	29.61	169.55	1,096.75	-351.23	3,125.05	3,072.69	52.36	59.684		
7,500.00	7,190.76	7,305.04	7,190.63	43.43	32.33	169.43	1,170.45	-366.39	3,145.75	3,089.04	56.71	55.475		
7,595.26	7,286.00	7,397.88	7,282.95	43.64	32.60	-0.06	1,170.49	-375.29	3,147.34	3,090.04	57.31	54.921		
7,600.00	7,290.74	7,402.41	7,287.40	43.65	32.61	-0.07	1,170.49	-376.10	3,147.35	3,090.01	57.34	54.892		
7,625.26	7,316.00	7,426.27	7,310.76	43.70	32.69	-0.16	1,170.52	-380.98	3,147.38	3,089.89	57.50	54.739		
7,650.00	7,340.73	7,449.34	7,333.12	43.75	32.76	89.49	1,170.54	-386.61	3,147.43	3,089.77	57.66	54.588		
7,700.00	7,390.53	7,495.37	7,376.99	43.86	32.91	89.29	1,170.60	-400.52	3,147.55	3,089.55	58.00	54.267		
7,750.00	7,439.76	7,540.67	7,418.94	43.98	33.06	89.10	1,170.68	-417.61	3,147.70	3,089.34	58.36	53.937		
7,800.00	7,488.04	7,585.32	7,458.82	44.11	33.21	88.92	1,170.77	-437.63	3,147.88	3,089.14	58.73	53.597		
7,850.00	7,535.02	7,629.36	7,496.53	44.24	33.36	88.74	1,170.86	-460.37	3,148.08	3,088.95	59.12	53.245		
7,900.00	7,580.33	7,672.85	7,531.94	44.38	33.52	88.58	1,170.98	-485.59	3,148.29	3,088.75	59.54	52.879		
7,950.00	7,623.63	7,715.84	7,564.97	44.52	33.68	88.42	1,171.10	-513.11	3,148.52	3,088.54	59.98	52.497		
8,000.00	7,664.59	7,758.40	7,595.54	44.67	33.85	88.28	1,171.23	-542.70	3,148.75	3,088.30	60.44	52.093		
8,050.00	7,702.90	7,800.56	7,623.58	44.83	34.03	88.14	1,171.37	-574.17	3,148.97	3,088.02	60.95	51.664		
8,100.00	7,738.26	7,842.37	7,649.03	44.99	34.22	88.02	1,171.51	-607.34	3,149.19	3,087.69	61.51	51.201		
8,150.00	7,770.41	7,883.88	7,671.83	45.16	34.42	87.91	1,171.66	-642.01	3,149.40	3,087.28	62.11	50.703		
8,200.00	7,799.10	7,925.13	7,691.95	45.33	34.63	87.82	1,171.82	-678.01	3,149.59	3,086.81	62.78	50.168		
8,250.00	7,824.12	7,966.17	7,709.34	45.52	34.87	87.74	1,171.99	-715.17	3,149.75	3,086.24	63.51	49.593		
8,300.00	7,845.26	8,007.02	7,723.96	45.72	35.12	87.67	1,172.15	-753.30	3,149.89	3,085.58	64.31	48.980		
8,350.00	7,862.39	8,047.73	7,735.80	45.94	35.40	87.62	1,172.32	-792.24	3,150.00	3,084.83	65.18	48.329		
8,400.00	7,875.35	8,088.34	7,744.83	46.17	35.71	87.58	1,172.50	-831.83	3,150.08	3,083.96	66.12	47.641		
8,450.00	7,884.06	8,128.88	7,751.02	46.42	36.04	87.56	1,172.67	-871.89	3,150.13	3,083.00	67.13	46.928		
8,500.00	7,888.44	8,169.39	7,754.36	46.70	36.41	87.56	1,172.85	-912.25	3,150.14	3,081.94	68.19	46.196		
8,525.33	7,889.00	8,189.92	7,754.96	46.85	36.60	87.56	1,172.94	-932.77	3,150.13	3,081.38	68.75	45.820		
8,557.25	7,889.00	8,220.30	7,755.00	47.05	36.90	87.56	1,173.08	-963.15	3,150.12	3,080.56	69.56	45.283		
8,600.00	7,889.00	8,263.05	7,755.00	47.33	37.35	87.56	1,173.26	-1,005.90	3,150.12	3,079.42	70.70	44.554		
8,700.00	7,889.00	8,363.05	7,755.00	48.06	38.54	87.56	1,173.70	-1,105.90	3,150.12	3,076.53	73.59	42.807		

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 5-6-11
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 5-6-11	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		
8,800.00	7,889.00	8,463.05	7,755.00	48.93	39.88	87.56	1,174.14	-1,205.90	3,150.11	3,073.37	76.74	41.047		
8,900.00	7,889.00	8,563.05	7,755.00	49.92	41.38	87.56	1,174.58	-1,305.90	3,150.11	3,069.97	80.14	39.309		
9,000.00	7,888.99	8,663.05	7,754.99	51.05	43.01	87.56	1,175.02	-1,405.90	3,150.11	3,066.37	83.74	37.619		
9,100.00	7,888.99	8,763.05	7,754.99	52.31	44.76	87.56	1,175.46	-1,505.90	3,150.10	3,062.58	87.52	35.993		
9,200.00	7,888.99	8,863.05	7,754.99	53.71	46.61	87.56	1,175.90	-1,605.89	3,150.10	3,058.64	91.46	34.441		
9,300.00	7,888.99	8,963.05	7,754.99	55.23	48.54	87.56	1,176.34	-1,705.89	3,150.10	3,054.55	95.55	32.969		
9,400.00	7,888.99	9,063.05	7,754.99	56.86	50.55	87.56	1,176.78	-1,805.89	3,150.09	3,050.34	99.75	31.578		
9,500.00	7,888.99	9,163.05	7,754.99	58.60	52.62	87.56	1,177.22	-1,905.89	3,150.09	3,046.02	104.07	30.269		
9,600.00	7,888.99	9,263.05	7,754.99	60.43	54.76	87.56	1,177.66	-2,005.89	3,150.09	3,041.61	108.48	29.039		
9,700.00	7,888.99	9,363.05	7,754.99	62.34	56.94	87.56	1,178.10	-2,105.89	3,150.09	3,037.11	112.97	27.883		
9,800.00	7,888.99	9,463.05	7,754.99	64.32	59.16	87.56	1,178.54	-2,205.89	3,150.08	3,032.54	117.54	26.800		
9,900.00	7,888.99	9,563.05	7,754.98	66.37	61.43	87.56	1,178.98	-2,305.89	3,150.08	3,027.91	122.18	25.783		
10,000.00	7,888.98	9,663.05	7,754.98	68.47	63.73	87.56	1,179.42	-2,405.89	3,150.08	3,023.21	126.87	24.829		
10,100.00	7,888.98	9,763.05	7,754.98	70.62	66.06	87.56	1,179.86	-2,505.89	3,150.08	3,018.46	131.61	23.934		
10,200.00	7,888.98	9,863.05	7,754.98	72.82	68.42	87.56	1,180.30	-2,605.89	3,150.08	3,013.67	136.41	23.093		
10,300.00	7,888.98	9,963.05	7,754.98	75.05	70.80	87.56	1,180.74	-2,705.88	3,150.08	3,008.83	141.24	22.303		
10,400.00	7,888.98	10,063.05	7,754.98	77.32	73.21	87.56	1,181.18	-2,805.88	3,150.07	3,003.96	146.12	21.559		
10,500.00	7,888.98	10,163.05	7,754.98	79.63	75.63	87.56	1,181.62	-2,905.88	3,150.07	2,999.05	151.02	20.858		
10,600.00	7,888.98	10,263.05	7,754.98	81.96	78.08	87.56	1,182.06	-3,005.88	3,150.07	2,994.11	155.96	20.198		
10,700.00	7,888.98	10,363.05	7,754.97	84.31	80.54	87.56	1,182.49	-3,105.88	3,150.07	2,989.14	160.93	19.574		
10,800.00	7,888.98	10,463.05	7,754.97	86.69	83.01	87.56	1,182.93	-3,205.88	3,150.07	2,984.15	165.92	18.985		
10,900.00	7,888.98	10,563.05	7,754.97	89.09	85.50	87.56	1,183.37	-3,305.88	3,150.07	2,979.13	170.94	18.428		
11,000.00	7,888.98	10,663.05	7,754.97	91.51	88.00	87.56	1,183.81	-3,405.88	3,150.07	2,974.09	175.97	17.901		
11,100.00	7,888.98	10,763.05	7,754.97	93.94	90.51	87.56	1,184.25	-3,505.88	3,150.07	2,969.04	181.03	17.401		
11,200.00	7,888.98	10,863.05	7,754.97	96.39	93.03	87.56	1,184.69	-3,605.88	3,150.07	2,963.96	186.11	16.926		
11,300.00	7,888.98	10,963.05	7,754.97	98.86	95.56	87.56	1,185.13	-3,705.87	3,150.07	2,958.87	191.20	16.475		
11,399.96	7,888.98	11,063.01	7,754.97	101.33	98.10	87.56	1,185.57	-3,805.83	3,150.07	2,953.76	196.30	16.047		
11,400.00	7,888.98	11,063.05	7,754.97	101.33	98.10	87.56	1,185.57	-3,805.87	3,150.07	2,953.76	196.30	16.047		
11,500.00	7,888.98	11,163.05	7,754.96	103.82	100.64	87.56	1,186.01	-3,905.87	3,150.07	2,948.64	201.43	15.639		
11,600.00	7,888.97	11,263.05	7,754.96	106.32	103.20	87.56	1,186.45	-4,005.87	3,150.07	2,943.51	206.56	15.250		
11,700.00	7,888.97	11,363.05	7,754.96	108.83	105.76	87.56	1,186.89	-4,105.87	3,150.07	2,938.36	211.71	14.879		
11,800.00	7,888.97	11,463.05	7,754.96	111.35	108.33	87.56	1,187.33	-4,205.87	3,150.07	2,933.20	216.86	14.526		
11,900.00	7,888.97	11,563.05	7,754.96	113.88	110.90	87.56	1,187.77	-4,305.87	3,150.07	2,928.04	222.03	14.187		
12,000.00	7,888.97	11,663.05	7,754.96	116.41	113.48	87.56	1,188.21	-4,405.87	3,150.07	2,922.86	227.21	13.864		
12,100.00	7,888.97	11,763.05	7,754.96	118.96	116.06	87.56	1,188.65	-4,505.87	3,150.07	2,917.67	232.40	13.555		
12,200.00	7,888.97	11,863.05	7,754.96	121.51	118.65	87.56	1,189.09	-4,605.87	3,150.07	2,912.48	237.59	13.258		
12,300.00	7,888.97	11,963.05	7,754.96	124.06	121.24	87.56	1,189.53	-4,705.86	3,150.07	2,907.28	242.80	12.974		
12,400.00	7,888.97	12,063.05	7,754.95	126.63	123.84	87.56	1,189.97	-4,805.86	3,150.07	2,902.07	248.01	12.702		
12,500.00	7,888.97	12,163.05	7,754.95	129.20	126.44	87.56	1,190.41	-4,905.86	3,150.08	2,896.85	253.23	12.440		
12,600.00	7,888.97	12,263.05	7,754.95	131.77	129.05	87.56	1,190.85	-5,005.86	3,150.08	2,891.63	258.45	12.188		
12,700.00	7,888.97	12,363.05	7,754.95	134.35	131.66	87.56	1,191.29	-5,105.86	3,150.08	2,886.40	263.68	11.947		
12,800.00	7,888.97	12,463.05	7,754.95	136.93	134.27	87.56	1,191.73	-5,205.86	3,150.08	2,881.16	268.92	11.714		
12,900.00	7,888.97	12,563.05	7,754.95	139.52	136.88	87.56	1,192.17	-5,305.86	3,150.08	2,875.92	274.16	11.490		
13,000.00	7,888.97	12,663.05	7,754.95	142.11	139.50	87.56	1,192.61	-5,405.86	3,150.09	2,870.68	279.41	11.274		
13,100.00	7,888.97	12,763.05	7,754.95	144.71	142.12	87.56	1,193.05	-5,505.86	3,150.09	2,865.43	284.66	11.066		
13,200.00	7,888.97	12,863.05	7,754.94	147.31	144.74	87.56	1,193.48	-5,605.86	3,150.09	2,860.17	289.92	10.865		
13,300.00	7,888.97	12,963.05	7,754.94	149.91	147.37	87.56	1,193.92	-5,705.86	3,150.09	2,854.91	295.18	10.672		
13,400.00	7,888.97	13,063.05	7,754.94	152.52	150.00	87.56	1,194.36	-5,805.85	3,150.10	2,849.65	300.44	10.485		
13,500.00	7,888.97	13,163.05	7,754.94	155.13	152.63	87.56	1,194.80	-5,905.85	3,150.10	2,844.39	305.71	10.304		
13,600.00	7,888.97	13,263.05	7,754.94	157.74	155.26	87.56	1,195.24	-6,005.85	3,150.10	2,839.11	310.99	10.129		
13,700.00	7,888.97	13,363.05	7,754.94	160.36	157.89	87.56	1,195.68	-6,105.85	3,150.10	2,833.84	316.26	9.960		
13,800.00	7,888.97	13,463.05	7,754.94	162.97	160.53	87.56	1,196.12	-6,205.85	3,150.11	2,828.56	321.54	9.797		

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 5-6-11
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 5-6-11	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		
13,900.00	7,888.97	13,563.05	7,754.94	165.59	163.16	87.56	1,196.56	-6,305.85	3,150.11	2,823.28	326.83	9.638		
14,000.00	7,888.97	13,663.05	7,754.94	168.22	165.80	87.56	1,197.00	-6,405.85	3,150.12	2,818.00	332.11	9.485		
14,100.00	7,888.97	13,763.05	7,754.93	170.84	168.44	87.56	1,197.44	-6,505.85	3,150.12	2,812.72	337.40	9.336		
14,200.00	7,888.97	13,863.05	7,754.93	173.47	171.09	87.56	1,197.88	-6,605.85	3,150.12	2,807.43	342.70	9.192		
14,300.00	7,888.97	13,963.05	7,754.93	176.10	173.73	87.56	1,198.32	-6,705.85	3,150.13	2,802.14	347.99	9.052		
14,400.00	7,888.97	14,063.05	7,754.93	178.73	176.38	87.56	1,198.76	-6,805.84	3,150.13	2,796.84	353.29	8.917		
14,500.00	7,888.97	14,163.05	7,754.93	181.36	179.02	87.56	1,199.20	-6,905.84	3,150.14	2,791.55	358.59	8.785		
14,600.00	7,888.97	14,263.05	7,754.93	184.00	181.67	87.56	1,199.64	-7,005.84	3,150.14	2,786.25	363.89	8.657		
14,700.00	7,888.97	14,363.05	7,754.93	186.63	184.32	87.56	1,200.08	-7,105.84	3,150.14	2,780.95	369.19	8.532		
14,800.00	7,888.97	14,463.05	7,754.93	189.27	186.97	87.56	1,200.52	-7,205.84	3,150.15	2,775.65	374.50	8.412		
14,900.00	7,888.97	14,563.05	7,754.92	191.91	189.62	87.56	1,200.96	-7,305.84	3,150.15	2,770.35	379.81	8.294		
15,000.00	7,888.97	14,663.05	7,754.92	194.55	192.27	87.56	1,201.40	-7,405.84	3,150.16	2,765.04	385.12	8.180		
15,100.00	7,888.97	14,763.05	7,754.92	197.20	194.93	87.56	1,201.84	-7,505.84	3,150.16	2,759.73	390.43	8.068		
15,200.00	7,888.97	14,863.05	7,754.92	199.84	197.58	87.56	1,202.28	-7,605.84	3,150.17	2,754.42	395.75	7.960		
15,300.00	7,888.98	14,963.05	7,754.92	202.49	200.24	87.56	1,202.72	-7,705.84	3,150.17	2,749.11	401.06	7.855		
15,400.00	7,888.98	15,063.05	7,754.92	205.13	202.89	87.56	1,203.16	-7,805.83	3,150.18	2,743.80	406.38	7.752		
15,500.00	7,888.98	15,163.05	7,754.92	207.78	205.55	87.56	1,203.60	-7,905.83	3,150.19	2,738.49	411.70	7.652		
15,600.00	7,888.98	15,263.05	7,754.92	210.43	208.21	87.56	1,204.04	-8,005.83	3,150.19	2,733.17	417.02	7.554		
15,700.00	7,888.98	15,363.05	7,754.91	213.08	210.87	87.56	1,204.47	-8,105.83	3,150.20	2,727.86	422.34	7.459		
15,800.00	7,888.98	15,463.05	7,754.91	215.73	213.53	87.56	1,204.91	-8,205.83	3,150.20	2,722.54	427.66	7.366		
15,900.00	7,888.98	15,563.05	7,754.91	218.39	216.19	87.56	1,205.35	-8,305.83	3,150.21	2,717.22	432.99	7.275		
16,000.00	7,888.98	15,663.05	7,754.91	221.04	218.85	87.56	1,205.79	-8,405.83	3,150.22	2,711.90	438.32	7.187		
16,100.00	7,888.98	15,763.05	7,754.91	223.70	221.51	87.56	1,206.23	-8,505.83	3,150.22	2,706.58	443.64	7.101		
16,200.00	7,888.98	15,863.05	7,754.91	226.35	224.17	87.56	1,206.67	-8,605.83	3,150.23	2,701.26	448.97	7.017		
16,300.00	7,888.98	15,963.05	7,754.91	229.01	226.83	87.56	1,207.11	-8,705.83	3,150.24	2,695.93	454.30	6.934		
16,400.00	7,888.98	16,063.05	7,754.91	231.66	229.50	87.56	1,207.55	-8,805.83	3,150.24	2,690.61	459.63	6.854		
16,500.00	7,888.98	16,163.05	7,754.91	234.32	232.16	87.56	1,207.99	-8,905.82	3,150.25	2,685.29	464.97	6.775		
16,600.00	7,888.98	16,263.05	7,754.90	236.98	234.83	87.56	1,208.43	-9,005.82	3,150.26	2,679.96	470.30	6.698		
16,700.00	7,888.98	16,363.05	7,754.90	239.64	237.49	87.56	1,208.87	-9,105.82	3,150.27	2,674.63	475.63	6.623		
16,800.00	7,888.99	16,463.05	7,754.90	242.30	240.16	87.56	1,209.31	-9,205.82	3,150.27	2,669.31	480.97	6.550		
16,900.00	7,888.99	16,563.05	7,754.90	244.96	242.83	87.56	1,209.75	-9,305.82	3,150.28	2,663.98	486.30	6.478		
17,000.00	7,888.99	16,663.05	7,754.90	247.63	245.49	87.56	1,210.19	-9,405.82	3,150.29	2,658.65	491.64	6.408		
17,100.00	7,888.99	16,763.05	7,754.90	250.29	248.16	87.56	1,210.63	-9,505.82	3,150.30	2,653.32	496.98	6.339		
17,200.00	7,888.99	16,863.05	7,754.90	252.95	250.83	87.56	1,211.07	-9,605.82	3,150.31	2,647.99	502.32	6.272		
17,300.00	7,888.99	16,963.05	7,754.90	255.62	253.50	87.56	1,211.51	-9,705.82	3,150.31	2,642.65	507.66	6.206		
17,400.00	7,888.99	17,063.05	7,754.89	258.28	256.17	87.56	1,211.95	-9,805.82	3,150.32	2,637.32	513.00	6.141		
17,500.00	7,888.99	17,163.05	7,754.89	260.95	258.84	87.56	1,212.39	-9,905.81	3,150.33	2,631.99	518.34	6.078		
17,600.00	7,888.99	17,263.05	7,754.89	263.61	261.50	87.56	1,212.83	-10,005.81	3,150.34	2,626.66	523.68	6.016		
17,700.00	7,888.99	17,363.05	7,754.89	266.28	264.18	87.56	1,213.27	-10,105.81	3,150.35	2,621.32	529.03	5.955		
17,800.00	7,889.00	17,463.05	7,754.89	268.94	266.85	87.56	1,213.71	-10,205.81	3,150.36	2,615.99	534.37	5.895		
17,900.00	7,889.00	17,563.05	7,754.89	271.61	269.52	87.56	1,214.15	-10,305.81	3,150.37	2,610.65	539.71	5.837		
18,000.00	7,889.00	17,663.05	7,754.89	274.28	272.19	87.56	1,214.59	-10,405.81	3,150.38	2,605.32	545.06	5.780		
18,100.00	7,889.00	17,763.05	7,754.89	276.95	274.86	87.56	1,215.03	-10,505.81	3,150.39	2,599.98	550.40	5.724		
18,200.00	7,889.00	17,873.24	7,754.99	279.62	277.80	87.56	1,215.28	-10,616.00	3,150.17	2,594.13	556.05	5.665		
18,212.39	7,889.00	17,885.63	7,755.01	279.95	278.13	87.56	1,215.29	-10,628.39	3,150.14	2,593.43	556.71	5.659 SF		

Anticollision Report

Company:	AXIS EXPLORATION	Local Co-ordinate Reference:	Well JAMASO 4-65 5-6-11
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 5-6-11	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	-146.25	146.25					
100.00	100.00	100.00	100.00	0.13	0.13	-90.00	0.00	-146.25	146.25	145.98	0.27	543.974		
200.00	200.00	200.00	200.00	0.49	0.49	-90.00	0.00	-146.25	146.25	145.26	0.99	148.357		
300.00	300.00	300.00	300.00	0.85	0.85	-90.00	0.00	-146.25	146.25	144.55	1.70	85.891		
400.00	399.98	400.02	399.98	1.19	1.21	80.02	0.00	-146.25	145.94	143.53	2.40	60.711		
500.00	499.84	500.16	499.84	1.54	1.57	82.07	0.00	-146.25	145.12	142.02	3.10	46.753		
600.00	599.45	600.55	599.45	1.89	1.93	85.51	0.00	-146.25	144.17	140.35	3.82	37.709		
694.00	692.76	707.24	692.76	2.25	2.31	90.00	0.00	-146.25	143.73	139.16	4.56	31.491	CC, ES	
700.00	698.70	701.30	698.70	2.28	2.29	90.33	0.00	-146.25	143.73	139.16	4.57	31.481		
800.00	797.47	797.47	797.47	2.68	2.63	96.44	0.00	-146.25	144.67	139.35	5.32	27.211		
900.00	895.62	892.49	892.48	3.12	2.98	103.79	1.44	-146.66	149.06	142.98	6.09	24.490		
1,000.00	993.06	985.28	985.15	3.59	3.31	112.16	5.76	-147.88	159.73	152.87	6.86	23.287		
1,100.00	1,089.64	1,075.37	1,074.95	4.10	3.63	120.46	12.72	-149.85	178.25	170.64	7.61	23.417		
1,200.00	1,185.27	1,162.30	1,161.33	4.66	3.95	127.87	22.01	-152.48	205.25	196.92	8.33	24.649		
1,218.17	1,202.53	1,178.01	1,176.91	4.76	4.01	129.11	23.96	-153.04	211.05	202.59	8.46	24.955		
1,300.00	1,280.19	1,252.02	1,250.29	5.24	4.29	134.64	33.22	-155.66	238.78	229.74	9.04	26.405		
1,400.00	1,375.10	1,342.45	1,339.96	5.84	4.63	139.93	44.53	-158.86	274.91	265.16	9.75	28.209		
1,500.00	1,470.01	1,432.89	1,429.63	6.45	4.98	144.02	55.84	-162.07	312.69	302.24	10.44	29.942		
1,600.00	1,564.92	1,523.32	1,519.30	7.07	5.33	147.25	67.15	-165.27	351.59	340.45	11.14	31.560		
1,700.00	1,659.83	1,613.76	1,608.96	7.69	5.69	149.86	78.47	-168.47	391.28	379.44	11.84	33.051		
1,800.00	1,754.73	1,704.19	1,698.63	8.32	6.05	151.99	89.78	-171.68	431.54	419.00	12.54	34.418		
1,900.00	1,849.64	1,805.37	1,788.30	8.95	6.45	153.76	101.09	-174.88	472.23	458.95	13.28	35.560		
2,000.00	1,944.55	1,885.06	1,877.97	9.58	6.77	155.25	112.41	-178.09	513.23	499.29	13.94	36.806		
2,100.00	2,039.46	1,975.50	1,967.63	10.21	7.13	156.53	123.72	-181.29	554.50	539.85	14.65	37.848		
2,200.00	2,134.36	2,065.94	2,057.30	10.85	7.49	157.63	135.03	-184.50	595.96	580.60	15.36	38.802		
2,300.00	2,229.27	2,156.37	2,146.97	11.48	7.86	158.59	146.35	-187.70	637.58	621.51	16.07	39.678		
2,400.00	2,324.18	2,246.81	2,236.64	12.12	8.23	159.43	157.66	-190.91	679.33	662.55	16.78	40.484		
2,500.00	2,419.09	2,337.24	2,326.31	12.76	8.59	160.18	168.97	-194.11	721.19	703.70	17.49	41.226		
2,600.00	2,513.99	2,427.68	2,415.97	13.40	8.96	160.85	180.29	-197.31	763.14	744.94	18.21	41.913		
2,700.00	2,608.90	2,518.11	2,505.64	14.04	9.33	161.44	191.60	-200.52	805.17	786.25	18.92	42.548		
2,800.00	2,703.81	2,608.55	2,595.31	14.68	9.70	161.98	202.91	-203.72	847.26	827.62	19.64	43.139		
2,900.00	2,798.72	2,698.98	2,684.98	15.32	10.07	162.46	214.22	-206.93	889.41	869.05	20.36	43.688		
3,000.00	2,893.63	2,789.42	2,774.65	15.96	10.43	162.91	225.54	-210.13	931.61	910.53	21.08	44.200		
3,100.00	2,988.53	2,879.86	2,864.31	16.60	10.80	163.31	236.85	-213.34	973.85	952.05	21.80	44.678		
3,200.00	3,083.44	2,970.29	2,953.98	17.24	11.17	163.68	248.16	-216.54	1,016.12	993.61	22.52	45.126		
3,300.00	3,178.35	3,060.73	3,043.65	17.89	11.55	164.02	259.48	-219.74	1,058.43	1,035.19	23.24	45.546		
3,400.00	3,273.26	3,151.16	3,133.32	18.53	11.92	164.34	270.79	-222.95	1,100.77	1,076.81	23.96	45.940		
3,500.00	3,368.16	3,241.60	3,222.99	19.17	12.29	164.63	282.10	-226.15	1,143.13	1,118.45	24.68	46.312		
3,600.00	3,463.07	3,332.03	3,312.65	19.82	12.66	164.90	293.42	-229.36	1,185.51	1,160.11	25.41	46.662		
3,700.00	3,557.98	3,422.47	3,402.32	20.46	13.03	165.15	304.73	-232.56	1,227.92	1,201.79	26.13	46.992		
3,800.00	3,652.89	3,512.90	3,491.99	21.11	13.40	165.39	316.04	-235.77	1,270.34	1,243.49	26.85	47.304		
3,900.00	3,747.80	3,603.34	3,581.66	21.75	13.77	165.61	327.36	-238.97	1,312.78	1,285.20	27.58	47.600		
4,000.00	3,842.70	3,706.22	3,671.33	22.39	14.20	165.82	338.67	-242.18	1,355.24	1,326.88	28.35	47.802		
4,100.00	3,937.61	3,784.21	3,760.99	23.04	14.52	166.01	349.98	-245.38	1,397.70	1,368.67	29.03	48.146		
4,200.00	4,032.52	3,874.65	3,850.66	23.68	14.89	166.19	361.29	-248.58	1,440.18	1,410.43	29.76	48.399		
4,300.00	4,127.43	3,965.08	3,940.33	24.33	15.26	166.37	372.61	-251.79	1,482.68	1,452.19	30.48	48.639		
4,400.00	4,222.33	4,055.52	4,030.00	24.97	15.64	166.53	383.92	-254.99	1,525.18	1,493.97	31.21	48.868		
4,500.00	4,317.24	4,145.95	4,119.67	25.62	16.01	166.68	395.23	-258.20	1,567.69	1,535.75	31.94	49.086		
4,600.00	4,412.15	4,236.39	4,209.33	26.26	16.38	166.83	406.55	-261.40	1,610.21	1,577.55	32.67	49.294		
4,700.00	4,507.06	4,326.82	4,299.00	26.91	16.75	166.97	417.86	-264.61	1,652.74	1,619.35	33.39	49.493		
4,800.00	4,601.97	4,417.26	4,388.67	27.55	17.13	167.10	429.17	-267.81	1,695.28	1,661.15	34.12	49.683		
4,900.00	4,696.87	4,507.70	4,478.34	28.20	17.50	167.22	440.49	-271.01	1,737.82	1,702.97	34.85	49.865		

