



Job Number: SVMQ-150843

Company: Matador Production Co.

Lease/Well: DR. K 24-23S-27E RB 203H

Location: Eddy County, NM

Rig Name: Patterson #297

RKB: 28.5'

G.L. or M.S.L.: GL

State/Country: New Mexico/USA

Declination: 7.45°

Grid: East To Grid North

File name: W:\WINSER~1\2015SU~1\MATADOR\MO\DRK~1\2423S\27ERB\203H.SVY

Date/Time: 06-Nov-15 / 15:53

Curve Name: Surface - 390' M.D. (Rate Gyro)

NM OIL CONSERVATION
ARTESIA DISTRICT

MAR 31 2016

RECEIVED

MS Survey

WINSERVE SURVEY CALCULATIONS

Minimum Curvature Method

Vertical Section Plane .00

Vertical Section Referenced to Wellhead

Rectangular Coordinates Referenced to Wellhead

We hereby certify that our survey data from
Surface MD to 390' MD is, to the best of
our knowledge a true and accurate account of
the well bore.

Trans Pack 11/3/15
MS Energy Services Date

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE Distance FT	Direction Deg	Dogleg Severity Deg/100
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
49.79	.48	129.70	49.79	-.13	.16	-.13	.21	129.70	.96
146.00	.55	114.27	146.00	-.58	.89	-.58	1.06	123.07	.16
239.00	.47	106.01	238.99	-.87	1.67	-.87	1.88	117.56	.12
330.00	.23	99.98	329.99	-1.00	2.20	-1.00	2.42	114.49	.27

Last Survey Depth Recorded

390.00	.29	93.41	389.99	-1.03	2.47	-1.03	2.68	112.68	.11
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November 19, 2015

Matador Production Company
5400 LBJ Freeway, Suite 1500
Dallas, TX 75240

Attn: Ava Monroe

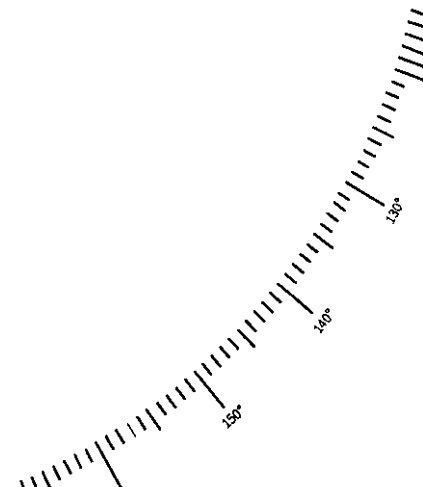
Re: **Dr K 24-23S-27E RB No 203H**

Please find enclosed a copy of the survey from 0' to 8700' ran on the above referenced well.

If I can be of any further service, please do not hesitate to call me at 800-606-4976.

Sincerely,

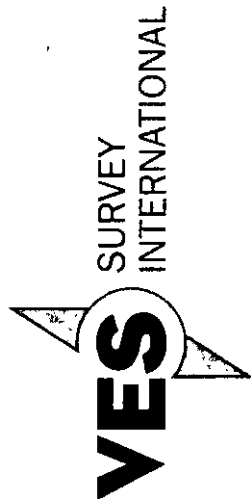

Jennifer Byerly
Operations





Company: Matador Production
Lease/Well: Dr. K 24-23S-27E RB No/203H

Rig Name: Patterson 297
State/County: New Mexico/Eddy
VS-Azi: 0.00 Degrees
Latitude: 32.28921, Longitude: -104.15298
Grid North = True North -0.10 degs (NAD 27)
Grid Correction Applied = -0.10 degs



Depth Reference : RKB = 28.5

DRILLOG MS GYRO SURVEY CALCULATIONS

Filename: gyro survey.ut
Minimum Curvature Method
Report Date/Time: 11/19/2015 / 12:18

