

Crestone Peak Resources

DJ BASIN

S32-T2N-R68W

FILE 3A-32H-K268

OH

PLAN #1

Anticollision Report

17 July, 2017

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well FILE 3A-32H-K268
Project:	DJ BASIN	TVD Reference:	23' KB @ 4993.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 4993.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	FILE 3A-32H-K268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Reference	PLAN #1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.00usft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 1,707.12usft	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program	Date	7/17/2017		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	14,653.80	PLAN #1 (OH)	MWD+HDGM	OWSG MWD + HDGM

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Site Error:	0.00usft	North Reference:	True
Reference Well:	FILE 3A-32H-K268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance		Separation Factor	Warning
			Between Centres (usft)	Between Ellipses (usft)		
S32-T2N-R68W						
Anderson 22-32 - KPK WELL - NO SURVEYS	1,424.73	1,361.56	1,702.56	1,693.80	194.380	CC
Anderson 22-32 - KPK WELL - NO SURVEYS	1,700.00	1,629.34	1,703.76	1,693.01	158.599	ES
Anderson 22-32 - KPK WELL - NO SURVEYS	1,900.00	1,823.90	1,706.12	1,693.93	140.004	SF
Anderson 32-32 - CPR WELL - SURVEYS						Out of range
Anderson 41-32 - CPR - GYRO						Out of range
Anderson 4-2-32 - CPR WELL - SURVEYS						Out of range
Anderson 6-4-32 - CPR WELL - SURVEYS						Out of range
Anderson Trust 1 - KPK - NO SURVEYS						Out of range
Anderson Trust 1 A - CPR WELL - GYRO						Out of range
Anderson Trust 2-A - CPR WELL - NO SURVEYS						Out of range
Anderson Trust 32-2 - CPR WELL - GYRO						Out of range
Anderson Trust 32-8 - CPR WELL - GYRO						Out of range
Anderson Trust C 1 - CPR WELL - SURVEYS						Out of range
Anderson Trust C Unit 2 - CPR WELL - GYRO						Out of range
Brown 22-5 - CPR WELL - GYRO						Out of range
Brown 31-5 - CPR WELL - SURVEYS						Out of range
Brown 41-5 - CPR WELL - SURVEYS						Out of range
Brown 5-3 - CPR WELL - GYRO						Out of range
Brown 5-5 - CPR WELL - GYRO	11,546.99	7,631.57	187.17	111.29	2.467	CC, ES, SF
Brown C Unit 1 - CPR WELL - GYRO						Out of range