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 5-6-11
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 5-6-11	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	4,791.78	4,601.87	4,568.01	28.85	17.89	167.34	451.80	-274.22	1,780.37	1,744.77	35.59	50.019		
5,100.00	4,886.69	4,688.57	4,657.67	29.49	18.25	167.46	463.11	-277.42	1,822.92	1,786.62	36.31	50.206		
5,200.00	4,981.60	4,779.00	4,747.34	30.14	18.62	167.56	474.43	-280.63	1,865.49	1,828.45	37.04	50.366		
5,300.00	5,076.50	4,869.44	4,837.01	30.78	18.99	167.67	485.74	-283.83	1,908.05	1,870.28	37.77	50.519		
5,400.00	5,171.41	4,959.87	4,926.68	31.43	19.37	167.77	497.05	-287.04	1,950.62	1,912.12	38.50	50.667		
5,500.00	5,266.32	5,050.31	5,016.35	32.07	19.74	167.86	508.36	-290.24	1,993.20	1,953.97	39.23	50.808		
5,600.00	5,361.23	5,140.75	5,106.01	32.72	20.11	167.95	519.68	-293.45	2,035.78	1,995.82	39.96	50.945		
5,700.00	5,456.13	5,231.18	5,195.68	33.37	20.49	168.04	530.99	-296.65	2,078.36	2,037.67	40.69	51.076		
5,800.00	5,551.04	5,321.62	5,285.35	34.01	20.86	168.12	542.30	-299.85	2,120.95	2,079.53	41.42	51.202		
5,900.00	5,645.95	5,412.05	5,375.02	34.66	21.23	168.20	553.62	-303.06	2,163.54	2,121.39	42.16	51.323		
6,000.00	5,740.86	5,502.49	5,464.68	35.30	21.61	168.28	564.93	-306.26	2,206.14	2,163.25	42.89	51.441		
6,100.00	5,835.77	5,607.08	5,554.35	35.95	22.04	168.35	576.24	-309.47	2,248.74	2,205.06	43.67	51.491		
6,200.00	5,930.67	5,683.36	5,644.02	36.60	22.36	168.42	587.56	-312.67	2,291.34	2,246.98	44.35	51.663		
6,300.00	6,025.58	5,773.79	5,733.69	37.24	22.73	168.49	598.87	-315.88	2,333.94	2,288.86	45.08	51.768		
6,400.00	6,120.49	5,864.23	5,823.36	37.89	23.10	168.56	610.18	-319.08	2,376.55	2,330.73	45.82	51.869		
6,500.00	6,215.40	5,954.67	5,913.02	38.54	23.48	168.62	621.50	-322.28	2,419.16	2,372.60	46.55	51.968		
6,600.00	6,310.30	6,045.10	6,002.69	39.18	23.85	168.69	632.81	-325.49	2,461.77	2,414.48	47.28	52.062		
6,677.09	6,383.47	6,114.82	6,071.82	39.68	24.14	168.73	641.53	-327.96	2,494.62	2,446.77	47.85	52.133		
6,700.00	6,405.24	6,135.57	6,092.40	39.83	24.23	168.79	644.13	-328.69	2,504.30	2,456.28	48.02	52.153		
6,800.00	6,500.91	6,227.05	6,183.10	40.44	24.60	169.00	655.57	-331.94	2,544.64	2,495.89	48.75	52.197		
6,900.00	6,597.55	6,319.87	6,275.13	41.01	24.99	169.18	667.18	-335.22	2,581.82	2,532.34	49.48	52.179		
7,000.00	6,695.01	6,413.91	6,368.37	41.53	25.38	169.33	678.94	-338.56	2,615.81	2,565.60	50.21	52.100		
7,100.00	6,793.20	6,509.07	6,462.72	42.00	25.77	169.44	690.85	-341.93	2,646.54	2,595.61	50.93	51.965		
7,200.00	6,891.99	6,605.22	6,558.05	42.43	26.17	169.53	702.88	-345.34	2,673.99	2,622.35	51.65	51.776		
7,300.00	6,991.26	6,702.24	6,654.26	42.81	26.57	169.59	715.01	-348.77	2,698.13	2,645.78	52.35	51.535		
7,400.00	7,090.89	6,800.03	6,751.21	43.14	26.98	169.62	727.25	-352.24	2,718.93	2,665.87	53.06	51.247		
7,500.00	7,190.76	6,901.54	6,848.81	43.43	27.40	169.63	739.56	-355.73	2,736.35	2,682.59	53.76	50.902		
7,595.26	7,286.00	6,992.71	6,942.26	43.64	27.77	0.27	751.35	-359.07	2,749.80	2,695.42	54.38	50.566		
7,600.00	7,290.74	6,997.41	6,946.92	43.65	27.79	0.27	751.94	-359.23	2,750.39	2,695.98	54.41	50.548		
7,625.26	7,316.00	7,160.36	7,108.93	43.70	28.43	0.17	768.61	-363.95	2,753.27	2,697.73	55.54	49.571		
7,650.00	7,340.73	7,392.40	7,340.73	43.75	29.24	89.88	777.05	-366.34	2,753.91	2,697.00	56.91	48.395		
7,700.00	7,390.53	7,442.10	7,390.43	43.86	29.39	89.95	777.05	-367.00	2,753.90	2,696.68	57.23	48.123		
7,729.96	7,420.12	7,471.91	7,420.15	43.93	29.49	90.00	777.06	-369.20	2,753.90	2,696.47	57.43	47.955		
7,750.00	7,439.76	7,491.93	7,440.03	43.98	29.56	90.04	777.07	-371.55	2,753.90	2,696.34	57.56	47.842		
7,800.00	7,488.04	7,542.11	7,489.40	44.11	29.73	90.12	777.11	-380.46	2,753.91	2,695.99	57.92	47.547		
7,850.00	7,535.02	7,592.67	7,538.15	44.24	29.90	90.21	777.17	-393.77	2,753.92	2,695.62	58.30	47.237		
7,900.00	7,580.33	7,643.60	7,585.89	44.38	30.09	90.29	777.25	-411.47	2,753.93	2,695.23	58.71	46.910		
7,950.00	7,623.63	7,694.90	7,632.19	44.52	30.28	90.38	777.35	-433.51	2,753.96	2,694.81	59.14	46.565		
8,000.00	7,664.59	7,746.57	7,676.65	44.67	30.48	90.45	777.46	-459.81	2,753.98	2,694.37	59.61	46.197		
8,050.00	7,702.90	7,798.60	7,718.84	44.83	30.69	90.53	777.59	-490.23	2,754.01	2,693.88	60.13	45.802		
8,100.00	7,738.26	7,850.99	7,758.36	44.99	30.92	90.60	777.74	-524.59	2,754.04	2,693.35	60.70	45.375		
8,150.00	7,770.41	7,903.71	7,794.80	45.16	31.16	90.67	777.91	-562.68	2,754.08	2,692.75	61.33	44.908		
8,200.00	7,799.10	7,956.76	7,827.77	45.33	31.43	90.73	778.09	-604.21	2,754.11	2,692.08	62.03	44.397		
8,250.00	7,824.12	8,010.11	7,856.92	45.52	31.74	90.79	778.29	-648.87	2,754.15	2,691.32	62.83	43.838		
8,300.00	7,845.26	8,063.73	7,881.90	45.72	32.08	90.84	778.50	-696.29	2,754.18	2,690.47	63.71	43.231		
8,350.00	7,862.39	8,117.59	7,902.42	45.94	32.49	90.88	778.71	-746.06	2,754.21	2,689.52	64.69	42.576		
8,400.00	7,875.35	8,171.65	7,918.23	46.17	32.94	90.92	778.94	-797.74	2,754.23	2,688.47	65.76	41.881		
8,450.00	7,884.06	8,225.89	7,929.13	46.42	33.46	90.95	779.17	-850.85	2,754.25	2,687.32	66.93	41.151		
8,500.00	7,888.44	8,280.26	7,934.96	46.70	34.02	90.97	779.41	-904.89	2,754.26	2,686.09	68.18	40.399		
8,525.33	7,889.00	8,307.84	7,935.96	46.85	34.33	90.98	779.53	-932.45	2,754.27	2,685.44	68.83	40.014		
8,600.00	7,889.00	8,383.07	7,936.00	47.33	35.23	90.98	779.86	-1,007.68	2,754.26	2,683.46	70.80	38.902		
8,700.00	7,889.00	8,483.07	7,936.00	48.06	36.58	90.98	780.30	-1,107.68	2,754.26	2,680.58	73.68	37.382		

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 5-6-11
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 5-6-11	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		
8,800.00	7,889.00	8,583.07	7,936.00	48.93	38.08	90.98	780.74	-1,207.68	2,754.25	2,677.43	76.83	35.850		
8,900.00	7,889.00	8,683.07	7,936.00	49.92	39.71	90.98	781.17	-1,307.68	2,754.25	2,674.04	80.21	34.337		
9,000.00	7,888.99	8,783.07	7,936.00	51.05	41.45	90.98	781.61	-1,407.68	2,754.24	2,670.44	83.81	32.864		
9,100.00	7,888.99	8,883.07	7,936.00	52.31	43.30	90.98	782.05	-1,507.68	2,754.24	2,666.65	87.58	31.447		
9,200.00	7,888.99	8,983.07	7,936.00	53.71	45.23	90.98	782.49	-1,607.67	2,754.23	2,662.71	91.52	30.093		
9,300.00	7,888.99	9,083.07	7,936.00	55.23	47.24	90.98	782.92	-1,707.67	2,754.23	2,658.62	95.60	28.809		
9,400.00	7,888.99	9,183.07	7,936.00	56.86	49.32	90.98	783.36	-1,807.67	2,754.22	2,654.42	99.81	27.596		
9,500.00	7,888.99	9,283.07	7,936.00	58.60	51.45	90.98	783.80	-1,907.67	2,754.22	2,650.10	104.12	26.453		
9,600.00	7,888.99	9,383.07	7,935.99	60.43	53.64	90.98	784.24	-2,007.67	2,754.21	2,645.69	108.53	25.378		
9,700.00	7,888.99	9,483.07	7,935.99	62.34	55.87	90.98	784.68	-2,107.67	2,754.21	2,641.19	113.02	24.370		
9,800.00	7,888.99	9,583.07	7,935.99	64.32	58.14	90.98	785.11	-2,207.67	2,754.21	2,636.62	117.59	23.423		
9,900.00	7,888.99	9,683.07	7,935.99	66.37	60.44	90.98	785.55	-2,307.67	2,754.20	2,631.98	122.22	22.535		
10,000.00	7,888.98	9,783.07	7,935.99	68.47	62.78	90.98	785.99	-2,407.67	2,754.20	2,627.29	126.91	21.702		
10,100.00	7,888.98	9,883.07	7,935.99	70.62	65.14	90.98	786.43	-2,507.67	2,754.19	2,622.54	131.66	20.920		
10,200.00	7,888.98	9,983.07	7,935.99	72.82	67.53	90.98	786.87	-2,607.66	2,754.19	2,617.74	136.45	20.185		
10,300.00	7,888.98	10,083.07	7,935.99	75.05	69.94	90.98	787.30	-2,707.66	2,754.19	2,612.90	141.28	19.494		
10,400.00	7,888.98	10,183.07	7,935.99	77.32	72.37	90.98	787.74	-2,807.66	2,754.18	2,608.03	146.16	18.844		
10,500.00	7,888.98	10,283.07	7,935.99	79.63	74.82	90.98	788.18	-2,907.66	2,754.18	2,603.12	151.06	18.232		
10,600.00	7,888.98	10,383.07	7,935.99	81.96	77.29	90.98	788.62	-3,007.66	2,754.18	2,598.18	156.00	17.655		
10,700.00	7,888.98	10,483.07	7,935.99	84.31	79.77	90.98	789.05	-3,107.66	2,754.18	2,593.21	160.97	17.110		
10,800.00	7,888.98	10,583.07	7,935.99	86.69	82.26	90.98	789.49	-3,207.66	2,754.17	2,588.21	165.96	16.595		
10,900.00	7,888.98	10,683.07	7,935.99	89.09	84.76	90.98	789.93	-3,307.66	2,754.17	2,583.19	170.98	16.108		
11,000.00	7,888.98	10,783.07	7,935.99	91.51	87.28	90.98	790.37	-3,407.66	2,754.17	2,578.15	176.02	15.647		
11,100.00	7,888.98	10,883.07	7,935.99	93.94	89.80	90.98	790.81	-3,507.66	2,754.17	2,573.09	181.08	15.210		
11,200.00	7,888.98	10,983.07	7,935.99	96.39	92.34	90.98	791.24	-3,607.65	2,754.16	2,568.01	186.15	14.795		
11,300.00	7,888.98	11,083.07	7,935.99	98.86	94.88	90.98	791.68	-3,707.65	2,754.16	2,562.92	191.25	14.401		
11,400.00	7,888.98	11,183.07	7,935.99	101.33	97.44	90.98	792.12	-3,807.65	2,754.16	2,557.81	196.35	14.027		
11,500.00	7,888.98	11,283.07	7,935.99	103.82	99.99	90.98	792.56	-3,907.65	2,754.16	2,552.68	201.48	13.670		
11,600.00	7,888.97	11,383.07	7,935.99	106.32	102.56	90.98	793.00	-4,007.65	2,754.16	2,547.54	206.61	13.330		
11,700.00	7,888.97	11,483.07	7,935.98	108.83	105.13	90.98	793.43	-4,107.65	2,754.16	2,542.39	211.76	13.006		
11,800.00	7,888.97	11,583.07	7,935.98	111.35	107.71	90.98	793.87	-4,207.65	2,754.15	2,537.23	216.92	12.697		
11,900.00	7,888.97	11,683.07	7,935.98	113.88	110.29	90.98	794.31	-4,307.65	2,754.15	2,532.06	222.09	12.401		
12,000.00	7,888.97	11,783.07	7,935.98	116.41	112.88	90.98	794.75	-4,407.65	2,754.15	2,526.88	227.27	12.118		
12,100.00	7,888.97	11,883.07	7,935.98	118.96	115.47	90.98	795.18	-4,507.65	2,754.15	2,521.69	232.46	11.848		
12,200.00	7,888.97	11,983.07	7,935.98	121.51	118.07	90.98	795.62	-4,607.65	2,754.15	2,516.49	237.66	11.589		
12,300.00	7,888.97	12,083.07	7,935.98	124.06	120.67	90.98	796.06	-4,707.64	2,754.15	2,511.29	242.86	11.340		
12,400.00	7,888.97	12,183.07	7,935.98	126.63	123.28	90.98	796.50	-4,807.64	2,754.15	2,506.07	248.07	11.102		
12,500.00	7,888.97	12,283.07	7,935.98	129.20	125.89	90.98	796.94	-4,907.64	2,754.15	2,500.85	253.30	10.873		
12,600.00	7,888.97	12,383.07	7,935.98	131.77	128.50	90.98	797.37	-5,007.64	2,754.15	2,495.63	258.52	10.653		
12,700.00	7,888.97	12,483.07	7,935.98	134.35	131.11	90.98	797.81	-5,107.64	2,754.15	2,490.39	263.75	10.442		
12,700.00	7,888.97	12,483.07	7,935.98	134.35	131.11	90.98	797.81	-5,107.64	2,754.15	2,490.39	263.76	10.442		
12,800.00	7,888.97	12,583.07	7,935.98	136.93	133.73	90.98	798.25	-5,207.64	2,754.15	2,485.16	268.99	10.239		
12,900.00	7,888.97	12,683.07	7,935.98	139.52	136.35	90.98	798.69	-5,307.64	2,754.15	2,479.91	274.24	10.043		
13,000.00	7,888.97	12,783.07	7,935.98	142.11	138.98	90.98	799.13	-5,407.64	2,754.15	2,474.66	279.49	9.854		
13,100.00	7,888.97	12,883.07	7,935.98	144.71	141.60	90.98	799.56	-5,507.64	2,754.15	2,469.41	284.74	9.672		
13,200.00	7,888.97	12,983.07	7,935.98	147.31	144.23	90.98	800.00	-5,607.64	2,754.15	2,464.15	290.00	9.497		
13,300.00	7,888.97	13,083.07	7,935.98	149.91	146.86	90.98	800.44	-5,707.63	2,754.15	2,458.89	295.27	9.328		
13,400.00	7,888.97	13,183.07	7,935.98	152.52	149.49	90.98	800.88	-5,807.63	2,754.15	2,453.62	300.53	9.164		
13,500.00	7,888.97	13,283.07	7,935.98	155.13	152.13	90.98	801.31	-5,907.63	2,754.15	2,448.35	305.81	9.006		
13,600.00	7,888.97	13,383.07	7,935.98	157.74	154.77	90.98	801.75	-6,007.63	2,754.16	2,443.07	311.08	8.853		
13,700.00	7,888.97	13,483.07	7,935.98	160.36	157.40	90.98	802.19	-6,107.63	2,754.16	2,437.80	316.36	8.706		
13,800.00	7,888.97	13,583.07	7,935.97	162.97	160.04	90.98	802.63	-6,207.63	2,754.16	2,432.51	321.64	8.563		

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 5-6-11
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 5-6-11	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	7,888.97	13,683.07	7,935.97	165.59	162.69	90.98	803.07	-6,307.63	2,754.16	2,427.23	326.93	8.424		
14,000.00	7,888.97	13,783.07	7,935.97	168.22	165.33	90.98	803.50	-6,407.63	2,754.16	2,421.94	332.22	8.290		
14,100.00	7,888.97	13,883.07	7,935.97	170.84	167.97	90.98	803.94	-6,507.63	2,754.16	2,416.65	337.51	8.160		
14,200.00	7,888.97	13,983.07	7,935.97	173.47	170.62	90.98	804.38	-6,607.63	2,754.17	2,411.36	342.81	8.034		
14,300.00	7,888.97	14,083.07	7,935.97	176.10	173.27	90.98	804.82	-6,707.63	2,754.17	2,406.07	348.10	7.912		
14,400.00	7,888.97	14,183.07	7,935.97	178.73	175.92	90.98	805.26	-6,807.62	2,754.17	2,400.77	353.40	7.793		
14,500.00	7,888.97	14,283.07	7,935.97	181.36	178.57	90.98	805.69	-6,907.62	2,754.17	2,395.47	358.71	7.678		
14,600.00	7,888.97	14,383.07	7,935.97	184.00	181.22	90.98	806.13	-7,007.62	2,754.18	2,390.17	364.01	7.566		
14,700.00	7,888.97	14,483.07	7,935.97	186.63	183.87	90.98	806.57	-7,107.62	2,754.18	2,384.86	369.32	7.457		
14,800.00	7,888.97	14,583.07	7,935.97	189.27	186.52	90.98	807.01	-7,207.62	2,754.18	2,379.56	374.63	7.352		
14,900.00	7,888.97	14,683.07	7,935.97	191.91	189.18	90.98	807.44	-7,307.62	2,754.18	2,374.25	379.94	7.249		
15,000.00	7,888.97	14,783.07	7,935.97	194.55	191.83	90.98	807.88	-7,407.62	2,754.19	2,368.94	385.25	7.149		
15,100.00	7,888.97	14,883.07	7,935.97	197.20	194.49	90.98	808.32	-7,507.62	2,754.19	2,363.63	390.57	7.052		
15,200.00	7,888.97	14,983.07	7,935.97	199.84	197.15	90.98	808.76	-7,607.62	2,754.19	2,358.31	395.88	6.957		
15,300.00	7,888.98	15,083.07	7,935.97	202.49	199.81	90.98	809.20	-7,707.62	2,754.20	2,353.00	401.20	6.865		
15,400.00	7,888.98	15,183.07	7,935.97	205.13	202.46	90.98	809.63	-7,807.61	2,754.20	2,347.68	406.52	6.775		
15,500.00	7,888.98	15,283.07	7,935.97	207.78	205.12	90.98	810.07	-7,907.61	2,754.21	2,342.36	411.84	6.688		
15,600.00	7,888.98	15,383.07	7,935.97	210.43	207.79	90.98	810.51	-8,007.61	2,754.21	2,337.04	417.17	6.602		
15,700.00	7,888.98	15,483.07	7,935.97	213.08	210.45	90.98	810.95	-8,107.61	2,754.21	2,331.72	422.49	6.519		
15,800.00	7,888.98	15,583.07	7,935.96	215.73	213.11	90.98	811.39	-8,207.61	2,754.22	2,326.40	427.82	6.438		
15,900.00	7,888.98	15,683.07	7,935.96	218.39	215.77	90.98	811.82	-8,307.61	2,754.22	2,321.08	433.15	6.359		
16,000.00	7,888.98	15,783.07	7,935.96	221.04	218.43	90.98	812.26	-8,407.61	2,754.23	2,315.75	438.47	6.281		
16,100.00	7,888.98	15,883.07	7,935.96	223.70	221.10	90.98	812.70	-8,507.61	2,754.23	2,310.43	443.80	6.206		
16,200.00	7,888.98	15,983.07	7,935.96	226.35	223.76	90.98	813.14	-8,607.61	2,754.24	2,305.10	449.14	6.132		
16,300.00	7,888.98	16,083.07	7,935.96	229.01	226.43	90.98	813.57	-8,707.61	2,754.24	2,299.77	454.47	6.060		
16,400.00	7,888.98	16,183.07	7,935.96	231.66	229.09	90.98	814.01	-8,807.61	2,754.25	2,294.44	459.80	5.990		
16,500.00	7,888.98	16,283.07	7,935.96	234.32	231.76	90.98	814.45	-8,907.60	2,754.25	2,289.11	465.14	5.921		
16,600.00	7,888.98	16,383.07	7,935.96	236.98	234.43	90.98	814.89	-9,007.60	2,754.26	2,283.78	470.47	5.854		
16,700.00	7,888.98	16,483.07	7,935.96	239.64	237.10	90.98	815.33	-9,107.60	2,754.26	2,278.45	475.81	5.789		
16,800.00	7,888.99	16,583.07	7,935.96	242.30	239.76	90.98	815.76	-9,207.60	2,754.27	2,273.12	481.15	5.724		
16,900.00	7,888.99	16,683.07	7,935.96	244.96	242.43	90.98	816.20	-9,307.60	2,754.27	2,267.79	486.49	5.662		
17,000.00	7,888.99	16,783.07	7,935.96	247.63	245.10	90.98	816.64	-9,407.60	2,754.28	2,262.45	491.83	5.600		
17,100.00	7,888.99	16,883.07	7,935.96	250.29	247.77	90.98	817.08	-9,507.60	2,754.29	2,257.12	497.17	5.540		
17,200.00	7,888.99	16,983.07	7,935.96	252.95	250.44	90.98	817.52	-9,607.60	2,754.29	2,251.78	502.51	5.481		
17,300.00	7,888.99	17,083.07	7,935.96	255.62	253.11	90.98	817.95	-9,707.60	2,754.30	2,246.45	507.85	5.423		
17,400.00	7,888.99	17,183.07	7,935.96	258.28	255.78	90.98	818.39	-9,807.60	2,754.31	2,241.11	513.20	5.367		
17,500.00	7,888.99	17,283.07	7,935.96	260.95	258.45	90.98	818.83	-9,907.59	2,754.31	2,235.77	518.54	5.312		
17,600.00	7,888.99	17,383.07	7,935.96	263.61	261.12	90.98	819.27	-10,007.59	2,754.32	2,230.43	523.89	5.257		
17,700.00	7,888.99	17,483.07	7,935.96	266.28	263.79	90.98	819.70	-10,107.59	2,754.33	2,225.09	529.23	5.204		
17,800.00	7,889.00	17,583.07	7,935.96	268.94	266.47	90.98	820.14	-10,207.59	2,754.33	2,219.76	534.58	5.152		
17,900.00	7,889.00	17,683.07	7,935.95	271.61	269.14	90.98	820.58	-10,307.59	2,754.34	2,214.42	539.93	5.101		
18,000.00	7,889.00	17,783.07	7,935.95	274.28	271.81	90.98	821.02	-10,407.59	2,754.35	2,209.07	545.27	5.051		
18,100.00	7,889.00	17,883.07	7,935.95	276.95	274.49	90.98	821.46	-10,507.59	2,754.36	2,203.73	550.62	5.002		
18,200.00	7,889.00	17,985.41	7,935.99	279.62	277.22	90.98	821.83	-10,609.93	2,754.29	2,198.25	556.04	4.953		
18,212.39	7,889.00	17,997.80	7,936.00	279.95	277.55	90.98	821.87	-10,622.31	2,754.28	2,197.58	556.71	4.947 SF		

