



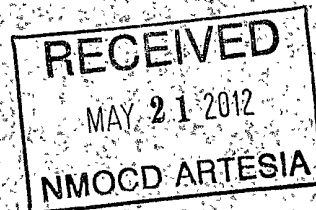
A GYRO TECHNOLOGIES INC. COMPANY

PO Box 261021
Corpus Christi, Texas 78426
(361) 767-0602 • (800) 606-GYRO • Fax (361) 767-0612

15-38476

January 31, 2012

Devon Energy Production Company
20 North Broadway
Oklahoma City, OK 73102



Attn: Mark Cooper

Re: Jasper 32 ST 4H

Please find enclosed a copy of the survey from 0' to 7,278.81' ran on the above referenced well.

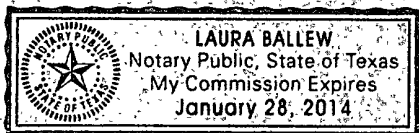
If I can be of any further service, please do not hesitate to call me at 800-606-4976.

Sincerely,

Keith Havelka
Operations

STATE OF TEXAS §
COUNTY OF NUECES §

This instrument was acknowledged before me on the 31st day of January
A.D., 2012, by Keith Havelka



Laura Balley
Notary Public, State of Texas



Company: Devon Energy
Lease/Well: Jasper 32 ST/4H
Location: Eddy County, NM
Rig Name: H&P 223

State/County: New Mexico/Eddy

Latitude: 32.62

GRID North is 0.13 Degrees East of True North

VS-Azi: 0.00 Degrees



RKB : 25 Feet

DRILLOG MS GYRO SURVEY CALCULATIONS

Filename: jasper32st-01_ed.ut

Minimum Curvature Method

Report Date/Time: 1/30/2012 / 16:31

Vaughn Energy Services

Fort Worth, Texas

817-741-3610

Surveyor: Ray Seago

Jasper 32 ST 4H / API 30-015-38476

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	****
172.59	1.46	53.34	172.57	1.31	1.76	1.31	2.19	53.34	0.84
268.62	1.47	62.31	268.57	2.61	3.83	2.61	4.63	55.71	0.24
364.65	1.82	55.10	364.56	4.05	6.17	4.05	7.38	56.68	0.43
460.68	2.73	43.40	460.51	6.59	8.99	6.59	11.15	53.76	1.06
556.71	2.57	51.81	556.44	9.59	12.26	9.59	15.57	51.97	0.44
652.74	2.58	68.17	652.38	11.73	15.96	11.73	19.81	53.70	0.76
748.77	2.59	70.03	748.31	13.27	20.01	13.27	24.01	56.44	0.09
844.80	2.45	77.56	844.25	14.45	24.05	14.45	28.06	59.00	0.37
940.83	2.47	82.36	940.19	15.17	28.11	15.17	31.94	61.64	0.22
1036.86	2.28	74.35	1036.14	15.96	31.99	15.96	35.75	63.49	0.40
1132.89	2.13	89.36	1132.09	16.49	35.61	16.49	39.25	65.15	0.62
1228.92	2.03	71.41	1228.06	17.06	39.01	17.06	42.57	66.38	0.68
1324.95	1.97	67.08	1324.03	18.24	42.14	18.24	45.92	66.60	0.17
1420.98	1.84	89.14	1420.01	18.91	45.21	18.91	49.00	67.30	0.77
1517.01	1.87	103.72	1515.99	18.56	48.27	18.56	51.71	68.97	0.49
1613.04	1.76	103.11	1611.97	17.85	51.23	17.85	54.25	70.79	0.11
1709.07	1.48	76.43	1707.97	17.81	53.87	17.81	56.74	71.71	0.83
1805.10	1.37	92.89	1803.97	18.04	56.22	18.04	59.04	72.21	0.44

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
1901.13	1.44	85.11	1899.97	18.09	58.57	18.09	61.29	72.84	0.21
1997.16	1.40	113.52	1995.97	17.72	60.84	17.72	63.37	73.76	0.73
2093.19	1.51	118.67	2091.97	16.65	63.03	16.65	65.19	75.20	0.18
2189.22	1.35	129.92	2187.97	15.32	65.00	15.32	66.78	76.74	0.34
2285.25	1.46	138.63	2283.97	13.68	66.68	13.68	68.06	78.41	0.25
2381.28	1.51	120.50	2379.97	12.11	68.58	12.11	69.64	79.98	0.49
2477.31	1.56	92.82	2475.97	11.40	70.98	11.40	71.89	80.87	0.77
2573.34	1.20	85.41	2571.97	11.42	73.29	11.42	74.17	81.14	0.42
2669.37	1.23	84.07	2667.98	11.61	75.32	11.61	76.21	81.24	0.04
2765.40	1.04	115.22	2763.99	11.34	77.14	11.34	77.97	81.63	0.66
2861.43	1.10	64.06	2860.00	11.37	78.76	11.37	79.57	81.78	0.96
2957.46	0.80	100.22	2956.02	11.66	80.24	11.66	81.09	81.73	0.68
3053.49	0.80	108.81	3052.04	11.32	81.54	11.32	82.32	82.10	0.13
3149.52	0.86	124.00	3148.06	10.70	82.78	10.70	83.47	82.63	0.24
3245.55	0.70	138.21	3244.08	9.86	83.77	9.86	84.35	83.29	0.26
3341.58	0.50	157.27	3340.11	9.03	84.32	9.03	84.81	83.89	0.29
3437.61	0.60	147.26	3436.13	8.22	84.76	8.22	85.16	84.46	0.14
3533.64	0.66	130.33	3532.16	7.44	85.46	7.44	85.78	85.03	0.20
3629.67	0.57	223.05	3628.18	6.73	85.55	6.73	85.82	85.50	0.94
3725.70	0.52	126.09	3724.21	6.12	85.58	6.12	85.79	85.91	0.85
3821.73	0.82	69.43	3820.24	6.10	86.57	6.10	86.78	85.97	0.72
3917.76	1.32	49.62	3916.25	7.06	88.06	7.06	88.34	85.41	0.64
4013.79	1.46	30.27	4012.25	8.84	89.52	8.84	89.95	84.36	0.51
4109.82	1.37	22.77	4108.25	10.95	90.58	10.95	91.24	83.10	0.22
4205.85	0.99	353.38	4204.26	12.83	90.93	12.83	91.83	81.97	0.73
4301.88	1.17	338.93	4300.28	14.57	90.48	14.57	91.64	80.85	0.34
4397.91	0.75	330.90	4396.29	16.03	89.82	16.03	91.24	79.88	0.45
4493.94	0.98	337.73	4492.31	17.34	89.20	17.34	90.87	79.00	0.26
4589.97	0.66	339.11	4588.33	18.61	88.70	18.61	90.63	78.15	0.33
4686.00	1.26	329.40	4684.35	20.04	87.96	20.04	90.22	77.17	0.64
4782.03	1.28	311.48	4780.35	21.65	86.62	21.65	89.29	75.96	0.41
4878.06	1.33	281.96	4876.36	22.60	84.73	22.60	87.69	75.07	0.69
4974.09	1.37	274.88	4972.36	22.92	82.50	22.92	85.63	74.47	0.18
5070.12	1.27	275.31	5068.37	23.12	80.30	23.12	83.56	73.94	0.10
5166.15	1.28	280.79	5164.37	23.42	78.18	23.42	81.61	73.32	0.13
5262.18	1.59	269.45	5260.37	23.61	75.80	23.61	79.39	72.70	0.44
5358.21	1.83	255.90	5356.36	23.22	72.98	23.22	76.59	72.35	0.49
5454.24	1.99	254.08	5452.34	22.39	69.89	22.39	73.39	72.24	0.18
5550.27	2.03	264.34	5548.31	21.76	66.59	21.76	70.06	71.90	0.38

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
5646.30	1.83	239.02	5644.29	20.81	63.58	20.81	66.90	71.88	0.91
5742.33	1.60	215.09	5740.28	18.93	61.50	18.93	64.35	72.89	0.78
5838.36	1.00	194.15	5836.28	17.02	60.53	17.02	62.88	74.29	0.78
5934.39	0.25	248.20	5932.30	16.13	60.13	16.13	62.25	74.98	0.91
6030.42	0.22	292.52	6028.33	16.12	59.76	16.12	61.89	74.90	0.19
6126.45	0.27	339.23	6124.36	16.40	59.51	16.40	61.73	74.59	0.21
6222.48	0.32	352.90	6220.39	16.88	59.39	16.88	61.75	74.14	0.09
6318.51	0.24	339.74	6316.42	17.33	59.29	17.33	61.77	73.71	0.10
6414.54	0.94	345.90	6412.45	18.28	59.03	18.28	61.80	72.80	0.73
6510.57	0.84	335.18	6508.46	19.68	58.54	19.68	61.76	71.42	0.20
6606.60	0.74	344.27	6604.48	20.91	58.08	20.91	61.73	70.20	0.16
6702.63	0.41	331.50	6700.51	21.81	57.75	21.81	61.73	69.32	0.37
6798.66	0.57	224.19	6796.54	21.76	57.26	21.76	61.25	69.19	0.82
6894.69	0.50	252.76	6892.56	21.30	56.53	21.30	60.41	69.36	0.28
6990.72	0.87	234.88	6988.59	20.76	55.54	20.76	59.29	69.51	0.44
7086.75	0.92	219.89	7084.61	19.75	54.45	19.75	57.92	70.07	0.25
7182.78	2.18	218.38	7180.60	17.73	52.83	17.73	55.72	71.45	1.31
7278.81	3.05	193.98	7276.53	13.82	51.07	13.82	52.91	74.86	1.45