Brown C Unit 2 - CPR WELL - GYRO	10,645.52	7,601.29	822.43	760.20	13.216	CC, ES, SF
Bryant 10-30 - KMG WELL - SURVEYS						Out of range
Bryant 16-30 - KMG WELL - SURVEYS						Out of range
Bryant 20-30 - KMG WELL - SURVEYS						Out of range
Bryant 23-30 - KMG WELL - SURVEYS						Out of range
Bryant 24-30 - KMG WELL - SURVEYS						Out of range
Bryant 33-29 - KMG WELL - SURVEYS						Out of range
Bryant 36-30 - KMG WELL - SURVEYS						Out of range
Bryant 8-30 - KMG WELL - SURVEYS						Out of range
Bryant Federal 37-30 - KMG WELL - SURVEYS						Out of range
Bulthaup 1-6 - KMG WELL - GYRO	10,486.03	7,605.14	612.02	554.86	10.706	CC
Bulthaup 1-6 - KMG WELL - GYRO	10,500.00	7,604.74	612.18	554.62	10.634	ES
Bulthaup 1-6 - KMG WELL - GYRO	10,600.00	7,601.93	622.54	562.53	10.375	SF
Bulthaup 16-6 - KMG WELL - SURVEYS	14,467.03	7,626.35	744.02	618.09	5.908	CC
Bulthaup 16-6 - KMG WELL - SURVEYS	14,500.00	7,626.15	744.75	618.07	5.879	ES, SF
Bulthaup 17-6 - KMG WELL - SURVEYS	11,026.93	7,638.95	1,421.37	1,344.34	18.451	CC, ES
Bulthaup 17-6 - KMG WELL - SURVEYS	11,400.00	7,626.38	1,469.46	1,386.54	17.720	SF
Bulthaup 24-6 - KMG WELL - SURVEYS	12,506.48	7,692.64	1,437.92	1,337.38	14.301	CC, ES
Bulthaup 24-6 - KMG WELL - SURVEYS	12,800.00	7,669.63	1,467.41	1,360.23	13.691	SF
Bulthaup 27-6 - KMG WELL - SURVEYS	9,791.07	7,672.72	1,376.60	1,313.09	21.673	CC
Bulthaup 27-6 - KMG WELL - SURVEYS	9,800.00	7,672.55	1,376.63	1,313.00	21.634	ES
Bulthaup 27-6 - KMG WELL - SURVEYS	10,100.00	7,667.20	1,410.83	1,343.47	20.946	SF
Bulthaup 39-6 - KMG WELL - SURVEYS	13,792.13	7,719.86	195.52	74.11	1.610	CC
Bulthaup 39-6 - KMG WELL - SURVEYS	13,800.00	7,719.70	195.68	73.75	1.605	ES, SF
Bulthaup 40-6 - KMG WELL - SURVEYS	12,300.24	7,662.01	151.62	55.97	1.585	CC, ES, SF
Bulthaup 8-6 - KMG WELL - GYRO	11,732.63	7,628.46	825.18	750.68	11.077	CC, ES
Bulthaup 8-6 - KMG WELL - GYRO	11,900.00	7,628.04	841.98	763.86	10.778	SF
Bulthaup 9-6 - KMG WELL - SURVEYS	13,200.00	7,911.76	782.96	671.87	7.048	CC, ES
Bulthaup 9-6 - KMG WELL - SURVEYS	13,300.00	7,909.16	791.01	677.66	6.979	SF
Canino 1-X - HUGHES CW - NO SURVEYS						Out of range
Champlin 86 Amoco F 6 - KPK - NO SURVEYS						Out of range
Champlin 86 N 1 - KMG WELL - GYRO						Out of range
Champlin Amoco 86 F 7 - KPK WELL - SURVEYS						Out of range