Anticollision Report

Company:	AXIS EXPLORATION	Local Co-ordinate Reference:	Well JAMASO 4-65 5-6-11
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 5-6-11	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	-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	200.00	200.00	200.00	0.49	0.49	-90.00	0.00	-163.12	163.12	162.14	0.99	165.475		
300.00	300.00	300.00	300.00	0.85	0.85	-90.00	0.00	-163.12	163.12	161.42	1.70	95.801		
400.00	399.98	400.02	399.98	1.19	1.21	79.95	0.00	-163.12	162.81	160.41	2.40	67.730		
500.00	499.84	500.16	499.84	1.54	1.57	81.79	0.00	-163.12	161.98	158.87	3.10	52.184		
600.00	599.45	600.55	599.45	1.89	1.93	84.87	0.00	-163.12	160.96	157.14	3.82	42.100		
700.00	698.70	701.30	698.70	2.28	2.29	89.19	0.00	-163.12	160.33	155.76	4.57	35.116		
716.14	714.68	714.68	714.68	2.34	2.34	90.00	0.00	-163.12	160.31	155.63	4.68	34.260 CC		
800.00	797.47	802.53	797.47	2.68	2.65	94.69	0.00	-163.12	160.86	155.53	5.34	30.152 ES		
900.00	895.62	904.38	895.62	3.12	3.02	101.19	0.00	-163.12	163.56	157.42	6.13	26.668		
1,000.00	993.06	993.06	993.06	3.59	3.34	108.39	0.00	-163.12	169.46	162.55	6.90	24.543		
1,100.00	1,089.64	1,084.78	1,084.77	4.10	3.66	115.63	1.11	-163.72	180.73	173.04	7.69	23.495		
1,200.00	1,185.27	1,173.75	1,173.64	4.66	3.98	122.68	4.65	-165.61	199.83	191.38	8.45	23.640		
1,218.17	1,202.53	1,189.62	1,189.48	4.76	4.04	123.90	5.53	-166.08	204.18	195.59	8.59	23.771		
1,300.00	1,280.19	1,264.77	1,264.45	5.24	4.31	129.45	10.19	-168.57	225.76	216.56	9.20	24.535		
1,400.00	1,375.10	1,357.71	1,357.15	5.84	4.64	135.05	15.98	-171.67	254.57	244.63	9.94	25.616		
1,500.00	1,470.01	1,450.64	1,449.86	6.45	4.98	139.53	21.77	-174.77	285.24	274.58	10.66	26.753		
1,600.00	1,564.92	1,543.58	1,542.56	7.07	5.32	143.15	27.56	-177.86	317.25	305.87	11.38	27.876		
1,700.00	1,659.83	1,636.51	1,635.26	7.69	5.66	146.13	33.35	-180.96	350.23	338.14	12.10	28.952		
1,800.00	1,754.73	1,729.45	1,727.96	8.32	6.00	148.60	39.14	-184.06	383.93	371.12	12.81	29.966		
1,900.00	1,849.64	1,822.39	1,820.67	8.95	6.34	150.68	44.93	-187.16	418.17	404.64	13.53	30.912		
2,000.00	1,944.55	1,915.32	1,913.37	9.58	6.69	152.45	50.72	-190.25	452.83	438.59	14.24	31.791		
2,100.00	2,039.46	2,008.26	2,006.07	10.21	7.03	153.96	56.52	-193.35	487.82	472.86	14.96	32.604		
2,200.00	2,134.36	2,101.19	2,098.78	10.85	7.37	155.28	62.31	-196.45	523.08	507.40	15.68	33.358		
2,300.00	2,229.27	2,205.87	2,191.48	11.48	7.76	156.44	68.10	-199.54	558.55	542.11	16.44	33.968		
2,400.00	2,324.18	2,287.06	2,284.18	12.12	8.06	157.45	73.89	-202.64	594.20	577.08	17.12	34.702		
2,500.00	2,419.09	2,380.00	2,376.89	12.76	8.41	158.35	79.68	-205.74	630.00	612.15	17.85	35.302		
2,600.00	2,513.99	2,472.93	2,469.59	13.40	8.75	159.16	85.47	-208.84	665.91	647.34	18.57	35.860		
2,700.00	2,608.90	2,565.87	2,562.29	14.04	9.10	159.88	91.26	-211.93	701.94	682.64	19.30	36.379		
2,800.00	2,703.81	2,658.81	2,655.00	14.68	9.44	160.54	97.05	-215.03	738.05	718.02	20.02	36.863		
2,900.00	2,798.72	2,751.74	2,747.70	15.32	9.79	161.13	102.84	-218.13	774.23	753.48	20.75	37.315		
3,000.00	2,893.63	2,844.68	2,840.40	15.96	10.13	161.67	108.63	-221.22	810.48	789.01	21.48	37.739		
3,100.00	2,988.53	2,937.61	2,933.11	16.60	10.48	162.17	114.42	-224.32	846.79	824.59	22.21	38.135		
3,200.00	3,083.44	3,030.55	3,025.81	17.24	10.83	162.62	120.21	-227.42	883.15	860.22	22.93	38.507		
3,300.00	3,178.35	3,123.48	3,118.51	17.89	11.17	163.04	126.01	-230.52	919.56	895.89	23.66	38.857		
3,400.00	3,273.26	3,216.42	3,211.22	18.53	11.52	163.42	131.80	-233.61	956.00	931.61	24.40	39.187		
3,500.00	3,368.16	3,309.35	3,303.92	19.17	11.87	163.78	137.59	-236.71	992.48	967.36	25.13	39.498		
3,600.00	3,463.07	3,402.29	3,396.62	19.82	12.21	164.11	143.38	-239.81	1,028.99	1,003.13	25.86	39.792		
3,700.00	3,557.98	3,495.23	3,489.33	20.46	12.56	164.42	149.17	-242.90	1,065.53	1,038.94	26.59	40.070		
3,800.00	3,652.89	3,588.16	3,582.03	21.11	12.91	164.71	154.96	-246.00	1,102.10	1,074.77	27.33	40.333		
3,900.00	3,747.80	3,681.10	3,674.73	21.75	13.25	164.99	160.75	-249.10	1,138.68	1,110.63	28.06	40.582		
4,000.00	3,842.70	3,774.03	3,767.44	22.39	13.60	165.24	166.54	-252.20	1,175.29	1,146.50	28.79	40.819		
4,100.00	3,937.61	3,866.97	3,860.14	23.04	13.95	165.48	172.33	-255.29	1,211.92	1,182.39	29.53	41.044		
4,200.00	4,032.52	3,959.90	3,952.84	23.68	14.29	165.70	178.12	-258.39	1,248.56	1,218.30	30.26	41.258		
4,300.00	4,127.43	4,052.84	4,045.55	24.33	14.64	165.91	183.91	-261.49	1,285.22	1,254.22	31.00	41.462		
4,400.00	4,222.33	4,145.77	4,138.25	24.97	14.99	166.12	189.70	-264.58	1,321.90	1,290.16	31.73	41.657		
4,500.00	4,317.24	4,238.71	4,230.95	25.62	15.34	166.30	195.50	-267.68	1,358.58	1,326.11	32.47	41.843		
4,600.00	4,412.15	4,331.65	4,323.66	26.26	15.68	166.48	201.29	-270.78	1,395.28	1,362.08	33.21	42.020		
4,700.00	4,507.06	4,424.58	4,416.36	26.91	16.03	166.65	207.08	-273.88	1,431.99	1,398.05	33.94	42.190		
4,800.00	4,601.97	4,517.52	4,509.06	27.55	16.38	166.82	212.87	-276.97	1,468.71	1,434.04	34.68	42.352		
4,900.00	4,696.87	4,610.45	4,601.76	28.20	16.73	166.97	218.66	-280.07	1,505.45	1,470.03	35.42	42.508		

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 5-6-11
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 5-6-11	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	4,791.78	4,703.39	4,694.47	28.85	17.08	167.12	224.45	-283.17	1,542.19	1,506.03	36.15	42.657		
5,100.00	4,886.69	4,803.68	4,787.17	29.49	17.45	167.26	230.24	-286.26	1,578.93	1,542.02	36.92	42.769		
5,200.00	4,981.60	4,889.26	4,879.87	30.14	17.77	167.39	236.03	-289.36	1,615.69	1,578.06	37.63	42.937		
5,300.00	5,076.50	4,982.19	4,972.58	30.78	18.12	167.52	241.82	-292.46	1,652.45	1,614.08	38.37	43.069		
5,400.00	5,171.41	5,075.13	5,065.28	31.43	18.47	167.64	247.61	-295.56	1,689.22	1,650.12	39.11	43.196		
5,500.00	5,266.32	5,168.07	5,157.98	32.07	18.81	167.76	253.40	-298.65	1,726.00	1,686.15	39.84	43.318		
5,600.00	5,361.23	5,261.00	5,250.69	32.72	19.16	167.87	259.19	-301.75	1,762.78	1,722.20	40.58	43.435		
5,700.00	5,456.13	5,353.94	5,343.39	33.37	19.51	167.98	264.98	-304.85	1,799.57	1,758.25	41.32	43.549		
5,800.00	5,551.04	5,446.87	5,436.09	34.01	19.86	168.08	270.78	-307.94	1,836.36	1,794.30	42.06	43.658		
5,900.00	5,645.95	5,539.81	5,528.80	34.66	20.21	168.18	276.57	-311.04	1,873.16	1,830.36	42.80	43.763		
6,000.00	5,740.86	5,632.74	5,621.50	35.30	20.55	168.27	282.36	-314.14	1,909.96	1,866.42	43.54	43.864		
6,100.00	5,835.77	5,725.68	5,714.20	35.95	20.90	168.36	288.15	-317.24	1,946.77	1,902.49	44.28	43.962		
6,200.00	5,930.67	5,818.61	5,806.91	36.60	21.25	168.45	293.94	-320.33	1,983.58	1,938.56	45.02	44.057		
6,300.00	6,025.58	5,911.55	5,899.61	37.24	21.60	168.54	299.73	-323.43	2,020.40	1,974.63	45.76	44.148		
6,400.00	6,120.49	6,004.49	5,992.31	37.89	21.95	168.62	305.52	-326.53	2,057.21	2,010.71	46.50	44.236		
6,500.00	6,215.40	6,102.58	6,085.02	38.54	22.31	168.70	311.31	-329.62	2,094.04	2,046.77	47.26	44.304		
6,600.00	6,310.30	6,209.64	6,177.72	39.18	22.71	168.78	317.10	-332.72	2,130.86	2,082.80	48.06	44.339		
6,677.09	6,383.47	6,262.00	6,249.19	39.68	22.91	168.83	321.57	-335.11	2,159.25	2,110.70	48.56	44.466		
6,700.00	6,405.24	6,283.33	6,270.46	39.83	22.99	168.88	322.90	-335.82	2,167.61	2,118.88	48.73	44.483		
6,800.00	6,500.91	6,377.16	6,364.05	40.44	23.34	169.08	328.74	-338.95	2,202.10	2,152.64	49.47	44.516		
6,900.00	6,597.55	6,472.13	6,458.79	41.01	23.70	169.24	334.66	-342.11	2,233.37	2,183.16	50.20	44.487		
7,000.00	6,695.01	6,568.13	6,554.55	41.53	24.06	169.37	340.64	-345.31	2,261.35	2,210.42	50.93	44.398		
7,100.00	6,793.20	6,665.03	6,651.21	42.00	24.42	169.47	346.68	-348.54	2,286.03	2,234.37	51.66	44.253		
7,200.00	6,891.99	6,762.72	6,748.65	42.43	24.79	169.53	352.77	-351.80	2,307.37	2,254.99	52.38	44.054		
7,300.00	6,991.26	6,861.08	6,846.76	42.81	25.16	169.57	358.89	-355.07	2,325.34	2,272.26	53.08	43.804		
7,400.00	7,090.89	6,959.99	6,945.43	43.14	25.53	169.58	365.06	-358.37	2,339.93	2,286.15	53.78	43.506		
7,500.00	7,190.76	7,059.32	7,044.52	43.43	25.90	169.56	371.25	-361.68	2,351.12	2,296.64	54.47	43.162		
7,595.26	7,286.00	7,301.08	7,286.00	43.64	26.77	0.14	380.00	-366.36	2,356.86	2,300.79	56.07	42.032		
7,600.00	7,290.74	7,318.28	7,303.21	43.65	26.83	0.14	379.96	-366.34	2,356.85	2,300.67	56.18	41.955		
7,601.03	7,291.77	7,601.03	7,255.16	43.65	27.83	0.15	379.52	-366.11	2,356.66	2,299.60	57.06	41.302		
7,625.26	7,316.00	7,331.08	7,316.00	43.70	26.88	0.14	380.00	-366.36	2,356.86	2,300.60	56.26	41.893		
7,650.00	7,340.73	7,355.62	7,340.54	43.75	26.96	89.88	380.00	-366.89	2,356.86	2,300.44	56.42	41.777		
7,700.00	7,390.53	7,405.22	7,389.94	43.86	27.14	89.89	380.02	-371.15	2,356.86	2,300.11	56.75	41.531		
7,750.00	7,439.76	7,454.83	7,438.79	43.98	27.32	89.89	380.06	-379.67	2,356.86	2,299.76	57.10	41.274		
7,800.00	7,488.04	7,504.44	7,486.74	44.11	27.51	89.89	380.12	-392.39	2,356.86	2,299.38	57.48	41.006		
7,850.00	7,535.02	7,554.07	7,533.41	44.24	27.71	89.89	380.19	-409.21	2,356.86	2,298.99	57.87	40.728		
7,900.00	7,580.33	7,603.71	7,578.46	44.38	27.91	89.90	380.28	-430.01	2,356.85	2,298.57	58.28	40.438		
7,950.00	7,623.63	7,653.36	7,621.56	44.52	28.13	89.90	380.39	-454.63	2,356.85	2,298.13	58.73	40.133		
8,000.00	7,664.59	7,703.03	7,662.38	44.67	28.36	89.91	380.51	-482.91	2,356.85	2,297.65	59.20	39.810		
8,050.00	7,702.90	7,752.73	7,700.62	44.83	28.60	89.91	380.65	-514.62	2,356.85	2,297.13	59.72	39.466		
8,100.00	7,738.26	7,802.44	7,735.97	44.99	28.87	89.92	380.80	-549.55	2,356.84	2,296.56	60.29	39.094		
8,150.00	7,770.41	7,852.19	7,768.19	45.16	29.17	89.93	380.97	-587.43	2,356.84	2,295.93	60.92	38.691		
8,200.00	7,799.10	7,901.95	7,797.01	45.33	29.50	89.94	381.15	-627.98	2,356.84	2,295.23	61.61	38.252		
8,250.00	7,824.12	7,951.75	7,822.22	45.52	29.88	89.95	381.33	-670.91	2,356.84	2,294.45	62.39	37.776		
8,300.00	7,845.26	8,001.58	7,843.63	45.72	30.30	89.96	381.53	-715.89	2,356.83	2,293.58	63.25	37.262		
8,350.00	7,862.39	8,051.44	7,861.05	45.94	30.76	89.96	381.73	-762.59	2,356.83	2,292.63	64.20	36.711		
8,400.00	7,875.35	8,101.33	7,874.36	46.17	31.27	89.97	381.95	-810.66	2,356.83	2,291.59	65.23	36.129		
8,450.00	7,884.06	8,151.26	7,883.44	46.42	31.81	89.98	382.16	-859.73	2,356.82	2,290.47	66.35	35.520		
8,500.00	7,888.44	8,201.22	7,888.22	46.70	32.40	89.99	382.38	-909.45	2,356.82	2,289.28	67.54	34.895		
8,525.33	7,889.00	8,235.74	7,889.00	46.85	32.83	90.00	382.49	-934.76	2,356.82	2,288.53	68.28	34.514		
8,600.00	7,889.00	8,301.22	7,889.00	47.33	33.68	90.00	382.81	-1,009.43	2,356.81	2,286.69	70.13	33.609		
8,700.00	7,889.00	8,401.22	7,889.00	48.06	35.12	90.00	383.25	-1,109.43	2,356.81	2,283.79	73.01	32.279		

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 5-6-11
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 5-6-11	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 5-6-5 - 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					
8,800.00	7,889.00	8,501.22	7,889.00	48.93	36.70	90.00	383.69	-1,209.43	2,356.80	2,280.63	76.18	30.939					
8,900.00	7,889.00	8,601.22	7,889.00	49.92	38.40	90.00	384.13	-1,309.43	2,356.80	2,277.22	79.58	29.617					
9,000.00	7,888.99	8,701.22	7,889.00	51.05	40.21	90.00	384.56	-1,409.43	2,356.79	2,273.60	83.19	28.332					
9,100.00	7,888.99	8,801.22	7,889.00	52.31	42.12	90.00	385.00	-1,509.42	2,356.78	2,269.81	86.98	27.096					
9,200.00	7,888.99	8,901.22	7,889.00	53.71	44.11	90.00	385.44	-1,609.42	2,356.78	2,265.85	90.93	25.917					
9,300.00	7,888.99	9,001.22	7,889.00	55.23	46.17	90.00	385.88	-1,709.42	2,356.77	2,261.75	95.03	24.801					
9,400.00	7,888.99	9,101.22	7,889.00	56.86	48.29	90.00	386.31	-1,809.42	2,356.77	2,257.52	99.25	23.747					
9,500.00	7,888.99	9,201.22	7,889.00	58.60	50.46	90.00	386.75	-1,909.42	2,356.76	2,253.19	103.57	22.755					
9,600.00	7,888.99	9,301.22	7,889.00	60.43	52.69	90.00	387.19	-2,009.42	2,356.76	2,248.77	107.99	21.823					
9,700.00	7,888.99	9,401.22	7,889.00	62.34	54.95	90.00	387.63	-2,109.42	2,356.75	2,244.26	112.50	20.949					
9,800.00	7,888.99	9,501.22	7,889.00	64.32	57.26	90.00	388.06	-2,209.42	2,356.75	2,239.67	117.08	20.130					
9,900.00	7,888.99	9,601.22	7,889.00	66.37	59.59	90.00	388.50	-2,309.42	2,356.75	2,235.02	121.72	19.362					
10,000.00	7,888.98	9,701.22	7,889.00	68.47	61.95	90.00	388.94	-2,409.42	2,356.74	2,230.32	126.42	18.641					
10,100.00	7,888.98	9,801.22	7,889.00	70.62	64.34	90.00	389.38	-2,509.41	2,356.74	2,225.56	131.18	17.966					
10,200.00	7,888.98	9,901.22	7,889.00	72.82	66.76	90.00	389.81	-2,609.41	2,356.73	2,220.75	135.98	17.331					
10,300.00	7,888.98	10,001.22	7,889.00	75.05	69.19	90.00	390.25	-2,709.41	2,356.73	2,215.90	140.83	16.735					
10,400.00	7,888.98	10,101.22	7,889.00	77.32	71.64	90.00	390.69	-2,809.41	2,356.73	2,211.02	145.71	16.174					
10,500.00	7,888.98	10,201.22	7,889.00	79.63	74.11	90.00	391.12	-2,909.41	2,356.72	2,206.10	150.62	15.646					
10,600.00	7,888.98	10,301.22	7,889.00	81.96	76.59	90.00	391.56	-3,009.41	2,356.72	2,201.15	155.57	15.149					
10,700.00	7,888.98	10,401.22	7,889.00	84.31	79.09	90.00	392.00	-3,109.41	2,356.72	2,196.17	160.55	14.679					
10,800.00	7,888.98	10,501.22	7,889.00	86.69	81.59	90.00	392.44	-3,209.41	2,356.71	2,191.17	165.55	14.236					
10,900.00	7,888.98	10,601.22	7,889.00	89.09	84.11	90.00	392.87	-3,309.41	2,356.71	2,186.14	170.57	13.817					
11,000.00	7,888.98	10,701.22	7,889.00	91.51	86.64	90.00	393.31	-3,409.41	2,356.71	2,181.09	175.62	13.420					
11,100.00	7,888.98	10,801.22	7,889.00	93.94	89.18	90.00	393.75	-3,509.41	2,356.70	2,176.02	180.68	13.044					
11,200.00	7,888.98	10,901.22	7,889.00	96.39	91.73	90.00	394.19	-3,609.40	2,356.70	2,170.94	185.76	12.687					
11,300.00	7,888.98	11,001.22	7,889.00	98.86	94.29	90.00	394.62	-3,709.40	2,356.70	2,165.84	190.86	12.348					
11,400.00	7,888.98	11,101.22	7,889.00	101.33	96.85	90.00	395.06	-3,809.40	2,356.70	2,160.72	195.98	12.025					
11,500.00	7,888.98	11,201.22	7,889.00	103.82	99.42	90.00	395.50	-3,909.40	2,356.69	2,155.59	201.10	11.719					
11,600.00	7,888.97	11,301.22	7,889.00	106.32	102.00	90.00	395.94	-4,009.40	2,356.69	2,150.45	206.24	11.427					
11,700.00	7,888.97	11,401.22	7,889.00	108.83	104.58	90.00	396.37	-4,109.40	2,356.69	2,145.29	211.40	11.148					
11,800.00	7,888.97	11,501.22	7,889.00	111.35	107.17	90.00	396.81	-4,209.40	2,356.69	2,140.13	216.56	10.882					
11,900.00	7,888.97	11,601.22	7,889.00	113.88	109.76	90.00	397.25	-4,309.40	2,356.69	2,134.95	221.74	10.628					
12,000.00	7,888.97	11,701.22	7,889.00	116.41	112.35	90.00	397.69	-4,409.40	2,356.69	2,129.76	226.92	10.385					
12,100.00	7,888.97	11,801.22	7,889.00	118.96	114.95	90.00	398.12	-4,509.40	2,356.68	2,124.57	232.11	10.153					
12,200.00	7,888.97	11,901.22	7,889.00	121.51	117.56	90.00	398.56	-4,609.39	2,356.68	2,119.37	237.32	9.931					
12,300.00	7,888.97	12,001.22	7,889.00	124.06	120.17	90.00	399.00	-4,709.39	2,356.68	2,114.16	242.53	9.717					
12,400.00	7,888.97	12,101.22	7,889.00	126.63	122.78	90.00	399.44	-4,809.39	2,356.68	2,108.94	247.74	9.513					
12,500.00	7,888.97	12,201.22	7,889.00	129.20	125.40	90.00	399.87	-4,909.39	2,356.68	2,103.71	252.97	9.316					
12,600.00	7,888.97	12,301.22	7,889.00	131.77	128.01	90.00	400.31	-5,009.39	2,356.68	2,098.48	258.20	9.127					
12,700.00	7,888.97	12,401.22	7,888.99	134.35	130.64	90.00	400.75	-5,109.39	2,356.68	2,093.24	263.43	8.946					
12,800.00	7,888.97	12,501.22	7,888.99	136.93	133.26	90.00	401.18	-5,209.39	2,356.68	2,088.00	268.68	8.771					
12,900.00	7,888.97	12,601.22	7,888.99	139.52	135.89	90.00	401.62	-5,309.39	2,356.68	2,082.75	273.93	8.603					
12,997.90	7,888.97	12,700.89	7,888.99	142.06	138.51	90.00	402.05	-5,407.29	2,356.68	2,077.56	279.11	8.443					
13,000.00	7,888.97	12,701.22	7,888.99	142.11	138.52	90.00	402.06	-5,409.39	2,356.68	2,077.50	279.18	8.441					
13,100.00	7,888.97	12,801.22	7,888.99	144.71	141.15	90.00	402.50	-5,509.39	2,356.68	2,072.24	284.44	8.285					
13,200.00	7,888.97	12,901.22	7,888.99	147.31	143.78	90.00	402.93	-5,609.39	2,356.68	2,066.98	289.70	8.135					
13,300.00	7,888.97	13,001.22	7,888.99	149.91	146.42	90.00	403.37	-5,709.38	2,356.68	2,061.71	294.97	7.990					
13,400.00	7,888.97	13,101.22	7,888.99	152.52	149.05	90.00	403.81	-5,809.38	2,356.68	2,056.44	300.24	7.849					
13,500.00	7,888.97	13,201.22	7,888.99	155.13	151.69	90.00	404.25	-5,909.38	2,356.68	2,051.17	305.51	7.714					
13,600.00	7,888.97	13,301.22	7,888.99	157.74	154.33	90.00	404.68	-6,009.38	2,356.68	2,045.89	310.79	7.583					
13,700.00	7,888.97	13,401.22	7,888.99	160.36	156.98	90.00	405.12	-6,109.38	2,356.68	2,040.61	316.07	7.456					
13,800.00	7,888.97	13,501.22	7,888.99	162.97	159.62	90.00	405.56	-6,209.38	2,356.68	2,035.33	321.36	7.334					

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 5-6-11
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 5-6-11	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		
13,900.00	7,888.97	13,601.22	7,888.99	165.59	162.27	90.00	406.00	-6,309.38	2,356.68	2,030.04	326.65	7.215		
14,000.00	7,888.97	13,701.22	7,888.99	168.22	164.91	90.00	406.43	-6,409.38	2,356.69	2,024.75	331.94	7.100		
14,100.00	7,888.97	13,801.22	7,888.99	170.84	167.56	90.00	406.87	-6,509.38	2,356.69	2,019.46	337.23	6.988		
14,200.00	7,888.97	13,901.22	7,888.99	173.47	170.21	90.00	407.31	-6,609.38	2,356.69	2,014.16	342.53	6.880		
14,300.00	7,888.97	14,001.22	7,888.99	176.10	172.86	90.00	407.75	-6,709.37	2,356.69	2,008.86	347.83	6.775		
14,400.00	7,888.97	14,101.22	7,888.99	178.73	175.52	90.00	408.18	-6,809.37	2,356.69	2,003.56	353.13	6.674		
14,500.00	7,888.97	14,201.22	7,888.99	181.36	178.17	90.00	408.62	-6,909.37	2,356.70	1,998.26	358.44	6.575		
14,600.00	7,888.97	14,301.22	7,888.99	184.00	180.82	90.00	409.06	-7,009.37	2,356.70	1,992.95	363.74	6.479		
14,700.00	7,888.97	14,401.22	7,888.99	186.63	183.48	90.00	409.50	-7,109.37	2,356.70	1,987.65	369.05	6.386		
14,800.00	7,888.97	14,501.22	7,888.99	189.27	186.14	90.00	409.93	-7,209.37	2,356.70	1,982.34	374.37	6.295		
14,900.00	7,888.97	14,601.22	7,888.99	191.91	188.79	90.00	410.37	-7,309.37	2,356.70	1,977.03	379.68	6.207		
15,000.00	7,888.97	14,701.22	7,888.99	194.55	191.45	90.00	410.81	-7,409.37	2,356.71	1,971.71	384.99	6.121		
15,100.00	7,888.97	14,801.22	7,888.99	197.20	194.11	90.00	411.24	-7,509.37	2,356.71	1,966.40	390.31	6.038		
15,200.00	7,888.97	14,901.22	7,888.99	199.84	196.77	90.00	411.68	-7,609.37	2,356.71	1,961.08	395.63	5.957		
15,300.00	7,888.98	15,001.22	7,888.99	202.49	199.43	90.00	412.12	-7,709.37	2,356.72	1,955.77	400.95	5.878		
15,400.00	7,888.98	15,101.22	7,888.99	205.13	202.09	90.00	412.56	-7,809.36	2,356.72	1,950.45	406.27	5.801		
15,500.00	7,888.98	15,201.22	7,888.99	207.78	204.76	90.00	412.99	-7,909.36	2,356.72	1,945.13	411.60	5.726		
15,600.00	7,888.98	15,301.22	7,888.99	210.43	207.42	90.00	413.43	-8,009.36	2,356.73	1,939.80	416.92	5.653		
15,700.00	7,888.98	15,401.22	7,888.99	213.08	210.08	90.00	413.87	-8,109.36	2,356.73	1,934.48	422.25	5.581		
15,800.00	7,888.98	15,501.22	7,888.99	215.73	212.75	90.00	414.31	-8,209.36	2,356.73	1,929.16	427.58	5.512		
15,900.00	7,888.98	15,601.22	7,888.99	218.39	215.41	90.00	414.74	-8,309.36	2,356.74	1,923.83	432.91	5.444		
16,000.00	7,888.98	15,701.22	7,888.99	221.04	218.08	90.00	415.18	-8,409.36	2,356.74	1,918.50	438.24	5.378		
16,100.00	7,888.98	15,801.22	7,888.99	223.70	220.74	90.00	415.62	-8,509.36	2,356.75	1,913.18	443.57	5.313		
16,200.00	7,888.98	15,901.22	7,888.99	226.35	223.41	90.00	416.06	-8,609.36	2,356.75	1,907.85	448.90	5.250		
16,300.00	7,888.98	16,001.22	7,888.99	229.01	226.08	90.00	416.49	-8,709.36	2,356.76	1,902.52	454.24	5.188		
16,400.00	7,888.98	16,101.22	7,888.99	231.66	228.75	90.00	416.93	-8,809.35	2,356.76	1,897.19	459.57	5.128		
16,500.00	7,888.98	16,201.22	7,888.99	234.32	231.41	90.00	417.37	-8,909.35	2,356.77	1,891.85	464.91	5.069		
16,600.00	7,888.98	16,301.22	7,888.99	236.98	234.08	90.00	417.81	-9,009.35	2,356.77	1,886.52	470.25	5.012		
16,700.00	7,888.98	16,401.22	7,888.99	239.64	236.75	90.00	418.24	-9,109.35	2,356.78	1,881.19	475.59	4.955		
16,800.00	7,888.99	16,501.22	7,888.99	242.30	239.42	90.00	418.68	-9,209.35	2,356.78	1,875.85	480.93	4.900		
16,900.00	7,888.99	16,601.22	7,888.99	244.96	242.09	90.00	419.12	-9,309.35	2,356.79	1,870.52	486.27	4.847		
17,000.00	7,888.99	16,701.22	7,888.99	247.63	244.76	90.00	419.56	-9,409.35	2,356.79	1,865.18	491.61	4.794		
17,100.00	7,888.99	16,801.22	7,888.99	250.29	247.43	90.00	419.99	-9,509.35	2,356.80	1,859.84	496.95	4.742		
17,200.00	7,888.99	16,901.22	7,888.99	252.95	250.11	90.00	420.43	-9,609.35	2,356.80	1,854.51	502.30	4.692		
17,300.00	7,888.99	17,001.22	7,888.99	255.62	252.78	90.00	420.87	-9,709.35	2,356.81	1,849.17	507.64	4.643		
17,400.00	7,888.99	17,101.22	7,888.99	258.28	255.45	90.00	421.30	-9,809.34	2,356.82	1,843.83	512.99	4.594		
17,500.00	7,888.99	17,201.22	7,888.99	260.95	258.12	90.00	421.74	-9,909.34	2,356.82	1,838.49	518.33	4.547		
17,600.00	7,888.99	17,301.22	7,888.99	263.61	260.80	90.00	422.18	-10,009.34	2,356.83	1,833.15	523.68	4.501		
17,700.00	7,888.99	17,401.22	7,888.99	266.28	263.47	90.00	422.62	-10,109.34	2,356.84	1,827.81	529.03	4.455		
17,800.00	7,889.00	17,501.22	7,888.99	268.94	266.14	90.00	423.05	-10,209.34	2,356.84	1,822.47	534.37	4.410		
17,900.00	7,889.00	17,601.22	7,888.99	271.61	268.82	90.00	423.49	-10,309.34	2,356.85	1,817.13	539.72	4.367		
18,000.00	7,889.00	17,701.22	7,888.99	274.28	271.49	90.00	423.93	-10,409.34	2,356.86	1,811.78	545.07	4.324		
18,100.00	7,889.00	17,801.22	7,888.99	276.95	274.16	90.00	424.37	-10,509.34	2,356.86	1,806.44	550.42	4.282		
18,200.00	7,889.00	17,908.13	7,888.99	279.62	277.02	90.00	424.81	-10,616.25	2,356.86	1,800.85	556.00	4.239		
18,212.39	7,889.00	17,917.28	7,889.00	279.95	277.27	90.00	424.82	-10,625.41	2,356.82	1,800.26	556.56	4.235 SF		