Devon Energy Production Co, LP

Eddy Co., New Mexico (Nad 83)

Sirius 17 Fed Com 4H

Sirius 17 Fed Com 4H

30-015-38478

Lateral #1

Survey: Survey #2

Standard Survey Report

16 January, 2012



CUDD Drilling and Measurement Survey Report

Company:	Devon Energy Production Co, LP	Local Co-ordinate Reference:	Site Sirius 17 Fed Com 4H
Project:	Eddy Co., New Mexico (Nad 83)	TVD Reference:	WELL @ 3439 00ft (Original Well Elev)
Site:	Sirius 17 Fed Com 4H	MD Reference:	WELL @ 3439 00ft (Original Well Elev)
Well:	Sirius 17 Fed Com 4H	North Reference:	Grid
Wellbore:	Lateral #1	Survey Calculation Method:	Minimum Curvature
Design:	Lateral #1	Database:	EDM 5000.1 Single User Db

Project:	Eddy Co., New Mexico (Nad 83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site:	Sirius 17 Fed Com 4H, Sec 17, T-19S, R-31E		
Site Position:		Northing:	602,059.24 usft
From:	Map	Easting:	675,031.54 usft
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "
		Latitude:	32° 39' 15.682 N
		Longitude:	103° 53' 56.162 W
		Grid Convergence:	0.23 °

Well:	Sirius 17 Fed Com 4H		
Well Position	+N/-S	0.00 ft	Northing:
	+E/-W	0.00 ft	Easting:
Position Uncertainty	0.00 ft	Wellhead Elevation:	3,439.00 ft
		Latitude:	32° 39' 15.682 N
		Longitude:	103° 53' 56.162 W
		Ground Level:	3,419.00 ft

Wellbore:	Lateral #1		
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Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF2010	12/14/2011	7.71	60.52	48,790

Design:	Lateral #1		
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Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth: 0.00

Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(ft)	(ft)	(ft)	(°)
	0.00	0.00	0.00	89.68

Survey Program	Date: 1/16/2012		
From	To	Survey (Wellbore)	Tool Name
(ft)	(ft)		Description
100.00	8,100.60	Gyro (Lateral #1)	NS-GYRO-MS
8,134.00	12,769.00	Survey #2 (Lateral #1)	CUDD MWD
			North sensing gyrocompassing m/s
			MWD - Standard CUDD MWD

Survey									
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Vertical	Dogleg	Build	Turn
Depth	(°)	(°)	Depth	(ft)	(ft)	Section	Rate	Rate	Rate
(ft)			(ft)			(ft)	(°/100usft)	(°/100usft)	(°/100usft)
8,100.60	1.91	196.09	8,098.29	6.38	-0.35	-0.31	0.00	0.00	0.00
Tie-in to Gyro									
8,134.00	1.80	191.90	8,131.67	5.33	-0.61	-0.58	0.52	-0.33	-12.54
First CUDD survey									
8,166.00	2.10	198.20	8,163.65	4.28	-0.90	-0.87	1.15	0.94	19.69
8,197.00	2.20	195.40	8,194.63	3.17	-1.23	-1.22	0.47	0.32	-9.03
8,229.00	2.30	199.80	8,226.60	1.98	-1.61	-1.60	0.62	0.31	13.75
8,261.00	1.80	171.70	8,258.58	0.87	-1.76	-1.75	3.46	-1.56	-87.81
8,293.00	3.40	108.50	8,290.56	0.08	-0.79	-0.79	9.52	5.00	-197.50



CUDD Drilling and Measurement Survey Report

Company:	Devon Energy Production Co. LP	Local Co-ordinate Reference:	Site Sirius.17 Fed.Com.4H
Project:	Eddy Co. New Mexico (Nad 83)	TVD Reference:	WELL @ 3439.00ft (Original Well Elev)
Site:	Sirius.17 Fed.Com.4H	MD Reference:	WELL @ 3439.00ft (Original Well Elev)
Well:	Sirius.17 Fed.Com.4H	North Reference:	Grid
Wellbore:	Lateral #1	Survey Calculation Method:	Minimum Curvature
Design:	Lateral #1	Database:	EDM 5000.1 Single User Db

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,324.00	6.80	91.90	8,321.43	-0.28	1.92	1.92	11.84	10.97	-53.55
8,356.00	9.60	85.00	8,353.10	-0.11	6.47	6.47	9.26	8.75	-21.56
8,388.00	12.40	81.30	8,384.51	0.64	12.53	12.53	9.02	8.75	-11.56
8,420.00	15.30	81.90	8,415.58	1.76	20.11	20.12	9.07	9.06	1.88
8,452.00	18.20	84.10	8,446.22	2.87	29.26	29.27	9.28	9.06	6.88
8,483.00	20.20	84.90	8,475.49	3.84	39.41	39.43	6.51	6.45	2.58
8,515.00	21.80	86.30	8,505.36	4.72	50.84	50.87	5.24	5.00	4.38
8,547.00	23.50	87.30	8,534.89	5.40	63.14	63.17	5.45	5.31	3.13
8,579.00	25.80	90.00	8,563.98	5.70	76.48	76.51	8.00	7.19	8.44
8,610.00	28.80	90.40	8,591.52	5.65	90.70	90.73	9.70	9.68	1.29
8,642.00	32.10	89.70	8,619.10	5.64	106.91	106.94	10.37	10.31	-2.19
8,673.00	35.80	89.50	8,644.81	5.76	124.22	124.25	11.94	11.94	-0.65
8,705.00	39.20	90.20	8,670.20	5.81	143.70	143.73	10.71	10.63	2.19
8,737.00	42.90	89.90	8,694.33	5.79	164.71	164.74	11.58	11.56	-0.94
8,768.00	46.70	89.40	8,716.32	5.93	186.55	186.58	12.31	12.26	-1.61
8,800.00	50.70	89.40	8,737.43	6.18	210.58	210.61	12.50	12.50	0.00
8,832.00	54.70	88.30	8,756.82	6.70	236.03	236.06	12.80	12.50	-3.44
8,864.00	59.00	87.80	8,774.32	7.61	262.80	262.84	13.50	13.44	-1.56
8,896.00	62.40	88.90	8,789.98	8.41	290.69	290.73	11.04	10.63	3.44
8,928.00	65.80	90.10	8,803.95	8.66	319.47	319.51	11.15	10.63	3.75
8,959.00	68.20	91.00	8,816.06	8.38	348.00	348.04	8.19	7.74	2.90
8,991.00	68.70	91.40	8,827.82	7.76	377.76	377.79	1.95	1.56	1.25
9,025.00	69.90	91.70	8,839.84	6.90	409.55	409.58	3.62	3.53	0.88
9,057.00	72.40	91.00	8,850.17	6.19	439.82	439.85	8.08	7.81	-2.19
9,089.00	76.50	89.80	8,858.75	5.97	470.64	470.67	13.31	12.81	-3.75
9,120.00	81.10	88.90	8,864.77	6.32	501.04	501.07	15.11	14.84	-2.90
9,122.00	81.50	88.00	8,865.07	6.37	503.02	503.05	48.77	20.00	-45.00
9,217.00	88.10	87.00	8,873.68	10.50	597.48	597.53	7.03	6.95	-1.05
9,312.00	87.70	88.60	8,877.16	14.15	692.35	692.41	1.73	-0.42	1.68
9,408.00	88.30	88.20	8,880.51	16.83	788.25	788.33	0.75	0.63	-0.42
9,503.00	88.70	88.40	8,883.00	19.64	883.17	883.27	0.47	0.42	0.21
9,593.00	89.20	89.10	8,884.65	21.61	973.14	973.24	0.96	0.56	0.78
9,693.00	88.70	90.10	8,886.48	22.30	1,073.12	1,073.22	1.12	-0.50	1.00
9,789.00	88.80	89.50	8,888.57	22.64	1,169.09	1,169.20	0.63	0.10	-0.63
9,884.00	88.20	89.70	8,891.06	23.30	1,264.06	1,264.17	0.67	-0.63	0.21
9,979.00	88.10	90.20	8,894.13	23.39	1,359.01	1,359.12	0.54	-0.11	0.53
10,075.00	86.50	90.20	8,898.65	23.05	1,454.90	1,455.00	1.67	-1.67	0.00
10,170.00	87.30	89.70	8,903.79	23.13	1,549.76	1,549.86	0.99	0.84	-0.53
10,265.00	88.70	89.50	8,907.10	23.80	1,644.69	1,644.80	1.49	1.47	-0.21
10,360.00	87.90	89.30	8,909.92	24.79	1,739.65	1,739.76	0.87	-0.84	-0.21
10,456.00	86.10	88.70	8,914.94	26.46	1,835.50	1,835.61	1.98	-1.88	-0.63
10,551.00	85.80	89.00	8,921.65	28.37	1,930.24	1,930.37	0.45	-0.32	0.32
10,646.00	85.70	90.70	8,928.69	28.61	2,024.97	2,025.10	1.79	-0.11	1.79