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

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well FILE 3A-32H-K268
Project:	DJ BASIN	TVD Reference:	23' KB @ 4993.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 4993.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	FILE 3A-32H-K268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance		Separation Factor	Warning
			Between Centres (usft)	Between Ellipses (usft)		
S32-T2N-R68W						
Cinque 1 - FOUNDATION WELL - NO SURVEYS						Out of range
Cinque 2 - FOUNDATION WELL - NO SURVEYS						Out of range
Cinque 4 - FOUNDATION WELL - NO SURVEYS						Out of range
FILE 3B-32H-K268 - OH - PLAN #1	200.00	200.00	10.07	9.08	10.143	CC, ES
FILE 3B-32H-K268 - OH - PLAN #1	14,400.00	13,959.53	314.64	116.06	1.584	SF
FILE 3C-32H-K268 - OH - PLAN #1	342.17	343.11	19.15	17.60	12.317	CC, ES
FILE 3C-32H-K268 - OH - PLAN #1	14,653.80	14,116.09	743.24	531.10	3.503	SF
FILE 3C-32H-K268 - OH - SURVEYS	342.17	343.11	19.15	17.60	12.317	CC, ES
FILE 3C-32H-K268 - OH - SURVEYS	500.00	501.05	22.69	20.20	9.112	SF
FILE 3D-32H-K268 - OH - PLAN #1	259.74	260.30	27.76	26.76	27.544	CC, ES
FILE 3D-32H-K268 - OH - PLAN #1	14,653.80	14,513.42	1,030.11	804.84	4.573	SF
FILE 3D-32H-K268 - OH - SURVEYS	259.74	260.30	27.76	26.76	27.544	CC, ES
FILE 3D-32H-K268 - OH - SURVEYS	500.00	500.45	37.25	34.88	15.727	SF
FILE 3E-32H-K268 - OH - PLAN #1	0.00	0.00	40.01			
FILE 3E-32H-K268 - OH - PLAN #1	100.00	99.84	40.21	39.98	170.828	ES
FILE 3E-32H-K268 - OH - PLAN #1	14,653.80	14,255.52	1,391.41	1,171.96	6.341	SF
FILE 3E-32H-K268 - OH - SURVEYS	0.00	0.00	40.01			
FILE 3E-32H-K268 - OH - SURVEYS	100.00	99.84	40.21	39.98	170.828	ES
FILE 3E-32H-K268 - OH - SURVEYS	700.00	702.15	72.09	68.49	20.030	SF
FILE 3F-32H-K268 - OH - PLAN #1	0.00	0.00	50.08			
FILE 3F-32H-K268 - OH - PLAN #1	800.00	806.86	75.13	70.89	17.742	SF
FILE 3F-32H-K268 - OH - SURVEYS	0.00	0.00	50.08			
FILE 3F-32H-K268 - OH - SURVEYS	800.00	806.86	75.13	70.89	17.742	SF
FILE 3G-32H-K268 - OH - PLAN #1	328.42	330.87	54.99	53.58	38.869	CC, ES
