

devon

Company: Devon Energy
Lease/Well: Cotton Draw Unit/154H

Rig Name: H&P #214
State/County: New Mexico/Eddy
Latitude: 32.17

GRID North is 0.31 Degrees East of True North
VS-Azi: 0.00 Degrees



Depth Reference : RKB=25 Feet

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: cotton draw unit 154h.ut
Minimum Curvature Method
Report Date/Time: 2/1/2012 / 09:04

Vaughn Energy Services
Midland, TX
432-563-5444

Surveyor: Zach Garcia
Cotton Draw Unit 154H / API 30-015-38952

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	****
100.00	0.13	337.83	100.00	0.10	-0.04	0.10	0.11	337.83	0.13
200.00	0.07	34.13	200.00	0.26	-0.05	0.26	0.26	348.48	0.11
300.00	0.07	274.55	300.00	0.31	-0.08	0.31	0.32	344.77	0.12
400.00	0.93	284.50	400.00	0.52	-0.93	0.52	1.07	299.11	0.85
500.00	1.26	273.46	499.98	0.79	-2.82	0.79	2.92	285.64	0.40
600.00	1.37	259.96	599.95	0.65	-5.10	0.65	5.14	277.23	0.33
700.00	1.52	251.04	699.92	0.01	-7.53	0.01	7.53	270.05	0.27
800.00	1.45	251.42	799.89	-0.83	-9.99	-0.83	10.02	265.26	0.08
900.00	1.14	253.84	899.86	-1.51	-12.14	-1.51	12.23	262.92	0.31
1000.00	1.21	243.95	999.84	-2.25	-14.04	-2.25	14.22	260.91	0.21
1100.00	0.88	248.72	1099.82	-2.99	-15.71	-2.99	15.99	259.22	0.34
1200.00	0.60	239.52	1199.81	-3.53	-16.87	-3.53	17.24	258.17	0.30
1300.00	0.43	237.14	1299.81	-4.01	-17.64	-4.01	18.09	257.21	0.17
1400.00	0.19	266.61	1399.81	-4.22	-18.13	-4.22	18.61	256.89	0.28
1500.00	0.09	40.75	1499.81	-4.17	-18.25	-4.17	18.72	257.12	0.26
1600.00	0.17	135.03	1599.81	-4.22	-18.09	-4.22	18.58	256.87	0.20
1700.00	0.24	105.97	1699.81	-4.38	-17.78	-4.38	18.32	256.15	0.12
1800.00	0.55	80.32	1799.80	-4.36	-17.11	-4.36	17.66	255.70	0.35