CUDD Drilling and Measurement Survey Report

Company:	Devon Energy Production Co, LP	Local Co-ordinate Reference:	Site: Sirius 17 Fed Com 4H
Project:	Eddy Co, New Mexico (Nad 83)	TVD Reference:	WELL @ 3439 00ft (Original Well Elev)
Site:	Sirius 17 Fed Com 4H	MD Reference:	WELL @ 3439 00ft (Original Well Elev)
Well:	Sirius 17 Fed Com 4H	North Reference:	Grid
Wellbore:	Lateral #1	Survey Calculation Method:	Minimum Curvature
Design:	Lateral #1	Database:	EDM 5000.1 Single User Db

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,742.00	86.20	90.40	8,935.48	27.69	2,120.73	2,120.85	0.61	0.52	-0.31
10,837.00	87.70	90.30	8,940.53	27.11	2,215.59	2,215.71	1.58	1.58	-0.11
10,931.00	88.50	91.20	8,943.65	25.89	2,309.53	2,309.64	1.28	0.85	0.96
11,024.00	89.70	91.60	8,945.11	23.61	2,402.49	2,402.58	1.36	1.29	0.43
11,118.00	91.60	91.60	8,944.04	20.99	2,496.44	2,496.52	2.02	2.02	0.00
11,213.00	93.50	91.60	8,939.81	18.34	2,591.31	2,591.37	2.00	2.00	0.00
11,307.00	94.60	91.40	8,933.18	15.88	2,685.04	2,685.08	1.19	1.17	-0.21
11,401.00	94.50	89.30	8,925.72	15.31	2,778.73	2,778.78	2.23	-0.11	-2.23
11,495.00	94.00	90.50	8,918.75	15.48	2,872.47	2,872.51	1.38	-0.53	1.28
11,589.00	92.40	89.50	8,913.50	15.48	2,966.32	2,966.36	2.01	-1.70	-1.06
11,681.00	92.30	88.90	8,909.73	16.76	3,058.24	3,058.28	0.66	-0.11	-0.65
11,774.00	93.60	88.50	8,904.95	18.87	3,151.09	3,151.14	1.46	1.40	-0.43
11,866.00	94.00	87.80	8,898.85	21.83	3,242.84	3,242.91	0.87	0.43	-0.76
11,959.00	92.00	88.20	8,893.98	25.07	3,335.65	3,335.73	2.19	-2.15	0.43
12,052.00	91.60	87.50	8,891.06	28.56	3,428.53	3,428.64	0.87	-0.43	-0.75
12,145.00	91.50	87.50	8,888.54	32.61	3,521.41	3,521.54	0.11	-0.11	0.00
12,237.00	90.90	88.70	8,886.62	35.66	3,613.34	3,613.48	1.46	-0.65	1.30
12,330.00	90.60	88.90	8,885.40	37.61	3,706.31	3,706.46	0.39	-0.32	0.22
12,424.00	91.90	88.40	8,883.35	39.82	3,800.26	3,800.42	1.48	1.38	-0.53
12,516.00	92.10	88.60	8,880.14	42.23	3,892.17	3,892.35	0.31	0.22	0.22
12,610.00	90.80	89.30	8,877.76	43.95	3,986.12	3,986.31	1.57	-1.38	0.74
12,705.00	90.90	89.10	8,876.35	45.28	4,081.10	4,081.29	0.24	0.11	-0.21
Last CUDD survey									
12,769.00	90.90	89.10	8,875.35	46.28	4,145.09	4,145.28	0.00	0.00	0.00
Projection to Bit									

Survey Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
8,100.60	8,098.29	6.38	-0.35	Tie-in to Gyro
8,134.00	8,131.67	5.33	-0.61	First CUDD survey
12,705.00	8,876.35	45.28	4,081.10	Last CUDD survey
12,769.00	8,875.35	46.28	4,145.09	Projection to Bit

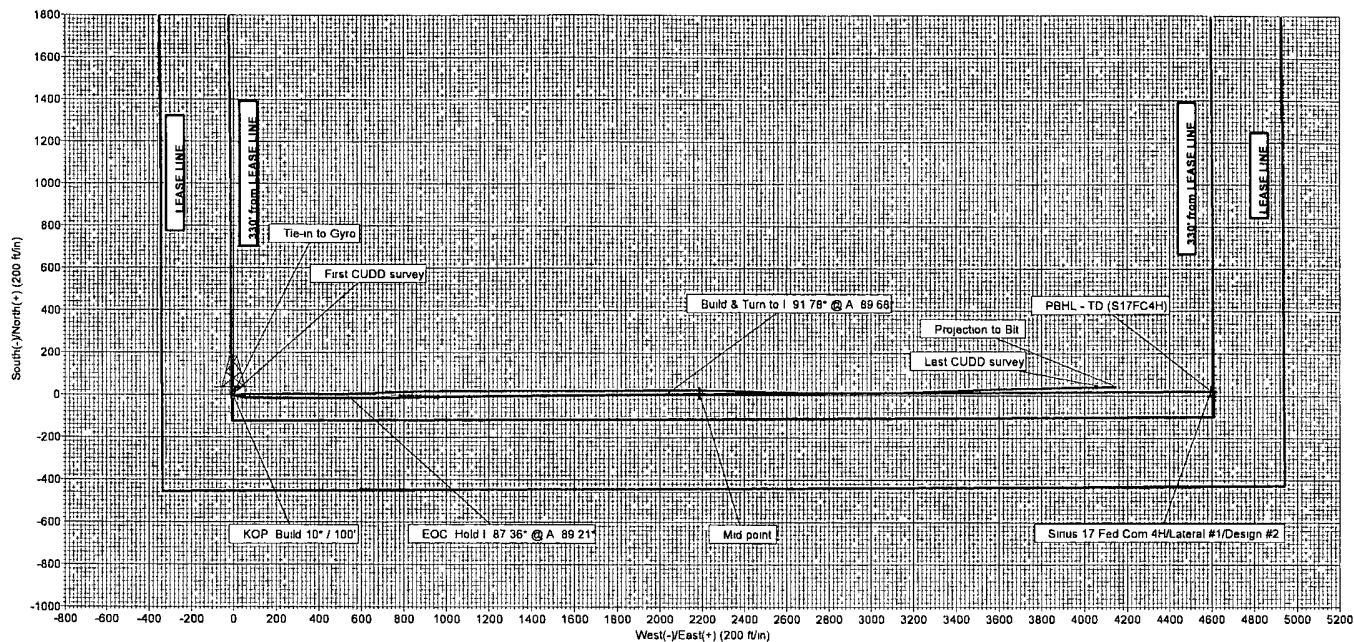
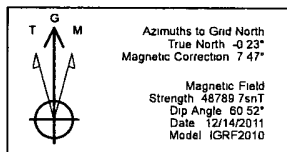
Checked By: _____ Approved By: _____ Date: _____



Project Eddy Co., New Mexico (Nad 83)
Site Sirius 17 Fed Com 4H
Well Sirius 17 Fed Com 4H
Wellbore Lateral #1
Design Design #2



PROJECT DETAILS Eddy Co., New Mexico (Nad 83)	
Geodetic System	US State Plane 1983
Datum	North American Datum 1983
Ellipsoid	GRS 1980
Zone	New Mexico Eastern Zone
System Datum	Mean Sea Level



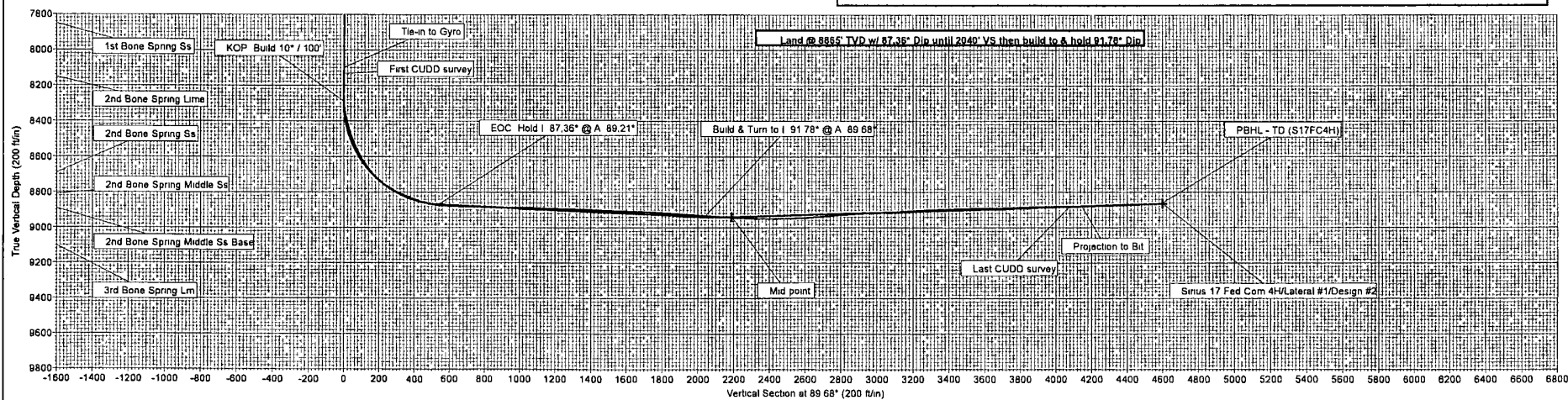
WELL DETAILS Sirius 17 Fed Com 4H					
Ground Level					
3419.00					
WELL @ 3439.00R (Original Well Elev)					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	602059.24	675031.54	32° 39' 15.682 N	103° 53' 56.162 W

SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSeet	Target
1	8100.60	1.91	186.09	8098.28	6.38	-0.35	0.00	0.00	-0.31	
2	8289.80	1.91	186.09	8287.36	0.32	-2.10	0.00	0.00	-2.10	
3	9168.98	87.36	89.21	8865.01	-9.78	544.67	10.00	-106.95	544.61	
4	10665.88	87.36	89.21	8933.89	10.79	2039.84	0.00	0.00	2039.87	
5	10814.05	91.78	89.68	8935.00	12.22	2187.97	3.00	6.10	2188.00	Mid point
6	13225.19	91.78	89.68	8880.00	25.51	4597.90	0.00	0.00	4597.97	PBHL - TD (S17FC4H)

Plan Design #2 (Sirius 17 Fed Com 4H/Lateral #1)	
Created By	Eric Minchew
Date	9/08, January 16 2012
Checked	
Date	
Reviewed	
Date	
Approved	
Date	

ANNOTATIONS		
TVD	MD	Annotation
8287.38	8289.80	KOP Build 10° / 100'
8865.01	9168.98	EOC Hold 1 87.35° @ A 89.21°
8933.89	10665.88	Build & Turn to 91.78° @ A 89.68°

WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)									
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape	
PBHL - TD (S17FC4H)	8860.00	25.51	4597.90	602084.75	679628.43	32° 39' 15.746 N	103° 53' 2.380 W	Point	
Mid point	8935.00	12.22	2187.97	602071.46	677219.50	32° 39' 15.714 N	103° 53' 30.569 W	Point	



Sirius 17 Fed Com 4H_MWD Survey-Report_01-16-12.txt
Devon Energy Production Co, LP
Sirius 17 Fed Com 4H - Survey #2

Eddy Co., New Mexico (Nad 83)
Sirius 17 Fed Com 4H

Measured Dogleg Depth Rate (ft) (°/100ft)	Incl.	Azim.	Vertical Depth (ft)	Northings (ft)	Eastings (ft)	Vertical Section (ft)
8100.60	1.910	196.090	8098.29	6.38 N	0.35 W	-0.31
0.00						
8134.00	1.800	191.900	8131.67	5.33 N	0.61 W	-0.58
0.52						
8166.00	2.100	198.200	8163.65	4.28 N	0.90 W	-0.87
1.15						
8197.00	2.200	195.400	8194.63	3.17 N	1.23 W	-1.22
0.47						
8229.00	2.300	199.800	8226.60	1.98 N	1.61 W	-1.60
0.62						
8261.00	1.800	171.700	8258.58	0.87 N	1.76 W	-1.75
3.46						
8293.00	3.400	108.500	8290.56	0.08 N	0.79 W	-0.79
9.52						
8324.00	6.800	91.900	8321.43	0.28 S	1.92 E	1.92
11.84						
8356.00	9.600	85.000	8353.10	0.11 S	6.47 E	6.47
9.26						
8388.00	12.400	81.300	8384.51	0.64 N	12.53 E	12.53
9.02						
8420.00	15.300	81.900	8415.58	1.76 N	20.11 E	20.12
9.07						
8452.00	18.200	84.100	8446.22	2.87 N	29.26 E	29.27
9.28						
8483.00	20.200	84.900	8475.49	3.84 N	39.41 E	39.43
6.51						
8515.00	21.800	86.300	8505.36	4.72 N	50.84 E	50.87
5.24						
8547.00	23.500	87.300	8534.89	5.40 N	63.14 E	63.17
5.45						
8579.00	25.800	90.000	8563.98	5.70 N	76.48 E	76.51
8.00						
8610.00	28.800	90.400	8591.52	5.65 N	90.70 E	90.73
9.70						
8642.00	32.100	89.700	8619.10	5.64 N	106.91 E	106.94
10.37						
8673.00	35.800	89.500	8644.81	5.76 N	124.22 E	124.25
11.94						
8705.00	39.200	90.200	8670.20	5.81 N	143.70 E	143.73
10.71						
8737.00	42.900	89.900	8694.33	5.79 N	164.71 E	164.74
11.58						
8768.00	46.700	89.400	8716.32	5.93 N	186.55 E	186.58
12.31						
8800.00	50.700	89.400	8737.43	6.18 N	210.58 E	210.61
12.50						
8832.00	54.700	88.300	8756.82	6.70 N	236.03 E	236.06
12.80						
8864.00	59.000	87.800	8774.32	7.61 N	262.80 E	262.84
13.50						

Sirius 17 Fed Com 4H_MWD Survey-Report_01-16-12.txt

8896.00	62.400	88.900	8789.98	8.41 N	290.69 E	290.73
11.04						
8928.00	65.800	90.100	8803.95	8.66 N	319.47 E	319.51
11.15						
8959.00	68.200	91.000	8816.06	8.38 N	348.00 E	348.04
8.19						
8991.00	68.700	91.400	8827.82	7.76 N	377.76 E	377.79
1.95						
9025.00	69.900	91.700	8839.84	6.90 N	409.55 E	409.58
3.62						
9057.00	72.400	91.000	8850.17	6.19 N	439.82 E	439.85
8.08						
9089.00	76.500	89.800	8858.75	5.97 N	470.64 E	470.67
13.31						
9120.00	81.100	88.900	8864.77	6.32 N	501.04 E	501.07
15.11						
9122.00	81.500	88.000	8865.07	6.37 N	503.02 E	503.05
48.77						
9217.00	88.100	87.000	8873.68	10.50 N	597.48 E	597.53
7.03						
9312.00	87.700	88.600	8877.16	14.15 N	692.35 E	692.41
1.73						
9408.00	88.300	88.200	8880.51	16.83 N	788.25 E	788.33
0.75						
9503.00	88.700	88.400	8883.00	19.64 N	883.17 E	883.27
0.47						
9593.00	89.200	89.100	8884.65	21.61 N	973.14 E	973.24
0.96						
9693.00	88.700	90.100	8886.48	22.30 N	1073.12 E	1073.22
1.12						
9789.00	88.800	89.500	8888.57	22.64 N	1169.09 E	1169.20
0.63						
9884.00	88.200	89.700	8891.06	23.30 N	1264.06 E	1264.17
0.67						
9979.00	88.100	90.200	8894.13	23.39 N	1359.01 E	1359.12
0.54						
10075.00	86.500	90.200	8898.65	23.05 N	1454.90 E	1455.00
1.67						
10170.00	87.300	89.700	8903.79	23.13 N	1549.76 E	1549.86
0.99						
10265.00	88.700	89.500	8907.10	23.80 N	1644.69 E	1644.80
1.49						
10360.00	87.900	89.300	8909.92	24.79 N	1739.65 E	1739.76
0.87						
10456.00	86.100	88.700	8914.94	26.46 N	1835.50 E	1835.61
1.98						
10551.00	85.800	89.000	8921.65	28.37 N	1930.24 E	1930.37
0.45						
10646.00	85.700	90.700	8928.69	28.61 N	2024.97 E	2025.10
1.79						
10742.00	86.200	90.400	8935.47	27.69 N	2120.73 E	2120.85
0.61						
10837.00	87.700	90.300	8940.53	27.11 N	2215.59 E	2215.71
1.58						
10931.00	88.500	91.200	8943.65	25.89 N	2309.53 E	2309.64
1.28						
11024.00	89.700	91.600	8945.11	23.61 N	2402.49 E	2402.58
1.36						
11118.00	91.600	91.600	8944.04	20.99 N	2496.44 E	2496.52
2.02						
11213.00	93.500	91.600	8939.81	18.34 N	2591.31 E	2591.37
2.00						
11307.00	94.600	91.400	8933.18	15.88 N	2685.04 E	2685.08

Sirius 17 Fed Com 4H_MWD Survey-Report_01-16-12.txt

1.19	11401.00	94.500	89.300	8925.72	15.31 N	2778.73 E	2778.78
2.23	11495.00	94.000	90.500	8918.75	15.48 N	2872.47 E	2872.51
1.38	11589.00	92.400	89.500	8913.50	15.48 N	2966.32 E	2966.36
2.01	11681.00	92.300	88.900	8909.73	16.76 N	3058.24 E	3058.28
0.66	11774.00	93.600	88.500	8904.95	18.87 N	3151.09 E	3151.14
1.46	11866.00	94.000	87.800	8898.85	21.83 N	3242.84 E	3242.91
0.87	11959.00	92.000	88.200	8893.98	25.07 N	3335.65 E	3335.73
2.19	12052.00	91.600	87.500	8891.06	28.56 N	3428.53 E	3428.64
0.87	12145.00	91.500	87.500	8888.54	32.61 N	3521.41 E	3521.54
0.11	12237.00	90.900	88.700	8886.62	35.66 N	3613.34 E	3613.48
1.46	12330.00	90.600	88.900	8885.40	37.61 N	3706.31 E	3706.46
0.39	12424.00	91.900	88.400	8883.35	39.82 N	3800.26 E	3800.42
1.48	12516.00	92.100	88.600	8880.14	42.23 N	3892.17 E	3892.35
0.31	12610.00	90.800	89.300	8877.76	43.95 N	3986.12 E	3986.31
1.57	12705.00	90.900	89.100	8876.35	45.28 N	4081.10 E	4081.29
0.24	12769.00	90.900	89.100	8875.35	46.28 N	4145.09 E	4145.28
0.00							

All data are in feet unless otherwise stated. Directions and coordinates are relative to Grid North.
Vertical depths are relative to WELL. Northings and Eastings are relative to Site.