FILE 3G-32H-K268 - OH - PLAN #1	700.00	701.95	80.10	76.45	21.967	SF
FILE 3G-32H-K268 - OH - SURVEYS	328.42	330.87	54.99	53.58	38.869	CC, ES
FILE 3G-32H-K268 - OH - SURVEYS	700.00	701.95	80.10	76.45	21.967	SF
FILE 3H-32H-K268 - OH - PLAN #2	0.00	0.00	69.94			
FILE 3H-32H-K268 - OH - PLAN #2	201.44	201.48	70.09	69.35	95.781	ES
FILE 3H-32H-K268 - OH - PLAN #2	800.00	798.75	121.19	117.02	29.075	SF
FILE 3H-32H-K268 - OH - SURVEYS	0.00	0.00	69.94			
FILE 3H-32H-K268 - OH - SURVEYS	201.44	201.48	70.09	69.35	95.781	ES
FILE 3H-32H-K268 - OH - SURVEYS	800.00	798.75	121.19	117.02	29.075	SF
FILE 3Q-32H-K268 - OH - PLAN #1	218.14	219.09	159.44	158.65	203.676	CC, ES
FILE 3Q-32H-K268 - OH - PLAN #1	5,800.00	5,558.11	1,706.89	1,666.44	42.193	SF
FILE 3Q-32H-K268 - OH - SURVEYS	218.14	219.09	159.44	158.65	203.676	CC, ES
FILE 3Q-32H-K268 - OH - SURVEYS	900.00	853.00	269.74	265.09	57.987	SF
FILE 3R-32H-K268 - OH - PLAN #1	203.19	203.85	169.72	169.01	239.531	CC, ES
FILE 3R-32H-K268 - OH - PLAN #1	5,200.00	4,940.22	1,690.57	1,655.32	47.958	SF
FILE 3R-32H-K268 - OH - SURVEYS	203.19	203.85	169.72	169.01	239.531	CC, ES
FILE 3R-32H-K268 - OH - SURVEYS	900.00	848.00	305.04	300.22	63.323	SF
FILE 3S-32H-K268 - OH - PLAN #1	200.00	200.00	180.18	179.18	181.454	CC, ES
FILE 3S-32H-K268 - OH - PLAN #1	2,100.00	2,006.88	681.24	666.71	46.910	SF
FILE 3T-32H-K268 - OH - PLAN #1	200.00	200.00	189.97	188.98	191.315	CC, ES
FILE 3T-32H-K268 - OH - PLAN #1	4,600.00	4,307.26	1,684.78	1,652.02	51.442	SF
FILE FED 3I-32H-K268 - OH - PLAN #2	275.70	277.67	77.44	76.33	69.987	CC
FILE FED 3I-32H-K268 - OH - PLAN #2	8,000.00	8,170.23	106.28	47.48	1.807	ES, SF
FILE FED 3I-32H-K268 - OH - SURVEYS	275.70	277.67	77.44	76.33	69.987	CC
FILE FED 3I-32H-K268 - OH - SURVEYS	300.00	302.13	77.51	76.26	62.166	ES
FILE FED 3I-32H-K268 - OH - SURVEYS	800.00	802.93	116.82	112.60	27.697	SF
FILE FED 3J-32H-K268 - OH - PLAN #1	207.43	207.66	89.84	89.10	122.236	CC, ES
FILE FED 3J-32H-K268 - OH - PLAN #1	7,541.70	8,312.62	189.35	130.87	3.238	SF
FILE FED 3J-32H-K268 - OH - SURVEYS	207.43	207.66	89.84	89.10	122.236	CC, ES