VES Survey International
Midland, TX
432-563-5444

Surveyor: Adam Askew
Dr K 24-23S-27E RB No 203H / API 30-015-43378

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	****
75.02	0.35	50.19	75.02	0.15	0.18	0.15	0.23	50.19	0.47
169.80	0.34	58.24	169.80	0.48	0.63	0.48	0.79	53.00	0.05
264.58	0.36	50.52	264.58	0.81	1.10	0.81	1.36	53.53	0.05
359.36	0.41	59.01	359.35	1.17	1.62	1.17	2.00	54.01	0.08
454.14	0.34	46.70	454.13	1.54	2.11	1.54	2.61	53.86	0.11
548.92	0.61	344.03	548.91	2.22	2.18	2.22	3.11	44.45	0.58
643.70	1.15	25.39	643.68	3.57	2.45	3.57	4.33	34.47	0.85
738.48	3.43	52.28	738.38	6.16	5.10	6.16	8.00	39.62	2.60
833.26	4.25	60.99	832.95	9.61	10.42	9.61	14.17	47.33	1.06
928.04	5.09	59.54	927.41	13.44	17.12	13.44	21.77	51.86	0.90
1022.82	5.28	61.75	1021.80	17.64	24.59	17.64	30.26	54.35	0.29
1117.60	5.35	59.09	1116.17	21.97	32.22	21.97	39.00	55.71	0.27
1212.38	5.65	57.34	1210.52	26.76	39.94	26.76	48.08	56.18	0.36
1307.16	5.68	54.06	1304.83	32.03	47.67	32.03	57.43	56.10	0.34
1401.94	5.65	48.59	1399.15	37.87	54.96	37.87	66.75	55.43	0.57
1496.72	5.73	50.80	1493.47	43.95	62.13	43.95	76.10	54.73	0.25