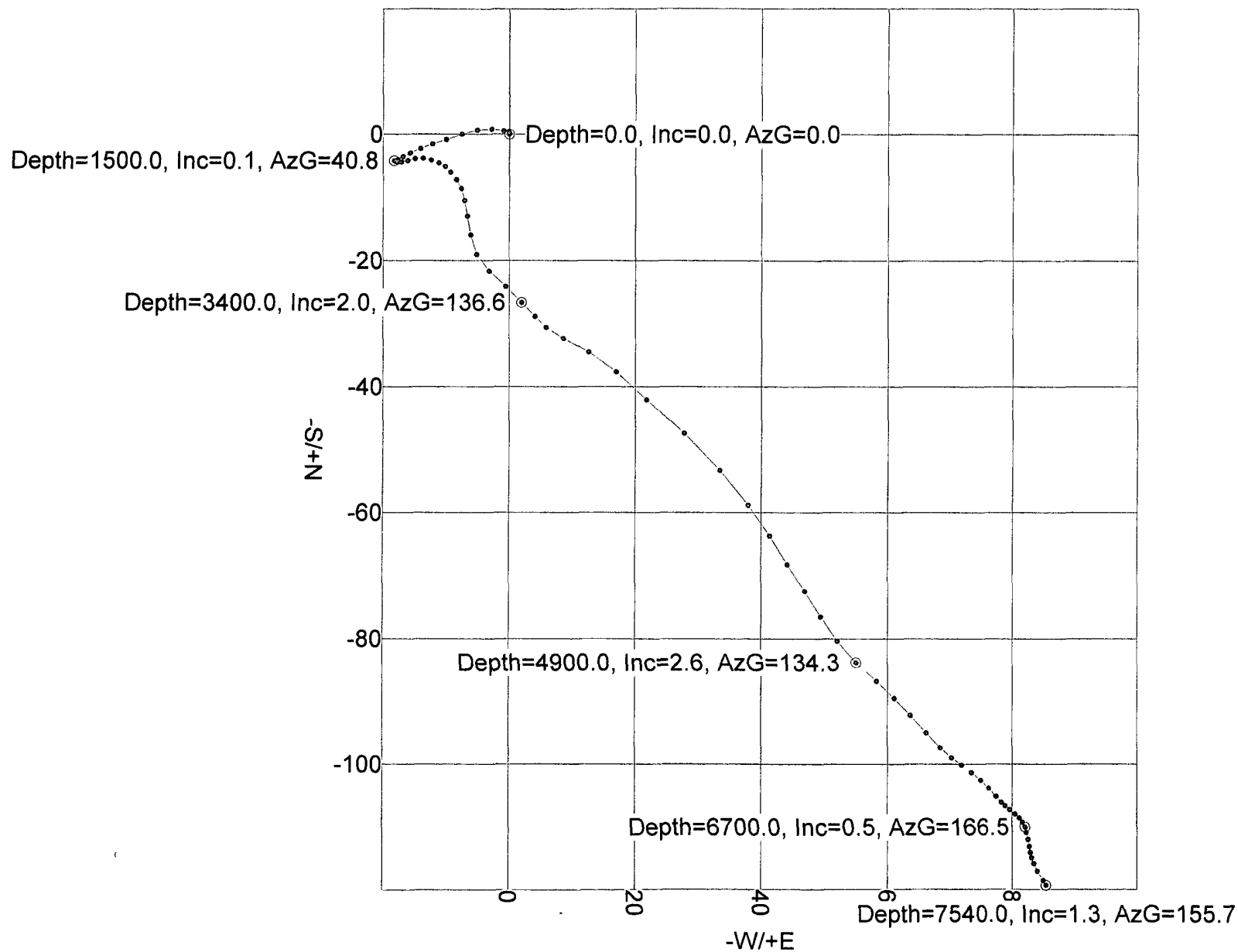
30-015-

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
1900.00	0.67	74.65	1899.80	-4.12	-16.07	-4.12	16.59	255.61	0.13
2000.00	0.68	79.01	1999.79	-3.86	-14.93	-3.86	15.42	255.51	0.05
2100.00	0.80	92.77	2099.78	-3.78	-13.65	-3.78	14.17	254.53	0.21
2200.00	0.79	113.29	2199.77	-4.08	-12.32	-4.08	12.98	251.67	0.28
2300.00	0.65	108.69	2299.77	-4.54	-11.15	-4.54	12.04	247.86	0.15
2400.00	0.70	127.69	2399.76	-5.10	-10.13	-5.10	11.34	243.29	0.23
2500.00	0.73	145.83	2499.75	-6.00	-9.28	-6.00	11.05	237.13	0.23
2600.00	0.95	141.68	2599.74	-7.17	-8.41	-7.17	11.06	229.55	0.23
2700.00	0.94	159.12	2699.73	-8.59	-7.61	-8.59	11.47	221.56	0.29
2800.00	1.32	168.64	2799.71	-10.48	-7.09	-10.48	12.66	214.08	0.43
2900.00	1.55	170.43	2899.68	-12.95	-6.64	-12.95	14.55	207.15	0.23
3000.00	1.91	168.47	2999.63	-15.92	-6.08	-15.92	17.04	200.91	0.36
3100.00	1.79	156.99	3099.58	-18.99	-5.14	-18.99	19.67	195.14	0.39
3200.00	2.03	133.15	3199.52	-21.64	-3.23	-21.64	21.88	188.49	0.83
3300.00	2.09	132.14	3299.46	-24.07	-0.59	-24.07	24.08	181.40	0.06
3400.00	2.05	136.63	3399.40	-26.59	1.99	-26.59	26.67	175.72	0.17
3500.00	1.49	137.03	3499.35	-28.85	4.11	-28.85	29.14	171.90	0.56
3600.00	1.38	130.39	3599.32	-30.58	5.91	-30.58	31.15	169.06	0.20
3700.00	2.30	119.05	3699.26	-32.34	8.59	-32.34	33.46	165.13	0.98
3800.00	2.93	117.91	3799.16	-34.51	12.60	-34.51	36.74	159.95	0.63
3900.00	3.29	133.25	3899.01	-37.67	16.94	-37.67	41.30	155.78	0.90
4000.00	4.27	131.49	3998.79	-42.10	21.82	-42.10	47.42	152.60	0.99
4100.00	4.88	131.80	4098.48	-47.40	27.78	-47.40	54.94	149.63	0.61
4200.00	4.52	140.51	4198.14	-53.28	33.46	-53.28	62.91	147.87	0.80
4300.00	3.66	141.30	4297.88	-58.81	37.96	-58.81	69.99	147.16	0.86
4400.00	3.15	149.17	4397.71	-63.66	41.36	-63.66	75.91	146.99	0.69
4500.00	2.95	147.05	4497.57	-68.18	44.17	-68.18	81.24	147.06	0.23
4600.00	2.78	147.59	4597.44	-72.39	46.87	-72.39	86.24	147.08	0.18
4700.00	2.69	148.47	4697.33	-76.44	49.40	-76.44	91.01	147.13	0.10
4800.00	2.70	143.88	4797.22	-80.35	52.02	-80.35	95.72	147.08	0.22
4900.00	2.56	134.35	4897.11	-83.81	55.01	-83.81	100.25	146.72	0.46
5000.00	2.36	130.49	4997.02	-86.71	58.17	-86.71	104.42	146.14	0.26
5100.00	2.21	137.11	5096.94	-89.46	61.05	-89.46	108.31	145.69	0.30
5200.00	2.16	136.95	5196.87	-92.25	63.65	-92.25	112.08	145.40	0.05
5300.00	2.13	137.75	5296.80	-95.00	66.18	-95.00	115.78	145.14	0.04
5400.00	1.55	136.04	5396.75	-97.35	68.37	-97.35	118.96	144.92	0.58
5500.00	1.22	126.32	5496.72	-98.96	70.17	-98.96	121.31	144.66	0.41
5600.00	1.10	127.02	5596.70	-100.16	71.79	-100.16	123.23	144.37	0.12
5700.00	1.13	126.43	5696.68	-101.32	73.34	-101.32	125.08	144.10	0.04