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

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well FILE 3A-32H-K268
Project:	DJ BASIN	TVD Reference:	23' KB @ 4993.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 4993.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	FILE 3A-32H-K268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance		Separation Factor	Warning
			Between Centres (usft)	Between Ellipses (usft)		
S32-T2N-R68W						
FILE FED 3J-32H-K268 - OH - SURVEYS	800.00	801.73	137.78	133.62	33.100	SF
FILE FED 3K-32H-K268 - OH - PLAN #2	0.00	0.00	100.16			
FILE FED 3K-32H-K268 - OH - PLAN #2	100.00	99.62	100.35	100.11	418.843	ES
FILE FED 3K-32H-K268 - OH - PLAN #2	7,513.52	8,009.71	676.78	620.72	12.072	SF
FILE FED 3K-32H-K268 - OH - SURVEYS	0.00	0.00	100.16			
FILE FED 3K-32H-K268 - OH - SURVEYS	100.00	99.62	100.35	100.11	418.843	ES
FILE FED 3K-32H-K268 - OH - SURVEYS	900.00	873.00	174.44	169.75	37.189	SF
FILE FED 3L-32H-K268 - OH - PLAN #1	210.31	210.69	109.61	108.87	146.863	CC, ES
FILE FED 3L-32H-K268 - OH - PLAN #1	7,350.47	8,032.81	903.73	848.12	16.254	SF
FILE FED 3L-32H-K268 - OH - SURVEYS	210.31	210.69	109.61	108.87	146.863	CC, ES
FILE FED 3L-32H-K268 - OH - SURVEYS	800.00	793.15	171.19	167.11	41.877	SF
FILE FED 3M-32H-K268 - OH - PLAN #1	246.23	248.06	118.47	117.55	129.251	CC, ES
FILE FED 3M-32H-K268 - OH - PLAN #1	7,583.61	8,385.39	1,053.92	996.30	18.292	SF
FILE FED 3M-32H-K268 - OH - SURVEYS	246.23	248.06	118.47	117.55	129.251	CC, ES
FILE FED 3M-32H-K268 - OH - SURVEYS	800.00	796.12	176.16	171.89	41.313	SF
FILE FED 3N-32H-K268 - OH - PLAN #1	203.30	203.64	129.83	129.12	183.238	CC, ES
FILE FED 3N-32H-K268 - OH - PLAN #1	7,412.65	8,367.72	1,107.82	1,050.21	19.232	SF
FILE FED 3N-32H-K268 - OH - SURVEYS	203.30	203.64	129.83	129.12	183.238	CC, ES
FILE FED 3N-32H-K268 - OH - SURVEYS	900.00	873.00	223.10	218.33	46.750	SF
FILE FED 3O-32H-K268 - OH - PLAN #1	253.65	256.72	137.84	136.89	145.330	CC, ES
FILE FED 3O-32H-K268 - OH - PLAN #1	7,300.00	8,271.56	1,368.51	1,311.55	24.027	SF
FILE FED 3O-32H-K268 - OH - SURVEYS	253.65	256.72	137.84	136.89	145.330	CC, ES
FILE FED 3O-32H-K268 - OH - SURVEYS	900.00	851.00	225.31	220.66	48.430	SF
FILE FED 3P-32H-K268 - OH - PLAN #1	218.20	219.11	149.76	148.95	184.892	CC, ES
FILE FED 3P-32H-K268 - OH - PLAN #1	7,300.00	8,402.94	1,678.69	1,621.11	29.158	SF
FILE FED 3P-32H-K268 - OH - SURVEYS	218.20	219.11	149.76	148.95	184.892	CC, ES
FILE FED 3P-32H-K268 - OH - SURVEYS	800.00	777.71	234.59	230.34	55.178	SF
Foster 33-5 - CPR WELL - SURVEYS						Out of range
Foster 43-5 - CPR WELL - SURVEYS						Out of range
Foster 4-5 - CPR WELL - SURVEYS						Out of range
Foster 4-6-5 - CPR WELL - SURVEYS						Out of range
Foster 6-4-5 - CPR - SURVEYS						Out of range
Foster 6-4-5X - CPR WELL - SURVEYS						Out of range
Foster 6-8-5 - CPR WELL - SURVEYS						Out of range
Foster 8-8-5 - CPR WELL - SURVEYS						Out of range
Foster E Unit 1 - CPR - GYRO						Out of range
Gene 11-5 - KERR-MCGEE - GYRO						Out of range
Hankins 1 - KPK WELL - NO SURVEYS						Out of range
Hauck 17-29 - KMG WELL - SURVEYS						Out of range
Hauck 24-29 - KMG WELL - SURVEYS						Out of range
Hauck 7-29 - KMG WELL - SURVEYS						Out of range
HSR-Bryant 9-30A - KMG WELL - GYRO						Out of range
HSR-Williams 10-20 - KMG WELL - GYRO						Out of range
HWY52 4A-32H-O268 - OH - FINAL						Out of range
HWY52 4B-32H-O268 - OH - FINAL						Out of range
HWY52 4C-32H-O268 - OH - FINAL						Out of range
HWY52 4D-32H-O268 - OH - FINAL						Out of range
HWY52 4E-32H-O268 - OH - FINAL						Out of range
HWY52 4F-32H-O268 - OH - FINAL						Out of range
HWY52 4G-32H-O268 - OH - FINAL						Out of range
HWY52 4H-32H-O268 - OH - FINAL						Out of range
HWY52 4I-32H-O268 - OH - FINAL						Out of range
HWY52 4J-32H-O268 - OH - FINAL						Out of range

