

30-015-38534



DEVON ENERGY

Paduca
Eddy County, NM
Cotton Draw Unit #136H
VH - Job #32K0911844

Survey: Actual

SDI Standard Survey Report

This survey is correct to the best of my knowledge and is supported by actual field data.

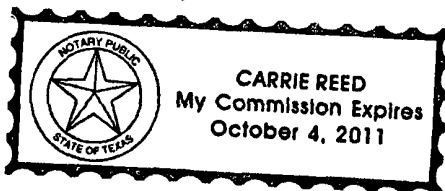
R. Wharton

Notarized this date 4th of October, 2011.

Carrie Reed

Notary Signature
County of Midland
State of Texas

→ Requires NSL approval
prior to producing



Scientific Drilling International, Inc.
SDI Standard Survey Report



Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well Cotton Draw Unit #136H
Project:	Paduca	TVD Reference:	WELL @ 0 0usft (Original Well Elev)
Site:	Eddy County, NM	MD Reference:	WELL @ 0 0usft (Original Well Elev)
Well:	Cotton Draw Unit #136H	North Reference:	Grid
Wellbore:	VH - Job #32K0911844	Survey Calculation Method:	Minimum Curvature
Design:	VH - Job #32K0911844	Database:	EDM-Regulatory

Project	Paduca		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site		Eddy County, NM			
Site Position:		Northing:	419,864 24 usft	Latitude:	32° 9' 10 800 N
From:	Lat/Long	Easting:	717,841 09 usft	Longitude:	103° 45' 46 800 W
Position Uncertainty:	0 0 usft	Slot Radius:	13-3/16"	Grid Convergence:	0 30 °

Well	Cotton Draw Unit #136H, Directional (Weatherford)					
Well Position	+N/-S	0 0 usft	Northing:	419,795 01 usft	Latitude:	32° 9' 9 933 N
	+E/-W	0 0 usft	Easting:	721,278 15 usft	Longitude:	103° 45' 6 824 W
Position Uncertainty		0 0 usft	Wellhead Elevation:	usft	Ground Level:	0 0 usft

Wellbore	VH - Job #32K0911844				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	9/5/2011	7 64	60 08	48,557

Design		VH - Job #32K0911844			
Audit Notes:					
Version:		1 0	Phase:	ACTUAL	Tie On Depth: 0 0
Vertical Section:		Depth From (TVD)	+N/-S	+E/-W	Direction
		(usft)	(usft)	(usft)	(°)
		0 0	0 0	0 0	359 79

Survey Program		Date	10/23/2011		
From (usft)	To (usft)	Survey (Wellbore)		Tool Name	Description
100 0	8,404 0	Actual (VH - Job #32K0911844)		Keeper	Keeper Gyro

Survey							
Measured Depth (usft)	Inclination (°)	Azimuth (°)	True Vertical Depth	North/South (usft)	East/West (usft)	Closure Azimuth (°)	Closure Distance (usft)
0 0	0 00	0 00	0 0	0 0	0 0	0 00	0 0
100 0	0 26	97 77	100 0	0 0	0 2	97 77	0 2
200 0	0 22	164 26	200 0	-0 2	0 5	116 13	0 6
300 0	0 61	182 01	300 0	-1 0	0 5	150 94	1 1
400 0	1 11	181 70	400 0	-2 5	0 5	168 80	2 5
500 0	1 82	168 50	500 0	-5 0	0 8	171 16	5 0
600 0	2 48	161 75	599 9	-8 6	1 8	168 37	8 8
700 0	2 59	161 96	699 8	-12 8	3 1	166 19	13 2
800 0	2 03	163 11	799 7	-16 6	4 4	165 32	17 2
900 0	1 59	168 26	899 7	-19 7	5 2	165 33	20 4
1,000 0	1 51	170 80	999 6	-22 4	5 7	165 81	23 1
1,100 0	1 23	167 34	1,099 6	-24 7	6 1	166 14	25 4

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Well:	Cotton Draw Unit #136H	North Reference:	Grid
Wellbore:	VH - Job #32K0911844	Survey Calculation Method:	Minimum Curvature
Design:	VH - Job #32K0911844	Database:	EDM-Regulatory