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
5800.00	1.08	133.92	5796.66	-102.56	74.81	-102.56	126.95	143.89	0.15
5900.00	1.12	132.79	5896.64	-103.87	76.21	-103.87	128.83	143.73	0.04
6000.00	0.87	143.22	5996.62	-105.14	77.38	-105.14	130.54	143.65	0.31
6100.00	0.59	133.67	6096.62	-106.10	78.20	-106.10	131.81	143.61	0.30
6200.00	0.38	123.94	6196.61	-106.64	78.85	-106.64	132.63	143.52	0.22
6300.00	0.71	132.26	6296.61	-107.25	79.58	-107.25	133.55	143.42	0.34
6400.00	0.60	124.82	6396.60	-107.96	80.47	-107.96	134.65	143.30	0.14
6500.00	0.45	138.58	6496.60	-108.55	81.15	-108.55	135.53	143.22	0.19
6600.00	0.55	144.54	6596.59	-109.24	81.69	-109.24	136.40	143.21	0.11
6700.00	0.46	166.50	6696.59	-110.02	82.06	-110.02	137.25	143.28	0.21
6800.00	0.54	169.84	6796.59	-110.87	82.24	-110.87	138.04	143.43	0.08
6900.00	0.79	163.25	6896.58	-111.99	82.52	-111.99	139.11	143.62	0.26
7000.00	0.55	177.03	6996.57	-113.13	82.75	-113.13	140.16	143.82	0.28
7100.00	0.57	166.59	7096.57	-114.10	82.89	-114.10	141.03	144.00	0.10
7200.00	0.41	161.04	7196.56	-114.92	83.12	-114.92	141.83	144.12	0.17
7300.00	0.70	157.51	7296.56	-115.83	83.47	-115.83	142.77	144.22	0.30
7400.00	0.85	154.65	7396.55	-117.06	84.02	-117.06	144.09	144.33	0.15
7500.00	1.22	141.07	7496.53	-118.56	85.00	-118.56	145.88	144.36	0.44
7540.00	1.32	155.69	7536.52	-119.31	85.46	-119.31	146.76	144.39	0.84



Vaughn Energy Services
Midland, TX
432-563-5444
Surveyor: Zach Garcia
Cotton Draw Unit 154H / API 30-015-38952



VES Survey Date: 12/19/2011



Weatherford®

Evaluation, Drilling & Intervention
10000 West County Rd. 116
P.O. Box 61028
Midland, TX USA 79711
Tel. (432) 561-8892 Fax (432) 561-8895