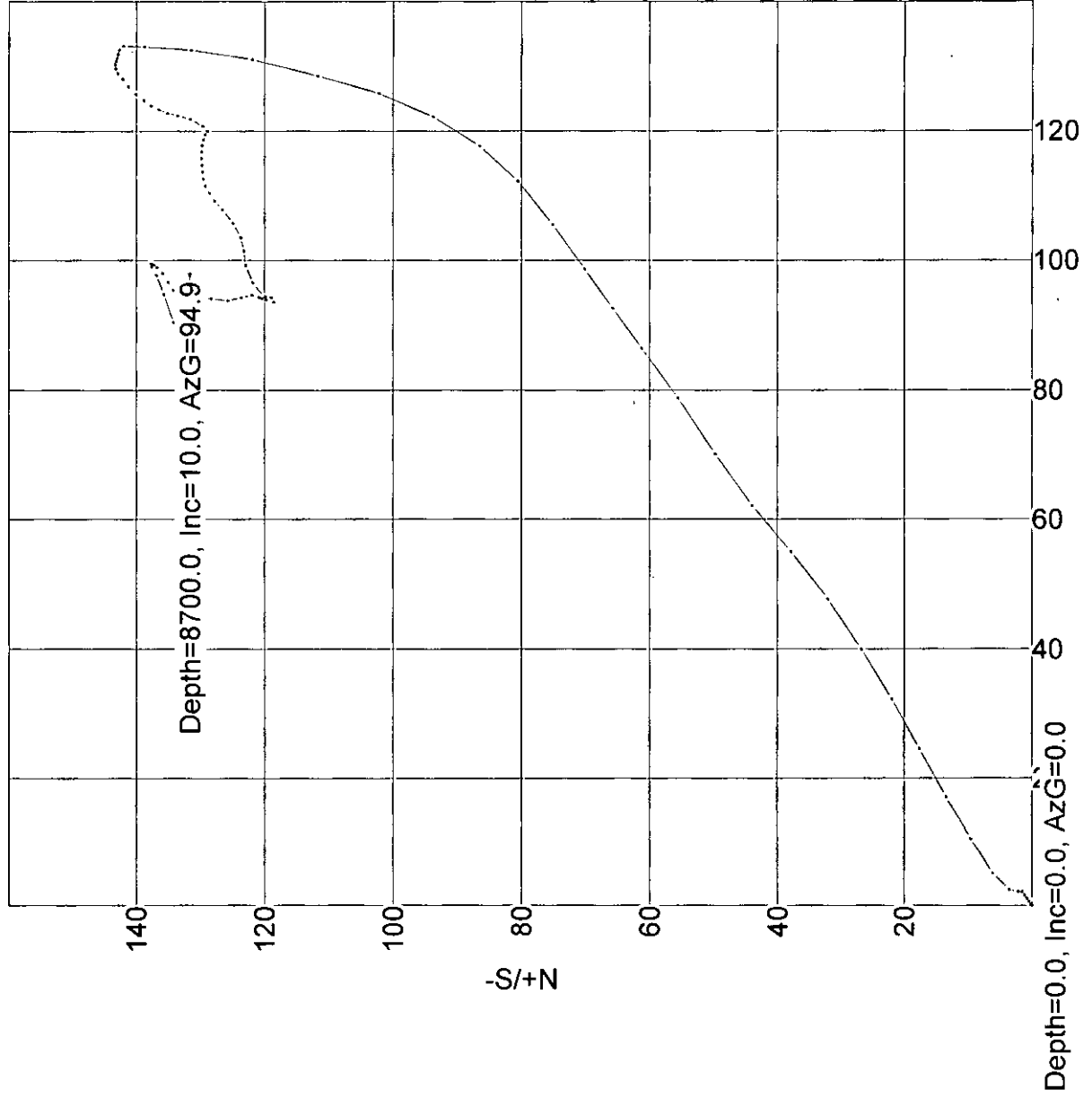
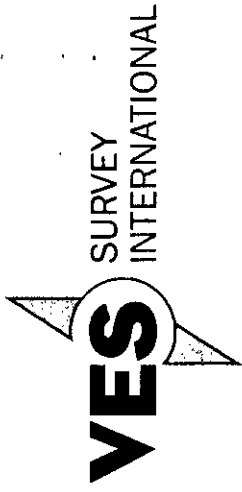
Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
1591.50	6.23	56.96	1587.73	49.74	70.11	49.74	85.96	54.64	0.85
1686.28	6.37	55.03	1681.94	55.56	78.73	55.56	96.36	54.79	0.27
1781.06	5.20	52.36	1776.23	61.20	86.44	61.20	105.91	54.70	1.27
1875.84	4.12	55.24	1870.70	65.76	92.64	65.76	113.61	54.63	1.17
1970.62	4.83	53.58	1965.19	70.07	98.65	70.07	121.00	54.61	0.76
2065.40	5.54	54.33	2059.58	75.11	105.57	75.11	129.56	54.57	0.75
2160.18	4.90	47.46	2153.97	80.51	112.27	80.51	138.16	54.35	0.94
2254.96	4.95	36.79	2248.40	86.53	117.71	86.53	146.09	53.68	0.97
2349.74	5.37	27.30	2342.80	93.74	122.19	93.74	154.01	52.50	1.01
2444.52	5.76	19.41	2437.13	102.18	125.81	102.18	162.07	50.92	0.91
2539.30	6.31	12.67	2531.39	111.75	128.53	111.75	170.32	49.00	0.94
2634.08	6.38	15.02	2625.59	121.91	131.04	121.91	178.98	47.07	0.28
2728.86	5.43	0.97	2719.87	131.48	132.48	131.48	186.65	45.22	1.82
2823.64	3.42	9.06	2814.36	138.76	133.00	138.76	192.20	43.79	2.21
2918.42	0.73	328.66	2909.07	142.07	133.13	142.07	194.70	43.14	3.06
3013.20	0.41	288.50	3003.85	142.70	132.49	142.70	194.72	42.88	0.52
3107.98	0.41	283.80	3098.63	142.88	131.84	142.88	194.42	42.70	0.04
3202.76	0.36	279.38	3193.40	143.01	131.22	143.01	194.09	42.54	0.06
3297.54	0.27	303.63	3288.18	143.19	130.73	143.19	193.89	42.40	0.17
3392.32	0.37	277.62	3382.96	143.35	130.24	143.35	193.68	42.26	0.18
3487.10	0.43	245.62	3477.74	143.25	129.62	143.25	193.19	42.14	0.24
3581.88	0.57	240.60	3572.52	142.87	128.89	142.87	192.41	42.05	0.16
3676.66	0.84	223.33	3667.29	142.14	128.00	142.14	191.28	42.00	0.36
3771.44	0.98	241.62	3762.06	141.25	126.81	141.25	189.82	41.92	0.34
3866.22	1.05	209.01	3856.82	140.10	125.68	140.10	188.21	41.89	0.60
3961.00	0.92	226.25	3951.59	138.82	124.71	138.82	186.61	41.93	0.34
4055.78	0.79	204.61	4046.36	137.70	123.89	137.70	185.23	41.98	0.36
4150.56	0.92	207.17	4141.13	136.43	123.27	136.43	183.87	42.10	0.14
4245.34	0.81	198.82	4235.90	135.11	122.70	135.11	182.52	42.24	0.18
4340.12	1.14	185.19	4330.66	133.54	122.40	133.54	181.15	42.51	0.42
4434.90	1.38	205.23	4425.42	131.57	121.83	131.57	179.31	42.80	0.53
4529.68	1.30	212.55	4520.18	129.62	120.76	129.62	177.16	42.97	0.20
4624.46	0.32	316.70	4614.95	128.90	120.00	128.90	176.12	42.95	1.49
4719.24	0.47	294.52	4709.72	129.26	119.47	129.26	176.01	42.75	0.22
4814.02	0.56	287.75	4804.50	129.56	118.68	129.56	175.70	42.49	0.12
4908.80	0.56	273.38	4899.28	129.72	117.78	129.72	175.21	42.24	0.15
5003.58	0.62	276.92	4994.05	129.81	116.81	129.81	174.63	41.98	0.07
5098.36	0.63	265.48	5088.83	129.83	115.78	129.83	173.96	41.72	0.13
5193.14	0.60	266.25	5183.60	129.76	114.77	129.76	173.23	41.49	0.03