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

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well FILE 3A-32H-K268
Project:	DJ BASIN	TVD Reference:	23' KB @ 4993.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 4993.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	FILE 3A-32H-K268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance		Separation Factor	Warning
			Between Centres (usft)	Between Ellipses (usft)		
S32-T2N-R68W						
HWY52 4K-32H-O268 - OH - FINAL						Out of range
HWY52 4L-32H-O268 - OH - PLAN #3						Out of range
HWY52 4L-32H-O268 - OH - SURVEYS						Out of range
HWY52 4M-32H-O268 - OH - FINAL						Out of range
HWY52 4N-32H-O268 - OH - PLAN #5						Out of range
HWY52 4N-32H-O268 - OH - SURVEYS						Out of range
HWY52 4O-32H-O268 - OH - PLAN #3						Out of range
HWY52 4O-32H-O268 - OH - SURVEYS						Out of range
HWY52 4P-32H-O268 - OH - PLAN #2						Out of range
HWY52 4Q-32H-O268 - OH - PLAN #2						Out of range
HWY52 4R-32H-O268 - OH - PLAN #2						Out of range
HWY52 4S-32H-O268 - OH - PLAN #4						Out of range
HWY52 4S-32H-O268 - OH - SURVEYS						Out of range
HWY52 4T-32H-O268 - OH - PLAN #3						Out of range
HWY52 4U-32H-O268 - OH - PLAN #5						Out of range
HWY52 4U-32H-O268 - OH - SURVEYS						Out of range
HWY52 4V-32H-O268 - OH - PLAN #2						Out of range
HWY52 4V-32H-O268 - OH - SURVEYS						Out of range
HWY52 4W-32H-O268 - OH - PLAN #3						Out of range
HWY52 4W-32H-O268 - OH - SURVEYS						Out of range
Jack Hein Unit 1 - HS RESOURCES WELL - NO SURVE	5,467.76	5,085.00	1,080.05	1,045.97	31.688	CC, ES
Jack Hein Unit 1 - HS RESOURCES WELL - NO SURVE	5,600.00	5,085.00	1,088.12	1,053.57	31.495	SF
John Lamar 1 - KPK WELL - NO SURVEYS						Out of range
Johnson 32-30 - KPK WELL - NO SURVEYS						Out of range
Johnson 7-30A - KMG WELL - GYRO						Out of range
Kenneth Koch 1 - KPK WELL - NO SURVEYS						Out of range
Kenyon 34-19 - CPR WELL - SURVEYS						Out of range
Kenyon 4-8-19 - CPR WELL - SURVEYS						Out of range
Kenyon 8-4-19 - CPR WELL - SURVEYS						Out of range
Kenyon 8-6-19 - CPR WELL - SURVEYS						Out of range
Kenyon 8-8-19 - CPR WELL - SURVEYS						Out of range
Koch 41-6 - KPK WELL - NO SURVEYS						Out of range
Koch Kenneth E A-1 - KMG WELL - SURVEY	14,158.83	7,600.00	1,655.92	1,540.86	14.391	CC
Koch Kenneth E A-1 - KMG WELL - SURVEY	14,200.00	7,600.00	1,656.43	1,540.52	14.290	ES
Koch Kenneth E A-1 - KMG WELL - SURVEY	14,400.00	7,600.00	1,673.39	1,554.22	14.042	SF
Milton H Nelson H-1 - KMG WELL - GYRO						Out of range
Milton H Nelson I1 - KMG WELL - GYRO						Out of range
Milton H Nelson L1 - KMG WELL - GYRO						Out of range
Milton Nelson K1 - KMG WELL - GYRO						Out of range
Nelson 1 - TEXAS TEA - NO SURVEYS						Out of range
Nelson 1-A - TEXAS TEA WELL - NO SURVEYS	5,269.68	5,011.00	1,413.19	1,376.64	38.665	CC, ES
Nelson 1-A - TEXAS TEA WELL - NO SURVEYS	5,500.00	5,011.00	1,431.84	1,394.14	37.986	SF
Nelson 2 - TEXAS TEA WELL - NO SURVEYS	4,151.82	4,015.49	336.09	307.45	11.733	CC
Nelson 2 - TEXAS TEA WELL - NO SURVEYS	4,200.00	4,062.36	336.28	307.27	11.594	ES
Nelson 2 - TEXAS TEA WELL - NO SURVEYS	4,600.00	4,451.48	351.76	320.12	11.119	SF
Nelson 3 - TEXAS TEA WELL - NO SURVEYS	200.00	214.00	1,120.74	1,119.88	1,309.106	CC, ES
Nelson 3 - TEXAS TEA WELL - NO SURVEYS	3,700.00	3,630.96	1,701.35	1,678.50	74.454	SF
Nelson 4 - TEXAS TEA WELL - NO SURVEYS	200.00	165.00	424.48	423.74	568.178	CC, ES
Nelson 4 - TEXAS TEA WELL - NO SURVEYS	5,100.00	4,943.89	1,387.74	1,357.44	45.803	SF
Nelson 5 - TEXAS TEA WELL - NO SURVEYS	3,100.82	3,000.07	1,001.48	980.51	47.750	CC
Nelson 5 - TEXAS TEA WELL - NO SURVEYS	3,200.00	3,103.45	1,001.75	980.03	46.127	ES
Nelson 5 - TEXAS TEA WELL - NO SURVEYS	5,200.00	5,035.00	1,113.29	1,077.78	31.359	SF
Nelson D2 - KPK WELL - NO SURVEYS						Out of range

