Results of Directional Survey

API number:	30-025-40584				
OGRID:		Operator:	DEVON ENERGY PRODUCTION COMPANY, LP		
		Property:	COTTOW DRAW UNIT		# 157H

surface	ULSTR:	M	18	T	25S	R	32E
				330	FNL	660	FWL
BH Loc	ULSTR:	D	18	T	25S	R	32E
12737 MD		8322.3 TVD		202	FNL	621	FWL
				5078	FSL		
Top Perf/OH	ULSTR:	M	18	T	25S	R	32E
8730 MD		8317.0 TVD		1077	FSL	770	FWL
Bot Perf/OH	ULSTR:	D	18	T	25S	R	32E
12652 MD		8324.1 TVD		287	FNL	624	FWL
				4993	FSL		

	MD	N/S	E/W	VD
	8703	720.34	109.99	8311.82
TOP PERFS/OH	**8730**	746.84	110.11	8316.95
	8734	750.77	110.13	8317.71
	12631	4641.61	-35.10	8324.50
BOT PERFS/OH	**12652**	4662.60	-35.75	8324.12
	12682	4692.58	-36.67	8323.57

NEXT TO LAST	12682	4692.58	-36.67	8323.57
LAST READING	12737	4747.52	-38.76	8322.29
TD	**12737**	4747.52	-38.76	8322.29

Surface Location	330	FS	660	FW
Projected BHL	5078	FS	621	FW
Location of				
Top Perfs/OH	1077	FS	770	FW
Bottom Perfs/OH	4993	FS	624	FW

SUMMARY of Subsurface Locations

Surface Location	M-18-25S-32E	330	FS	660	FW	Vert. Depth
Top Perfs/OH	M-18-25S-32E	1077	FS	770	FW	8316.95
Bottom Perfs/OH	D-18-25S-32E	4993	FS	624	FW	8324.12
Projected TD	D-18-25S-32E	5078	FS	621	FW	8322.29

SEP 09 2013

VES
VAUGHN ENERGY SERVICES
A GYRO TECHNOLOGIES INC. COMPANY

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

November 2, 2012

NOV 7 2012

Devon Energy Production Co., L. P.
333 West Sheridan Ave
Oklahoma City, Oklahoma 73102-5010

Attn: Patti Riechers

Re: **Cotton Draw Unit 157**

Please find enclosed a copy of the survey from 0.00' to 7606.74.00' 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 7th day of November A.D., 2012, by Keith Havelka.

LAURA BALLEW
Notary Public, State of Texas
My Commission Expires
January 28, 2014