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
5287.92	0.65	267.36	5278.37	129.70	113.73	129.70	172.51	41.25	0.05
5382.70	0.70	258.35	5373.15	129.56	112.63	129.56	171.67	41.00	0.13
5477.48	0.71	247.04	5467.92	129.21	111.52	129.21	170.68	40.80	0.15
5572.26	0.81	235.62	5562.69	128.60	110.42	128.60	169.50	40.65	0.19
5667.04	0.90	237.64	5657.46	127.83	109.23	127.83	168.14	40.52	0.09
5761.82	1.34	220.12	5752.22	126.58	107.89	126.58	166.33	40.44	0.59
5856.60	1.97	239.98	5846.96	124.92	105.77	124.92	163.68	40.25	0.89
5951.38	1.07	244.02	5941.71	123.72	103.56	123.72	161.34	39.93	0.95
6046.16	1.53	266.66	6036.47	123.25	101.50	123.25	159.67	39.47	0.71
6140.94	1.20	258.54	6131.22	122.98	99.26	122.98	158.04	38.91	0.40
6235.72	2.34	240.81	6225.95	121.84	96.60	121.84	155.49	38.41	1.32
6330.50	1.82	219.03	6320.67	119.73	93.97	119.73	152.20	38.13	0.99
6425.28	0.65	90.03	6415.44	118.56	93.56	118.56	151.03	38.28	2.41
6520.06	0.54	26.00	6510.21	118.97	94.30	118.97	151.81	38.40	0.68
6614.84	0.61	351.29	6604.99	119.87	94.42	119.87	152.59	38.23	0.37
6709.62	0.24	291.06	6699.77	120.44	94.16	120.44	152.88	38.02	0.57
6804.40	0.64	44.18	6794.54	120.89	94.35	120.89	153.35	37.97	0.81
6899.18	0.86	355.73	6889.32	121.99	94.67	121.99	154.41	37.81	0.68
6993.96	1.26	340.49	6984.08	123.68	94.26	123.68	155.51	37.31	0.51
7088.74	1.27	355.17	7078.84	125.71	93.83	125.71	156.87	36.74	0.34
7183.52	1.95	13.62	7173.58	128.33	94.12	128.33	159.14	36.26	0.89
7278.30	2.21	3.21	7268.30	131.71	94.60	131.71	162.17	35.69	0.48
7373.08	0.27	37.49	7363.05	133.71	94.84	133.71	163.93	35.35	2.10
7467.86	0.71	55.53	7457.83	134.22	95.46	134.22	164.70	35.42	0.49
7562.64	1.04	58.67	7552.60	135.00	96.67	135.00	166.05	35.61	0.35
7657.42	0.96	52.68	7647.36	135.93	98.04	135.93	167.60	35.80	0.14
7752.20	0.56	41.00	7742.13	136.76	98.98	136.76	168.82	35.89	0.46
7846.98	0.25	23.00	7836.91	137.30	99.36	137.30	169.48	35.89	0.34
7941.76	0.29	13.39	7931.69	137.72	99.50	137.72	169.90	35.85	0.06
8036.54	0.69	238.07	8026.47	137.65	99.07	137.65	169.59	35.74	0.97
8131.32	1.16	240.30	8121.24	136.87	97.75	136.87	168.19	35.53	0.49
8226.10	2.70	250.87	8215.96	135.67	94.80	135.67	165.51	34.95	1.66
8320.88	2.81	251.97	8310.63	134.22	90.49	134.22	161.87	33.99	0.12
8415.66	2.47	245.89	8405.31	132.66	86.41	132.66	158.32	33.08	0.46
8510.44	1.79	72.06	8500.07	132.28	85.95	132.28	157.75	33.01	4.49
8605.22	1.47	100.40	8594.81	132.52	88.55	132.52	159.38	33.75	0.90
8700.00	10.01	94.92	8689.03	131.59	97.97	131.59	164.06	36.67	9.02