Devon Energy
20 North Broadway
Oklahoma City, OK, 73102

Date: January 5, 2012

Attention: Mark Cooper

Re: Devon Energy
Well: Cotton Draw Unit 154H
Eddy County, New Mexico

Enclosed, please find the original survey performed on the referenced well by Precision Energy Services, Inc. (P-5 No. 676004), a Weatherford company. Other information required by your office is as follows:

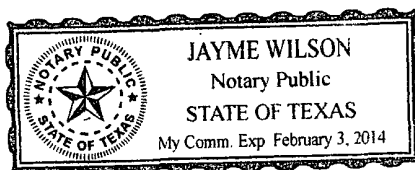
<u>Name & Title Of Surveyor</u>	<u>Well Number</u>	<u>Surveyed Depths</u>	<u>Dates Performed</u>	<u>Type of Survey</u>
Bruce Loudon MWD Supervisor	154H	7569' MD 12499' MD	12/18/2011 12/30/2011	Measurement While Drilling

A notarized plan vs. actual is attached to the survey report. If any other information is required, please contact the undersigned at the letterhead address and phone number.

Jesse Aguilar
Area Manager

On this, the 5th day of January, 2012, before me a notary public, the undersigned officer, personally appeared Jesse Aguilar, known to me (or satisfactorily proven) to be the person whose name is subscribed to the within instrument, and acknowledged that he executed the same for the purposes therein contained.

In witness hereof, I hereunto set my hand and official seal.

Notary Public

devon

Cotton Draw #154H
Eddy Co., New Mexico



KB ELEV: 3478
GL ELEV: 3453

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	7540.00	1.32	155.69	7536.52	-119.31	85.46	0.00	0.00	119.57	
2	7600.00	1.32	155.69	7596.51	-120.57	86.03	0.00	0.00	120.83	
3	8573.77	89.71	180.96	8213.66	-747.56	81.57	9.09	25.28	747.80	
4	12577.92	89.71	180.96	8234.00	-4751.10	14.50	0.00	0.00	4751.12	Pbhl

WELL DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
#154H	0.00	0.00	424684.63	718954.61	32°09'58.434N	103°45'33.565W	N/A

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
Pbhl	8234.00	-4751.10	14.50	419933.53	718969.11	32°09'11.418N	103°45'33.691W	Point

FIELD DETAILS

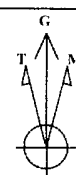
Eddy Co., NM (NAD 83)

Geodetic System: US State Plane Coordinate System 1983
Ellipsoid: GRS 1980
Zone: New Mexico, Eastern Zone
Magnetic Model: IGRF2010
System Datum: Mean Sea Level
Local North: Grid North

SITE DETAILS

Cotton Draw Unit #154H

Site Centre Northing: 424684.63
Easting: 718954.61
Ground Level: 3453.00
Positional Uncertainty: 0.00
Convergence: 0.31