Anticollision Report

Company:	AXIS EXPLORATION	Local Co-ordinate Reference:	Well JAMASO 4-65 5-6-11
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 5-6-11	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		
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	200.00	200.00	200.00	0.49	0.49	-90.00	0.00	-180.00	180.00	179.01	0.99	182.593		
300.00	300.00	300.00	300.00	0.85	0.85	-90.00	0.00	-180.00	180.00	178.30	1.70	105.712		
400.00	399.98	400.02	399.98	1.19	1.21	79.89	0.00	-180.00	179.68	177.28	2.40	74.750		
500.00	499.84	500.16	499.84	1.54	1.57	81.56	0.00	-180.00	178.84	175.74	3.10	57.616		
600.00	599.45	600.55	599.45	1.89	1.93	84.35	0.00	-180.00	177.77	173.94	3.82	46.495		
700.00	698.70	701.30	698.70	2.28	2.29	88.26	0.00	-180.00	176.98	172.41	4.57	38.764		
737.18	735.48	735.48	735.48	2.43	2.41	90.00	0.00	-180.00	176.89	172.05	4.84	36.553 CC		
800.00	797.47	802.53	797.47	2.68	2.65	93.26	0.00	-180.00	177.19	171.85	5.34	33.211 ES		
900.00	895.62	904.38	895.62	3.12	3.02	99.21	0.00	-180.00	179.31	173.17	6.13	29.228		
1,000.00	993.06	1,006.94	993.06	3.59	3.39	105.86	0.00	-180.00	184.32	177.36	6.96	26.482		
1,100.00	1,089.64	1,089.64	1,089.64	4.10	3.68	112.89	0.00	-180.00	193.20	185.47	7.73	24.999		
1,200.00	1,185.27	1,185.27	1,185.27	4.66	4.02	119.89	0.00	-180.00	206.70	198.15	8.54	24.196		
1,218.17	1,202.53	1,202.53	1,202.53	4.76	4.09	121.13	0.00	-180.00	209.68	200.99	8.69	24.130		
1,300.00	1,280.19	1,276.63	1,276.62	5.24	4.35	126.15	-0.09	-181.02	225.22	215.90	9.32	24.176		
1,400.00	1,375.10	1,371.01	1,370.95	5.84	4.67	131.31	-0.36	-184.02	247.35	237.28	10.07	24.552		
1,500.00	1,470.01	1,466.15	1,466.04	6.45	5.00	135.66	-0.64	-187.09	271.21	260.39	10.82	25.061		
1,600.00	1,564.92	1,561.28	1,561.13	7.07	5.33	139.32	-0.92	-190.16	296.35	284.79	11.56	25.635		
1,700.00	1,659.83	1,656.42	1,656.21	7.69	5.66	142.41	-1.19	-193.23	322.47	310.18	12.29	26.231		
1,800.00	1,754.73	1,751.55	1,751.30	8.32	5.99	145.04	-1.47	-196.30	349.36	336.34	13.02	26.826		
1,900.00	1,849.64	1,846.69	1,846.38	8.95	6.33	147.30	-1.75	-199.37	376.85	363.10	13.75	27.404		
2,000.00	1,944.55	1,941.83	1,941.47	9.58	6.66	149.25	-2.02	-202.44	404.82	390.34	14.48	27.959		
2,100.00	2,039.46	2,036.96	2,036.56	10.21	7.00	150.96	-2.30	-205.51	433.18	417.97	15.21	28.485		
2,200.00	2,134.36	2,132.10	2,131.64	10.85	7.34	152.46	-2.58	-208.58	461.85	445.91	15.94	28.981		
2,300.00	2,229.27	2,227.23	2,226.73	11.48	7.68	153.78	-2.85	-211.65	490.77	474.11	16.67	29.449		
2,400.00	2,324.18	2,322.37	2,321.81	12.12	8.02	154.96	-3.13	-214.72	519.92	502.52	17.40	29.887		
2,500.00	2,419.09	2,417.51	2,416.90	12.76	8.36	156.01	-3.41	-217.79	549.24	531.12	18.13	30.299		
2,600.00	2,513.99	2,512.64	2,511.99	13.40	8.70	156.96	-3.68	-220.86	578.72	559.86	18.86	30.686		
2,700.00	2,608.90	2,607.78	2,607.07	14.04	9.04	157.82	-3.96	-223.93	608.33	588.74	19.59	31.048		
2,800.00	2,703.81	2,702.91	2,702.16	14.68	9.38	158.59	-4.24	-227.00	638.06	617.73	20.33	31.388		
2,900.00	2,798.72	2,801.95	2,797.24	15.32	9.73	159.30	-4.51	-230.07	667.88	646.80	21.08	31.687		
3,000.00	2,893.63	2,906.81	2,892.33	15.96	10.11	159.95	-4.79	-233.15	697.79	675.94	21.85	31.938		
3,100.00	2,988.53	2,988.32	2,987.42	16.60	10.40	160.55	-5.07	-236.22	727.77	705.24	22.54	32.292		
3,200.00	3,083.44	3,083.46	3,082.50	17.24	10.74	161.09	-5.34	-239.29	757.82	734.55	23.27	32.560		
3,300.00	3,178.35	3,178.59	3,177.59	17.89	11.08	161.60	-5.62	-242.36	787.93	763.92	24.01	32.812		
3,400.00	3,273.26	3,273.73	3,272.67	18.53	11.43	162.07	-5.90	-245.43	818.09	793.34	24.75	33.050		
3,500.00	3,368.16	3,368.87	3,367.76	19.17	11.77	162.51	-6.17	-248.50	848.30	822.80	25.49	33.275		
3,600.00	3,463.07	3,464.00	3,462.85	19.82	12.11	162.91	-6.45	-251.57	878.55	852.31	26.23	33.488		
3,700.00	3,557.98	3,559.14	3,557.93	20.46	12.45	163.29	-6.73	-254.64	908.83	881.86	26.98	33.691		
3,800.00	3,652.89	3,654.27	3,653.02	21.11	12.80	163.65	-7.00	-257.71	939.15	911.44	27.72	33.883		
3,900.00	3,747.80	3,749.41	3,748.10	21.75	13.14	163.98	-7.28	-260.78	969.50	941.04	28.46	34.065		
4,000.00	3,842.70	3,844.55	3,843.19	22.39	13.48	164.29	-7.56	-263.85	999.88	970.68	29.20	34.238		
4,100.00	3,937.61	3,939.68	3,938.28	23.04	13.83	164.59	-7.83	-266.92	1,030.29	1,000.34	29.95	34.404		
4,200.00	4,032.52	4,034.82	4,033.36	23.68	14.17	164.86	-8.11	-269.99	1,060.72	1,030.02	30.69	34.561		
4,300.00	4,127.43	4,129.95	4,128.45	24.33	14.51	165.13	-8.39	-273.06	1,091.16	1,059.73	31.44	34.711		
4,400.00	4,222.33	4,225.09	4,223.53	24.97	14.86	165.37	-8.66	-276.13	1,121.63	1,089.45	32.18	34.855		
4,500.00	4,317.24	4,320.23	4,318.62	25.62	15.20	165.61	-8.94	-279.20	1,152.12	1,119.19	32.93	34.992		
4,600.00	4,412.15	4,415.36	4,413.71	26.26	15.54	165.83	-9.22	-282.27	1,182.62	1,148.95	33.67	35.123		
4,700.00	4,507.06	4,510.50	4,508.79	26.91	15.89	166.04	-9.49	-285.34	1,213.14	1,178.72	34.42	35.248		
4,800.00	4,601.97	4,605.63	4,603.88	27.55	16.23	166.24	-9.77	-288.41	1,243.67	1,208.51	35.16	35.369		
4,900.00	4,696.87	4,700.77	4,698.96	28.20	16.57	166.43	-10.05	-291.48	1,274.22	1,238.31	35.91	35.484		

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 5-6-11
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 5-6-11	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	4,791.78	4,804.09	4,794.05	28.85	16.95	166.62	-10.32	-294.55	1,304.78	1,268.09	36.69	35.566		
5,100.00	4,886.69	4,908.96	4,889.14	29.49	17.33	166.79	-10.60	-297.62	1,335.35	1,297.88	37.47	35.639		
5,200.00	4,981.60	4,986.18	4,984.22	30.14	17.61	166.96	-10.88	-300.69	1,365.93	1,327.78	38.15	35.803		
5,300.00	5,076.50	5,081.31	5,079.31	30.78	17.95	167.12	-11.15	-303.76	1,396.52	1,357.62	38.90	35.901		
5,400.00	5,171.41	5,176.45	5,174.40	31.43	18.29	167.27	-11.43	-306.83	1,427.12	1,387.47	39.65	35.995		
5,500.00	5,266.32	5,271.59	5,269.48	32.07	18.64	167.41	-11.71	-309.90	1,457.73	1,417.33	40.40	36.086		
5,600.00	5,361.23	5,366.72	5,364.57	32.72	18.98	167.55	-11.98	-312.97	1,488.35	1,447.20	41.14	36.174		
5,700.00	5,456.13	5,461.86	5,459.65	33.37	19.33	167.69	-12.26	-316.04	1,518.97	1,477.08	41.89	36.258		
5,800.00	5,551.04	5,556.99	5,554.74	34.01	19.67	167.82	-12.54	-319.11	1,549.60	1,506.96	42.64	36.340		
5,900.00	5,645.95	5,652.13	5,649.83	34.66	20.02	167.94	-12.81	-322.18	1,580.24	1,536.85	43.39	36.418		
6,000.00	5,740.86	5,747.27	5,744.91	35.30	20.36	168.06	-13.09	-325.25	1,610.89	1,566.75	44.14	36.494		
6,100.00	5,835.77	5,842.40	5,840.00	35.95	20.70	168.18	-13.37	-328.32	1,641.54	1,596.65	44.89	36.568		
6,200.00	5,930.67	5,937.54	5,935.08	36.60	21.05	168.29	-13.64	-331.39	1,672.20	1,626.56	45.64	36.639		
6,300.00	6,025.58	6,032.67	6,030.17	37.24	21.39	168.39	-13.92	-334.46	1,702.86	1,656.47	46.39	36.707		
6,400.00	6,120.49	6,127.81	6,125.26	37.89	21.74	168.50	-14.20	-337.54	1,733.53	1,686.39	47.14	36.773		
6,500.00	6,215.40	6,222.95	6,220.34	38.54	22.08	168.59	-14.47	-340.61	1,764.20	1,716.31	47.89	36.837		
6,600.00	6,310.30	6,318.08	6,315.43	39.18	22.43	168.69	-14.75	-343.68	1,794.88	1,746.24	48.64	36.900		
6,677.09	6,383.47	6,408.58	6,388.73	39.68	22.75	168.76	-14.96	-346.04	1,818.53	1,769.25	49.28	36.900		
6,700.00	6,405.24	6,413.25	6,410.54	39.83	22.77	168.81	-15.03	-346.75	1,825.47	1,776.08	49.39	36.958		
6,800.00	6,500.91	6,509.13	6,506.37	40.44	23.12	169.00	-15.30	-349.84	1,853.77	1,803.63	50.14	36.972		
6,900.00	6,597.55	6,605.93	6,603.13	41.01	23.47	169.15	-15.59	-352.97	1,878.77	1,827.89	50.88	36.923		
7,000.00	6,695.01	6,703.55	6,700.69	41.53	23.82	169.26	-15.87	-356.12	1,900.44	1,848.82	51.62	36.816		
7,100.00	6,793.20	6,801.85	6,798.94	42.00	24.18	169.34	-16.16	-359.29	1,918.74	1,866.39	52.35	36.652		
7,200.00	6,891.99	6,900.73	6,897.77	42.43	24.54	169.38	-16.44	-362.48	1,933.67	1,880.59	53.07	36.435		
7,300.00	6,991.26	7,000.05	6,997.04	42.81	24.90	169.39	-16.73	-365.68	1,945.19	1,891.41	53.78	36.167		
7,400.00	7,090.89	7,097.52	7,094.46	43.14	25.25	169.38	-17.00	-368.61	1,953.32	1,898.85	54.47	35.863		
7,500.00	7,190.76	7,193.73	7,190.67	43.43	25.58	169.41	-17.05	-369.26	1,958.25	1,903.14	55.11	35.535		
7,595.26	7,286.00	7,286.95	7,283.36	43.64	25.93	88.62	-17.01	-378.22	1,959.85	1,904.10	55.76	35.151		
7,600.00	7,290.74	7,291.49	7,287.82	43.65	25.95	-0.20	-17.00	-379.05	1,959.86	1,904.07	55.79	35.131		
7,625.26	7,316.00	7,315.45	7,311.26	43.70	26.05	-0.35	-16.98	-383.96	1,959.91	1,903.95	55.96	35.023		
7,650.00	7,340.73	7,338.60	7,333.71	43.75	26.14	89.24	-16.96	-389.64	1,959.98	1,903.84	56.13	34.916		
7,700.00	7,390.53	7,384.79	7,377.71	43.86	26.33	88.93	-16.90	-403.65	1,960.15	1,903.66	56.50	34.696		
7,750.00	7,439.76	7,430.25	7,419.77	43.98	26.53	88.62	-16.82	-420.85	1,960.39	1,903.52	56.86	34.475		
7,800.00	7,488.04	7,475.03	7,459.75	44.11	26.73	88.32	-16.73	-441.00	1,960.66	1,903.42	57.24	34.252		
7,850.00	7,535.02	7,519.19	7,497.51	44.24	26.94	88.04	-16.63	-463.88	1,960.98	1,903.34	57.63	34.025		
7,900.00	7,580.33	7,562.80	7,532.97	44.38	27.16	87.77	-16.52	-489.25	1,961.32	1,903.28	58.04	33.795		
7,950.00	7,623.63	7,605.90	7,566.01	44.52	27.39	87.52	-16.40	-516.91	1,961.68	1,903.22	58.46	33.556		
8,000.00	7,664.59	7,648.55	7,596.57	44.67	27.64	87.28	-16.27	-546.64	1,962.04	1,903.13	58.91	33.307		
8,050.00	7,702.90	7,690.79	7,624.58	44.83	27.91	87.06	-16.13	-578.25	1,962.41	1,903.02	59.39	33.042		
8,100.00	7,738.26	7,732.68	7,649.98	44.99	28.19	86.87	-15.99	-611.55	1,962.76	1,902.85	59.91	32.759		
8,150.00	7,770.41	7,774.26	7,672.72	45.16	28.51	86.69	-15.84	-646.34	1,963.10	1,902.61	60.49	32.456		
8,200.00	7,799.10	7,815.56	7,692.75	45.33	28.84	86.53	-15.68	-682.46	1,963.41	1,902.30	61.11	32.129		
8,250.00	7,824.12	7,856.65	7,710.05	45.52	29.21	86.40	-15.52	-719.71	1,963.68	1,901.88	61.80	31.777		
8,300.00	7,845.26	7,897.54	7,724.57	45.72	29.60	86.29	-15.35	-757.93	1,963.91	1,901.37	62.55	31.399		
8,350.00	7,862.39	7,938.28	7,736.29	45.94	30.02	86.20	-15.18	-796.94	1,964.10	1,900.73	63.37	30.993		
8,400.00	7,875.35	7,978.92	7,745.18	46.17	30.47	86.14	-15.01	-836.58	1,964.24	1,899.97	64.26	30.565		
8,450.00	7,884.06	8,019.48	7,751.24	46.42	30.94	86.10	-14.83	-876.68	1,964.32	1,899.09	65.22	30.117		
8,500.00	7,888.44	8,060.00	7,754.45	46.70	31.43	86.08	-14.65	-917.06	1,964.34	1,898.10	66.24	29.655		
8,525.33	7,889.00	8,080.53	7,754.98	46.85	31.69	86.09	-14.56	-937.58	1,964.33	1,897.56	66.78	29.417		
8,558.16	7,889.00	8,112.28	7,755.00	47.05	32.11	86.09	-14.43	-969.34	1,964.33	1,896.72	67.61	29.052		
8,600.00	7,889.00	8,154.12	7,755.00	47.33	32.69	86.09	-14.24	-1,011.17	1,964.33	1,895.59	68.74	28.577		
8,700.00	7,889.00	8,254.12	7,755.00	48.06	34.16	86.09	-13.81	-1,111.17	1,964.32	1,892.68	71.64	27.420		

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 5-6-11
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 5-6-11	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		
8,800.00	7,889.00	8,354.12	7,755.00	48.93	35.77	86.09	-13.37	-1,211.17	1,964.32	1,889.50	74.81	26.257		
8,900.00	7,889.00	8,454.12	7,755.00	49.92	37.51	86.09	-12.93	-1,311.17	1,964.31	1,886.08	78.23	25.111		
9,000.00	7,888.99	8,554.12	7,755.00	51.05	39.35	86.09	-12.50	-1,411.17	1,964.30	1,882.45	81.85	23.999		
9,100.00	7,888.99	8,654.12	7,755.00	52.31	41.29	86.09	-12.06	-1,511.17	1,964.30	1,878.64	85.66	22.932		
9,200.00	7,888.99	8,754.12	7,755.00	53.71	43.30	86.09	-11.62	-1,611.17	1,964.29	1,874.66	89.63	21.916		
9,300.00	7,888.99	8,854.12	7,755.00	55.23	45.39	86.09	-11.18	-1,711.17	1,964.29	1,870.55	93.74	20.955		
9,400.00	7,888.99	8,954.12	7,755.00	56.86	47.54	86.09	-10.75	-1,811.17	1,964.28	1,866.31	97.97	20.050		
9,500.00	7,888.99	9,054.12	7,755.00	58.60	49.74	86.09	-10.31	-1,911.17	1,964.27	1,861.97	102.31	19.200		
9,600.00	7,888.99	9,154.12	7,755.00	60.43	51.99	86.09	-9.87	-2,011.16	1,964.27	1,857.53	106.74	18.402		
9,700.00	7,888.99	9,254.12	7,755.00	62.34	54.27	86.09	-9.44	-2,111.16	1,964.26	1,853.01	111.26	17.655		
9,800.00	7,888.99	9,354.12	7,755.00	64.32	56.59	86.09	-9.00	-2,211.16	1,964.26	1,848.41	115.84	16.956		
9,900.00	7,888.99	9,454.12	7,755.00	66.37	58.95	86.09	-8.56	-2,311.16	1,964.25	1,843.76	120.50	16.301		
10,000.00	7,888.98	9,554.12	7,755.00	68.47	61.33	86.09	-8.13	-2,411.16	1,964.25	1,839.04	125.21	15.688		
10,100.00	7,888.98	9,654.12	7,755.00	70.62	63.74	86.09	-7.69	-2,511.16	1,964.24	1,834.27	129.97	15.113		
10,200.00	7,888.98	9,754.12	7,755.00	72.82	66.16	86.09	-7.25	-2,611.16	1,964.24	1,829.46	134.78	14.574		
10,300.00	7,888.98	9,854.12	7,755.00	75.05	68.61	86.09	-6.81	-2,711.16	1,964.24	1,824.61	139.63	14.068		
10,400.00	7,888.98	9,954.12	7,755.00	77.32	71.08	86.09	-6.38	-2,811.16	1,964.23	1,819.72	144.51	13.592		
10,500.00	7,888.98	10,054.12	7,755.00	79.63	73.56	86.09	-5.94	-2,911.16	1,964.23	1,814.79	149.43	13.144		
10,600.00	7,888.98	10,154.12	7,755.00	81.96	76.05	86.09	-5.50	-3,011.16	1,964.22	1,809.84	154.38	12.723		
10,700.00	7,888.98	10,254.12	7,755.00	84.31	78.56	86.09	-5.07	-3,111.15	1,964.22	1,804.86	159.36	12.326		
10,800.00	7,888.98	10,354.12	7,755.00	86.69	81.08	86.09	-4.63	-3,211.15	1,964.22	1,799.85	164.36	11.951		
10,900.00	7,888.98	10,454.12	7,755.00	89.09	83.61	86.09	-4.19	-3,311.15	1,964.21	1,794.83	169.39	11.596		
11,000.00	7,888.98	10,554.12	7,755.00	91.51	86.15	86.09	-3.76	-3,411.15	1,964.21	1,789.78	174.43	11.261		
11,100.00	7,888.98	10,654.12	7,755.00	93.94	88.70	86.09	-3.32	-3,511.15	1,964.21	1,784.71	179.50	10.943		
11,200.00	7,888.98	10,754.12	7,755.00	96.39	91.25	86.09	-2.88	-3,611.15	1,964.20	1,779.63	184.58	10.642		
11,300.00	7,888.98	10,854.12	7,755.00	98.86	93.82	86.09	-2.45	-3,711.15	1,964.20	1,774.52	189.68	10.356		
11,400.00	7,888.98	10,954.12	7,755.00	101.33	96.39	86.09	-2.01	-3,811.15	1,964.20	1,769.41	194.79	10.084		
11,500.00	7,888.98	11,054.12	7,755.00	103.82	98.97	86.09	-1.57	-3,911.15	1,964.19	1,764.28	199.91	9.825		
11,600.00	7,888.97	11,154.12	7,755.00	106.32	101.55	86.09	-1.13	-4,011.15	1,964.19	1,759.14	205.05	9.579		
11,700.00	7,888.97	11,254.12	7,755.00	108.83	104.14	86.09	-0.70	-4,111.14	1,964.19	1,753.99	210.20	9.344		
11,800.00	7,888.97	11,354.12	7,755.00	111.35	106.73	86.09	-0.26	-4,211.14	1,964.19	1,748.82	215.36	9.120		
11,900.00	7,888.97	11,454.12	7,755.00	113.88	109.33	86.09	0.18	-4,311.14	1,964.19	1,743.65	220.53	8.906		
12,000.00	7,888.97	11,554.12	7,755.00	116.41	111.93	86.09	0.61	-4,411.14	1,964.18	1,738.47	225.72	8.702		
12,100.00	7,888.97	11,654.12	7,755.00	118.96	114.54	86.09	1.05	-4,511.14	1,964.18	1,733.28	230.90	8.506		
12,200.00	7,888.97	11,754.12	7,755.00	121.51	117.15	86.09	1.49	-4,611.14	1,964.18	1,728.08	236.10	8.319		
12,300.00	7,888.97	11,854.12	7,755.00	124.06	119.76	86.09	1.92	-4,711.14	1,964.18	1,722.87	241.31	8.140		
12,400.00	7,888.97	11,954.12	7,755.00	126.63	122.38	86.09	2.36	-4,811.14	1,964.18	1,717.66	246.52	7.968		
12,500.00	7,888.97	12,054.12	7,755.00	129.20	125.00	86.09	2.80	-4,911.14	1,964.18	1,712.44	251.74	7.802		
12,600.00	7,888.97	12,154.12	7,755.00	131.77	127.62	86.09	3.23	-5,011.14	1,964.18	1,707.21	256.96	7.644		
12,700.00	7,888.97	12,254.12	7,755.00	134.35	130.25	86.09	3.67	-5,111.14	1,964.17	1,701.98	262.20	7.491		
12,800.00	7,888.97	12,354.12	7,755.00	136.93	132.88	86.09	4.11	-5,211.13	1,964.17	1,696.74	267.43	7.345		
12,900.00	7,888.97	12,454.12	7,755.00	139.52	135.51	86.09	4.55	-5,311.13	1,964.17	1,691.50	272.67	7.203		
13,000.00	7,888.97	12,554.12	7,755.00	142.11	138.14	86.09	4.98	-5,411.13	1,964.17	1,686.25	277.92	7.067		
13,100.00	7,888.97	12,654.12	7,755.00	144.71	140.78	86.09	5.42	-5,511.13	1,964.17	1,681.00	283.17	6.936		
13,200.00	7,888.97	12,754.12	7,755.00	147.31	143.42	86.09	5.86	-5,611.13	1,964.17	1,675.74	288.43	6.810		
13,299.81	7,888.97	12,853.93	7,755.00	149.91	146.05	86.09	6.29	-5,710.94	1,964.17	1,670.49	293.68	6.688		
13,300.00	7,888.97	12,854.12	7,755.00	149.91	146.05	86.09	6.29	-5,711.13	1,964.17	1,670.48	293.69	6.688		
13,400.00	7,888.97	12,954.12	7,754.99	152.52	148.70	86.09	6.73	-5,811.13	1,964.17	1,665.22	298.95	6.570		
13,500.00	7,888.97	13,054.12	7,754.99	155.13	151.34	86.09	7.17	-5,911.13	1,964.17	1,659.95	304.22	6.456		
13,600.00	7,888.97	13,154.12	7,754.99	157.74	153.98	86.09	7.60	-6,011.13	1,964.17	1,654.68	309.49	6.346		
13,700.00	7,888.97	13,254.12	7,754.99	160.36	156.63	86.09	8.04	-6,111.13	1,964.17	1,649.40	314.77	6.240		
13,800.00	7,888.97	13,354.12	7,754.99	162.97	159.28	86.09	8.48	-6,211.12	1,964.17	1,644.13	320.05	6.137		