VES Survey International
Midland, TX
432-563-5444

Surveyor: Adam Askew
Dr K 24-23S-27E RB No 203H / API 30-015-43378



V.E.S. Survey Date: 11/15/2015



I Adam Askew certify that I am employed by VES Survey International. That I did on the day(s) of 11/16/15 through 11/16/15 conduct or supervise the taking of a Rate Gyro survey from a depth of 0.00 feet to a depth of 8,700.00 feet; that the data is true, correct, complete and within the limitations of the tool as set forth by Vaughn Energy Services, that I am authorized and qualified to make this report; that this survey was conducted at the request of Matador Production for the Dr. K 24-23S-27E RB Well # 203H API # 30-015-43378 in Eddy, County / Parish New Mexico ; and that I have reviewed this report and find that it conforms to the principles and procedures as set forth by Vaughn Energy Services

A handwritten signature in black ink, appearing to be "Adam Askew", is written over a horizontal line.

Adam Askew
Service Technician
Vaughn Energy Services



I Adam Askew certify that I am employed by VES Survey International. That I did on the day(s) of 11/16/15 through 11/16/15 conduct or supervise the taking of a Rate Gyro survey from a depth of 0.00 feet to a depth of 8,700.00 feet; that the data is true, correct, complete and within the limitations of the tool as set forth by Vaughn Energy Services, that I am authorized and qualified to make this report; that this survey was conducted at the request of Matador Production for the Dr. K 24-23S-27E RB Well # 203H API # 30-015-43378 in Eddy, County / Parish New Mexico ; and that I have reviewed this report and find that it conforms to the principles and procedures as set forth by Vaughn Energy Services

A handwritten signature in black ink, appearing to be "Adam Askew", is written over a horizontal line.

Adam Askew
Service Technician
Vaughn Energy Services