Laura Ballew
Notary Public, State of Texas

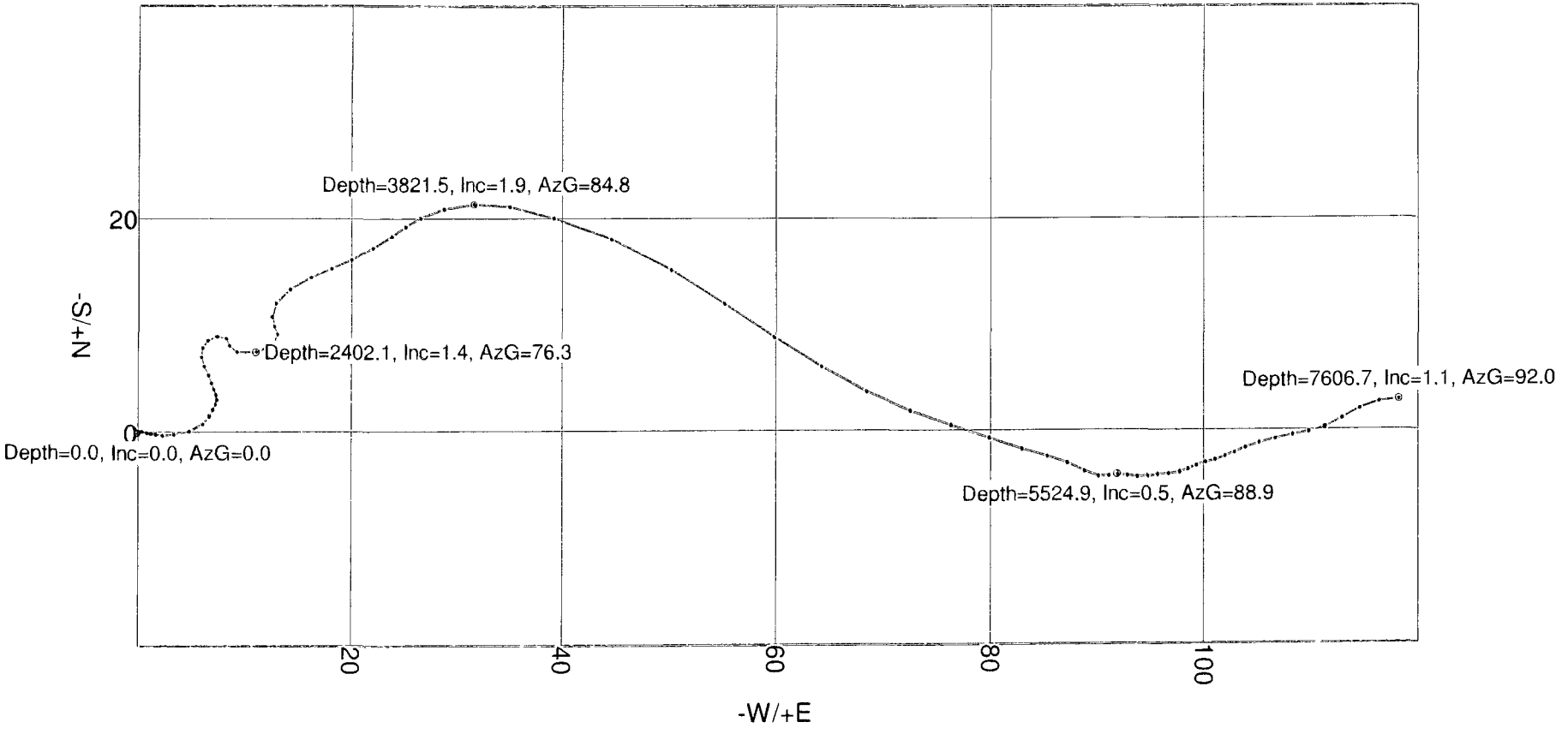
VES

VAUGHN ENERGY SERVICES

I Dustin Wedel certify that I am employed by Vaughn Energy Services. That I did on the day(s) of 10/27/12 through 10/27/12 conduct or supervise the taking of a Rate Gyro survey from a depth of 0 feet to a depth of 7606.74 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 qualifed to make this report; that this survey was conducted at the at the request of Devon for the Cotton Draw Unit Well # 157 API # 30-025-40584 in Lea County, 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

Dustin Wedel
Service Technician
Vaughn Energy Services

Vaughn Energy Services
Gardendale, Texas
432-563-5444
Surveyor: Dustin Wedel
Cotton Draw Unit No. 157 / API 30-025-40584



VES Survey Date: 10/27/2012

Company: Devon Energy Production Co., LP
Lease/Well: Cotton Draw Unit / No. 157
Location: S18 T25s R32e
Rig Name: HP 214
State/County: New Mexico / Lea
Latitude: 32.12, Longitude: -103.72
GRID North is 0.33 Degrees East of True North
VS-Azi: 0.00 Degrees

RKB : 25'

DRILLOG MS GYRO SURVEY CALCULATIONS
Filename: ...raw unit #157h gyro survey.ut
Minimum Curvature Method
Report Date/Time: 4/22/2013 / 15:36