Survey							
Measured Depth (usft)	Inclination (°)	Azimuth (°)	True Vertical Depth	North/South (usft)	East/West (usft)	Closure Azimuth (°)	Closure Distance (usft)
1,200 0	1 07	155 99	1,199 6	-26 6	6 7	165 84	27 4
1,300 0	0 94	135 51	1,299 6	-28 0	7 7	164 71	29 1
1,400 0	0 93	103 04	1,399 5	-28 8	9 0	162 59	30 2
1,500 0	0 99	88 92	1,499 5	-29 0	10 7	159 76	30 9
1,600 0	1 10	79 07	1,599 5	-28 8	12 5	156 53	31 4
1,700 0	1 56	70 93	1,699 5	-28 2	14 7	152 39	31 8
1,800 0	1 90	60 72	1,799 4	-26 9	17 5	147 02	32 1
1,900 0	1 91	63 97	1,899 4	-25 4	20 4	141 18	32 5
2,000 0	2 01	64 13	1,999 3	-23 9	23 5	135 47	33 5
2,100 0	1 88	68 15	2,099 3	-22 5	26 6	130 23	34 8
2,200 0	1 63	63 09	2,199 2	-21 2	29 4	125 86	36 2
2,300 0	1 66	61 80	2,299 2	-19 9	31 9	121 95	37 6
2,400 0	1 60	63 86	2,399 1	-18 6	34 4	118 37	39 1
2,500 0	1 48	73 85	2,499 1	-17 6	36 9	115 51	40 9
2,600 0	1 21	87 14	2,599 1	-17 2	39 2	113 69	42 8
2,700 0	0 84	95 01	2,699 1	-17 2	41 0	112 78	44 5
2,800 0	0 62	85 26	2,799 0	-17 2	42 3	112 19	45 7
2,900 0	0 37	129 52	2,899 0	-17 4	43 1	112 01	46 5
3,000 0	0 53	165 48	2,999 0	-18 1	43 4	112 58	47 0
3,100 0	0 26	147 62	3,099 0	-18 7	43 7	113 18	47 5
3,200 0	0 80	72 24	3,199 0	-18 7	44 5	112 79	48 2
3,300 0	1 03	70 94	3,299 0	-18 2	46 0	111 57	49 4
3,400 0	0 50	59 74	3,399 0	-17 7	47 2	110 51	50 4
3,500 0	0 19	311 95	3,499 0	-17 3	47 5	110 06	50 5
3,600 0	0 33	17 38	3,599 0	-16 9	47 4	109 66	50 4
3,700 0	1 45	100 96	3,699 0	-16 9	48 7	109 13	51 6
3,800 0	1 39	93 83	3,799 0	-17 2	51 2	108 60	54 0
3,900 0	1 96	111 92	3,898 9	-17 9	54 0	108 39	56 9
4,000 0	2 87	131 64	3,998 8	-20 2	57 5	109 42	60 9
4,100 0	2 68	131 27	4,098 7	-23 5	61 1	111 01	65 4
4,200 0	1 34	112 88	4,198 7	-25 5	63 9	111 71	68 8
4,300 0	0 58	85 63	4,298 6	-25 9	65 5	111 55	70 4
4,400 0	0 55	79 40	4,398 6	-25 7	66 5	111 17	71 3
4,500 0	0 54	89 33	4,498 6	-25 6	67 4	110 83	72 1
4,600 0	0 60	74 69	4,598 6	-25 5	68 4	110 45	73 0
4,700 0	0 65	69 84	4,698 6	-25 2	69 4	109 93	73 9
4,800 0	0 68	67 71	4,798 6	-24 7	70 5	109 34	74 7
4,900 0	0 60	55 48	4,898 6	-24 2	71 5	108 72	75 5
5,000 0	0 63	59 61	4,998 6	-23 7	72 4	108 09	76 2
5,100 0	0 64	68 79	5,098 6	-23 2	73 4	107 52	77 0
5,200 0	0 77	67 00	5,198 6	-22 7	74 5	106 95	77 9
5,300 0	0 75	65 38	5,298 6	-22 2	75 7	106 32	78 9
5,400 0	0 65	63 10	5,398 6	-21 6	76 8	105 73	79 8
5,500 0	0 64	51 97	5,498 6	-21 0	77 8	105 14	80 6