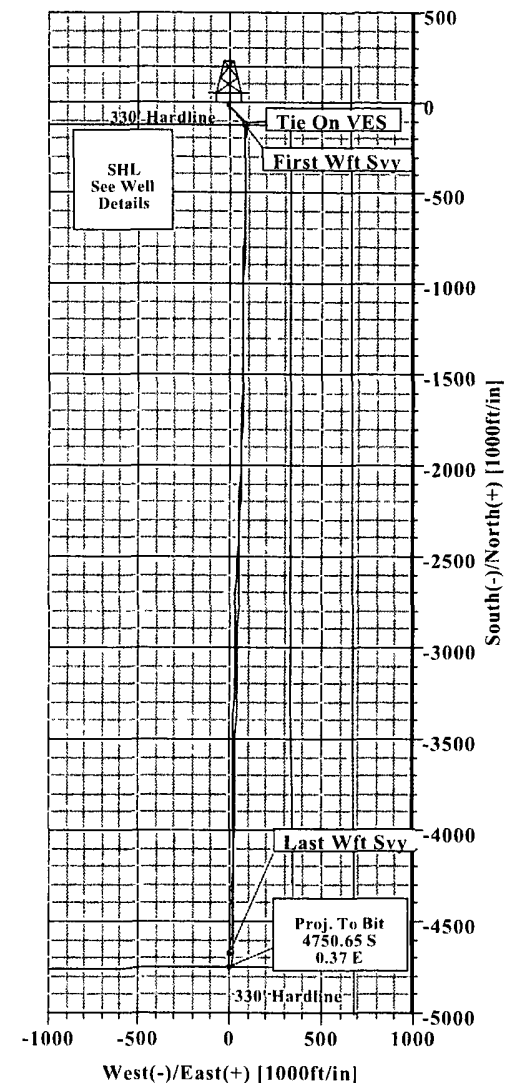
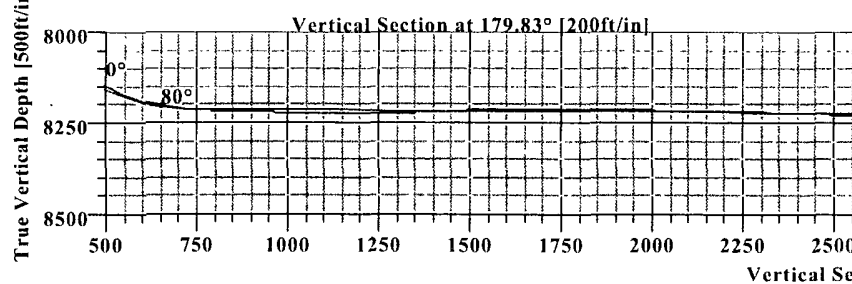
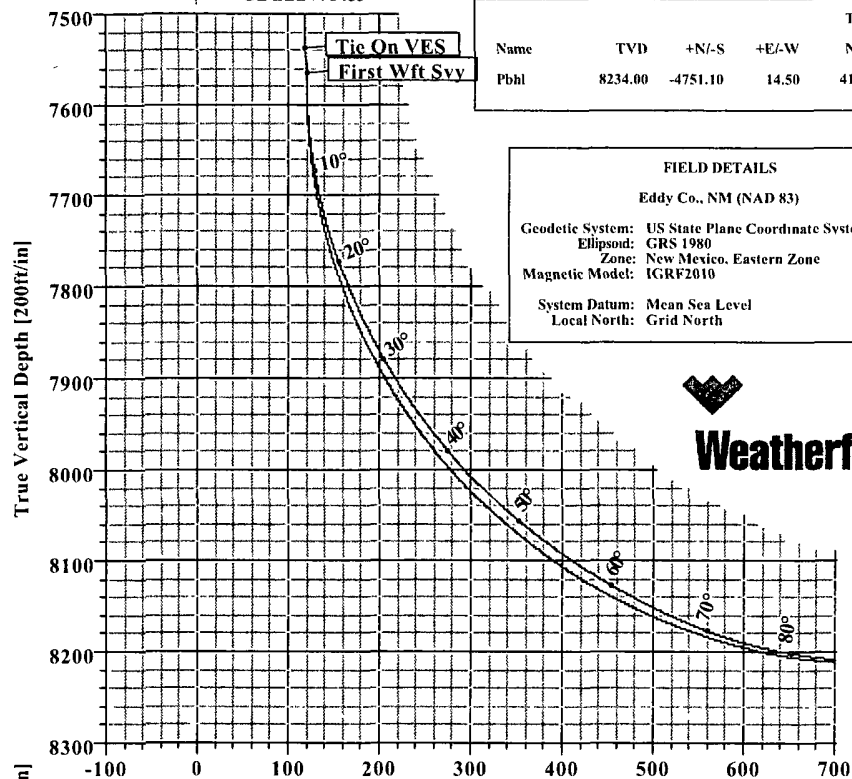
Azimuths to Grid North
True North: -0.31°
Magnetic North: 7.31°

Magnetic Field
Strength: 48544nT
Dip Angle: 60.09°
Date: 11/15/2011
Model: IGRF2010

Total Correction to Grid North: 7.31°

LEGEND

- #154H.1. Plan #4
- #154H.1. Gyro
- Wft Svy



No	MD	Inc	Az	TVD	+N/-S	+E/-W	DLeg	TFace	VSec
77	12568.00	91.01	181.91	8227.12	-4750.65	0.37	0.00	0.00	4750.63

Last Wft Svy

Proj. To Bit

Survey: Wft Svy (#154H/1)

Created By: Russell W. Jovner

Date: 1/2/2012



Weatherford International Ltd.