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 5-6-11
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 5-6-11	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		
13,900.00	7,888.97	13,454.12	7,754.99	165.59	161.92	86.09	8.92	-6,311.12	1,964.17	1,638.85	325.33	6.037		
14,000.00	7,888.97	13,554.12	7,754.99	168.22	164.57	86.09	9.35	-6,411.12	1,964.18	1,633.56	330.61	5.941		
14,100.00	7,888.97	13,654.12	7,754.99	170.84	167.23	86.09	9.79	-6,511.12	1,964.18	1,628.28	335.90	5.847		
14,200.00	7,888.97	13,754.12	7,754.99	173.47	169.88	86.09	10.23	-6,611.12	1,964.18	1,622.99	341.19	5.757		
14,300.00	7,888.97	13,854.12	7,754.99	176.10	172.53	86.09	10.66	-6,711.12	1,964.18	1,617.70	346.48	5.669		
14,400.00	7,888.97	13,954.12	7,754.99	178.73	175.19	86.09	11.10	-6,811.12	1,964.18	1,612.40	351.78	5.584		
14,500.00	7,888.97	14,054.12	7,754.99	181.36	177.84	86.09	11.54	-6,911.12	1,964.18	1,607.11	357.07	5.501		
14,600.00	7,888.97	14,154.12	7,754.99	184.00	180.50	86.09	11.97	-7,011.12	1,964.18	1,601.81	362.37	5.420		
14,700.00	7,888.97	14,254.12	7,754.99	186.63	183.16	86.09	12.41	-7,111.12	1,964.19	1,596.51	367.68	5.342		
14,800.00	7,888.97	14,354.12	7,754.99	189.27	185.82	86.09	12.85	-7,211.12	1,964.19	1,591.21	372.98	5.266		
14,900.00	7,888.97	14,454.12	7,754.99	191.91	188.48	86.09	13.28	-7,311.11	1,964.19	1,585.91	378.28	5.192		
15,000.00	7,888.97	14,554.12	7,754.99	194.55	191.14	86.09	13.72	-7,411.11	1,964.19	1,580.60	383.59	5.121		
15,100.00	7,888.97	14,654.12	7,754.99	197.20	193.80	86.09	14.16	-7,511.11	1,964.20	1,575.29	388.90	5.051		
15,200.00	7,888.97	14,754.12	7,754.99	199.84	196.46	86.09	14.60	-7,611.11	1,964.20	1,569.99	394.21	4.983		
15,300.00	7,888.98	14,854.12	7,754.99	202.49	199.12	86.09	15.03	-7,711.11	1,964.20	1,564.68	399.52	4.916		
15,400.00	7,888.98	14,954.12	7,754.99	205.13	201.79	86.09	15.47	-7,811.11	1,964.20	1,559.37	404.84	4.852		
15,500.00	7,888.98	15,054.12	7,754.99	207.78	204.45	86.09	15.91	-7,911.11	1,964.21	1,554.05	410.15	4.789		
15,600.00	7,888.98	15,154.12	7,754.99	210.43	207.11	86.09	16.34	-8,011.11	1,964.21	1,548.74	415.47	4.728		
15,700.00	7,888.98	15,254.12	7,754.99	213.08	209.78	86.09	16.78	-8,111.11	1,964.21	1,543.42	420.79	4.668		
15,800.00	7,888.98	15,354.12	7,754.99	215.73	212.45	86.09	17.22	-8,211.11	1,964.22	1,538.11	426.11	4.610		
15,900.00	7,888.98	15,454.12	7,754.99	218.39	215.11	86.09	17.65	-8,311.10	1,964.22	1,532.79	431.43	4.553		
16,000.00	7,888.98	15,554.12	7,754.99	221.04	217.78	86.09	18.09	-8,411.10	1,964.22	1,527.47	436.75	4.497		
16,100.00	7,888.98	15,654.12	7,754.99	223.70	220.45	86.09	18.53	-8,511.10	1,964.23	1,522.15	442.07	4.443		
16,200.00	7,888.98	15,754.12	7,754.99	226.35	223.12	86.09	18.96	-8,611.10	1,964.23	1,516.83	447.40	4.390		
16,300.00	7,888.98	15,854.12	7,754.99	229.01	225.79	86.09	19.40	-8,711.10	1,964.24	1,511.51	452.73	4.339		
16,400.00	7,888.98	15,954.12	7,754.99	231.66	228.45	86.09	19.84	-8,811.10	1,964.24	1,506.19	458.05	4.288		
16,500.00	7,888.98	16,054.12	7,754.99	234.32	231.12	86.09	20.28	-8,911.10	1,964.24	1,500.86	463.38	4.239		
16,600.00	7,888.98	16,154.12	7,754.99	236.98	233.79	86.09	20.71	-9,011.10	1,964.25	1,495.54	468.71	4.191		
16,700.00	7,888.98	16,254.12	7,754.99	239.64	236.47	86.09	21.15	-9,111.10	1,964.25	1,490.22	474.04	4.144		
16,800.00	7,888.99	16,354.12	7,754.99	242.30	239.14	86.09	21.59	-9,211.10	1,964.26	1,484.89	479.37	4.098		
16,900.00	7,888.99	16,454.12	7,754.99	244.96	241.81	86.09	22.02	-9,311.10	1,964.26	1,479.56	484.70	4.053		
17,000.00	7,888.99	16,554.12	7,754.99	247.63	244.48	86.09	22.46	-9,411.09	1,964.27	1,474.24	490.03	4.008		
17,100.00	7,888.99	16,654.12	7,754.99	250.29	247.15	86.09	22.90	-9,511.09	1,964.27	1,468.91	495.37	3.965		
17,200.00	7,888.99	16,754.12	7,754.99	252.95	249.82	86.09	23.33	-9,611.09	1,964.28	1,463.58	500.70	3.923		
17,300.00	7,888.99	16,854.12	7,754.99	255.62	252.50	86.09	23.77	-9,711.09	1,964.29	1,458.25	506.04	3.882		
17,400.00	7,888.99	16,954.12	7,754.99	258.28	255.17	86.09	24.21	-9,811.09	1,964.29	1,452.92	511.37	3.841		
17,500.00	7,888.99	17,054.12	7,754.99	260.95	257.85	86.09	24.64	-9,911.09	1,964.30	1,447.59	516.71	3.802		
17,600.00	7,888.99	17,154.12	7,754.99	263.61	260.52	86.09	25.08	-10,011.09	1,964.30	1,442.26	522.05	3.763		
17,700.00	7,888.99	17,254.12	7,754.99	266.28	263.19	86.09	25.52	-10,111.09	1,964.31	1,436.92	527.38	3.725		
17,800.00	7,889.00	17,354.12	7,754.99	268.94	265.87	86.09	25.96	-10,211.09	1,964.32	1,431.59	532.72	3.687		
17,900.00	7,889.00	17,454.12	7,754.99	271.61	268.54	86.09	26.39	-10,311.09	1,964.32	1,426.26	538.06	3.651		
18,000.00	7,889.00	17,554.12	7,754.99	274.28	271.22	86.09	26.83	-10,411.08	1,964.33	1,420.93	543.40	3.615		
18,100.00	7,889.00	17,654.12	7,754.99	276.95	273.89	86.09	27.27	-10,511.08	1,964.34	1,415.59	548.74	3.580		
18,200.00	7,889.00	17,754.02	7,755.00	279.62	276.57	86.09	27.71	-10,610.98	1,964.34	1,410.26	554.08	3.545		
18,212.39	7,889.00	17,766.41	7,755.00	279.95	276.90	86.09	27.76	-10,623.37	1,964.35	1,409.60	554.74	3.541 SF		

Anticollision Report

Company:	AXIS EXPLORATION	Local Co-ordinate Reference:	Well JAMASO 4-65 5-6-11
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 5-6-11	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	-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	200.00	200.00	200.00	0.49	0.49	-90.00	0.00	-73.12	73.12	72.14	0.99	74.178		
300.00	300.00	300.00	300.00	0.85	0.85	-90.00	0.00	-73.12	73.12	71.42	1.70	42.945		
400.00	399.98	400.02	399.98	1.19	1.21	80.70	0.00	-73.12	72.82	70.42	2.40	30.295		
500.00	499.84	500.16	499.84	1.54	1.57	84.81	0.00	-73.12	72.16	69.06	3.10	23.248		
578.45	578.01	578.01	578.01	1.82	1.85	90.00	0.00	-73.12	71.86	68.20	3.67	19.608 CC		
600.00	599.45	600.55	599.45	1.89	1.93	91.72	0.00	-73.12	71.90	68.07	3.82	18.804 ES		
700.00	698.70	701.30	698.70	2.28	2.29	101.19	0.00	-73.12	73.28	68.72	4.56	16.054		
800.00	797.47	802.53	797.47	2.68	2.65	112.35	0.00	-73.12	77.87	72.55	5.33	14.622		
900.00	895.62	904.38	895.62	3.12	3.02	123.75	0.00	-73.12	87.03	80.93	6.10	14.278		
1,000.00	993.06	1,006.94	993.06	3.59	3.39	134.02	0.00	-73.12	101.43	94.57	6.86	14.782		
1,100.00	1,089.64	1,089.64	1,089.64	4.10	3.68	142.51	0.00	-73.12	121.09	113.54	7.55	16.044		
1,200.00	1,185.27	1,187.74	1,187.73	4.66	4.02	148.90	-1.07	-73.93	144.93	136.65	8.27	17.518		
1,218.17	1,202.53	1,205.68	1,205.66	4.76	4.08	149.80	-1.55	-74.30	149.53	141.12	8.41	17.782		
1,300.00	1,280.19	1,287.10	1,286.97	5.24	4.35	153.10	-4.87	-76.80	170.05	161.05	9.00	18.901		
1,400.00	1,375.10	1,385.71	1,385.28	5.84	4.68	155.55	-10.99	-81.42	193.97	184.24	9.73	19.943		
1,500.00	1,470.01	1,482.60	1,481.85	6.45	5.02	157.34	-17.30	-86.19	217.89	207.43	10.46	20.835		
1,600.00	1,564.92	1,579.50	1,578.42	7.07	5.36	158.77	-23.62	-90.96	241.97	230.78	11.19	21.615		
1,700.00	1,659.83	1,676.39	1,674.99	7.69	5.70	159.95	-29.93	-95.72	266.17	254.24	11.94	22.300		
1,800.00	1,754.73	1,773.29	1,771.56	8.32	6.05	160.93	-36.25	-100.49	290.46	277.78	12.68	22.905		
1,900.00	1,849.64	1,870.18	1,868.13	8.95	6.40	161.76	-42.56	-105.25	314.82	301.39	13.43	23.443		
2,000.00	1,944.55	1,967.08	1,964.71	9.58	6.75	162.47	-48.88	-110.02	339.23	325.05	14.18	23.923		
2,100.00	2,039.46	2,063.97	2,061.28	10.21	7.10	163.08	-55.19	-114.79	363.68	348.75	14.93	24.353		
2,200.00	2,134.36	2,160.87	2,157.85	10.85	7.46	163.62	-61.51	-119.55	388.17	372.48	15.69	24.742		
2,300.00	2,229.27	2,257.76	2,254.42	11.48	7.82	164.10	-67.82	-124.32	412.68	396.24	16.45	25.094		
2,400.00	2,324.18	2,354.66	2,350.99	12.12	8.18	164.52	-74.14	-129.09	437.22	420.02	17.20	25.414		
2,500.00	2,419.09	2,451.56	2,447.56	12.76	8.54	164.89	-80.45	-133.85	461.78	443.82	17.96	25.706		
2,600.00	2,513.99	2,548.45	2,544.14	13.40	8.90	165.23	-86.77	-138.62	486.36	467.63	18.73	25.973		
2,700.00	2,608.90	2,645.35	2,640.71	14.04	9.27	165.54	-93.08	-143.39	510.95	491.46	19.49	26.219		
2,800.00	2,703.81	2,742.24	2,737.28	14.68	9.63	165.81	-99.40	-148.15	535.55	515.30	20.25	26.446		
2,900.00	2,798.72	2,839.14	2,833.85	15.32	9.99	166.07	-105.71	-152.92	560.16	539.15	21.01	26.656		
3,000.00	2,893.63	2,936.03	2,930.42	15.96	10.36	166.30	-112.02	-157.68	584.79	563.01	21.78	26.850		
3,100.00	2,988.53	3,032.93	3,026.99	16.60	10.73	166.51	-118.34	-162.45	609.42	586.87	22.55	27.031		
3,200.00	3,083.44	3,129.82	3,123.57	17.24	11.09	166.71	-124.65	-167.22	634.05	610.74	23.31	27.200		
3,300.00	3,178.35	3,226.72	3,220.14	17.89	11.46	166.89	-130.97	-171.98	658.70	634.62	24.08	27.357		
3,400.00	3,273.26	3,323.61	3,316.71	18.53	11.83	167.06	-137.28	-176.75	683.35	658.50	24.85	27.504		
3,500.00	3,368.16	3,420.51	3,413.28	19.17	12.20	167.22	-143.60	-181.52	708.01	682.39	25.61	27.642		
3,600.00	3,463.07	3,517.40	3,509.85	19.82	12.57	167.36	-149.91	-186.28	732.67	706.28	26.38	27.772		
3,700.00	3,557.98	3,614.30	3,606.42	20.46	12.93	167.50	-156.23	-191.05	757.33	730.18	27.15	27.894		
3,800.00	3,652.89	3,711.19	3,703.00	21.11	13.30	167.63	-162.54	-195.82	782.00	754.08	27.92	28.010		
3,900.00	3,747.80	3,808.09	3,799.57	21.75	13.67	167.75	-168.86	-200.58	806.67	777.98	28.69	28.118		
4,000.00	3,842.70	3,904.98	3,896.14	22.39	14.04	167.86	-175.17	-205.35	831.35	801.89	29.46	28.221		
4,100.00	3,937.61	4,001.88	3,992.71	23.04	14.41	167.97	-181.49	-210.11	856.02	825.80	30.23	28.319		
4,200.00	4,032.52	4,101.23	4,089.28	23.68	14.79	168.07	-187.80	-214.88	880.70	849.70	31.01	28.403		
4,300.00	4,127.43	4,204.33	4,185.85	24.33	15.19	168.16	-194.12	-219.65	905.39	873.59	31.80	28.470		
4,400.00	4,222.33	4,307.44	4,282.43	24.97	15.58	168.25	-200.43	-224.41	930.07	897.48	32.59	28.534		
4,500.00	4,317.24	4,389.46	4,379.00	25.62	15.89	168.34	-206.75	-229.18	954.76	921.45	33.31	28.662		
4,600.00	4,412.15	4,486.35	4,475.57	26.26	16.26	168.42	-213.06	-233.95	979.45	945.37	34.08	28.738		
4,700.00	4,507.06	4,583.25	4,572.14	26.91	16.64	168.50	-219.38	-238.71	1,004.14	969.28	34.85	28.810		
4,800.00	4,601.97	4,680.15	4,668.71	27.55	17.01	168.57	-225.69	-243.48	1,028.83	993.21	35.63	28.879		
4,900.00	4,696.87	4,777.04	4,765.28	28.20	17.38	168.64	-232.00	-248.25	1,053.53	1,017.13	36.40	28.945		

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 5-6-11
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 5-6-11	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	4,791.78	4,873.94	4,861.86	28.85	17.75	168.71	-238.32	-253.01	1,078.22	1,041.05	37.17	29.008		
5,100.00	4,886.69	4,970.83	4,958.43	29.49	18.12	168.77	-244.63	-257.78	1,102.92	1,064.98	37.94	29.068		
5,200.00	4,981.60	5,067.73	5,055.00	30.14	18.49	168.83	-250.95	-262.55	1,127.62	1,088.90	38.72	29.126		
5,300.00	5,076.50	5,164.62	5,151.57	30.78	18.87	168.89	-257.26	-267.31	1,152.31	1,112.83	39.49	29.181		
5,400.00	5,171.41	5,261.52	5,248.14	31.43	19.24	168.95	-263.58	-272.08	1,177.02	1,136.75	40.26	29.235		
5,500.00	5,266.32	5,358.41	5,344.71	32.07	19.61	169.00	-269.89	-276.84	1,201.72	1,160.68	41.03	29.286		
5,600.00	5,361.23	5,455.31	5,441.29	32.72	19.98	169.05	-276.21	-281.61	1,226.42	1,184.61	41.81	29.335		
5,700.00	5,456.13	5,552.20	5,537.86	33.37	20.35	169.10	-282.52	-286.38	1,251.12	1,208.54	42.58	29.382		
5,800.00	5,551.04	5,649.10	5,634.43	34.01	20.73	169.15	-288.84	-291.14	1,275.83	1,232.47	43.35	29.428		
5,900.00	5,645.95	5,745.99	5,731.00	34.66	21.10	169.20	-295.15	-295.91	1,300.53	1,256.40	44.13	29.472		
6,000.00	5,740.86	5,842.89	5,827.57	35.30	21.47	169.24	-301.47	-300.68	1,325.24	1,280.33	44.90	29.514		
6,100.00	5,835.77	5,939.78	5,924.14	35.95	21.84	169.28	-307.78	-305.44	1,349.94	1,304.27	45.68	29.555		
6,200.00	5,930.67	6,036.68	6,020.72	36.60	22.22	169.32	-314.10	-310.21	1,374.65	1,328.20	46.45	29.594		
6,300.00	6,025.58	6,133.57	6,117.29	37.24	22.59	169.36	-320.41	-314.98	1,399.36	1,352.13	47.22	29.632		
6,400.00	6,120.49	6,230.47	6,213.86	37.89	22.96	169.40	-326.73	-319.74	1,424.06	1,376.07	48.00	29.669		
6,500.00	6,215.40	6,327.36	6,310.43	38.54	23.33	169.44	-333.04	-324.51	1,448.77	1,400.00	48.77	29.704		
6,600.00	6,310.30	6,424.26	6,407.00	39.18	23.71	169.47	-339.36	-329.27	1,473.48	1,423.93	49.55	29.739		
6,677.09	6,383.47	6,498.96	6,481.45	39.68	23.99	169.50	-344.22	-332.95	1,492.53	1,442.39	50.14	29.764		
6,700.00	6,405.24	6,521.18	6,503.60	39.83	24.08	169.53	-345.67	-334.04	1,498.10	1,447.78	50.32	29.770		
6,800.00	6,500.91	6,618.66	6,600.75	40.44	24.45	169.63	-352.02	-338.84	1,520.38	1,469.29	51.09	29.757		
6,900.00	6,597.55	6,716.85	6,698.61	41.01	24.83	169.69	-358.42	-343.67	1,539.30	1,487.44	51.86	29.683		
7,000.00	6,695.01	6,815.62	6,797.06	41.53	25.21	169.71	-364.86	-348.53	1,554.83	1,502.21	52.62	29.550		
7,100.00	6,793.20	6,914.87	6,895.97	42.00	25.60	169.70	-371.33	-353.41	1,566.97	1,513.60	53.37	29.362		
7,200.00	6,891.99	7,014.46	6,995.23	42.43	25.98	169.66	-377.82	-358.31	1,575.69	1,521.58	54.11	29.121		
7,300.00	6,991.26	7,114.28	7,094.72	42.81	26.36	169.58	-384.32	-363.22	1,580.99	1,526.15	54.84	28.829		
7,400.00	7,090.89	7,184.90	7,165.16	43.14	26.63	169.52	-388.32	-366.23	1,583.75	1,528.40	55.34	28.618		
7,500.00	7,190.76	7,254.21	7,234.39	43.43	26.88	169.48	-390.89	-368.17	1,585.01	1,529.21	55.80	28.407		
7,595.26	7,286.00	7,320.25	7,300.41	43.64	27.11	0.11	-392.10	-369.08	1,584.82	1,528.64	56.18	28.210		
7,600.00	7,290.74	7,323.53	7,303.70	43.65	27.13	0.11	-392.13	-369.11	1,584.78	1,528.58	56.20	28.201		
7,625.26	7,316.00	7,341.05	7,321.21	43.70	27.18	0.10	-392.23	-369.18	1,584.64	1,528.35	56.29	28.153		
7,650.00	7,340.73	7,360.57	7,340.73	43.75	27.25	89.87	-392.24	-369.20	1,584.61	1,528.21	56.39	28.098		
7,700.00	7,390.53	7,410.38	7,390.54	43.86	27.41	90.00	-392.24	-369.86	1,584.60	1,527.90	56.70	27.946		
7,700.14	7,390.67	7,410.52	7,390.68	43.86	27.41	90.00	-392.24	-369.86	1,584.60	1,527.90	56.70	27.946		
7,750.00	7,439.76	7,460.41	7,440.33	43.98	27.59	90.15	-392.22	-374.44	1,584.61	1,527.57	57.04	27.782		
7,800.00	7,488.04	7,510.79	7,489.90	44.11	27.79	90.30	-392.18	-383.42	1,584.62	1,527.22	57.40	27.607		
7,850.00	7,535.02	7,561.55	7,538.83	44.24	27.99	90.44	-392.12	-396.84	1,584.65	1,526.86	57.79	27.423		
7,900.00	7,580.33	7,612.68	7,586.73	44.38	28.21	90.59	-392.05	-414.68	1,584.68	1,526.48	58.20	27.227		
7,950.00	7,623.63	7,664.18	7,633.17	44.52	28.44	90.73	-391.95	-436.89	1,584.73	1,526.07	58.65	27.019		
8,000.00	7,664.59	7,716.04	7,677.74	44.67	28.68	90.86	-391.83	-463.38	1,584.78	1,525.63	59.14	26.796		
8,050.00	7,702.90	7,768.26	7,720.01	44.83	28.94	90.99	-391.70	-494.01	1,584.83	1,525.15	59.68	26.556		
8,100.00	7,738.26	7,820.82	7,759.56	44.99	29.22	91.11	-391.55	-528.59	1,584.89	1,524.62	60.27	26.295		
8,150.00	7,770.41	7,873.71	7,796.00	45.16	29.52	91.22	-391.38	-566.91	1,584.95	1,524.01	60.93	26.011		
8,200.00	7,799.10	7,926.91	7,828.93	45.33	29.87	91.32	-391.20	-608.66	1,585.01	1,523.33	61.68	25.699		
8,250.00	7,824.12	7,980.39	7,857.98	45.52	30.25	91.41	-391.00	-653.54	1,585.07	1,522.56	62.51	25.357		
8,300.00	7,845.26	8,034.12	7,882.84	45.72	30.69	91.49	-390.79	-701.16	1,585.12	1,521.68	63.44	24.987		
8,350.00	7,862.39	8,088.08	7,903.20	45.94	31.18	91.56	-390.58	-751.10	1,585.17	1,520.70	64.47	24.588		
8,400.00	7,875.35	8,142.22	7,918.82	46.17	31.73	91.62	-390.35	-802.92	1,585.21	1,519.60	65.60	24.164		
8,450.00	7,884.06	8,196.51	7,929.50	46.42	32.33	91.66	-390.12	-856.13	1,585.24	1,518.41	66.83	23.720		
8,500.00	7,888.44	8,250.91	7,935.11	46.70	32.98	91.69	-389.88	-910.21	1,585.26	1,517.11	68.14	23.264		
8,525.33	7,889.00	8,278.50	7,935.98	46.85	33.32	91.70	-389.76	-937.79	1,585.26	1,516.43	68.84	23.030		
8,600.00	7,889.00	8,353.53	7,936.00	47.33	34.33	91.70	-389.43	-1,012.81	1,585.26	1,514.39	70.86	22.371		
8,700.00	7,889.00	8,453.53	7,936.00	48.06	35.80	91.70	-389.00	-1,112.81	1,585.25	1,511.45	73.80	21.480		

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 5-6-11
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 5-6-11	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	7,889.00	8,553.53	7,936.00	48.93	37.41	91.70	-388.56	-1,212.81	1,585.24	1,508.24	77.00	20.586		
8,900.00	7,889.00	8,653.53	7,935.99	49.92	39.13	91.70	-388.12	-1,312.81	1,585.24	1,504.80	80.44	19.707		
9,000.00	7,888.99	8,753.53	7,935.99	51.05	40.97	91.70	-387.68	-1,412.81	1,585.23	1,501.15	84.08	18.854		
9,100.00	7,888.99	8,853.53	7,935.99	52.31	42.89	91.70	-387.25	-1,512.81	1,585.23	1,497.33	87.90	18.035		
9,200.00	7,888.99	8,953.53	7,935.99	53.71	44.90	91.70	-386.81	-1,612.81	1,585.22	1,493.35	91.87	17.254		
9,300.00	7,888.99	9,053.53	7,935.99	55.23	46.97	91.70	-386.37	-1,712.81	1,585.21	1,489.23	95.99	16.515		
9,400.00	7,888.99	9,153.53	7,935.99	56.86	49.11	91.70	-385.94	-1,812.81	1,585.21	1,484.99	100.22	15.817		
9,500.00	7,888.99	9,253.53	7,935.99	58.60	51.30	91.70	-385.50	-1,912.81	1,585.20	1,480.65	104.56	15.161		
9,600.00	7,888.99	9,353.53	7,935.98	60.43	53.53	91.70	-385.06	-2,012.80	1,585.20	1,476.21	108.99	14.545		
9,700.00	7,888.99	9,453.53	7,935.98	62.34	55.81	91.70	-384.63	-2,112.80	1,585.19	1,471.69	113.50	13.966		
9,800.00	7,888.99	9,553.53	7,935.98	64.32	58.12	91.70	-384.19	-2,212.80	1,585.19	1,467.10	118.09	13.424		
9,900.00	7,888.99	9,653.53	7,935.98	66.37	60.46	91.70	-383.75	-2,312.80	1,585.18	1,462.45	122.74	12.915		
10,000.00	7,888.98	9,753.53	7,935.98	68.47	62.83	91.70	-383.31	-2,412.80	1,585.18	1,457.73	127.44	12.438		
10,100.00	7,888.98	9,853.53	7,935.98	70.62	65.22	91.70	-382.88	-2,512.80	1,585.17	1,452.97	132.20	11.990		
10,200.00	7,888.98	9,953.53	7,935.98	72.82	67.64	91.70	-382.44	-2,612.80	1,585.17	1,448.16	137.01	11.570		
10,300.00	7,888.98	10,053.53	7,935.97	75.05	70.08	91.70	-382.00	-2,712.80	1,585.17	1,443.31	141.85	11.175		
10,400.00	7,888.98	10,153.53	7,935.97	77.32	72.53	91.70	-381.57	-2,812.80	1,585.16	1,438.42	146.74	10.803		
10,500.00	7,888.98	10,253.53	7,935.97	79.63	75.01	91.70	-381.13	-2,912.80	1,585.16	1,433.50	151.66	10.452		
10,600.00	7,888.98	10,353.53	7,935.97	81.96	77.49	91.70	-380.69	-3,012.79	1,585.15	1,428.55	156.60	10.122		
10,700.00	7,888.98	10,453.53	7,935.97	84.31	79.99	91.70	-380.26	-3,112.79	1,585.15	1,423.57	161.58	9.810		
10,800.00	7,888.98	10,553.53	7,935.97	86.69	82.50	91.70	-379.82	-3,212.79	1,585.15	1,418.57	166.58	9.516		
10,900.00	7,888.98	10,653.53	7,935.97	89.09	85.03	91.70	-379.38	-3,312.79	1,585.14	1,413.54	171.60	9.237		
11,000.00	7,888.98	10,753.53	7,935.96	91.51	87.56	91.70	-378.94	-3,412.79	1,585.14	1,408.49	176.65	8.974		
11,100.00	7,888.98	10,853.53	7,935.96	93.94	90.10	91.70	-378.51	-3,512.79	1,585.14	1,403.43	181.71	8.723		
11,200.00	7,888.98	10,953.53	7,935.96	96.39	92.65	91.70	-378.07	-3,612.79	1,585.13	1,398.34	186.79	8.486		
11,300.00	7,888.98	11,053.53	7,935.96	98.86	95.21	91.70	-377.63	-3,712.79	1,585.13	1,393.24	191.89	8.261		
11,400.00	7,888.98	11,153.53	7,935.96	101.33	97.77	91.70	-377.20	-3,812.79	1,585.13	1,388.13	197.00	8.046		
11,500.00	7,888.98	11,253.53	7,935.96	103.82	100.34	91.70	-376.76	-3,912.79	1,585.13	1,383.00	202.13	7.842		
11,600.00	7,888.97	11,353.53	7,935.96	106.32	102.92	91.70	-376.32	-4,012.79	1,585.12	1,377.86	207.27	7.648		
11,700.00	7,888.97	11,453.53	7,935.95	108.83	105.50	91.70	-375.89	-4,112.78	1,585.12	1,372.70	212.42	7.462		
11,800.00	7,888.97	11,553.53	7,935.95	111.35	108.09	91.70	-375.45	-4,212.78	1,585.12	1,367.54	217.58	7.285		
11,900.00	7,888.97	11,653.53	7,935.95	113.88	110.68	91.70	-375.01	-4,312.78	1,585.12	1,362.36	222.75	7.116		
12,000.00	7,888.97	11,753.53	7,935.95	116.41	113.28	91.70	-374.57	-4,412.78	1,585.11	1,357.18	227.94	6.954		
12,100.00	7,888.97	11,853.53	7,935.95	118.96	115.88	91.70	-374.14	-4,512.78	1,585.11	1,351.99	233.13	6.799		
12,200.00	7,888.97	11,953.53	7,935.95	121.51	118.49	91.70	-373.70	-4,612.78	1,585.11	1,346.78	238.33	6.651		
12,300.00	7,888.97	12,053.53	7,935.95	124.06	121.10	91.70	-373.26	-4,712.78	1,585.11	1,341.57	243.53	6.509		
12,400.00	7,888.97	12,153.53	7,935.94	126.63	123.71	91.70	-372.83	-4,812.78	1,585.11	1,336.36	248.75	6.372		
12,500.00	7,888.97	12,253.53	7,935.94	129.20	126.33	91.70	-372.39	-4,912.78	1,585.11	1,331.14	253.97	6.241		
12,600.00	7,888.97	12,353.53	7,935.94	131.77	128.95	91.70	-371.95	-5,012.78	1,585.11	1,325.91	259.20	6.115		
12,700.00	7,888.97	12,453.53	7,935.94	134.35	131.57	91.70	-371.52	-5,112.77	1,585.11	1,320.67	264.43	5.994		
12,800.00	7,888.97	12,553.53	7,935.94	136.93	134.19	91.70	-371.08	-5,212.77	1,585.10	1,315.43	269.67	5.878		
12,900.00	7,888.97	12,653.53	7,935.94	139.52	136.82	91.70	-370.64	-5,312.77	1,585.10	1,310.18	274.92	5.766		
13,000.00	7,888.97	12,753.53	7,935.93	142.11	139.45	91.70	-370.20	-5,412.77	1,585.10	1,304.93	280.17	5.658		
13,100.00	7,888.97	12,853.53	7,935.93	144.71	142.08	91.70	-369.77	-5,512.77	1,585.10	1,299.68	285.43	5.553		
13,200.00	7,888.97	12,953.53	7,935.93	147.31	144.72	91.70	-369.33	-5,612.77	1,585.10	1,294.42	290.69	5.453		
13,299.95	7,888.97	13,053.48	7,935.93	149.91	147.35	91.70	-368.89	-5,712.72	1,585.10	1,289.15	295.95	5.356		
13,300.00	7,888.97	13,053.53	7,935.93	149.91	147.35	91.70	-368.89	-5,712.77	1,585.10	1,289.15	295.95	5.356		
13,400.00	7,888.97	13,153.53	7,935.93	152.52	149.99	91.70	-368.46	-5,812.77	1,585.10	1,283.88	301.22	5.262		
13,500.00	7,888.97	13,253.53	7,935.93	155.13	152.63	91.70	-368.02	-5,912.77	1,585.10	1,278.61	306.49	5.172		
13,600.00	7,888.97	13,353.53	7,935.93	157.74	155.27	91.70	-367.58	-6,012.77	1,585.10	1,273.34	311.77	5.084		
13,700.00	7,888.97	13,453.53	7,935.92	160.36	157.92	91.70	-367.15	-6,112.77	1,585.10	1,268.06	317.05	5.000		
13,800.00	7,888.97	13,553.53	7,935.92	162.97	160.56	91.70	-366.71	-6,212.76	1,585.10	1,262.77	322.33	4.918		