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Design:	VH - Job #32K0911844	Database:	EDM-Regulatory

Survey							
Measured Depth (usft)	Inclination (°)	Azimuth (°)	True Vertical Depth	North/South (usft)	East/West (usft)	Closure Azimuth (°)	Closure Distance (usft)
5,600 0	0 65	50.02	5,598 6	-20 3	78 7	104 49	81.3
5,700 0	0 56	59.68	5,698 6	-19 7	79.5	103 93	81 9
5,800 0	0 52	59 84	5,798.6	-19 2	80 3	103 47	82 6
5,900 0	0 54	37 19	5,898 5	-18 6	81 0	102 96	83 1
6,000 0	0 70	29 22	5,998 5	-17 7	81 6	102 26	83.5
6,100 0	0 41	25 94	6,098 5	-16 9	82 1	101 63	83 8
6,200 0	0 42	74 32	6,198 5	-16 5	82 6	101 28	84 2
6,300 0	0 49	75.96	6,298 5	-16 3	83 3	101 04	84.9
6,400 0	0 54	83 32	6,398 5	-16 1	84 2	100 82	85 7
6,500 0	0 55	80 32	6,498 5	-16 0	85 2	100 62	86 6
6,600 0	0 61	82 16	6,598 5	-15 8	86 2	100 40	87.6
6,700 0	0 54	99.02	6,698 5	-15 8	87 1	100 28	88 6
6,800 0	0 58	100 20	6,798 5	-16 0	88 1	100 28	89 5
6,900 0	0 63	92.09	6,898 5	-16 1	89 2	100 23	90 6
7,000 0	0 65	94 99	6,998 5	-16 2	90 3	100 15	91 7
7,100 0	0 46	93 01	7,098 5	-16 2	91.2	100 08	92 7
7,200 0	0 38	65 67	7,198 5	-16 1	91 9	99 94	93 3
7,300 0	0 31	80 01	7,298 5	-15 9	92 5	99 77	93 9
7,400 0	0 55	112 11	7,398 5	-16 1	93 2	99 77	94.6
7,500 0	1 02	93 42	7,498 5	-16 3	94 6	99 78	95 9
7,600 0	1 13	110 66	7,598 5	-16 7	96 4	99 83	97 8
7,700 0	1 20	118 70	7,698 4	-17 5	98 2	100 13	99 8
7,800 0	1 16	125 90	7,798.4	-18 6	99 9	100 57	101 7
7,900 0	1 10	130 64	7,898 4	-19 9	101 5	101 07	103 4
8,000 0	0 96	133 11	7,998 4	-21 1	102 8	101 57	105.0
8,100 0	1.21	139 31	8,098 4	-22 4	104 1	102 16	106 5
8,200 0	1 08	140 62	8,198 3	-24 0	105 4	102 81	108 1
8,300 0	0 73	121 98	8,298 3	-25 0	106 6	103 22	109 5
8,400 0	0 44	119 92	8,398.3	-25 6	107 4	103 38	110 4
8,404 0	0 64	106 05	8,402.3	-25 6	107 5	103 38	110 5



Project: Paduca
Eddy County, NM
Well: Cotton Draw Unit #136H
Wellbore: VH - Job #32K0911844
Design: VH - Job #32K0911844