The Dogleg Severity is in Degrees per 100 feet.
Vertical Section is from Slot and calculated along an Azimuth of 89.680° (Grid).

Coordinate System is North American Datum 1983 US State Plane 1983, New Mexico Eastern Zone.
Central meridian is -104.333°.
Grid Convergence at Surface is 0.234°.

Based upon Minimum Curvature type calculations, at a Measured Depth of 12769.00ft., the Bottom Hole Displacement is 4145.35ft., in the Direction of 89.680° (Grid).

Pathfinder

6213 WCR #12
Midland Texas 79706
Tel: (432) 687-1647
Fax: (432) 687-1644



February 14, 2012

Devon Energy
20 N. Broadway
Oklahoma City, OK

RE: Devon Energy
Jasper 32 State Com #4H
API: 30-015-38476
Eddy County, NM
RIG: H&P 223
FIELD: Winchester; Bone Spring
PES FILE NO.: 700005008-WT-WT

To whom it may concern:

We hereby certify that the enclosed Original Field Survey Data contained in this report represents to the best of our knowledge, a true and accurate survey of the well at the time the survey was run.

DIRECTIONAL SURVEY DATA
1 – Original survey report
2 – Survey report copies

We appreciate the opportunity to work with you and we look forward to your business support. If you have any questions, I can be reached at (432) 687-1647

Sincerely,

A handwritten signature in black ink, appearing to read "Steve Bibb".

STEVE BIBB
M/LWD Service Coordinator
PathFinder Energy Services

ML:sh



A Schlumberger Company

DIRECTIONAL SURVEY REPORT

DEVON ENERGY

JASPER 32 STATE COM #4H

EDDY COUNTY, NEW MEXICO

PREPARED BY: STEVE BIBB

Pathfinder

6213 WCR 112
Midland Texas 79706
Tel (432)687-1647
Fax (432)687-1544



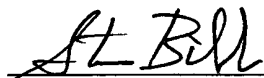
DIRECTIONAL SURVEY COMPANY REPORT:

1. NAME OF SURVEYING COMPANY: PATHFINDER ENERGY SERVICES
2. NAME OF PERSON(S) PERFORMING SURVEY:
A) TODD PISCIOTTA
3. POSITION OF SAID PERSON(S): (A-F) SURVEYORS (FIELD ENGINEERS)
4. DATE(S) ON WHICH SURVEY WAS PERFORMED: 01-20-12 TO 01-26-12
5. STATE IN WHICH SURVEY WAS PERFORMED: NEW MEXICO
6. LOCATION OF WELL: EDDY COUNTY
7. TYPE OF SURVEY(S) PERFORMED: GAMMA-RAY
8. COMPLETE IDENTIFICATION OF WELL:

DEVON ENERGY
JASPER 32 STATE COM #4H
EDDY COUNTY, NM
RIG: H&P 223

9. SURVEY CERTIFIED FROM: 7317 TO 12209 FEET MEASURED DEPTH.

THIS IS TO VERIFY THAT ATTACHED DOCUMENTS SHOWING THE WELL TO BE DISPLACED AT 4613.46 FEET ON A BEARING OF 175.6 DEGREES FROM THE CENTER OF THE ROTARY TABLE AT A PROJECTED BIT DEPTH OF 12271 FEET, ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.



STEVE BIBB
M/LWD SERVICE COORDINATOR

PathFinder Energy Services, Inc.

BHL Report

Page 01/01
Tie-in Date: 01/19/2012
Date Completed: 01/26/2012

DEVON ENERGY
JASPER 32 STATE #4H
EDDY COUNTY, NM
Rig:H&P 223
PathFinder Office Supervisor: STEVE BIBB
PathFinder Field Engineers:TODD PISIOTTA
JARREN EASLEY
STEVEN TRULOVE

Survey Horiz. Reference:WELLHEAD
Ref Coordinates: LAT:32.37.25.0084 N LON:104.5.26.8603 W
GRID Reference:NAD83 new mexico east Transverse Mercator
Ref GRID Coord: X: 616008.4100 Y: 590686.6000
North Aligned To:GRID NORTH
Total Magnetic Correction: 7.65° EAST TO GRID
Vertical Section Plane: 175.22
Survey Vert. Reference: 25.00' Rotary Table To Ground
Altitude:3263.70' Ground To MSL

Measured Depth	12271.00	(feet)
Inclination	89.69	(deg)
Azimuth	180.76	(deg)
True Vertical Depth	7923.77	(feet)
Vertical Section	4613.36	(feet)
Survey X cord	616362.07	(feet)
Survey Y cord	586086.72	(feet)
Survey Lat	32.61096748 N	(deg)
Survey Lon	104.08968007 W	(deg)
Rectangular Corr. N/S	4599.88 S	(feet)
Rectangular Corr. E/W	353.66 E	(feet)
Closure Distance	4613.46	(feet)
Direction of Closure	175.60	(deg)
Dogleg Severity	0.00	(deg/100ft)

PathFinder Energy Services, Inc.

Survey Report

DEVON ENERGY
JASPER 32 STATE #4H
EDDY COUNTY, NM
Rig:H&P 223
PathFinder Office Supervisor: STEVE BIBB
PathFinder Field Engineers: TODD PISIOTTA
JARREN EASLEY
STEVEN TRULOVE
Survey Calculations by RX5 V6.03E using Minimum Curvature

Survey Horiz. Reference:WELLHEAD
Ref Coordinates: LAT:32.37.25.0084 N LON:104.5.26.8603 W
GRID Reference:NAD83 new mexico east Transverse Mercator
Ref GRID Coord: X: 616008.4100 Y: 590686.6000
North Aligned To:GRID NORTH
Total Magnetic Correction: 7.65° EAST TO GRID
Vertical Section Plane: 175.22
Survey Vert. Reference: 25.00' Rotary Table To Ground
Altitude:3263.70' Ground To MSL

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft) (ft)	Closure Dist Dir (ft) (deg)	DLS (dg/100ft)
TIED INTO VAUGHN ENERGY SERVICES GYRO SURVEY @ 7278.81'MD								
7278.81	3.05	193.98	7276.53	0.00	-9.52	13.82 N 51.07 E	52.91@ 74.86	0.00
THE FOLLOWING ARE PATHFINDER MWD SURVEYS.								
7317.00	3.78	200.31	7314.65	38.19	-7.41	11.65 N 50.39 E	51.72@ 76.98	2.15
7348.00	6.60	179.04	7345.52	31.00	-4.71	8.91 N 50.06 E	50.85@ 79.90	10.86
7380.00	10.29	174.91	7377.17	32.00	-0.02	4.23 N 50.35 E	50.52@ 85.20	11.68
7411.00	14.42	173.94	7407.45	31.00	6.61	2.37 S 51.00 E	51.06@ 92.66	13.34
7443.00	18.47	171.21	7438.13	32.00	15.66	11.35 S 52.20 E	53.42@ 102.27	12.88
7474.00	22.69	168.93	7467.15	31.00	26.51	22.07 S 54.10 E	58.43@ 112.20	13.85
7506.00	25.59	170.07	7496.35	32.00	39.53	34.94 S 56.47 E	66.41@ 121.75	9.18
7537.00	27.79	170.34	7524.04	31.00	53.40	48.66 S 58.84 E	76.36@ 129.59	7.11
7568.00	30.07	168.93	7551.17	31.00	68.32	63.41 S 61.54 E	88.37@ 135.86	7.68
7600.00	33.15	167.00	7578.42	32.00	84.95	79.81 S 65.05 E	102.96@ 140.82	10.13
7632.00	35.96	165.15	7604.77	32.00	102.86	97.42 S 69.43 E	119.63@ 144.52	9.37
7667.00	39.04	163.04	7632.54	35.00	123.76	117.90 S 75.28 E	139.88@ 147.44	9.53
7698.00	40.80	160.84	7656.32	31.00	143.12	136.81 S 81.45 E	159.22@ 149.23	7.28
7730.00	42.91	159.00	7680.15	32.00	163.71	156.86 S 88.79 E	180.24@ 150.49	7.63
7761.00	45.55	156.98	7702.36	31.00	184.36	176.90 S 96.90 E	201.70@ 151.29	9.65
7792.00	48.80	155.04	7723.43	31.00	205.82	197.66 S 106.15 E	224.36@ 151.76	11.44
7823.00	51.70	154.34	7743.25	31.00	228.14	219.20 S 116.34 E	248.16@ 152.04	9.51
7855.00	54.96	154.08	7762.36	32.00	252.09	242.31 S 127.51 E	273.81@ 152.25	10.21
7886.00	57.24	154.25	7779.65	31.00	276.10	265.47 S 138.72 E	299.53@ 152.41	7.37
7918.00	59.97	155.57	7796.32	32.00	301.72	290.20 S 150.30 E	326.81@ 152.62	9.23
7949.00	62.34	157.68	7811.27	31.00	327.45	315.13 S 161.06 E	353.90@ 152.93	9.69
7981.00	64.37	160.40	7825.63	32.00	354.92	341.83 S 171.29 E	382.35@ 153.39	9.90
8012.00	66.74	161.99	7838.46	31.00	382.30	368.55 S 180.38 E	410.32@ 153.92	8.96

PathFinder Energy Services, Inc.