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 5-6-11
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 5-6-11	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		
13,900.00	7,888.97	13,653.53	7,935.92	165.59	163.21	91.70	-366.27	-6,312.76	1,585.11	1,257.49	327.62	4.838		
14,000.00	7,888.97	13,753.53	7,935.92	168.22	165.85	91.70	-365.83	-6,412.76	1,585.11	1,252.20	332.91	4.761		
14,100.00	7,888.97	13,853.53	7,935.92	170.84	168.50	91.70	-365.40	-6,512.76	1,585.11	1,246.91	338.20	4.687		
14,200.00	7,888.97	13,953.53	7,935.92	173.47	171.15	91.70	-364.96	-6,612.76	1,585.11	1,241.62	343.49	4.615		
14,300.00	7,888.97	14,053.53	7,935.92	176.10	173.80	91.70	-364.52	-6,712.76	1,585.11	1,236.32	348.79	4.545		
14,400.00	7,888.97	14,153.53	7,935.91	178.73	176.46	91.70	-364.09	-6,812.76	1,585.11	1,231.02	354.09	4.477		
14,500.00	7,888.97	14,253.53	7,935.91	181.36	179.11	91.70	-363.65	-6,912.76	1,585.11	1,225.72	359.39	4.411		
14,600.00	7,888.97	14,353.53	7,935.91	184.00	181.76	91.70	-363.21	-7,012.76	1,585.11	1,220.42	364.70	4.346		
14,700.00	7,888.97	14,453.53	7,935.91	186.63	184.42	91.70	-362.78	-7,112.76	1,585.12	1,215.11	370.00	4.284		
14,800.00	7,888.97	14,553.53	7,935.91	189.27	187.08	91.70	-362.34	-7,212.75	1,585.12	1,209.81	375.31	4.223		
14,900.00	7,888.97	14,653.53	7,935.91	191.91	189.74	91.70	-361.90	-7,312.75	1,585.12	1,204.50	380.62	4.165		
15,000.00	7,888.97	14,753.53	7,935.91	194.55	192.39	91.70	-361.46	-7,412.75	1,585.12	1,199.19	385.94	4.107		
15,100.00	7,888.97	14,853.53	7,935.90	197.20	195.05	91.70	-361.03	-7,512.75	1,585.13	1,193.87	391.25	4.051		
15,200.00	7,888.97	14,953.53	7,935.90	199.84	197.71	91.70	-360.59	-7,612.75	1,585.13	1,188.56	396.57	3.997		
15,300.00	7,888.98	15,053.53	7,935.90	202.49	200.37	91.70	-360.15	-7,712.75	1,585.13	1,183.24	401.89	3.944		
15,400.00	7,888.98	15,153.53	7,935.90	205.13	203.04	91.70	-359.72	-7,812.75	1,585.13	1,177.93	407.21	3.893		
15,500.00	7,888.98	15,253.53	7,935.90	207.78	205.70	91.70	-359.28	-7,912.75	1,585.14	1,172.61	412.53	3.843		
15,600.00	7,888.98	15,353.53	7,935.90	210.43	208.36	91.70	-358.84	-8,012.75	1,585.14	1,167.29	417.85	3.794		
15,700.00	7,888.98	15,453.53	7,935.90	213.08	211.03	91.70	-358.41	-8,112.75	1,585.14	1,161.97	423.17	3.746		
15,800.00	7,888.98	15,553.53	7,935.89	215.73	213.69	91.70	-357.97	-8,212.75	1,585.15	1,156.65	428.50	3.699		
15,900.00	7,888.98	15,653.53	7,935.89	218.39	216.36	91.70	-357.53	-8,312.74	1,585.15	1,151.32	433.83	3.654		
16,000.00	7,888.98	15,753.53	7,935.89	221.04	219.02	91.70	-357.09	-8,412.74	1,585.15	1,146.00	439.16	3.610		
16,100.00	7,888.98	15,853.53	7,935.89	223.70	221.69	91.70	-356.66	-8,512.74	1,585.16	1,140.67	444.49	3.566		
16,200.00	7,888.98	15,953.53	7,935.89	226.35	224.35	91.70	-356.22	-8,612.74	1,585.16	1,135.35	449.82	3.524		
16,300.00	7,888.98	16,053.53	7,935.89	229.01	227.02	91.70	-355.78	-8,712.74	1,585.17	1,130.02	455.15	3.483		
16,400.00	7,888.98	16,153.53	7,935.89	231.66	229.69	91.70	-355.35	-8,812.74	1,585.17	1,124.69	460.48	3.442		
16,500.00	7,888.98	16,253.53	7,935.88	234.32	232.36	91.70	-354.91	-8,912.74	1,585.17	1,119.36	465.82	3.403		
16,600.00	7,888.98	16,353.53	7,935.88	236.98	235.03	91.70	-354.47	-9,012.74	1,585.18	1,114.03	471.15	3.364		
16,700.00	7,888.98	16,453.53	7,935.88	239.64	237.70	91.70	-354.04	-9,112.74	1,585.18	1,108.70	476.49	3.327		
16,800.00	7,888.99	16,553.53	7,935.88	242.30	240.37	91.70	-353.60	-9,212.74	1,585.19	1,103.36	481.82	3.290		
16,900.00	7,888.99	16,653.53	7,935.88	244.96	243.04	91.70	-353.16	-9,312.73	1,585.19	1,098.03	487.16	3.254		
17,000.00	7,888.99	16,753.53	7,935.88	247.63	245.71	91.70	-352.72	-9,412.73	1,585.20	1,092.70	492.50	3.219		
17,100.00	7,888.99	16,853.53	7,935.88	250.29	248.38	91.69	-352.29	-9,512.73	1,585.20	1,087.36	497.84	3.184		
17,200.00	7,888.99	16,953.53	7,935.87	252.95	251.05	91.69	-351.85	-9,612.73	1,585.21	1,082.03	503.18	3.150		
17,300.00	7,888.99	17,053.53	7,935.87	255.62	253.72	91.69	-351.41	-9,712.73	1,585.21	1,076.69	508.52	3.117		
17,400.00	7,888.99	17,153.53	7,935.87	258.28	256.39	91.69	-350.98	-9,812.73	1,585.22	1,071.35	513.87	3.085		
17,500.00	7,888.99	17,253.53	7,935.87	260.95	259.07	91.69	-350.54	-9,912.73	1,585.23	1,066.02	519.21	3.053		
17,600.00	7,888.99	17,353.53	7,935.87	263.61	261.74	91.69	-350.10	-10,012.73	1,585.23	1,060.68	524.55	3.022		
17,700.00	7,888.99	17,453.53	7,935.87	266.28	264.41	91.69	-349.67	-10,112.73	1,585.24	1,055.34	529.90	2.992		
17,800.00	7,889.00	17,553.53	7,935.86	268.94	267.09	91.69	-349.23	-10,212.73	1,585.24	1,050.00	535.24	2.962		
17,900.00	7,889.00	17,653.53	7,935.86	271.61	269.76	91.69	-348.79	-10,312.73	1,585.25	1,044.66	540.59	2.932		
18,000.00	7,889.00	17,753.53	7,935.86	274.28	272.43	91.69	-348.36	-10,412.72	1,585.26	1,039.32	545.94	2.904		
18,100.00	7,889.00	17,853.53	7,935.86	276.95	275.11	91.69	-347.92	-10,512.72	1,585.26	1,033.98	551.29	2.876		
18,200.00	7,889.00	17,953.71	7,935.97	279.62	277.79	91.70	-347.49	-10,612.91	1,585.26	1,028.62	556.64	2.848		
18,212.39	7,889.00	17,966.10	7,935.99	279.95	278.12	91.70	-347.44	-10,625.30	1,585.26	1,027.96	557.30	2.845 SF		

Anticollision Report

Company:	AXIS EXPLORATION	Local Co-ordinate Reference:	Well JAMASO 4-65 5-6-11
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 5-6-11	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	-56.25	56.25					
100.00	100.00	100.00	100.00	0.13	0.13	-90.00	0.00	-56.25	56.25	55.98	0.27	209.221		
200.00	200.00	200.00	200.00	0.49	0.49	-90.00	0.00	-56.25	56.25	55.26	0.99	57.060		
300.00	300.00	300.00	300.00	0.85	0.85	-90.00	0.00	-56.25	56.25	54.55	1.70	33.035		
400.00	399.98	400.02	399.98	1.19	1.21	81.10	0.00	-56.25	55.95	53.55	2.40	23.277		
500.00	499.84	500.16	499.84	1.54	1.57	86.46	0.00	-56.25	55.39	52.28	3.10	17.843		
544.23	543.93	543.93	543.93	1.69	1.73	90.00	0.00	-56.25	55.28	51.86	3.42	16.164 CC		
600.00	599.45	600.55	599.45	1.89	1.93	95.44	0.00	-56.25	55.53	51.71	3.82	14.524 ES		
700.00	698.70	701.30	698.70	2.28	2.29	107.38	0.00	-56.25	57.98	53.41	4.56	12.704		
800.00	797.47	802.53	797.47	2.68	2.65	120.54	0.00	-56.25	64.44	59.12	5.32	12.118		
900.00	895.62	895.62	895.62	3.12	2.99	132.73	0.00	-56.25	76.03	69.99	6.04	12.582		
1,000.00	993.06	995.11	995.09	3.59	3.33	142.13	-1.47	-56.83	91.89	85.12	6.77	13.577		
1,100.00	1,089.64	1,095.36	1,095.21	4.10	3.66	148.40	-6.19	-58.70	109.87	102.38	7.49	14.678		
1,200.00	1,185.27	1,196.34	1,195.82	4.66	4.00	152.63	-14.24	-61.89	129.12	120.90	8.21	15.718		
1,218.17	1,202.53	1,214.77	1,214.14	4.76	4.06	153.24	-16.06	-62.62	132.71	124.36	8.35	15.889		
1,300.00	1,280.19	1,298.29	1,297.01	5.24	4.36	155.46	-25.70	-66.44	148.11	139.15	8.96	16.533		
1,400.00	1,375.10	1,403.16	1,394.58	5.84	4.74	157.22	-38.57	-71.54	165.79	156.05	9.73	17.035		
1,500.00	1,470.01	1,504.85	1,491.92	6.45	5.13	158.64	-51.41	-76.64	183.58	173.08	10.50	17.481		
1,600.00	1,564.92	1,606.53	1,589.26	7.07	5.52	159.80	-64.25	-81.73	201.46	190.19	11.28	17.865		
1,700.00	1,659.83	1,708.22	1,686.59	7.69	5.92	160.78	-77.10	-86.82	219.41	207.36	12.06	18.200		
1,800.00	1,754.73	1,809.91	1,783.93	8.32	6.32	161.61	-89.94	-91.91	237.42	224.58	12.84	18.493		
1,900.00	1,849.64	1,888.40	1,881.27	8.95	6.64	162.32	-102.78	-97.01	255.46	241.92	13.54	18.871		
2,000.00	1,944.55	1,986.72	1,978.60	9.58	7.04	162.93	-115.63	-102.10	273.54	259.23	14.31	19.113		
2,100.00	2,039.46	2,085.03	2,075.94	10.21	7.44	163.48	-128.47	-107.19	291.64	276.56	15.09	19.329		
2,200.00	2,134.36	2,183.34	2,173.28	10.85	7.84	163.95	-141.32	-112.29	309.77	293.91	15.87	19.524		
2,300.00	2,229.27	2,281.65	2,270.61	11.48	8.25	164.38	-154.16	-117.38	327.92	311.27	16.65	19.700		
2,400.00	2,324.18	2,379.97	2,367.95	12.12	8.66	164.76	-167.00	-122.47	346.08	328.65	17.43	19.859		
2,500.00	2,419.09	2,478.28	2,465.29	12.76	9.07	165.10	-179.85	-127.56	364.25	346.04	18.21	20.004		
2,600.00	2,513.99	2,576.59	2,562.62	13.40	9.48	165.41	-192.69	-132.66	382.44	363.45	18.99	20.137		
2,700.00	2,608.90	2,674.90	2,659.96	14.04	9.89	165.69	-205.53	-137.75	400.63	380.86	19.78	20.259		
2,800.00	2,703.81	2,773.21	2,757.30	14.68	10.31	165.95	-218.38	-142.84	418.84	398.28	20.56	20.372		
2,900.00	2,798.72	2,871.53	2,854.63	15.32	10.72	166.19	-231.22	-147.94	437.05	415.71	21.35	20.476		
3,000.00	2,893.63	2,969.84	2,951.97	15.96	11.14	166.40	-244.06	-153.03	455.27	433.14	22.13	20.572		
3,100.00	2,988.53	3,068.15	3,049.31	16.60	11.55	166.60	-256.91	-158.12	473.49	450.58	22.92	20.661		
3,200.00	3,083.44	3,166.46	3,146.64	17.24	11.97	166.79	-269.75	-163.21	491.72	468.02	23.70	20.744		
3,300.00	3,178.35	3,264.78	3,243.98	17.89	12.39	166.96	-282.60	-168.31	509.96	485.46	24.49	20.822		
3,400.00	3,273.26	3,363.09	3,341.32	18.53	12.81	167.12	-295.44	-173.40	528.19	502.91	25.28	20.894		
3,500.00	3,368.16	3,461.40	3,438.65	19.17	13.23	167.27	-308.28	-178.49	546.44	520.37	26.07	20.962		
3,600.00	3,463.07	3,559.71	3,535.99	19.82	13.65	167.41	-321.13	-183.59	564.68	537.82	26.86	21.026		
3,700.00	3,557.98	3,658.03	3,633.33	20.46	14.07	167.54	-333.97	-188.68	582.93	555.28	27.65	21.086		
3,800.00	3,652.89	3,756.34	3,730.66	21.11	14.49	167.66	-346.81	-193.77	601.18	572.75	28.43	21.142		
3,900.00	3,747.80	3,854.65	3,828.00	21.75	14.91	167.78	-359.66	-198.87	619.43	590.21	29.22	21.196		
4,000.00	3,842.70	3,952.96	3,925.34	22.39	15.33	167.89	-372.50	-203.96	637.69	607.68	30.01	21.246		
4,100.00	3,937.61	4,051.28	4,022.67	23.04	15.75	167.99	-385.34	-209.05	655.95	625.14	30.80	21.294		
4,200.00	4,032.52	4,149.59	4,120.01	23.68	16.17	168.09	-398.19	-214.14	674.21	642.61	31.59	21.339		
4,300.00	4,127.43	4,247.90	4,217.35	24.33	16.59	168.18	-411.03	-219.24	692.47	660.08	32.39	21.382		
4,400.00	4,222.33	4,346.21	4,314.68	24.97	17.01	168.27	-423.88	-224.33	710.73	677.56	33.18	21.423		
4,500.00	4,317.24	4,444.53	4,412.02	25.62	17.43	168.35	-436.72	-229.42	729.00	695.03	33.97	21.462		
4,600.00	4,412.15	4,542.84	4,509.36	26.26	17.86	168.43	-449.56	-234.52	747.26	712.51	34.76	21.499		
4,700.00	4,507.06	4,641.15	4,606.69	26.91	18.28	168.51	-462.41	-239.61	765.53	729.98	35.55	21.534		
4,800.00	4,601.97	4,739.46	4,704.03	27.55	18.70	168.58	-475.25	-244.70	783.80	747.46	36.34	21.568		
4,900.00	4,696.87	4,837.78	4,801.37	28.20	19.13	168.65	-488.09	-249.79	802.07	764.94	37.13	21.600		

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 5-6-11
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 5-6-11	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													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	4,791.78	4,936.09	4,898.70	28.85	19.55	168.71	-500.94	-254.89	820.34	782.42	37.92	21.631		
5,100.00	4,886.69	5,034.40	4,996.04	29.49	19.97	168.78	-513.78	-259.98	838.61	799.90	38.72	21.661		
5,200.00	4,981.60	5,132.71	5,093.38	30.14	20.39	168.84	-526.63	-265.07	856.89	817.38	39.51	21.689		
5,300.00	5,076.50	5,231.03	5,190.71	30.78	20.82	168.90	-539.47	-270.17	875.16	834.86	40.30	21.716		
5,400.00	5,171.41	5,329.34	5,288.05	31.43	21.24	168.95	-552.31	-275.26	893.43	852.34	41.09	21.742		
5,500.00	5,266.32	5,427.65	5,385.39	32.07	21.66	169.00	-565.16	-280.35	911.71	869.83	41.88	21.767		
5,600.00	5,361.23	5,525.96	5,482.72	32.72	22.09	169.05	-578.00	-285.44	929.99	887.31	42.68	21.791		
5,700.00	5,456.13	5,624.28	5,580.06	33.37	22.51	169.10	-590.84	-290.54	948.26	904.79	43.47	21.814		
5,800.00	5,551.04	5,722.59	5,677.40	34.01	22.94	169.15	-603.69	-295.63	966.54	922.28	44.26	21.837		
5,900.00	5,645.95	5,820.90	5,774.73	34.66	23.36	169.20	-616.53	-300.72	984.82	939.76	45.06	21.858		
6,000.00	5,740.86	5,919.21	5,872.07	35.30	23.78	169.24	-629.37	-305.82	1,003.10	957.25	45.85	21.879		
6,100.00	5,835.77	6,017.53	5,969.41	35.95	24.21	169.28	-642.22	-310.91	1,021.38	974.73	46.64	21.899		
6,200.00	5,930.67	6,115.84	6,066.74	36.60	24.63	169.32	-655.06	-316.00	1,039.66	992.22	47.43	21.918		
6,300.00	6,025.58	6,214.15	6,164.08	37.24	25.06	169.36	-667.91	-321.10	1,057.94	1,009.71	48.23	21.936		
6,400.00	6,120.49	6,312.46	6,261.42	37.89	25.48	169.40	-680.75	-326.19	1,076.22	1,027.20	49.02	21.954		
6,500.00	6,215.40	6,410.78	6,358.75	38.54	25.91	169.44	-693.59	-331.28	1,094.50	1,044.68	49.81	21.972		
6,600.00	6,310.30	6,509.09	6,456.09	39.18	26.33	169.47	-706.44	-336.37	1,112.78	1,062.17	50.61	21.988		
6,677.09	6,383.47	6,584.88	6,531.13	39.68	26.66	169.50	-716.34	-340.30	1,126.87	1,075.65	51.22	22.001		
6,700.00	6,405.24	6,607.42	6,553.44	39.83	26.75	169.52	-719.28	-341.47	1,130.97	1,079.57	51.40	22.003		
6,800.00	6,500.91	6,706.15	6,651.20	40.44	27.18	169.59	-732.18	-346.58	1,146.79	1,094.60	52.19	21.973		
6,900.00	6,597.55	6,805.37	6,749.44	41.01	27.61	169.61	-745.14	-351.72	1,159.21	1,106.23	52.98	21.882		
7,000.00	6,695.01	6,904.96	6,848.03	41.53	28.04	169.59	-758.15	-356.88	1,168.21	1,114.46	53.75	21.733		
7,100.00	6,793.20	6,987.07	6,929.38	42.00	28.39	169.55	-768.53	-361.00	1,174.28	1,119.88	54.39	21.588		
7,200.00	6,891.99	7,059.30	7,001.16	42.43	28.68	169.53	-776.05	-363.98	1,179.11	1,124.18	54.93	21.467		
7,300.00	6,991.26	7,131.51	7,073.09	42.81	28.96	169.50	-781.88	-366.29	1,182.86	1,127.45	55.42	21.345		
7,400.00	7,090.89	7,200.00	7,141.44	43.14	29.22	169.49	-785.86	-367.87	1,185.54	1,129.71	55.82	21.237		
7,500.00	7,190.76	7,275.87	7,217.26	43.43	29.47	169.48	-788.48	-368.91	1,187.11	1,130.85	56.26	21.102		
7,595.26	7,286.00	7,344.62	7,286.00	43.64	29.69	0.14	-789.25	-369.21	1,187.60	1,131.03	56.57	20.992		
7,600.00	7,290.74	7,349.36	7,290.74	43.65	29.71	0.14	-789.25	-369.21	1,187.60	1,131.00	56.60	20.982		
7,625.26	7,316.00	7,374.62	7,316.00	43.70	29.78	0.14	-789.25	-369.21	1,187.60	1,130.85	56.75	20.927		
7,650.00	7,340.73	7,399.26	7,340.64	43.75	29.85	89.88	-789.25	-369.74	1,187.60	1,130.70	56.90	20.871		
7,700.00	7,390.53	7,449.07	7,390.24	43.86	30.01	89.88	-789.23	-374.04	1,187.60	1,130.37	57.23	20.750		
7,750.00	7,439.76	7,498.88	7,439.29	43.98	30.19	89.89	-789.19	-382.63	1,187.60	1,130.02	57.59	20.623		
7,800.00	7,488.04	7,548.69	7,487.41	44.11	30.37	89.89	-789.14	-395.45	1,187.60	1,129.64	57.96	20.491		
7,850.00	7,535.02	7,598.51	7,534.24	44.24	30.56	89.89	-789.06	-412.40	1,187.60	1,129.24	58.35	20.352		
7,900.00	7,580.33	7,648.33	7,579.42	44.38	30.75	89.90	-788.97	-433.35	1,187.59	1,128.82	58.77	20.207		
7,950.00	7,623.63	7,698.16	7,622.63	44.52	30.96	89.90	-788.87	-458.15	1,187.59	1,128.37	59.22	20.055		
8,000.00	7,664.59	7,748.00	7,663.52	44.67	31.17	89.91	-788.75	-486.62	1,187.59	1,127.89	59.70	19.892		
8,050.00	7,702.90	7,797.85	7,701.79	44.83	31.40	89.91	-788.61	-518.54	1,187.58	1,127.35	60.23	19.719		
8,100.00	7,738.26	7,847.72	7,737.15	44.99	31.63	89.92	-788.46	-553.67	1,187.58	1,126.77	60.80	19.531		
8,150.00	7,770.41	7,897.59	7,769.33	45.16	31.89	89.93	-788.30	-591.75	1,187.57	1,126.12	61.45	19.327		
8,200.00	7,799.10	7,947.48	7,798.09	45.33	32.16	89.94	-788.12	-632.50	1,187.56	1,125.40	62.16	19.105		
8,250.00	7,824.12	7,997.38	7,823.20	45.52	32.47	89.95	-787.94	-675.61	1,187.56	1,124.60	62.96	18.863		
8,300.00	7,845.26	8,047.30	7,844.47	45.72	32.81	89.96	-787.74	-720.74	1,187.55	1,123.71	63.84	18.603		
8,350.00	7,862.39	8,097.23	7,861.74	45.94	33.20	89.96	-787.54	-767.58	1,187.54	1,122.73	64.81	18.324		
8,400.00	7,875.35	8,147.18	7,874.87	46.17	33.63	89.97	-787.34	-815.75	1,187.53	1,121.66	65.87	18.028		
8,450.00	7,884.06	8,197.15	7,883.76	46.42	34.10	89.98	-787.12	-864.91	1,187.53	1,120.51	67.01	17.720		
8,500.00	7,888.44	8,247.13	7,888.34	46.70	34.62	89.99	-786.91	-914.66	1,187.52	1,119.29	68.23	17.404		
8,525.33	7,889.00	8,276.92	7,889.00	46.85	34.95	90.00	-786.80	-939.98	1,187.52	1,118.58	68.93	17.227		
8,600.00	7,889.00	8,347.12	7,889.00	47.33	35.80	90.00	-786.48	-1,014.65	1,187.50	1,116.61	70.89	16.751		
8,700.00	7,889.00	8,447.12	7,889.00	48.06	37.15	90.00	-786.05	-1,114.64	1,187.49	1,113.66	73.83	16.084		
8,800.00	7,889.00	8,547.12	7,889.00	48.93	38.65	90.00	-785.62	-1,214.64	1,187.48	1,110.44	77.03	15.415		