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

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well FILE 3A-32H-K268
Project:	DJ BASIN	TVD Reference:	23' KB @ 4993.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 4993.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	FILE 3A-32H-K268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance		Separation Factor	Warning
			Between Centres (usft)	Between Ellipses (usft)		
S32-T2N-R68W						
Nelson E Unit 1 - CPR WELL - GYRO	1,471.86	1,412.19	662.22	655.20	94.419	CC
Nelson E Unit 1 - CPR WELL - GYRO	1,600.00	1,537.50	662.70	654.96	85.540	ES
Nelson E Unit 1 - CPR WELL - GYRO	8,500.00	7,553.17	1,032.64	992.26	25.576	SF
Nelson E Unit 2 - CPR WELL - GYRO						Out of range
NOAA Federal 11-32 - CPR WELL - GYRO						Out of range
Osarkson 2-8-33 - CPR WELL - SURVEYS						Out of range
Oskarson 13-33 - CPR - GYRO						Out of range
Oskarson 23-33 - CPR WELL - GYRO						Out of range
Oskarson 4 - HRM - NO SURVEYS						Out of range
Oskarson 4-4-33 - CPR WELL - SURVEYS						Out of range
Oskarson 4-6-33 - CPR WELL - SURVEYS						Out of range
Oskarson 4-8-33 - CPR WELL - SURVEYS						Out of range
Oskarson E Unit 1 - CPR WELL - GYRO						Out of range
Paquette 13-5 - KMG WELL - GYRO	14,567.35	7,609.47	459.86	340.74	3.860	CC, ES, SF
Paquette 14-5 - KERR-MCGEE - GYRO	14,117.12	7,589.91	1,662.15	1,549.32	14.731	CC, ES
Paquette 14-5 - KERR-MCGEE - GYRO	14,200.00	7,588.33	1,664.22	1,550.81	14.675	SF
Rasmussen 10-29 - KMG WELL - SURVEYS						Out of range
Rasmussen 14-29 - KMG WELL - GYRO						Out of range
Rasmussen 16-29 - KMG WELL - SURVEYS						Out of range
Rasmussen 19-29 - KMG WELL - SURVEYS						Out of range
Rasmussen 20-29 - KMG WELL - SURVEYS						Out of range
Rasmussen 22-29 - KMG WELL - SURVEYS						Out of range
Rasmussen 23-29 - KMG WELL - SURVEYS						Out of range
Rasmussen 25-29 - KMG WELL - SURVEYS						Out of range
Rasmussen 36-29 - KMG WELL - SURVEYS						Out of range
Rasmussen 37-29 - KMG WELL - SURVEYS						Out of range
Rasmussen 39-29 - KMG WELL - SURVEYS						Out of range
Rasmussen Fed 35-29 - KMG WELL - SURVEYS						Out of range
Ray Nelson 0-4-32 - CPR WELL - SURVEYS	7,077.66	6,953.87	604.67	551.06	11.278	CC, ES
Ray Nelson 0-4-32 - CPR WELL - SURVEYS	7,100.00	6,975.50	605.04	551.27	11.252	SF
Ray Nelson 12-32 - CPR WELL - GYRO	7,000.00	6,725.29	1,246.37	1,207.23	31.841	CC, ES
Ray Nelson 12-32 - CPR WELL - GYRO	7,100.00	6,824.13	1,253.52	1,213.84	31.588	SF
Ray Nelson 13-32 - CPR WELL - SURVEYS	5,744.10	5,764.70	146.91	94.49	2.803	CC
Ray Nelson 13-32 - CPR WELL - SURVEYS	5,800.00	5,819.32	147.35	94.35	2.780	ES
Ray Nelson 13-32 - CPR WELL - SURVEYS	5,900.00	5,914.50	150.47	96.14	2.770	SF
Ray Nelson 14-32 - CPR WELL - SURVEYS	9,200.00	7,618.63	482.17	412.41	6.911	ES, SF
Ray Nelson 14-32 - CPR WELL - SURVEYS	9,205.00	7,618.61	482.15	412.47	6.920	CC
Ray Nelson 23-32 - CPR WELL - GYRO	214.45	97.69	553.42	552.79	874.082	CC, ES
Ray Nelson 23-32 - CPR WELL - GYRO	6,200.00	5,944.52	1,705.04	1,676.30	59.312	SF
Ray Nelson 24-32 - CPR WELL - SURVEYS	1,223.93	1,185.32	925.16	916.63	108.403	CC
Ray Nelson 24-32 - CPR WELL - SURVEYS	1,300.00	1,248.99	925.78	916.59	100.828	ES
Ray Nelson 24-32 - CPR WELL - SURVEYS	4,000.00	3,682.13	1,517.54	1,483.90	45.111	SF
Ray Nelson 2-4-32 - CPR WELL - SURVEYS	4,034.19	4,049.19	944.79	909.10	26.471	CC
Ray Nelson 2-4-32 - CPR WELL - SURVEYS	4,100.00	4,107.47	945.26	908.92	26.012	ES
Ray Nelson 2-4-32 - CPR WELL - SURVEYS	4,900.00	4,865.83	1,006.82	965.24	24.216	SF
Ray Nelson 33-32 - CPR WELL - SURVEYS						Out of range
Ray Nelson 34-32 - CPR WELL - SURVEYS						Out of range
Ray Nelson 44-32 - CPR WELL - SURVEYS						Out of range
Ray Nelson 4-4-32 - CPR WELL - SURVEYS	152.15	133.16	555.38	554.61	721.906	CC
Ray Nelson 4-4-32 - CPR WELL - SURVEYS	200.00	176.19	555.59	554.47	497.446	ES
Ray Nelson 4-4-32 - CPR WELL - SURVEYS	4,400.00	4,139.51	1,705.79	1,667.41	44.444	SF
Ray Nelson 4-6-32 - CPR WELL - SURVEYS	202.44	183.83	556.72	555.55	476.786	CC, ES
Ray Nelson 4-6-32 - CPR WELL - SURVEYS	4,100.00	3,849.50	1,684.05	1,649.68	48.994	SF