WFT Survey Report X & Y's

**Weatherford**

Company: Devon Energy	Date: 1/2/2012	Time: 06:11:32	Page: 1
Field: Eddy Co., NM (NAD 83)	Co-ordinate(NE) Reference: Well: #154H, Grid North		
Site: Cotton Draw Unit #154H	Vertical (TVD) Reference: SITE 3479.0		
Well: #154H	Section (VS) Reference: Well (0.00N, 0.00E, 179.83Azi)		
Wellpath: 1	Survey Calculation Method: Minimum Curvature	Db: Sybase	

Survey: Wft Svy	Start Date: 12/23/2011
Company: Weatherford International Ltd	Engineer: Russell W. Joyner
Tool: MWD;MWD - Standard	Tied-to: User Defined

Field: Eddy Co., NM (NAD 83)	
Map System: US State Plane Coordinate System 1983	Map Zone: New Mexico, Eastern Zone
Geo Datum: GRS 1980	Coordinate System: Well Centre
Sys Datum: Mean Sea Level	Geomagnetic Model: IGRF2010

Site: Cotton Draw Unit #154H		
Site Position:	Northing: 424684.63 ft	Latitude: 32 9 58.434 N
From: Map	Easting: 718954.61 ft	Longitude: 103 45 33.565 W
Position Uncertainty: 0.00 ft		North Reference: Grid
Ground Level: 3453.00 ft		Grid Convergence: 0.31 deg

Well: #154H	Slot Name:	
Well Position:		
+N/-S 0.00 ft	Northing: 424684.63 ft	Latitude: 32 9 58.434 N
+E/-W 0.00 ft	Easting: 718954.61 ft	Longitude: 103 45 33.565 W
Position Uncertainty: 0.00 ft		

Wellpath: 1	Drilled From: Surface		
Current Datum: SITE	Tie-on Depth: 0.00 ft		
Magnetic Data: 11/15/2011	Above System Datum: Mean Sea Level		
Field Strength: 48544 nT	Declination: 7.62 deg		
Vertical Section: Depth From (TVD)	Mag Dip Angle: 60.09 deg		
	+N/-S ft	+E/-W ft	Direction deg
0.00	0.00	0.00	179.83

Survey										
MD	Incl	Azim	TVD	N/S	E/W	DLS	VS	MapN	MapE	Comment
ft	deg	deg	ft	ft	ft	deg/100ft	ft	ft	ft	
7540.00	1.32	155.69	7536.52	-119.31	85.46	0.00	119.57	424565.32	719040.07	Tie On VES
7569.00	1.18	148.93	7565.52	-119.87	85.75	0.70	120.13	424564.76	719040.36	First Wft Svy
7601.00	2.43	160.49	7597.50	-120.79	86.15	4.05	121.05	424563.84	719040.76	
7632.00	5.48	171.78	7628.42	-122.88	86.58	10.11	123.14	424561.75	719041.19	
7663.00	8.74	171.96	7659.18	-126.67	87.12	10.52	126.94	424557.96	719041.73	
7695.00	11.52	173.07	7690.68	-132.26	87.85	8.71	132.52	424552.37	719042.46	
7727.00	14.62	175.54	7721.85	-139.46	88.55	9.84	139.72	424545.17	719043.16	
7758.00	18.05	178.60	7751.59	-148.16	88.97	11.40	148.43	424536.47	719043.58	
7789.00	20.70	179.54	7780.83	-158.44	89.13	8.61	158.71	424526.19	719043.74	
7821.00	23.36	181.13	7810.50	-170.44	89.05	8.52	170.71	424514.19	719043.66	
7852.00	26.03	182.27	7838.66	-183.39	88.66	8.75	183.65	424501.24	719043.27	
7883.00	28.78	182.23	7866.18	-197.64	88.10	8.87	197.91	424486.99	719042.71	
7915.00	31.47	182.04	7893.85	-213.69	87.50	8.41	213.95	424470.94	719042.11	
7946.00	33.93	181.59	7919.94	-230.43	86.97	7.97	230.69	424454.20	719041.58	
7977.00	36.73	181.34	7945.22	-248.35	86.52	9.04	248.61	424436.28	719041.13	
8008.00	39.08	181.33	7969.68	-267.39	86.07	7.58	267.64	424417.24	719040.68	
8040.00	41.61	180.56	7994.07	-288.10	85.73	8.06	288.35	424396.53	719040.34	
8071.00	44.69	179.42	8016.68	-309.30	85.74	10.25	309.55	424375.33	719040.35	
8102.00	47.73	178.65	8038.13	-331.67	86.13	9.97	331.92	424352.96	719040.74	
8134.00	50.49	179.14	8059.08	-355.85	86.59	8.70	356.11	424328.78	719041.20	
8165.00	53.11	179.70	8078.25	-380.21	86.83	8.57	380.47	424304.42	719041.44	
8196.00	55.27	180.25	8096.39	-405.35	86.84	7.11	405.61	424279.28	719041.45	
8228.00	58.04	180.36	8113.97	-432.08	86.70	8.66	432.34	424252.55	719041.31	
8259.00	60.50	179.95	8129.81	-458.72	86.63	8.02	458.98	424225.91	719041.24	



Weatherford International Ltd.