Survey Report

DEVON ENERGY
JASPER 32 STATE #4H
EDDY COUNTY, NM
RIG:H&P 223

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Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft) (ft)		Closure Dist Dir (ft) (deg)		DLS (dg/100ft)
8044.00	69.38	161.63	7850.41	32.00	411.17	396.74 S	189.65 E	439.74@	154.45	8.32
8075.00	72.11	161.55	7860.63	31.00	439.60	424.51 S	198.89 E	468.79@	154.90	8.81
8107.00	74.92	162.34	7869.71	32.00	469.47	453.68 S	208.40 E	499.25@	155.33	9.10
8138.00	78.26	163.13	7876.90	31.00	498.90	482.47 S	217.34 E	529.17@	155.75	11.06
8170.00	80.64	163.57	7882.76	32.00	529.69	512.61 S	226.36 E	560.36@	156.17	7.56
8201.00	83.45	163.48	7887.05	31.00	559.75	542.05 S	235.06 E	590.82@	156.56	9.07
8233.00	86.00	163.48	7889.99	32.00	590.95	572.59 S	244.12 E	622.46@	156.91	7.97
8264.00	88.37	164.27	7891.51	31.00	621.30	602.34 S	252.72 E	653.20@	157.24	8.06
8296.00	89.87	164.71	7892.00	32.00	652.74	633.17 S	261.28 E	684.96@	157.58	4.88
8328.00	89.78	164.62	7892.10	32.00	684.19	664.03 S	269.74 E	716.72@	157.89	0.40
8359.00	89.43	165.76	7892.32	31.00	714.72	694.00 S	277.66 E	747.48@	158.19	3.85
8391.00	89.43	166.91	7892.63	32.00	746.33	725.09 S	285.22 E	779.17@	158.53	3.59
8422.00	89.78	168.31	7892.85	31.00	777.06	755.36 S	291.87 E	809.79@	158.87	4.65
8454.00	89.69	168.84	7893.00	32.00	808.84	786.73 S	298.21 E	841.35@	159.24	1.68
8485.00	90.04	169.37	7893.07	31.00	839.67	817.17 S	304.07 E	871.91@	159.59	2.05
8517.00	90.04	170.25	7893.05	32.00	871.52	848.67 S	309.73 E	903.42@	159.95	2.75
8548.00	91.19	171.83	7892.71	31.00	902.44	879.28 S	314.56 E	933.86@	160.32	6.30
8579.00	91.54	173.06	7891.98	31.00	933.39	910.01 S	318.63 E	964.18@	160.70	4.12
8611.00	91.45	174.73	7891.14	32.00	965.37	941.81 S	322.04 E	995.35@	161.12	5.23
8643.00	90.22	175.79	7890.67	32.00	997.37	973.70 S	324.68 E	1026.40@	161.56	5.07
8674.00	89.52	176.49	7890.74	31.00	1028.36	1004.63 S	326.77 E	1056.43@	161.98	3.19
8747.00	88.55	177.01	7891.97	73.00	1101.33	1077.50 S	330.90 E	1127.17@	162.93	1.51
8769.00	87.93	177.01	7892.65	22.00	1123.30	1099.46 S	332.05 E	1148.51@	163.19	2.82
8863.00	87.58	177.63	7896.33	94.00	1217.17	1193.28 S	336.44 E	1239.81@	164.25	0.76
8958.00	87.76	178.33	7900.19	95.00	1311.98	1288.14 S	339.79 E	1332.21@	165.22	0.76
9052.00	90.66	177.89	7901.49	94.00	1405.84	1382.07 S	342.89 E	1423.97@	166.07	3.12
9147.00	91.28	177.98	7899.88	95.00	1500.72	1477.00 S	346.31 E	1517.06@	166.80	0.66
9242.00	91.36	178.25	7897.69	95.00	1595.57	1571.92 S	349.44 E	1610.29@	167.47	0.30

PathFinder Energy Services, Inc.

Survey Report

DEVON ENERGY
JASPER 32 STATE #4H
EDDY COUNTY, NM
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Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets		Closure Dist Dir		DLS (dg/100ft)
						(ft)	(ft)	(ft)	(deg)	
9336.00	91.36	178.33	7895.46	94.00	1689.41	1665.85 S	352.24 E	1702.69@	168.06	0.09
9431.00	91.19	179.30	7893.35	95.00	1784.20	1760.81 S	354.20 E	1796.08@	168.63	1.04
9526.00	90.48	179.83	7891.96	95.00	1878.92	1855.79 S	354.93 E	1889.43@	169.17	0.93
9620.00	90.04	180.09	7891.54	94.00	1972.59	1949.79 S	354.99 E	1981.85@	169.68	0.54
9715.00	88.20	181.15	7893.00	95.00	2067.16	2044.77 S	353.96 E	2075.18@	170.18	2.24
9810.00	87.85	180.18	7896.27	95.00	2161.67	2139.71 S	352.86 E	2168.61@	170.64	1.08
9904.00	89.34	179.21	7898.58	94.00	2255.35	2233.67 S	353.36 E	2261.45@	171.01	1.89
9999.00	88.46	179.30	7900.40	95.00	2350.10	2328.65 S	354.60 E	2355.49@	171.34	0.93
10093.00	89.78	178.48	7901.84	94.00	2443.89	2422.62 S	356.42 E	2448.69@	171.63	1.65
10188.00	89.78	178.18	7902.21	95.00	2538.75	2517.57 S	359.19 E	2543.07@	171.88	0.32
10282.00	91.19	180.65	7901.41	94.00	2632.48	2611.56 S	360.15 E	2636.27@	172.15	3.02
10377.00	90.13	177.71	7900.32	95.00	2727.24	2706.53 S	361.51 E	2730.56@	172.39	3.29
10472.00	89.96	179.55	7900.24	95.00	2822.07	2801.50 S	363.78 E	2825.02@	172.60	1.95
10566.00	89.25	180.49	7900.89	94.00	2915.73	2895.49 S	363.74 E	2918.25@	172.84	1.25
10661.00	88.55	180.37	7902.71	95.00	3010.32	2990.47 S	363.03 E	3012.43@	173.08	0.75
10755.00	90.40	180.50	7903.58	94.00	3103.93	3084.46 S	362.32 E	3105.67@	173.30	1.97
10850.00	90.31	180.64	7902.99	95.00	3198.51	3179.46 S	361.37 E	3199.93@	173.52	0.17
10945.00	89.78	181.12	7902.91	95.00	3293.05	3274.44 S	359.91 E	3294.16@	173.73	0.75
11039.00	89.25	181.34	7903.71	94.00	3386.53	3368.42 S	357.90 E	3387.38@	173.94	0.61
11134.00	88.90	181.28	7905.24	95.00	3480.98	3463.38 S	355.72 E	3481.60@	174.14	0.37
11229.00	89.69	181.98	7906.41	95.00	3575.38	3558.33 S	353.02 E	3575.80@	174.33	1.11
11323.00	89.52	181.83	7907.06	94.00	3668.73	3652.28 S	349.90 E	3669.00@	174.53	0.24
11418.00	89.52	181.87	7907.86	95.00	3763.10	3747.23 S	346.83 E	3763.24@	174.71	0.04
11513.00	88.20	180.49	7909.75	95.00	3857.56	3842.18 S	344.87 E	3857.63@	174.87	2.01
11607.00	88.90	178.15	7912.12	94.00	3951.28	3936.14 S	345.99 E	3951.32@	174.98	2.60
11702.00	88.46	178.41	7914.31	95.00	4046.12	4031.07 S	348.84 E	4046.14@	175.05	0.54
11797.00	87.76	178.44	7917.45	95.00	4140.92	4125.98 S	351.45 E	4140.92@	175.13	0.74
11891.00	89.25	179.03	7919.90	94.00	4234.71	4219.92 S	353.52 E	4234.71@	175.21	1.70

PathFinder Energy Services, Inc.