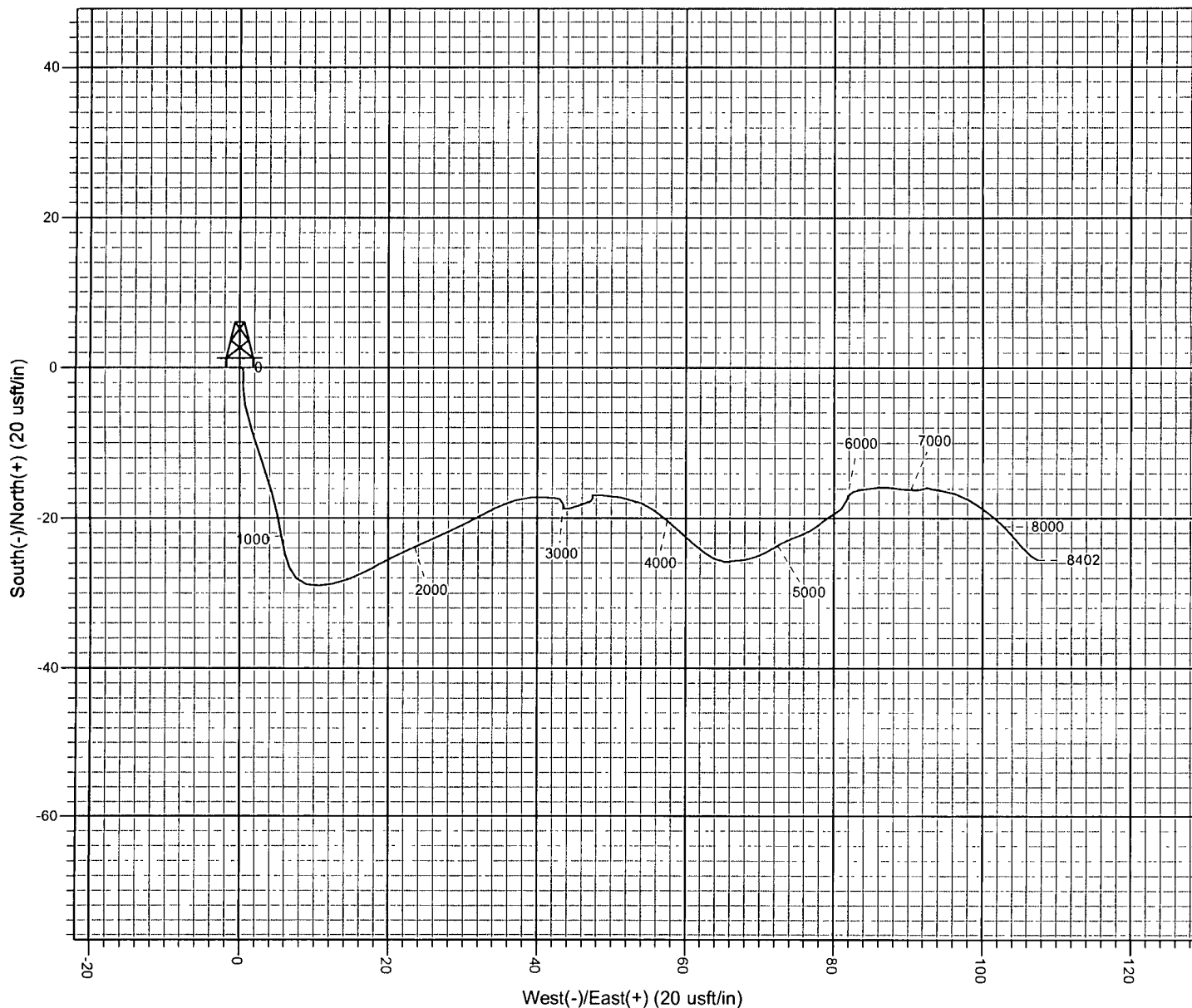


Azimuths to Grid North
True North -0.31°
Magnetic North 7.33°

Magnetic Field
Strength: 48556 6snT
Dip Angle 60.08°
Date 9/5/2011
Model: IGRF2010

WELL DETAILS: Cotton Draw Unit #136H
WELL @ 0.0usft (Original Well Elev)
Ground Level: 0.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0 0	0.0	419795.01	721278.15	32° 9' 9.933 N	103° 45' 6.824 W	



PROJECT DETAILS: Paduca
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone
System Datum: Mean Sea Level

SITE DETAILS: Eddy County, NM
Site Centre Latitude: 32° 9' 10.800 N
Longitude: 103° 45' 46.800 W
Positional Uncertainty: 0.0
Convergence: 0.30
Local North: Grid