WFT Survey Report X & Y's

**Weatherford**

Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Site: Cotton Draw Unit #154H
Well: #154H
Wellpath: 1

Date: 1/2/2012
Co-ordinate(NE) Reference:
Vertical (TVD) Reference:
Section (VS) Reference:
Survey Calculation Method:

Time: 06:11:32
Well: #154H, Grid North
SITE 3479.0
Well (0.00N,0.00E,179.83Azi)
Minimum Curvature
Db: Sybase

Page: 2

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	DLS deg/100ft	VS ft	MapN ft	MapE ft	Comment
8290.00	62.87	180.30	8144.52	-486.01	86.57	7.71	486.27	424198.62	719041.18	
8322.00	65.20	180.89	8158.53	-514.78	86.27	7.47	515.03	424169.85	719040.88	
8353.00	67.34	180.88	8171.00	-543.15	85.83	6.90	543.41	424141.48	719040.44	
8384.00	71.60	181.70	8181.87	-572.17	85.17	13.96	572.42	424112.46	719039.78	
8415.00	74.82	181.98	8190.82	-601.83	84.22	10.42	602.08	424082.80	719038.83	
8447.00	78.92	182.11	8198.09	-632.96	83.11	12.82	633.21	424051.67	719037.72	
8478.00	80.76	182.06	8203.56	-663.46	82.00	5.94	663.70	424021.17	719036.61	
8509.00	82.52	182.36	8208.07	-694.10	80.82	5.76	694.34	423990.53	719035.43	
8541.00	85.20	181.53	8211.49	-725.90	79.74	8.76	726.13	423958.73	719034.35	
8632.00	87.44	180.89	8217.33	-816.68	77.82	2.56	816.91	423867.95	719032.43	
8647.00	87.24	180.54	8218.03	-831.67	77.63	2.69	831.90	423852.96	719032.24	
8741.00	89.20	180.08	8220.94	-925.61	77.12	2.14	925.84	423759.02	719031.73	
8835.00	90.03	180.06	8221.58	-1019.61	77.01	0.88	1019.84	423665.02	719031.62	
8929.00	89.62	181.21	8221.86	-1113.60	75.97	1.30	1113.83	423571.03	719030.58	
9022.00	90.24	181.32	8221.98	-1206.58	73.92	0.68	1206.80	423478.05	719028.53	
9117.00	89.96	182.10	8221.81	-1301.54	71.08	0.87	1301.74	423383.09	719025.69	
9210.00	92.34	181.05	8219.95	-1394.47	68.52	2.80	1394.67	423290.16	719023.13	
9304.00	92.28	179.63	8216.16	-1488.39	67.97	1.51	1488.59	423196.24	719022.58	
9398.00	89.90	179.26	8214.37	-1582.37	68.88	2.56	1582.57	423102.26	719023.49	
9492.00	89.55	180.09	8214.82	-1676.36	69.41	0.96	1676.56	423008.27	719024.02	
9586.00	90.17	181.30	8215.05	-1770.35	68.27	1.45	1770.55	422914.28	719022.88	
9680.00	90.66	181.07	8214.37	-1864.33	66.33	0.58	1864.52	422820.30	719020.94	
9775.00	88.43	182.13	8215.12	-1959.28	63.67	2.60	1959.47	422725.35	719018.28	
9868.00	88.85	182.24	8217.33	-2052.19	60.13	0.47	2052.36	422632.44	719014.74	
9962.00	90.10	182.42	8218.19	-2146.11	56.31	1.34	2146.26	422538.52	719010.92	
10057.00	88.57	181.30	8219.29	-2241.04	53.23	2.00	2241.19	422443.59	719007.84	
10151.00	88.35	181.17	8221.82	-2334.99	51.20	0.27	2335.13	422349.64	719005.81	
10244.00	88.28	182.47	8224.55	-2427.90	48.25	1.40	2428.03	422256.73	719002.86	
10338.00	87.87	182.99	8227.71	-2521.74	43.77	0.70	2521.86	422162.89	718998.38	
10432.00	90.52	184.58	8229.03	-2615.51	37.57	3.29	2615.61	422069.12	718992.18	
10527.00	90.59	182.13	8228.11	-2710.34	32.01	2.58	2710.42	421974.29	718986.62	
10621.00	91.57	181.90	8226.34	-2804.26	28.71	1.07	2804.34	421880.37	718983.32	
10715.00	91.57	180.89	8223.77	-2898.20	26.42	1.07	2898.26	421786.43	718981.03	
10809.00	90.11	179.35	8222.39	-2992.18	26.22	2.26	2992.25	421692.45	718980.83	
10903.00	90.31	179.58	8222.04	-3086.18	27.10	0.32	3086.25	421598.45	718981.71	
10998.00	90.80	180.09	8221.12	-3181.17	27.37	0.74	3181.24	421503.46	718981.98	
11092.00	90.17	181.18	8220.33	-3275.16	26.33	1.34	3275.23	421409.47	718980.94	
11185.00	88.50	180.23	8221.41	-3368.14	25.19	2.07	3368.20	421316.49	718979.80	
11279.00	88.71	180.03	8223.69	-3462.12	24.97	0.31	3462.18	421222.51	718979.58	
11373.00	88.70	180.36	8225.82	-3556.09	24.65	0.35	3556.15	421128.54	718979.26	
11467.00	88.92	180.36	8227.77	-3650.07	24.06	0.23	3650.12	421034.56	718978.67	
11561.00	89.13	180.25	8229.37	-3744.05	23.56	0.25	3744.11	420940.58	718978.17	
11655.00	89.55	180.48	8230.45	-3838.05	22.96	0.51	3838.10	420846.58	718977.57	
11749.00	89.26	180.90	8231.43	-3932.03	21.83	0.54	3932.08	420752.60	718976.44	
11843.00	89.27	180.65	8232.64	-4026.02	20.56	0.27	4026.06	420658.61	718975.17	
11937.00	89.48	180.85	8233.66	-4120.00	19.33	0.31	4120.04	420564.63	718973.94	
12031.00	90.24	181.10	8233.89	-4213.99	17.73	0.85	4214.02	420470.64	718972.34	
12125.00	90.45	181.51	8233.32	-4307.96	15.59	0.49	4307.99	420376.67	718970.20	
12219.00	90.52	182.02	8232.53	-4401.91	12.70	0.55	4401.93	420282.72	718967.31	
12313.00	90.80	181.99	8231.45	-4495.85	9.41	0.30	4495.86	420188.78	718964.02	
12407.00	91.01	182.20	8229.96	-4589.78	5.97	0.32	4589.77	420094.85	718960.58	
12499.00	91.01	181.91	8228.34	-4681.70	2.67	0.32	4681.69	420002.93	718957.28	Last Wft Svy