Survey Report

DEVON ENERGY
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Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets		Closure Dist Dir		DLS
						(ft)	(ft)	(ft)	(deg)	(dg/100ft)
11986.00	89.34	179.42	7921.07	95.00	4329.47	4314.91 S	354.81 E	4329.47@	175.30	0.42
12080.00	89.16	180.03	7922.30	94.00	4423.17	4408.90 S	355.26 E	4423.19@	175.39	0.68
12175.00	89.69	180.47	7923.25	95.00	4517.80	4503.89 S	354.85 E	4517.85@	175.50	0.72
12209.00	89.69	180.76	7923.44	34.00	4551.65	4537.89 S	354.48 E	4551.71@	175.53	0.85
STRAIGHT LINE PROJECTION TO BIT @ 12271' MD.										
12271.00	89.69	180.76	7923.77	62.00	4613.36	4599.88 S	353.66 E	4613.46@	175.60	0.00



A Schlumberger Company

TIE-IN SURVEY INFORMATION SHEET

CLIENT INFORMATION

CLIENT:	DEVON ENERGY		
LEASE / WELL No.:	JASPER 32 STATE	#4H	
WELL LOCATION:	EDDY COUNTY, NM		
COUNTY / STATE / COUNTRY:	EDDY	NM	USA
RIG:	H&P 223		
API WELL No:	30-015-38476		
JOB No:	700005008-WT-WT		
P.O. / AFE No.	158219		
DIRECTIONAL COMPANY:	PATHFINDER		

WELL SITE INFORMATION

TOTAL MAGNETIC CORRECTION (TMC):			
On Wall Plat:	7.65	LWD Calculated:	7.65
		Agreed Upon:	7.65
X =	616008.410000	Feet	Y = 590686.600000
			Feet
SITE LATITUDE:	32 37' 25.0084" N	SITE LONGITUDE:	104 5' 26.8603" W
GRID SYSTEM:	TRUE ☐ UTM ☒ LAMBERT ☐	ZONE:	NEW MEXICO EAST
PROPOSED DRIFT DIRECTION:	175.22		
KELLY BUSHING ELEVATION:	25		
ALTITUDE:	3263.7	Feet	WATER DEPTH:
			N/A
			Feet

TIE-IN SURVEY

MEASURED DEPTH:	7278.81		
DRIFT ANGLE:	3.05		
DRIFT DIRECTION:	193.98		
TRUE VERTICAL DEPTH:	7276.53		
VERTICAL SECTION:	13.82 - 9.52		
RECTANGULAR COORDINATE (N / S) :	13.82		
RECTANGULAR COORDINATE (E / W) :	51.07		
CLOSURE DISTANCE / DIRECTION:	52.91	74.86	
SURVEY CALCULATION METHOD:	AA ☐	MC ☒	RC ☐ BT ☐
SOURCE OF TIE-IN DATA (COMPANY):	VAUGHN ENERGY SERVICES		
COPY OF TIE-IN SURVEY REPORT	☒ YES ☐ NO		

WELL PLAN

KICKOFF DEPTH:	7322	TOTAL DEPTH:	12261
KICKOFF ANGLE:	0	MAX ANGLE:	90

PES Engineers: Steven Trulove
Jarren Easley

**Signature of both field engineers required if applicable

Directional Driller: _____

DATE: 1/19/12



Company: Devon Energy
Lease/Well: Jasper 32 ST/48
Location: Eddy County, NM
Rig Name: H&P 223
State/County: New Mexico/Eddy
Latitude: 32.62, Longitude: -104.09
GRID North is 0.13 Degrees East of True North
VS-Azi: 0.00 Degrees



FIELD COPY ONLY (NOT DEFINITIVE)

RKB : 25 feet

DRILLOG MS GYRO SURVEY CALCULATIONS

Filename: jasper32st-01_ed.ut

Minimum Curvature Method

Report Date/Time: 1/19/2012 / 04:50

Vaughn Energy Services

Fort Worth, Texas

817-741-3610

Ray Seago

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	****
172.59	1.46	53.34	172.57	1.31	1.76	1.31	2.19	53.34	0.84
268.62	1.47	62.31	268.57	2.61	3.83	2.61	4.63	55.71	0.24
364.65	1.82	55.10	364.56	4.05	6.17	4.05	7.38	56.68	0.43
460.68	2.73	43.40	460.51	6.59	8.99	6.59	11.15	53.76	1.06
556.71	2.57	51.81	556.44	9.59	12.26	9.59	15.57	51.97	0.44
652.74	2.58	68.17	652.38	11.73	15.96	11.73	19.81	53.70	0.76
748.77	2.59	70.03	748.31	13.27	20.01	13.27	24.01	56.44	0.09
844.80	2.45	77.56	844.25	14.45	24.05	14.45	28.06	59.00	0.37
940.83	2.47	82.36	940.19	15.17	28.11	15.17	31.94	61.64	0.22
1036.86	2.28	74.35	1036.14	15.96	31.99	15.96	35.75	63.49	0.40
1132.89	2.13	89.36	1132.09	16.49	35.61	16.49	39.25	65.15	0.62
1228.92	2.03	71.41	1228.06	17.06	39.01	17.06	42.57	66.38	0.68
1324.95	1.97	67.08	1324.03	18.24	42.14	18.24	45.92	66.60	0.17
1420.98	1.84	89.14	1420.01	18.91	45.21	18.91	49.00	67.30	0.77
1517.01	1.87	103.72	1515.99	18.56	48.27	18.56	51.71	68.97	0.49
1613.04	1.76	103.11	1611.97	17.85	51.23	17.85	54.25	70.79	0.11
1709.07	1.48	76.43	1707.97	17.81	53.87	17.81	56.74	71.71	0.83
1805.10	1.37	92.89	1803.97	18.04	56.22	18.04	59.04	72.21	0.44
1901.13	1.44	85.11	1899.97	18.09	58.57	18.09	61.29	72.84	0.21
1997.16	1.40	113.52	1995.97	17.72	60.84	17.72	63.37	73.76	0.73
2093.19	1.51	118.67	2091.97	16.65	63.03	16.65	65.19	75.20	0.18
2189.22	1.35	129.92	2187.97	15.32	65.00	15.32	66.78	76.74	0.34
2285.25	1.46	138.63	2283.97	13.68	66.68	13.68	68.06	78.41	0.25
2381.28	1.51	120.50	2379.97	12.11	68.58	12.11	69.64	79.98	0.49
2477.31	1.56	92.82	2475.97	11.40	70.98	11.40	71.89	80.87	0.77
2573.34	1.20	85.41	2571.97	11.42	73.29	11.42	74.17	81.14	0.42
2669.37	1.23	84.07	2667.98	11.61	75.32	11.61	76.21	81.24	0.04
2765.40	1.04	115.22	2763.99	11.34	77.14	11.34	77.97	81.63	0.66
2861.43	1.10	64.06	2860.00	11.37	78.76	11.37	79.57	81.78	0.96
2957.46	0.80	100.22	2956.02	11.66	80.24	11.66	81.09	81.73	0.68
3053.49	0.80	108.81	3052.04	11.32	81.54	11.32	82.32	82.10	0.13
3149.52	0.86	124.00	3148.06	10.70	82.78	10.70	83.47	82.63	0.24
3245.55	0.70	138.21	3244.08	9.86	83.77	9.86	84.35	83.29	0.26
3341.58	0.50	157.27	3340.11	9.03	84.32	9.03	84.81	83.89	0.29
3437.61	0.60	147.26	3436.13	8.22	84.76	8.22	85.16	84.46	0.14

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
3533.64	0.66	130.33	3532.16	7.44	85.46	7.44	85.78	85.03	0.20
3629.67	0.57	223.05	3628.18	6.73	85.55	6.73	85.82	85.50	0.94
3725.70	0.52	126.09	3724.21	6.12	85.58	6.12	85.79	85.91	0.85
3821.73	0.82	69.43	3820.24	6.10	86.57	6.10	86.78	85.97	0.72
3917.76	1.32	49.62	3916.25	7.06	88.06	7.06	88.34	85.41	0.64
4013.79	1.46	30.27	4012.25	8.84	89.52	8.84	89.95	84.36	0.51
4109.82	1.37	22.77	4108.25	10.95	90.58	10.95	91.24	83.10	0.22
4205.85	0.99	353.38	4204.26	12.83	90.93	12.83	91.83	81.97	0.73
4301.88	1.17	338.93	4300.28	14.57	90.48	14.57	91.64	80.85	0.34
4397.91	0.75	330.90	4396.29	16.03	89.82	16.03	91.24	79.88	0.45
4493.94	0.98	337.73	4492.31	17.34	89.20	17.34	90.87	79.00	0.26
4589.97	0.66	339.11	4588.33	18.61	88.70	18.61	90.63	78.15	0.33
4686.00	1.26	329.40	4684.35	20.04	87.96	20.04	90.22	77.17	0.64
4782.03	1.28	311.48	4780.35	21.65	86.62	21.65	89.29	75.96	0.41
4878.06	1.33	281.96	4876.36	22.60	84.73	22.60	87.69	75.07	0.69
4974.09	1.37	274.88	4972.36	22.92	82.50	22.92	85.63	74.47	0.18
5070.12	1.27	275.31	5068.37	23.12	80.30	23.12	83.56	73.94	0.10
5166.15	1.28	280.79	5164.37	23.42	78.18	23.42	81.61	73.32	0.13
5262.18	1.59	269.45	5260.37	23.61	75.80	23.61	79.39	72.70	0.44
5358.21	1.83	255.90	5356.36	23.22	72.98	23.22	76.59	72.35	0.49
5454.24	1.99	254.08	5452.34	22.39	69.89	22.39	73.39	72.24	0.18
5550.27	2.03	264.34	5548.31	21.76	66.59	21.76	70.06	71.90	0.38
5646.30	1.83	239.02	5644.29	20.81	63.58	20.81	66.90	71.88	0.91
5742.33	1.60	215.09	5740.28	18.93	61.50	18.93	64.35	72.89	0.78
5838.36	1.00	194.15	5836.28	17.02	60.53	17.02	62.88	74.29	0.78
5934.39	0.25	248.20	5932.30	16.13	60.13	16.13	62.25	74.98	0.91
6030.42	0.22	292.52	6028.33	16.12	59.76	16.12	61.89	74.90	0.19
6126.45	0.27	339.23	6124.36	16.40	59.51	16.40	61.73	74.59	0.21
6222.48	0.32	352.90	6220.39	16.88	59.39	16.88	61.75	74.14	0.09
6318.51	0.24	339.74	6316.42	17.33	59.29	17.33	61.77	73.71	0.10
6414.54	0.94	345.90	6412.45	18.28	59.03	18.28	61.80	72.80	0.73
6510.57	0.84	335.18	6508.46	19.68	58.54	19.68	61.76	71.42	0.20
6606.60	0.74	344.27	6604.48	20.91	58.08	20.91	61.73	70.20	0.16
6702.63	0.41	331.50	6700.51	21.81	57.75	21.81	61.73	69.32	0.37
6798.66	0.57	224.19	6796.54	21.76	57.26	21.76	61.25	69.19	0.82
6894.69	0.50	252.76	6892.56	21.30	56.53	21.30	60.41	69.36	0.28
6990.72	0.87	234.88	6988.59	20.76	55.54	20.76	59.29	69.51	0.44
7086.75	0.92	219.89	7084.61	19.75	54.45	19.75	57.92	70.07	0.25
7182.78	2.18	218.38	7180.60	17.73	52.83	17.73	55.72	71.45	1.31
7278.81	3.05	193.98	7276.53	13.82	51.07	13.82	52.91	74.86	1.45