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 5-6-11
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 5-6-11	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-MWMD													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	7,889.00	8,647.12	7,889.00	49.92	40.29	90.00	-785.20	-1,314.64	1,187.46	1,106.99	80.47	14.756		
9,000.00	7,888.99	8,747.12	7,888.99	51.05	42.05	90.00	-784.77	-1,414.63	1,187.45	1,103.34	84.11	14.118		
9,100.00	7,888.99	8,847.11	7,888.99	52.31	43.91	90.00	-784.34	-1,514.63	1,187.43	1,099.50	87.93	13.504		
9,200.00	7,888.99	8,947.11	7,888.99	53.71	45.85	90.00	-783.91	-1,614.63	1,187.42	1,095.52	91.91	12.920		
9,300.00	7,888.99	9,047.11	7,888.99	55.23	47.88	90.00	-783.48	-1,714.63	1,187.41	1,091.39	96.02	12.366		
9,400.00	7,888.99	9,147.11	7,888.99	56.86	49.97	90.00	-783.05	-1,814.62	1,187.40	1,087.14	100.25	11.844		
9,500.00	7,888.99	9,247.11	7,888.99	58.60	52.11	90.00	-782.62	-1,914.62	1,187.38	1,082.79	104.59	11.352		
9,600.00	7,888.99	9,347.10	7,888.99	60.43	54.31	90.00	-782.19	-2,014.62	1,187.37	1,078.35	109.02	10.891		
9,700.00	7,888.99	9,447.10	7,888.99	62.34	56.55	90.00	-781.76	-2,114.61	1,187.36	1,073.82	113.54	10.458		
9,800.00	7,888.99	9,547.10	7,888.99	64.32	58.83	90.00	-781.33	-2,214.61	1,187.35	1,069.22	118.13	10.052		
9,900.00	7,888.99	9,647.10	7,888.98	66.37	61.15	90.00	-780.89	-2,314.61	1,187.34	1,064.56	122.78	9.671		
10,000.00	7,888.98	9,747.10	7,888.98	68.47	63.49	90.00	-780.46	-2,414.60	1,187.33	1,059.84	127.49	9.313		
10,100.00	7,888.98	9,847.09	7,888.98	70.62	65.87	90.00	-780.03	-2,514.60	1,187.32	1,055.07	132.25	8.978		
10,200.00	7,888.98	9,947.09	7,888.98	72.82	68.26	90.00	-779.60	-2,614.60	1,187.31	1,050.25	137.06	8.663		
10,300.00	7,888.98	10,047.09	7,888.98	75.05	70.68	90.00	-779.17	-2,714.60	1,187.30	1,045.39	141.90	8.367		
10,400.00	7,888.98	10,147.09	7,888.98	77.32	73.12	90.00	-778.74	-2,814.59	1,187.29	1,040.50	146.79	8.088		
10,500.00	7,888.98	10,247.09	7,888.98	79.63	75.57	90.00	-778.31	-2,914.59	1,187.28	1,035.57	151.71	7.826		
10,600.00	7,888.98	10,347.08	7,888.98	81.96	78.04	90.00	-777.87	-3,014.59	1,187.27	1,030.61	156.66	7.579		
10,700.00	7,888.98	10,447.08	7,888.98	84.31	80.53	90.00	-777.44	-3,114.58	1,187.26	1,025.63	161.63	7.345		
10,800.00	7,888.98	10,547.08	7,888.98	86.69	83.02	90.00	-777.01	-3,214.58	1,187.25	1,020.62	166.64	7.125		
10,900.00	7,888.98	10,647.08	7,888.98	89.09	85.53	90.00	-776.58	-3,314.58	1,187.25	1,015.58	171.66	6.916		
11,000.00	7,888.98	10,747.08	7,888.98	91.51	88.05	90.00	-776.14	-3,414.58	1,187.24	1,010.53	176.71	6.719		
11,100.00	7,888.98	10,847.07	7,888.98	93.94	90.58	90.00	-775.71	-3,514.57	1,187.23	1,005.46	181.77	6.531		
11,200.00	7,888.98	10,947.07	7,888.97	96.39	93.12	90.00	-775.28	-3,614.57	1,187.23	1,000.37	186.86	6.354		
11,300.00	7,888.98	11,047.07	7,888.97	98.86	95.67	90.00	-774.84	-3,714.57	1,187.22	995.26	191.96	6.185		
11,400.00	7,888.98	11,147.07	7,888.97	101.33	98.23	90.00	-774.41	-3,814.56	1,187.21	990.14	197.07	6.024		
11,500.00	7,888.98	11,247.07	7,888.97	103.82	100.79	90.00	-773.98	-3,914.56	1,187.21	985.00	202.20	5.871		
11,600.00	7,888.97	11,347.06	7,888.97	106.32	103.36	90.00	-773.54	-4,014.56	1,187.20	979.86	207.34	5.726		
11,700.00	7,888.97	11,447.06	7,888.97	108.83	105.93	90.00	-773.11	-4,114.55	1,187.20	974.70	212.50	5.587		
11,800.00	7,888.97	11,547.06	7,888.97	111.35	108.51	90.00	-772.68	-4,214.55	1,187.19	969.53	217.66	5.454		
11,900.00	7,888.97	11,647.06	7,888.97	113.88	111.10	90.00	-772.24	-4,314.55	1,187.19	964.35	222.84	5.328		
12,000.00	7,888.97	11,747.06	7,888.97	116.41	113.69	90.00	-771.81	-4,414.55	1,187.18	959.16	228.02	5.206		
12,100.00	7,888.97	11,847.05	7,888.97	118.96	116.28	90.00	-771.37	-4,514.54	1,187.18	953.96	233.22	5.090		
12,200.00	7,888.97	11,947.05	7,888.97	121.51	118.88	90.00	-770.94	-4,614.54	1,187.17	948.76	238.42	4.979		
12,300.00	7,888.97	12,047.05	7,888.97	124.06	121.49	90.00	-770.50	-4,714.54	1,187.17	943.54	243.63	4.873		
12,400.00	7,888.97	12,147.05	7,888.97	126.63	124.09	90.00	-770.07	-4,814.53	1,187.17	938.32	248.84	4.771		
12,500.00	7,888.97	12,247.05	7,888.97	129.20	126.70	90.00	-769.63	-4,914.53	1,187.16	933.10	254.07	4.673		
12,600.00	7,888.97	12,347.04	7,888.97	131.77	129.32	90.00	-769.20	-5,014.53	1,187.16	927.86	259.30	4.578		
12,700.00	7,888.97	12,447.04	7,888.97	134.35	131.94	90.00	-768.76	-5,114.52	1,187.16	922.62	264.54	4.488		
12,800.00	7,888.97	12,547.04	7,888.97	136.93	134.56	90.00	-768.33	-5,214.52	1,187.16	917.38	269.78	4.400		
12,900.00	7,888.97	12,647.04	7,888.97	139.52	137.18	90.00	-767.89	-5,314.52	1,187.16	912.13	275.03	4.317		
13,000.00	7,888.97	12,747.03	7,888.97	142.11	139.80	90.00	-767.45	-5,414.52	1,187.15	906.87	280.28	4.236		
13,100.00	7,888.97	12,847.03	7,888.97	144.71	142.43	90.00	-767.02	-5,514.51	1,187.15	901.62	285.54	4.158		
13,200.00	7,888.97	12,947.03	7,888.97	147.31	145.06	90.00	-766.58	-5,614.51	1,187.15	896.35	290.80	4.082		
13,300.00	7,888.97	13,047.03	7,888.97	149.91	147.69	90.00	-766.14	-5,714.51	1,187.15	891.09	296.07	4.010		
13,400.00	7,888.97	13,147.03	7,888.97	152.52	150.33	90.00	-765.71	-5,814.50	1,187.15	885.81	301.34	3.940		
13,400.00	7,888.97	13,147.03	7,888.97	152.52	150.33	90.00	-765.71	-5,814.50	1,187.15	885.81	301.34	3.940		
13,500.00	7,888.97	13,247.02	7,888.97	155.13	152.96	90.00	-765.27	-5,914.50	1,187.15	880.54	306.61	3.872		
13,600.00	7,888.97	13,347.02	7,888.97	157.74	155.60	90.00	-764.83	-6,014.50	1,187.15	875.26	311.89	3.806		
13,700.00	7,888.97	13,447.02	7,888.97	160.36	158.24	90.00	-764.40	-6,114.50	1,187.15	869.98	317.17	3.743		
13,800.00	7,888.97	13,547.02	7,888.97	162.97	160.88	90.00	-763.96	-6,214.49	1,187.16	864.70	322.46	3.682		
13,900.00	7,888.97	13,647.02	7,888.97	165.59	163.52	90.00	-763.52	-6,314.49	1,187.16	859.41	327.75	3.622		

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 5-6-11
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 5-6-11	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		
14,000.00	7,888.97	13,747.01	7,888.97	168.22	166.17	90.00	-763.08	-6,414.49	1,187.16	854.12	333.04	3.565		
14,100.00	7,888.97	13,847.01	7,888.97	170.84	168.81	90.00	-762.65	-6,514.48	1,187.16	848.83	338.33	3.509		
14,200.00	7,888.97	13,947.01	7,888.97	173.47	171.46	90.00	-762.21	-6,614.48	1,187.16	843.53	343.63	3.455		
14,300.00	7,888.97	14,047.01	7,888.97	176.10	174.11	90.00	-761.77	-6,714.48	1,187.17	838.24	348.93	3.402		
14,400.00	7,888.97	14,147.01	7,888.97	178.73	176.76	90.00	-761.33	-6,814.47	1,187.17	832.94	354.23	3.351		
14,500.00	7,888.97	14,247.00	7,888.97	181.36	179.41	90.00	-760.89	-6,914.47	1,187.17	827.64	359.54	3.302		
14,600.00	7,888.97	14,347.00	7,888.97	184.00	182.06	90.00	-760.45	-7,014.47	1,187.18	822.33	364.84	3.254		
14,700.00	7,888.97	14,447.00	7,888.97	186.63	184.72	90.00	-760.01	-7,114.47	1,187.18	817.03	370.15	3.207		
14,800.00	7,888.97	14,547.00	7,888.97	189.27	187.37	90.00	-759.57	-7,214.46	1,187.18	811.72	375.46	3.162		
14,900.00	7,888.97	14,647.00	7,888.97	191.91	190.03	90.00	-759.14	-7,314.46	1,187.19	806.41	380.78	3.118		
15,000.00	7,888.97	14,746.99	7,888.97	194.55	192.68	90.00	-758.70	-7,414.46	1,187.19	801.10	386.09	3.075		
15,100.00	7,888.97	14,846.99	7,888.97	197.20	195.34	90.00	-758.26	-7,514.45	1,187.20	795.79	391.41	3.033		
15,200.00	7,888.97	14,946.99	7,888.97	199.84	198.00	90.00	-757.82	-7,614.45	1,187.20	790.48	396.73	2.992		
15,300.00	7,888.98	15,046.99	7,888.97	202.49	200.66	90.00	-757.38	-7,714.45	1,187.21	785.16	402.05	2.953		
15,400.00	7,888.98	15,146.99	7,888.97	205.13	203.32	90.00	-756.94	-7,814.44	1,187.22	779.85	407.37	2.914		
15,500.00	7,888.98	15,246.98	7,888.97	207.78	205.98	90.00	-756.50	-7,914.44	1,187.22	774.53	412.69	2.877		
15,600.00	7,888.98	15,346.98	7,888.98	210.43	208.64	90.00	-756.05	-8,014.44	1,187.23	769.21	418.02	2.840		
15,700.00	7,888.98	15,446.98	7,888.98	213.08	211.30	90.00	-755.61	-8,114.44	1,187.24	763.89	423.35	2.804		
15,800.00	7,888.98	15,546.98	7,888.98	215.73	213.96	90.00	-755.17	-8,214.43	1,187.24	758.57	428.67	2.770		
15,900.00	7,888.98	15,646.98	7,888.98	218.39	216.63	90.00	-754.73	-8,314.43	1,187.25	753.25	434.00	2.736		
16,000.00	7,888.98	15,746.97	7,888.98	221.04	219.29	90.00	-754.29	-8,414.43	1,187.26	747.93	439.33	2.702		
16,100.00	7,888.98	15,846.97	7,888.98	223.70	221.95	90.00	-753.85	-8,514.42	1,187.27	742.60	444.67	2.670		
16,200.00	7,888.98	15,946.97	7,888.98	226.35	224.62	90.00	-753.41	-8,614.42	1,187.28	737.28	450.00	2.638		
16,300.00	7,888.98	16,046.97	7,888.98	229.01	227.29	90.00	-752.97	-8,714.42	1,187.29	731.95	455.33	2.608		
16,400.00	7,888.98	16,146.97	7,888.98	231.66	229.95	90.00	-752.52	-8,814.41	1,187.29	726.63	460.67	2.577		
16,500.00	7,888.98	16,246.96	7,888.98	234.32	232.62	90.00	-752.08	-8,914.41	1,187.30	721.30	466.01	2.548		
16,600.00	7,888.98	16,346.96	7,888.98	236.98	235.29	90.00	-751.64	-9,014.41	1,187.31	715.97	471.34	2.519		
16,700.00	7,888.98	16,446.96	7,888.98	239.64	237.95	90.00	-751.20	-9,114.41	1,187.32	710.64	476.68	2.491		
16,800.00	7,888.99	16,546.96	7,888.98	242.30	240.62	90.00	-750.75	-9,214.40	1,187.34	705.31	482.02	2.463		
16,900.00	7,888.99	16,646.96	7,888.99	244.96	243.29	90.00	-750.31	-9,314.40	1,187.35	699.98	487.36	2.436		
17,000.00	7,888.99	16,746.95	7,888.99	247.63	245.96	90.00	-749.87	-9,414.40	1,187.36	694.65	492.70	2.410		
17,100.00	7,888.99	16,846.95	7,888.99	250.29	248.63	90.00	-749.43	-9,514.39	1,187.37	689.32	498.05	2.384		
17,200.00	7,888.99	16,946.95	7,888.99	252.95	251.30	90.00	-748.98	-9,614.39	1,187.38	683.99	503.39	2.359		
17,300.00	7,888.99	17,046.95	7,888.99	255.62	253.97	90.00	-748.54	-9,714.39	1,187.39	678.66	508.73	2.334		
17,400.00	7,888.99	17,146.95	7,888.99	258.28	256.64	90.00	-748.10	-9,814.38	1,187.40	673.33	514.08	2.310		
17,500.00	7,888.99	17,246.94	7,888.99	260.95	259.31	90.00	-747.65	-9,914.38	1,187.42	667.99	519.43	2.286		
17,600.00	7,888.99	17,346.94	7,888.99	263.61	261.98	90.00	-747.21	-10,014.38	1,187.43	662.66	524.77	2.263		
17,700.00	7,888.99	17,446.94	7,888.99	266.28	264.66	90.00	-746.76	-10,114.38	1,187.44	657.32	530.12	2.240		
17,800.00	7,889.00	17,546.94	7,889.00	268.94	267.33	90.00	-746.32	-10,214.37	1,187.46	651.99	535.47	2.218		
17,900.00	7,889.00	17,646.94	7,889.00	271.61	270.00	90.00	-745.88	-10,314.37	1,187.47	646.66	540.82	2.196		
18,000.00	7,889.00	17,746.93	7,889.00	274.28	272.68	90.00	-745.43	-10,414.37	1,187.49	641.32	546.16	2.174		
18,100.00	7,889.00	17,846.93	7,889.00	276.95	275.35	90.00	-744.99	-10,514.36	1,187.50	635.99	551.51	2.153		
18,200.00	7,889.00	17,946.93	7,889.00	279.62	278.02	90.00	-744.54	-10,614.36	1,187.51	630.65	556.87	2.132		
18,212.39	7,889.00	17,959.32	7,889.00	279.95	278.35	90.00	-744.49	-10,626.75	1,187.52	629.99	557.53	2.130 SF		

Anticollision Report

Company:	AXIS EXPLORATION	Local Co-ordinate Reference:	Well JAMASO 4-65 5-6-11
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 5-6-11	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	-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	200.00	200.00	200.00	0.49	0.49	-90.00	0.00	-36.56	36.56	35.58	0.99	37.089		
300.00	300.00	300.00	300.00	0.85	0.85	-90.00	0.00	-36.56	36.56	34.86	1.70	21.473		
400.00	399.98	400.02	399.98	1.19	1.21	82.06	0.00	-36.56	36.28	33.88	2.40	15.093		
496.88	496.73	503.27	496.73	1.53	1.58	90.00	0.00	-36.56	35.93	32.83	3.10	11.574	CC, ES	
500.00	499.84	500.16	499.84	1.54	1.57	90.34	0.00	-36.56	35.93	32.83	3.10	11.576		
600.00	599.45	600.55	599.45	1.89	1.93	103.88	0.00	-36.56	37.02	33.20	3.82	9.684		
700.00	698.70	698.70	698.70	2.28	2.28	120.20	0.00	-36.56	41.68	37.13	4.55	9.159		
800.00	797.47	798.58	798.58	2.68	2.62	133.90	-1.63	-37.02	50.33	45.06	5.27	9.553		
900.00	895.62	898.95	898.79	3.12	2.96	143.03	-6.64	-38.44	61.18	55.20	5.98	10.235		
1,000.00	993.06	999.81	999.27	3.59	3.30	149.09	-15.08	-40.83	73.26	66.56	6.70	10.940		
1,100.00	1,089.64	1,101.18	1,099.87	4.10	3.66	153.21	-26.99	-44.19	86.03	78.60	7.43	11.584		
1,200.00	1,185.27	1,203.05	1,200.46	4.66	4.05	156.08	-42.39	-48.55	99.22	91.05	8.17	12.144		
1,218.17	1,202.53	1,221.61	1,218.73	4.76	4.12	156.50	-45.57	-49.45	101.64	93.33	8.31	12.232		
1,300.00	1,280.19	1,305.18	1,300.69	5.24	4.46	157.95	-61.26	-53.89	111.59	102.66	8.93	12.496		
1,400.00	1,375.10	1,404.52	1,397.90	5.84	4.89	159.14	-80.96	-59.46	122.84	113.13	9.71	12.651		
1,500.00	1,470.01	1,503.85	1,495.10	6.45	5.32	160.13	-100.65	-65.03	134.12	123.63	10.50	12.779		
1,600.00	1,564.92	1,603.19	1,592.31	7.07	5.77	160.97	-120.35	-70.59	145.44	134.16	11.29	12.886		
1,700.00	1,659.83	1,702.53	1,689.51	7.69	6.23	161.69	-140.04	-76.16	156.79	144.71	12.08	12.977		
1,800.00	1,754.73	1,801.86	1,786.72	8.32	6.69	162.31	-159.74	-81.73	168.16	155.28	12.88	13.055		
1,900.00	1,849.64	1,901.20	1,883.92	8.95	7.16	162.85	-179.43	-87.30	179.54	165.86	13.68	13.123		
2,000.00	1,944.55	2,000.54	1,981.13	9.58	7.63	163.32	-199.13	-92.87	190.94	176.46	14.48	13.182		
2,100.00	2,039.46	2,099.87	2,078.33	10.21	8.10	163.75	-218.82	-98.44	202.35	187.06	15.29	13.235		
2,200.00	2,134.36	2,200.79	2,175.54	10.85	8.59	164.12	-238.51	-104.01	213.77	197.67	16.10	13.276		
2,300.00	2,229.27	2,301.45	2,272.75	11.48	9.08	164.46	-258.21	-109.58	225.20	208.29	16.91	13.314		
2,400.00	2,324.18	2,397.88	2,369.95	12.12	9.55	164.77	-277.90	-115.15	236.64	218.93	17.71	13.361		
2,500.00	2,419.09	2,497.22	2,467.16	12.76	10.03	165.05	-297.60	-120.72	248.08	229.56	18.52	13.395		
2,600.00	2,513.99	2,603.45	2,564.36	13.40	10.55	165.30	-317.29	-126.29	259.52	240.17	19.36	13.407		
2,700.00	2,608.90	2,695.89	2,661.57	14.04	11.00	165.53	-336.99	-131.86	270.97	250.83	20.14	13.454		
2,800.00	2,703.81	2,804.77	2,758.77	14.68	11.54	165.75	-356.68	-137.43	282.43	261.44	20.99	13.455		
2,900.00	2,798.72	2,894.56	2,855.98	15.32	11.98	165.94	-376.38	-143.00	293.89	272.12	21.76	13.503		
3,000.00	2,893.63	3,006.10	2,953.18	15.96	12.53	166.12	-396.07	-148.57	305.35	282.72	22.63	13.496		
3,100.00	2,988.53	3,106.76	3,050.39	16.60	13.03	166.29	-415.77	-154.13	316.82	293.37	23.44	13.514		
3,200.00	3,083.44	3,207.43	3,147.59	17.24	13.53	166.45	-435.46	-159.70	328.28	304.02	24.26	13.530		
3,300.00	3,178.35	3,308.09	3,244.80	17.89	14.03	166.60	-455.16	-165.27	339.75	314.67	25.08	13.546		
3,400.00	3,273.26	3,408.75	3,342.00	18.53	14.53	166.73	-474.85	-170.84	351.22	325.32	25.90	13.560		
3,500.00	3,368.16	3,490.58	3,439.21	19.17	14.93	166.86	-494.55	-176.41	362.70	336.05	26.65	13.612		
3,600.00	3,463.07	3,589.92	3,536.41	19.82	15.43	166.98	-514.24	-181.98	374.17	346.71	27.46	13.626		
3,700.00	3,557.98	3,689.26	3,633.62	20.46	15.92	167.10	-533.94	-187.55	385.65	357.37	28.28	13.639		
3,800.00	3,652.89	3,788.59	3,730.82	21.11	16.42	167.20	-553.63	-193.12	397.13	368.04	29.09	13.651		
3,900.00	3,747.80	3,887.93	3,828.03	21.75	16.91	167.30	-573.32	-198.69	408.61	378.70	29.91	13.663		
4,000.00	3,842.70	3,987.27	3,925.23	22.39	17.41	167.40	-593.02	-204.26	420.09	389.36	30.72	13.674		
4,100.00	3,937.61	4,086.60	4,022.44	23.04	17.90	167.49	-612.71	-209.83	431.57	400.03	31.54	13.684		
4,200.00	4,032.52	4,185.94	4,119.64	23.68	18.40	167.57	-632.41	-215.40	443.05	410.70	32.35	13.694		
4,300.00	4,127.43	4,285.27	4,216.85	24.33	18.90	167.65	-652.10	-220.97	454.53	421.36	33.17	13.703		
4,400.00	4,222.33	4,384.61	4,314.05	24.97	19.39	167.73	-671.80	-226.54	466.02	432.03	33.99	13.712		
4,500.00	4,317.24	4,483.95	4,411.26	25.62	19.89	167.81	-691.49	-232.11	477.50	442.70	34.80	13.720		
4,600.00	4,412.15	4,583.28	4,508.46	26.26	20.39	167.88	-711.19	-237.68	488.99	453.37	35.62	13.728		
4,700.00	4,507.06	4,682.62	4,605.67	26.91	20.89	167.94	-730.88	-243.24	500.48	464.04	36.44	13.735		
4,800.00	4,601.97	4,781.96	4,702.87	27.55	21.38	168.01	-750.58	-248.81	511.96	474.71	37.25	13.743		
4,900.00	4,696.87	4,881.29	4,800.08	28.20	21.88	168.07	-770.27	-254.38	523.45	485.38	38.07	13.749		

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 5-6-11
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 5-6-11	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	4,791.78	4,980.63	4,897.28	28.85	22.38	168.12	-789.97	-259.95	534.94	496.05	38.89	13.756		
5,100.00	4,886.69	5,079.97	4,994.49	29.49	22.88	168.18	-809.66	-265.52	546.43	506.72	39.71	13.762		
5,200.00	4,981.60	5,179.30	5,091.69	30.14	23.37	168.23	-829.36	-271.09	557.92	517.39	40.52	13.768		
5,300.00	5,076.50	5,278.64	5,188.90	30.78	23.87	168.29	-849.05	-276.66	569.41	528.07	41.34	13.774		
5,400.00	5,171.41	5,377.98	5,286.10	31.43	24.37	168.34	-868.74	-282.23	580.90	538.74	42.16	13.779		
5,500.00	5,266.32	5,477.31	5,383.31	32.07	24.87	168.38	-888.44	-287.80	592.39	549.41	42.97	13.784		
5,600.00	5,361.23	5,576.65	5,480.51	32.72	25.37	168.43	-908.13	-293.37	603.88	560.09	43.79	13.790		
5,700.00	5,456.13	5,675.99	5,577.72	33.37	25.87	168.47	-927.83	-298.94	615.37	570.76	44.61	13.794		
5,800.00	5,551.04	5,775.32	5,674.92	34.01	26.36	168.51	-947.52	-304.51	626.86	581.43	45.43	13.799		
5,900.00	5,645.95	5,874.66	5,772.13	34.66	26.86	168.56	-967.22	-310.08	638.35	592.11	46.25	13.803		
6,000.00	5,740.86	5,973.99	5,869.33	35.30	27.36	168.59	-986.91	-315.65	649.85	602.78	47.06	13.808		
6,100.00	5,835.77	6,073.33	5,966.54	35.95	27.86	168.63	-1,006.61	-321.22	661.34	613.46	47.88	13.812		
6,200.00	5,930.67	6,172.67	6,063.74	36.60	28.36	168.67	-1,026.30	-326.79	672.83	624.13	48.70	13.816		
6,300.00	6,025.58	6,272.00	6,160.95	37.24	28.86	168.70	-1,046.00	-332.35	684.32	634.81	49.52	13.820		
6,400.00	6,120.49	6,371.34	6,258.15	37.89	29.36	168.74	-1,065.69	-337.92	695.82	645.48	50.34	13.823		
6,500.00	6,215.40	6,470.68	6,355.36	38.54	29.86	168.77	-1,085.39	-343.49	707.31	656.16	51.15	13.827		
6,600.00	6,310.30	6,570.01	6,452.57	39.18	30.36	168.80	-1,105.08	-349.06	718.81	666.83	51.97	13.830		
6,677.09	6,383.47	6,646.59	6,527.50	39.68	30.74	168.83	-1,120.26	-353.36	727.67	675.06	52.60	13.833		
6,700.00	6,405.24	6,669.36	6,549.78	39.83	30.85	168.84	-1,124.78	-354.63	730.21	677.42	52.79	13.832		
6,800.00	6,500.91	6,751.58	6,630.41	40.44	31.25	168.90	-1,140.27	-359.01	740.25	686.76	53.48	13.841		
6,900.00	6,597.55	6,831.25	6,708.93	41.01	31.62	168.95	-1,153.18	-362.66	749.51	695.41	54.10	13.853		
7,000.00	6,695.01	6,910.77	6,787.66	41.53	31.97	169.00	-1,163.96	-365.71	758.03	703.35	54.67	13.865		
7,100.00	6,793.20	6,990.17	6,866.55	42.00	32.28	169.06	-1,172.63	-368.16	765.78	710.60	55.19	13.876		
7,200.00	6,891.99	7,069.46	6,945.54	42.43	32.58	169.12	-1,179.18	-370.02	772.78	717.13	55.65	13.887		
7,300.00	6,991.26	7,148.64	7,024.58	42.81	32.84	169.18	-1,183.62	-371.27	779.00	722.95	56.05	13.898		
7,400.00	7,090.89	7,227.73	7,103.63	43.14	33.09	169.25	-1,185.96	-371.93	784.46	728.06	56.40	13.910		
7,500.00	7,190.76	7,314.80	7,190.70	43.43	33.32	169.31	-1,186.35	-372.11	788.94	732.13	56.82	13.886		
7,595.26	7,286.00	7,408.38	7,283.74	43.64	33.58	-0.66	-1,186.31	-381.15	790.60	733.10	57.50	13.750		
7,600.00	7,290.74	7,412.94	7,288.22	43.65	33.60	-0.72	-1,186.31	-381.98	790.61	733.07	57.54	13.741		
7,625.26	7,316.00	7,436.98	7,311.74	43.70	33.67	-1.08	-1,186.28	-386.93	790.72	732.98	57.74	13.695		
7,650.00	7,340.73	7,460.21	7,334.26	43.75	33.75	88.28	-1,186.26	-392.64	790.87	732.93	57.94	13.649		
7,700.00	7,390.53	7,506.56	7,378.39	43.86	33.90	87.49	-1,186.20	-406.75	791.29	732.93	58.35	13.560		
7,750.00	7,439.76	7,552.15	7,420.56	43.98	34.06	86.73	-1,186.12	-424.07	791.84	733.08	58.75	13.477		
7,800.00	7,488.04	7,597.06	7,460.62	44.11	34.22	86.00	-1,186.03	-444.34	792.50	733.36	59.15	13.399		
7,850.00	7,535.02	7,641.34	7,498.44	44.24	34.39	85.30	-1,185.93	-467.35	793.26	733.73	59.53	13.326		
7,900.00	7,580.33	7,685.06	7,533.93	44.38	34.55	84.63	-1,185.82	-492.85	794.09	734.19	59.90	13.258		
7,950.00	7,623.63	7,728.25	7,566.99	44.52	34.72	84.00	-1,185.70	-520.64	794.97	734.71	60.26	13.192		
8,000.00	7,664.59	7,770.99	7,597.54	44.67	34.90	83.41	-1,185.57	-550.51	795.87	735.25	60.62	13.129		
8,050.00	7,702.90	7,813.31	7,625.52	44.83	35.08	82.86	-1,185.43	-582.25	796.78	735.79	60.99	13.065		
8,100.00	7,738.26	7,855.27	7,650.87	44.99	35.28	82.37	-1,185.28	-615.67	797.66	736.30	61.36	12.999		
8,150.00	7,770.41	7,896.91	7,673.55	45.16	35.48	81.92	-1,185.13	-650.58	798.50	736.74	61.76	12.928		
8,200.00	7,799.10	7,938.27	7,693.51	45.33	35.70	81.53	-1,184.97	-686.80	799.28	737.07	62.20	12.849		
8,250.00	7,824.12	7,979.39	7,710.71	45.52	35.93	81.19	-1,184.81	-724.14	799.97	737.29	62.69	12.762		
8,300.00	7,845.26	8,020.32	7,725.13	45.72	36.18	80.91	-1,184.64	-762.44	800.57	737.35	63.22	12.663		
8,350.00	7,862.39	8,061.10	7,736.73	45.94	36.45	80.69	-1,184.47	-801.52	801.05	737.24	63.82	12.553		
8,400.00	7,875.35	8,101.76	7,745.51	46.17	36.75	80.52	-1,184.30	-841.21	801.41	736.93	64.48	12.429		
8,450.00	7,884.06	8,142.33	7,751.45	46.42	37.07	80.42	-1,184.12	-881.34	801.64	736.42	65.22	12.291		
8,500.00	7,888.44	8,182.86	7,754.53	46.70	37.42	80.38	-1,183.95	-921.74	801.74	735.70	66.03	12.141		
8,525.33	7,889.00	8,209.59	7,755.00	46.85	37.66	80.38	-1,183.86	-941.62	801.73	735.20	66.53	12.050		
8,600.00	7,889.00	8,277.41	7,755.00	47.33	38.33	80.38	-1,183.53	-1,016.28	801.73	733.31	68.42	11.718		
8,700.00	7,889.00	8,377.41	7,755.00	48.06	39.47	80.38	-1,183.10	-1,116.28	801.72	730.41	71.32	11.242		
8,800.00	7,889.00	8,477.41	7,755.00	48.93	40.78	80.38	-1,182.66	-1,216.28	801.71	727.24	74.48	10.765		