Company: Devon Energy	Date: 1/2/2012	Time: 06:11:32	Page: 3
Field: Eddy Co. NM (NAD 83)	Co-ordinate(NE) Reference:	Well: #154H, Grid North	
Site: Cotton Draw Unit #154H	Vertical (TVD) Reference:	SITE 3479.0	
Well: #154H	Section (VS) Reference:	Well: (0.00N 0.00E; 179.83Azi)	
Wellpath: 1	Survey Calculation Method:	Minimum Curvature	Db: Sybase

Survey

MD ft	Incl. deg	Azim deg	TVD ft	N/S ft	E/W ft	DLS deg/100ft	VS ft	MapN ft	MapE ft	Comment
12568.00	91.01	181.91	8227.12	-4750.65	0.37	0.00	4750.63	419933.98	718954.98	Proj To Bit

Annotation

MD ft	TVD ft	
7540.00	7536.52	Tie On VES
7569.00	7565.52	First Wft Svy
12499.00	8228.34	Last Wft Svy
12568.00	8227.12	Proj. To Bit



A GYRO TECHNOLOGIES INC. COMPANY

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

January 31, 2012

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

Attn: Mark Cooper

Re: **Cotton Draw Unit 154H**

Please find enclosed a copy of the survey from 0' to 7,540' ran on the above referenced well.

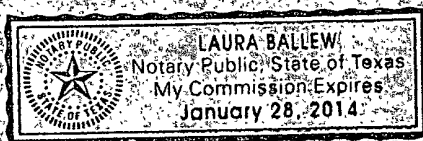
If I can be of any further service, please do not hesitate to call me at 800-606-4976.

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 Ballew
Notary Public, State of Texas