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Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well FILE 3A-32H-K268
Project:	DJ BASIN	TVD Reference:	23' KB @ 4993.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 4993.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	FILE 3A-32H-K268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance		Separation Factor	Warning
			Between Centres (usft)	Between Ellipses (usft)		
S32-T2N-R68W						
Ray Nelson 8-8-32 - CPR WELL - SURVEYS						Out of range
Regnier Farms 32-19 - CPR WELL - GYRO						Out of range
Regnier Farms 33-19 - CPR WELL - GYRO						Out of range
Regnier Farms 42-19 - CPR WELL - GYRO						Out of range
Regnier Farms 43-19 - CPR WELL - SURVEYS						Out of range
Regnier Farms B 2 - CPR WELL - GYRO						Out of range
Regnier Farms B Unit 1 - CPR WELL - GYRO						Out of range
Sawdey Unit 2 - KMG WELL - GYRO						Out of range
Schriner 11-5 - KMG WELL - GYRO	13,545.95	7,638.22	1,506.31	1,404.12	14.741	CC, ES
Schriner 11-5 - KMG WELL - GYRO	13,600.00	7,636.35	1,507.28	1,404.70	14.693	SF
Schriner 12-5 - KMG WELL - GYRO	13,360.47	7,641.61	519.39	418.50	5.148	CC, ES, SF
SEC Four 12-4 - KMG WELL - SURVEYS						Out of range
SEC Four 13-4 - KMG WELL - SURVEYS						Out of range
SEC Four 14-4 - KMG WELL - SURVEYS						Out of range
SEC Four 21-4 - KMG WELL - SURVEYS						Out of range
SEC Four 22-4 - KMG WELL - SURVEYS						Out of range
SEC Four 31-4 - KMG WELL - SURVEYS						Out of range
SEC Four 32-4 - KMG WELL - SURVEYS						Out of range
SEC Four 33-4 - KMG WELL - SURVEYS						Out of range
SEC Four 3-4 - KMG WELL - SURVEYS						Out of range
SEC Four 35-4 - KMG WELL - SURVEYS						Out of range
SEC Four 4-4 - KMG WELL - SURVEYS						Out of range
SEC Four 5-4 - KMG WELL - SURVEYS						Out of range
SEC Four 6-4 - KMG WELL - SURVEYS						Out of range
Shaw 11-29A - KMG WELL - SURVEYS						Out of range
Shaw 12-29A - KMG - GYRO						Out of range
Shaw 15-20 - KPK - SURVEYS						Out of range
Shaw 16-20 - KPK - SURVEYS						Out of range
Tallgrass 1-8 - KMG - SURVEYS						Out of range
Tallgrass 2-8 - KMG - SURVEYS						Out of range
Tallgrass 3-8 - KMG - SURVEYS						Out of range
Tallgrass 4-8 - KMG - SURVEYS	14,653.80	8,512.98	1,278.53	1,191.30	14.658	CC, ES, SF
Tallgrass 5-8 - KMG - SURVEYS						Out of range
Tallgrass 6-8 - KMG WELL - SURVEYS						Out of range
Williams 10-20 - KMG WELL - SURVEYS						Out of range
Williams 11-20 - KMG WELL - SURVEYS						Out of range
Williams 13-20 - KMG WELL - SURVEYS						Out of range
Williams 14-20 - KMG WELL - SURVEYS						Out of range
Williams 16-20 - KMG WELL - SURVEYS						Out of range
Williams 18-29 - KMG WELL - SURVEYS						Out of range
Williams 23-20 - KMG WELL - SURVEYS						Out of range
Williams 24-20 - KMG WELL - SURVEYS						Out of range
Williams 24-20X - KMG WELL - SURVEYS						Out of range
Williams 25-20 - KMG WELL - SURVEYS						Out of range
Williams 35-20 - KMG WELL - SURVEYS						Out of range
Williams 36-20 - KMG WELL - SURVEYS						Out of range
Williams 39-20 - KMG WELL - SURVEYS						Out of range
Williams 4-29 - KMG WELL - SURVEYS						Out of range
Williams 7-20 - KMG WELL - SURVEYS						Out of range
Williams 8-20 - KMG WELL - SURVEYS						Out of range
Williams 9-20 - KMG WELL - SURVEYS						Out of range
Woolley 41-7 - CPR WELL - GYRO	14,653.80	7,631.65	1,289.85	1,218.51	18.080	CC, ES, SF
Woolley 42-7 KPK - KPK WELL - SURVEYS						Out of range

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Cathedral Energy Services

Anticollision Report

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Site Error:	0.00usft	North Reference:	True
Reference Well:	FILE 3A-32H-K268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)		Separation Factor	Warning
Offset Well - Wellbore - Design						