HORIZONTAL DISPLACEMENT IS
52.91 FEET AT 74.86 DEGREES

PathFinder Energy Services, Inc.
Magnetic & Grid Calculations

*FIELD
CALCULATION*

DEVON ENERGY
JASPER 32 STATE #4H
WINCHESTER; BONE SPRING

Thu Jan 19 18:10:33 2012

Coordinates

Latitude: 32.623613 N (32 deg. 37 min. 25.0084 sec.)
Longitude: 104.090795 W (-104 deg. 5 min. 26.8603 sec.)
Elevation: 3288.70 feet.
Calculation Date: Jan/19/2012

Magnetic Calculations

Model: IGRF2010
Dip Angle: 60.4523 degrees
Total Magnetic Field: 0.48741 gauss
Magnetic Declination: 7.781743 degrees
Horizontal Intensity: 0.240363 gauss
To Convert a Magnetic Dir. to a TRUE North Dir. Add 7.781743 Degr

Transverse Mercator Grid Calculations NAD83

Grid System: Transverse Mercator: new mexico east
Ellipsoid: GRS80
X: 616008.4100 feet
Y: 590686.6000 feet
True to Grid: (convergence) -0.130758 degrees
Magnetic to Grid: 7.650985 degrees
To Convert a Magnetic Dir. to a GRID dir. Add 7.650985 Degr.



A Schlumberger Company

PathFinder Energy Services, Inc.

Magnetic & Grid Calculations

Devon Energy
Jasper 32 State #4H
Eddy County, NM
Rig:HP 223

Tue Jan 10 10:55:52 2012

Coordinates

Latitude: 32.623613 N (32 deg. 37 min. 25.0084 sec.)
Longitude: 104.090795 W (-104 deg. 5 min. 26.8603 sec.)
Elevation: 3288.70 feet.
Calculation Date: Jan/10/2012

Magnetic Calculations

Model: IGRF2010
Dip Angle: 60.4529 degrees
Total Magnetic Field: 0.48743 gauss
Magnetic Declination: 7.784759 degrees
Horizontal Intensity: 0.240370 gauss
To Convert a Magnetic Dir. to a TRUE North Dir. Add 7.784759 Degr

Transverse Mercator Grid Calculations NAD83

Grid System: Transverse Mercator: new mexico east
Ellipsoid: GRS80
X: 616008.4100 feet
Y: 590686.6000 feet
True to Grid: (convergence) -0.130758 degrees
Magnetic to Grid: 7.654002 degrees
To Convert a Magnetic Dir. to a GRID dir. Add 7.654002 Degr.

District I

1625 N. French Dr., Hobbs, NM 88240

District II

1301 W. Grand Avenue, Artesia, NM 88210

District III

1000 Rio Brazos Rd., Aztec, NM 87410

District IV

1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102

Revised October 15, 2009

Submit one copy to appropriate

District Office

☐ AMENDED REPORT**WELL LOCATION AND ACREAGE DEDICATION PLAT**

¹ API Number		² Pool Code		³ Pool Name	
⁴ Property Code		⁵ Property Name JASPER "32" STATE COM			⁶ Well Number 4H
⁷ OGRID No. 6137		⁸ Operator Name DEVON ENERGY PRODUCTION COMPANY, L.P.			⁹ Elevation 3263.7

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	32	19 S	29 E		340	NORTH	730	EAST	EDDY

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	32	19 S	29 E		340	SOUTH	400	EAST	EDDY

¹² Dedicated Acres	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

NW CORNER SEC. 32 LAT. = 32.624596°N (NAD 83) LONG. = 104.105568°W NMSP EAST (FT) N = 591032.08 E = 611457.20		JASPER "32" STATE COM 4H ELEV. = 3263.7' LAT. = 32.623619°N (NAD83) LONG. = 104.090791°W NMSP EAST (FT) N = 590686.60 E = 616008.41			
		NE CORNER SEC. 32 LAT. = 32.624547°N (NAD 83) LONG. = 104.088419°W NMSP EAST (FT) N = 591025.80 E = 616737.99			
		SE CORNER SEC. 32 LAT. = 32.610039°N (NAD 83) LONG. = 104.088440°W NMSP (FT) N = 585746.45 E = 616743.55			
SW CORNER SEC. 32 LAT. = 32.610092°N (NAD 83) LONG. = 104.105578°W NMSP EAST (FT) N = 585753.90 E = 611465.46		BOTTOM OF HOLE LAT. = 32.610983°N (NAD83) LONG. = 104.089754°W NMSP EAST (FT) N = 586086.13 E = 616343.74			

¹⁷ OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or undivided mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature _____ Date _____

Printed Name _____

¹⁸ SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

DECEMBER 1, 2009

Date of Survey _____

Signature and Seal of Professional Surveyor _____

Certificate Number: **MLM0N-P JARAMA LO, PLS 12797**

SURVEY NO 345

**1220 S. St Francis Dr.
Santa Fe, NM 87505**

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

1. Operator Name and Address DEVON ENERGY PRODUCTION COMPANY, LP 20 N Broadway Oklahoma City, OK 73102		2. OGRID Number 6137
		3. API Number 30-015-38476
4. Property Code 38500	5. Property Name JASPER 32 STATE COM	6. Well No. 004H

7. Surface Location

UL - Lot A	Section 32	Township 19S	Range 29E	Lot Ida A	East From 340	N/S Line N	East From 730	E/W Line E	County EDDY
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8. Pool Information

WINCHESTER BONE SPRING	65010
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Additional Well Information

9. Work Type New Well	10. Well Type OIL	11. Cible Rotary	12. Lease Type State	13. Ground Level Elevation 3263
14. Multiple N	15. Proposed Depth 12298	16. Formation Bone Spring	17. Contractor	18. Spud Date 3/15/2011
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water
Pir: Linear Synthetic ☐ mils thick Clay ☐ Pit Volume: bbls Drilling Method: Closed Loop System ☐ Fresh Water ☒ Brine ☐ Diesel Oil-based ☐ Gas Air ☐				

19. Proposed Casing and Cement Program

Type	Hole Size	Casing Type	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	17.5	13.375	48	300	500	0
Int1	12.25	9.625	40	3100	1050	0
Prod	8.75	5.5	17	12298	400	2600
Prod	8.75	5.5	17	7200	2300	2600

Casing/Cement Program: Additional Comments

All cement volumes based on at least 25% excess. 13 3/8 w/500 sx Cl C + 2% CaCl + 1/4 lb/sx Cello flakes, 9 5/8 w/1050 sx Cl C + 2% CaCl + 1/4 lb/sx Cello flakes, 5 1/2 Stage 1 w/2300 sx Cl C + 2% CaCl + 1/4 lb/sx Cello flakes. Stage 2 w/400 sx Cl C + 2% CaCl + 1/4 lb/sx Cello flakes. DV tool @ 4500'. TOC @ 2600'. MTVD @ 7,895'. Mud: 0-300' fresh, 3.4-9.0, 30-34, N/C water loss. 300-3100' brine, 9.6-10.0, 28-32, N/C water loss. 3100-12298' fresh, 8.6-9.0, 28-32, N/C-12 water loss.

Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Annular	3000	3000	
Pipe	3000	3000	
DoubleRam	3000	3000	

I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify that the drilling pit will be constructed according to NMOCD guidelines ☐ , a general permit ☐ , or an (attached) alternative OCD-approved plan ☐ . Printed Name: Electronically filed by Randy Bolles Title: Email Address: randy.bolles@dvn.com Date: 2/18/2011 Phone: 405-228-8588	OIL CONSERVATION DIVISION	
	Approved By: Randy Dade	
	Title: District Supervisor	
	Approved Date: 2/18/2011	Expiration Date: 2/18/2013
	Conditions of Approval Attached	