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 5-6-11
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 5-6-11	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 Depth (usft)	Vertical Depth (usft)	Measured Depth 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	7,889.00	8,577.41	7,755.00	49.92	42.25	80.38	-1,182.22	-1,316.28	801.71	723.84	77.87	10.295		
9,000.00	7,888.99	8,677.41	7,755.00	51.05	43.85	80.38	-1,181.79	-1,416.28	801.70	720.23	81.48	9.840		
9,100.00	7,888.99	8,777.41	7,755.00	52.31	45.58	80.38	-1,181.35	-1,516.28	801.70	716.44	85.26	9.403		
9,200.00	7,888.99	8,877.41	7,755.00	53.71	47.41	80.38	-1,180.91	-1,616.28	801.69	712.49	89.20	8.988		
9,300.00	7,888.99	8,977.41	7,755.00	55.23	49.34	80.38	-1,180.48	-1,716.28	801.68	708.41	93.27	8.595		
9,400.00	7,888.99	9,077.41	7,755.00	56.86	51.34	80.38	-1,180.04	-1,816.28	801.68	704.21	97.47	8.225		
9,500.00	7,888.99	9,177.41	7,755.00	58.60	53.41	80.38	-1,179.60	-1,916.27	801.67	699.90	101.77	7.877		
9,600.00	7,888.99	9,277.41	7,755.00	60.43	55.54	80.38	-1,179.16	-2,016.27	801.67	695.50	106.16	7.551		
9,700.00	7,888.99	9,377.41	7,754.99	62.34	57.72	80.38	-1,178.73	-2,116.27	801.66	691.02	110.64	7.246		
9,800.00	7,888.99	9,477.41	7,754.99	64.32	59.95	80.38	-1,178.29	-2,216.27	801.66	686.47	115.19	6.960		
9,900.00	7,888.99	9,577.41	7,754.99	66.37	62.22	80.38	-1,177.85	-2,316.27	801.65	681.86	119.80	6.692		
10,000.00	7,888.98	9,677.41	7,754.99	68.47	64.52	80.38	-1,177.42	-2,416.27	801.65	677.19	124.46	6.441		
10,100.00	7,888.98	9,777.41	7,754.99	70.62	66.86	80.38	-1,176.98	-2,516.27	801.64	672.47	129.18	6.206		
10,200.00	7,888.98	9,877.41	7,754.99	72.82	69.22	80.38	-1,176.54	-2,616.27	801.64	667.70	133.94	5.985		
10,300.00	7,888.98	9,977.41	7,754.99	75.05	71.61	80.38	-1,176.11	-2,716.27	801.64	662.89	138.74	5.778		
10,400.00	7,888.98	10,077.41	7,754.99	77.32	74.02	80.38	-1,175.67	-2,816.27	801.63	658.05	143.58	5.583		
10,500.00	7,888.98	10,177.41	7,754.99	79.63	76.45	80.38	-1,175.23	-2,916.26	801.63	653.17	148.46	5.400		
10,600.00	7,888.98	10,277.41	7,754.99	81.96	78.89	80.38	-1,174.79	-3,016.26	801.62	648.27	153.36	5.227		
10,700.00	7,888.98	10,377.41	7,754.99	84.31	81.36	80.38	-1,174.36	-3,116.26	801.62	643.34	158.29	5.064		
10,800.00	7,888.98	10,477.41	7,754.99	86.69	83.84	80.38	-1,173.92	-3,216.26	801.62	638.38	163.24	4.911		
10,900.00	7,888.98	10,577.41	7,754.99	89.09	86.33	80.38	-1,173.48	-3,316.26	801.61	633.40	168.21	4.765		
11,000.00	7,888.98	10,677.41	7,754.99	91.51	88.83	80.38	-1,173.05	-3,416.26	801.61	628.40	173.21	4.628		
11,100.00	7,888.98	10,777.41	7,754.99	93.94	91.35	80.38	-1,172.61	-3,516.26	801.61	623.38	178.22	4.498		
11,200.00	7,888.98	10,877.41	7,754.99	96.39	93.87	80.38	-1,172.17	-3,616.26	801.60	618.35	183.26	4.374		
11,300.00	7,888.98	10,977.41	7,754.99	98.86	96.41	80.38	-1,171.74	-3,716.26	801.60	613.30	188.30	4.257		
11,400.00	7,888.98	11,077.41	7,754.99	101.33	98.95	80.38	-1,171.30	-3,816.26	801.60	608.23	193.37	4.146		
11,500.00	7,888.98	11,177.41	7,754.99	103.82	101.50	80.38	-1,170.86	-3,916.26	801.60	603.16	198.44	4.039		
11,600.00	7,888.97	11,277.41	7,754.99	106.32	104.06	80.38	-1,170.43	-4,016.25	801.59	598.07	203.53	3.938		
11,700.00	7,888.97	11,377.41	7,754.98	108.83	106.63	80.38	-1,169.99	-4,116.25	801.59	592.96	208.63	3.842		
11,800.00	7,888.97	11,477.41	7,754.98	111.35	109.20	80.38	-1,169.55	-4,216.25	801.59	587.85	213.74	3.750		
11,900.00	7,888.97	11,577.41	7,754.98	113.88	111.78	80.38	-1,169.11	-4,316.25	801.59	582.73	218.86	3.663		
12,000.00	7,888.97	11,677.41	7,754.98	116.41	114.36	80.38	-1,168.68	-4,416.25	801.59	577.60	223.99	3.579		
12,100.00	7,888.97	11,777.41	7,754.98	118.96	116.95	80.38	-1,168.24	-4,516.25	801.58	572.46	229.13	3.498		
12,200.00	7,888.97	11,877.41	7,754.98	121.51	119.54	80.38	-1,167.80	-4,616.25	801.58	567.31	234.27	3.422		
12,300.00	7,888.97	11,977.41	7,754.98	124.06	122.14	80.38	-1,167.37	-4,716.25	801.58	562.16	239.43	3.348		
12,400.00	7,888.97	12,077.41	7,754.98	126.63	124.74	80.38	-1,166.93	-4,816.25	801.58	556.99	244.59	3.277		
12,500.00	7,888.97	12,177.41	7,754.98	129.20	127.35	80.38	-1,166.49	-4,916.25	801.58	551.83	249.75	3.209		
12,600.00	7,888.97	12,277.41	7,754.98	131.77	129.95	80.38	-1,166.06	-5,016.24	801.58	546.65	254.93	3.144		
12,700.00	7,888.97	12,377.41	7,754.98	134.35	132.57	80.38	-1,165.62	-5,116.24	801.58	541.47	260.11	3.082		
12,800.00	7,888.97	12,477.41	7,754.98	136.93	135.18	80.38	-1,165.18	-5,216.24	801.58	536.28	265.29	3.021		
12,900.00	7,888.97	12,577.41	7,754.98	139.52	137.80	80.38	-1,164.74	-5,316.24	801.58	531.09	270.48	2.964		
13,000.00	7,888.97	12,677.41	7,754.98	142.11	140.42	80.38	-1,164.31	-5,416.24	801.58	525.90	275.68	2.908		
13,100.00	7,888.97	12,777.41	7,754.98	144.71	143.05	80.38	-1,163.87	-5,516.24	801.58	520.70	280.88	2.854		
13,200.00	7,888.97	12,877.41	7,754.98	147.31	145.68	80.38	-1,163.43	-5,616.24	801.58	515.49	286.08	2.802		
13,275.88	7,888.97	12,953.30	7,754.98	149.28	147.67	80.38	-1,163.10	-5,692.12	801.58	511.54	290.03	2.764		
13,300.00	7,888.97	12,977.41	7,754.98	149.91	148.30	80.38	-1,163.00	-5,716.24	801.58	510.29	291.29	2.752		
13,400.00	7,888.97	13,077.41	7,754.98	152.52	150.94	80.38	-1,162.56	-5,816.24	801.58	505.07	296.50	2.703		
13,500.00	7,888.97	13,177.41	7,754.98	155.13	153.57	80.38	-1,162.12	-5,916.24	801.58	499.86	301.72	2.657		
13,600.00	7,888.97	13,277.41	7,754.98	157.74	156.21	80.38	-1,161.69	-6,016.24	801.58	494.64	306.94	2.612		
13,700.00	7,888.97	13,377.41	7,754.98	160.36	158.84	80.38	-1,161.25	-6,116.23	801.58	489.42	312.16	2.568		
13,800.00	7,888.97	13,477.41	7,754.97	162.97	161.48	80.38	-1,160.81	-6,216.23	801.58	484.19	317.39	2.526		
13,900.00	7,888.97	13,577.41	7,754.97	165.59	164.12	80.38	-1,160.37	-6,316.23	801.58	478.96	322.61	2.485		

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 5-6-11
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 5-6-11	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		
14,000.00	7,888.97	13,677.41	7,754.97	168.22	166.77	80.38	-1,159.94	-6,416.23	801.58	473.73	327.85	2.445		
14,100.00	7,888.97	13,777.41	7,754.97	170.84	169.41	80.38	-1,159.50	-6,516.23	801.58	468.50	333.08	2.407		
14,200.00	7,888.97	13,877.41	7,754.97	173.47	172.06	80.38	-1,159.06	-6,616.23	801.58	463.26	338.32	2.369		
14,300.00	7,888.97	13,977.41	7,754.97	176.10	174.71	80.38	-1,158.63	-6,716.23	801.58	458.03	343.56	2.333		
14,400.00	7,888.97	14,077.41	7,754.97	178.73	177.36	80.38	-1,158.19	-6,816.23	801.58	452.78	348.80	2.298		
14,500.00	7,888.97	14,177.41	7,754.97	181.36	180.01	80.38	-1,157.75	-6,916.23	801.59	447.54	354.04	2.264		
14,600.00	7,888.97	14,277.41	7,754.97	184.00	182.66	80.38	-1,157.32	-7,016.23	801.59	442.30	359.29	2.231		
14,700.00	7,888.97	14,377.41	7,754.97	186.63	185.31	80.38	-1,156.88	-7,116.22	801.59	437.05	364.54	2.199		
14,800.00	7,888.97	14,477.41	7,754.97	189.27	187.97	80.38	-1,156.44	-7,216.22	801.59	431.80	369.79	2.168		
14,900.00	7,888.97	14,577.41	7,754.97	191.91	190.62	80.38	-1,156.01	-7,316.22	801.60	426.55	375.04	2.137		
15,000.00	7,888.97	14,677.41	7,754.97	194.55	193.28	80.38	-1,155.57	-7,416.22	801.60	421.30	380.30	2.108		
15,100.00	7,888.97	14,777.41	7,754.97	197.20	195.93	80.38	-1,155.13	-7,516.22	801.60	416.05	385.55	2.079		
15,200.00	7,888.97	14,877.41	7,754.97	199.84	198.59	80.38	-1,154.69	-7,616.22	801.60	410.79	390.81	2.051		
15,300.00	7,888.98	14,977.41	7,754.97	202.49	201.25	80.38	-1,154.26	-7,716.22	801.61	405.53	396.07	2.024		
15,400.00	7,888.98	15,077.41	7,754.97	205.13	203.91	80.38	-1,153.82	-7,816.22	801.61	400.28	401.33	1.997		
15,500.00	7,888.98	15,177.41	7,754.97	207.78	206.57	80.38	-1,153.38	-7,916.22	801.61	395.02	406.60	1.972		
15,600.00	7,888.98	15,277.41	7,754.97	210.43	209.23	80.38	-1,152.95	-8,016.22	801.62	389.75	411.86	1.946		
15,700.00	7,888.98	15,377.41	7,754.97	213.08	211.90	80.38	-1,152.51	-8,116.22	801.62	384.49	417.13	1.922		
15,800.00	7,888.98	15,477.41	7,754.97	215.73	214.56	80.38	-1,152.07	-8,216.21	801.62	379.23	422.39	1.898		
15,900.00	7,888.98	15,577.41	7,754.96	218.39	217.22	80.38	-1,151.64	-8,316.21	801.63	373.96	427.66	1.874		
16,000.00	7,888.98	15,677.41	7,754.96	221.04	219.89	80.38	-1,151.20	-8,416.21	801.63	368.70	432.93	1.852		
16,100.00	7,888.98	15,777.41	7,754.96	223.70	222.55	80.38	-1,150.76	-8,516.21	801.63	363.43	438.20	1.829		
16,200.00	7,888.98	15,877.41	7,754.96	226.35	225.22	80.38	-1,150.32	-8,616.21	801.64	358.17	443.47	1.808		
16,300.00	7,888.98	15,977.41	7,754.96	229.01	227.89	80.38	-1,149.89	-8,716.21	801.64	352.90	448.75	1.786		
16,400.00	7,888.98	16,077.41	7,754.96	231.66	230.56	80.38	-1,149.45	-8,816.21	801.65	347.63	454.02	1.766		
16,500.00	7,888.98	16,177.41	7,754.96	234.32	233.22	80.38	-1,149.01	-8,916.21	801.65	342.36	459.29	1.745		
16,600.00	7,888.98	16,277.41	7,754.96	236.98	235.89	80.38	-1,148.58	-9,016.21	801.66	337.09	464.57	1.726		
16,700.00	7,888.98	16,377.41	7,754.96	239.64	238.56	80.38	-1,148.14	-9,116.21	801.66	331.81	469.85	1.706		
16,800.00	7,888.99	16,477.41	7,754.96	242.30	241.23	80.38	-1,147.70	-9,216.20	801.67	326.54	475.13	1.687		
16,900.00	7,888.99	16,577.41	7,754.96	244.96	243.90	80.38	-1,147.27	-9,316.20	801.67	321.27	480.40	1.669		
17,000.00	7,888.99	16,677.41	7,754.96	247.63	246.57	80.38	-1,146.83	-9,416.20	801.68	315.99	485.68	1.651		
17,100.00	7,888.99	16,777.41	7,754.96	250.29	249.24	80.38	-1,146.39	-9,516.20	801.68	310.72	490.96	1.633		
17,200.00	7,888.99	16,877.41	7,754.96	252.95	251.92	80.38	-1,145.95	-9,616.20	801.69	305.44	496.25	1.616		
17,300.00	7,888.99	16,977.41	7,754.96	255.62	254.59	80.38	-1,145.52	-9,716.20	801.69	300.17	501.53	1.599		
17,400.00	7,888.99	17,077.41	7,754.96	258.28	257.26	80.38	-1,145.08	-9,816.20	801.70	294.89	506.81	1.582		
17,500.00	7,888.99	17,177.41	7,754.96	260.95	259.93	80.38	-1,144.64	-9,916.20	801.71	289.61	512.09	1.566		
17,600.00	7,888.99	17,277.41	7,754.96	263.61	262.61	80.38	-1,144.21	-10,016.20	801.71	284.33	517.38	1.550		
17,700.00	7,888.99	17,377.41	7,754.96	266.28	265.28	80.38	-1,143.77	-10,116.20	801.72	279.05	522.66	1.534		
17,800.00	7,889.00	17,477.41	7,754.96	268.94	267.95	80.38	-1,143.33	-10,216.20	801.72	273.77	527.95	1.519		
17,900.00	7,889.00	17,577.41	7,754.95	271.61	270.63	80.38	-1,142.90	-10,316.19	801.73	268.49	533.24	1.504		
18,000.00	7,889.00	17,677.41	7,754.95	274.28	273.30	80.38	-1,142.46	-10,416.19	801.74	263.21	538.52	1.489	Level 3	
18,100.00	7,889.00	17,777.41	7,754.95	276.95	275.98	80.38	-1,142.02	-10,516.19	801.74	257.93	543.81	1.474	Level 3	
18,200.00	7,889.00	17,877.48	7,754.99	279.62	278.66	80.38	-1,141.58	-10,616.26	801.74	252.64	549.11	1.460	Level 3	
18,212.39	7,889.00	17,889.87	7,755.00	279.95	278.99	80.38	-1,141.53	-10,628.65	801.74	251.98	549.76	1.458	Level 3, SF	

Anticollision Report

Company:	AXIS EXPLORATION	Local Co-ordinate Reference:	Well JAMASO 4-65 5-6-11
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 5-6-11	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

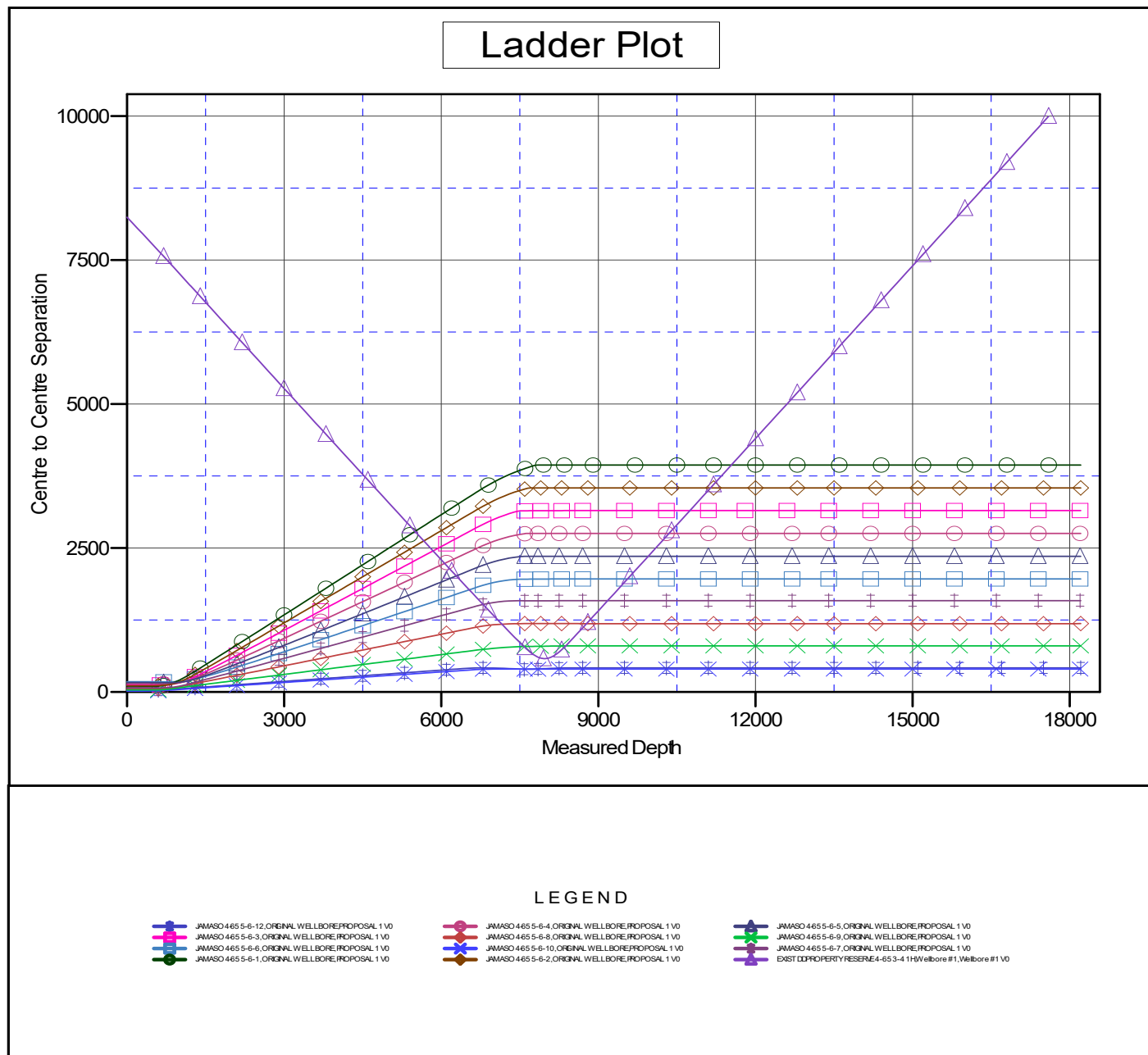
Offset Depths are relative to Offset Datum

Central Meridian is 105° 30' 0.000 W

Coordinates are relative to: JAMASO 4-65 5-6-11

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.53°



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 5-6-11
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 5-6-11	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

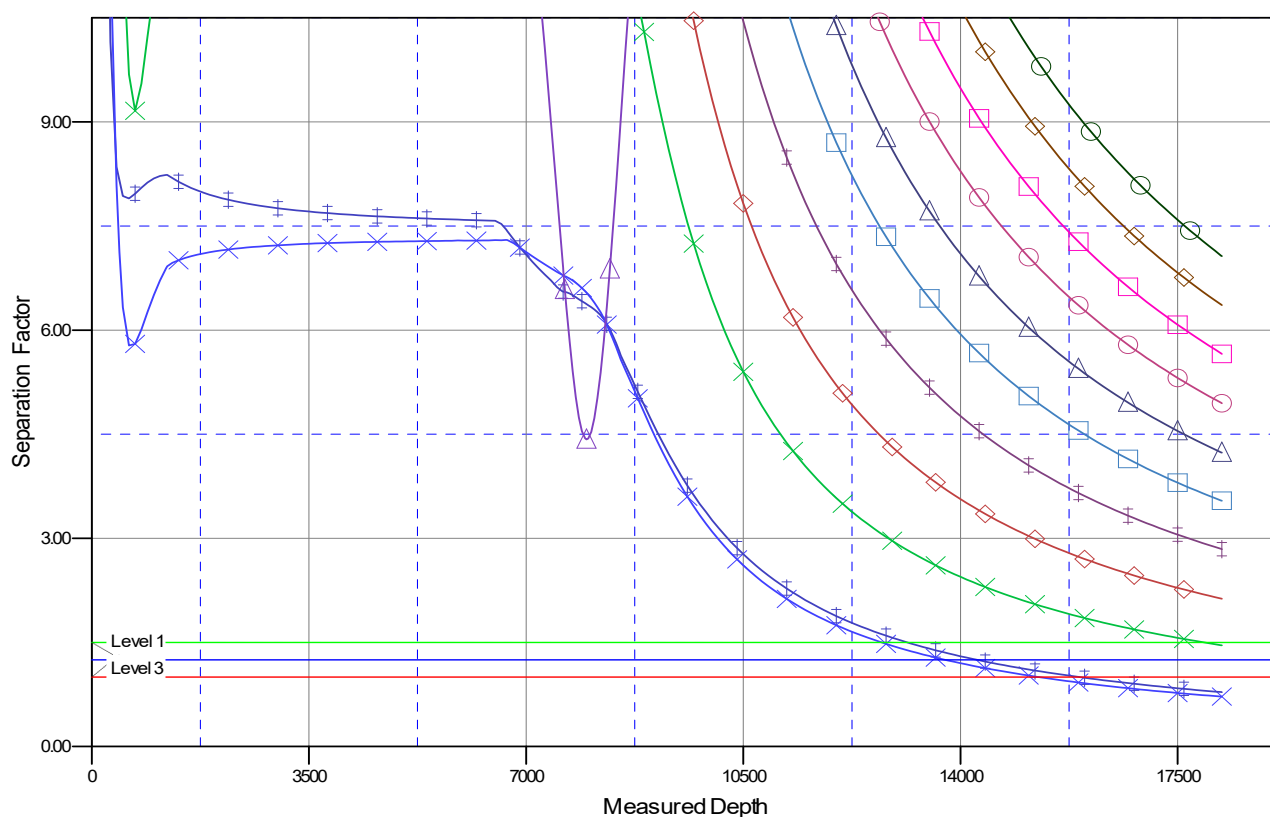
Central Meridian is 105° 30' 0.000 W

Coordinates are relative to: JAMASO 4-65 5-6-11

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.53°

Separation Factor Plot



LEGEND

JAMASO 4-65 5-6-12, 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
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	EXIST CO-PROPERTY RESERVE 4-65 3-4 11 Wellbore #1, Wellbore #1 V0