Vaughn Energy Services
Gardendale, Texas
432-563-5444
Surveyor: Dustin Wedel
Cotton Draw Unit No. 157 / API 30-025-40584

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	****
36.34	0.26	28.06	36.34	0.07	0.04	0.07	0.08	28.06	0.72
130.97	0.31	111.85	130.97	0.17	0.38	0.17	0.41	66.19	0.40
225.60	0.26	107.12	225.60	0.01	0.82	0.01	0.82	89.35	0.06
320.23	0.20	102.39	320.23	-0.09	1.18	-0.09	1.18	94.28	0.06
414.86	0.34	97.38	414.86	-0.16	1.62	-0.16	1.63	95.63	0.15
509.49	0.48	92.36	509.48	-0.21	2.30	-0.21	2.31	95.28	0.15
604.12	0.75	82.99	604.11	-0.15	3.31	-0.15	3.32	92.65	0.30
698.75	1.02	73.61	698.73	0.16	4.74	0.16	4.74	88.06	0.32
793.38	0.75	48.79	793.35	0.80	6.01	0.80	6.06	82.38	0.49
888.01	0.47	23.97	887.97	1.56	6.63	1.56	6.81	76.73	0.40
982.64	0.37	27.72	982.60	2.19	6.93	2.19	7.27	72.46	0.11
1077.27	0.28	31.46	1077.23	2.66	7.19	2.66	7.67	69.73	0.10
1171.90	0.29	4.27	1171.86	3.09	7.33	3.09	7.96	67.13	0.14
1266.53	0.31	337.08	1266.48	3.57	7.25	3.57	8.08	63.80	0.15
1361.16	0.36	338.86	1361.11	4.08	7.04	4.08	8.14	59.92	0.06
1455.79	0.41	340.65	1455.74	4.68	6.82	4.68	8.27	55.58	0.06
1550.42	0.50	337.25	1550.37	5.38	6.55	5.38	8.48	50.60	0.10
1645.05	0.60	333.84	1644.99	6.21	6.17	6.21	8.75	44.83	0.10
1739.68	0.55	356.01	1739.62	7.10	5.92	7.10	9.25	39.81	0.24
1834.31	0.50	18.18	1834.24	7.95	6.02	7.95	9.97	37.13	0.22

VES Survey Date: 10/27/2012

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
1928.94	0.57	49.05	1928.87	8.65	6.50	8.65	10.82	36.93	0.31
2023.57	0.63	79.91	2023.50	9.05	7.37	9.05	11.67	39.16	0.34
2118.20	0.54	132.18	2118.12	8.84	8.21	8.84	12.07	42.89	0.55
2212.83	0.44	184.46	2212.75	8.18	8.51	8.18	11.80	46.16	0.47
2307.46	0.91	110.36	2307.37	7.55	9.19	7.55	11.89	50.61	0.95
2402.09	1.38	76.26	2401.98	7.56	11.01	7.56	13.35	55.53	0.85
2496.72	0.91	43.28	2496.60	8.38	12.63	8.38	15.15	56.45	0.84
2591.35	0.44	330.30	2591.22	9.24	12.96	9.24	15.92	54.52	0.94
2685.98	0.53	342.02	2685.85	9.97	12.65	9.97	16.11	51.75	0.14
2780.61	0.61	353.73	2780.47	10.88	12.46	10.88	16.54	48.86	0.15
2875.24	1.02	26.50	2875.09	12.14	12.78	12.14	17.62	46.48	0.64
2969.87	1.43	59.26	2969.70	13.49	14.17	13.49	19.57	46.40	0.84
3064.50	1.32	63.78	3064.31	14.58	16.16	14.58	21.76	47.95	0.16
3159.13	1.21	68.30	3158.91	15.43	18.06	15.43	23.76	49.50	0.16
3253.76	1.33	64.81	3253.52	16.26	19.98	16.26	25.76	50.86	0.15
3348.39	1.45	61.31	3348.12	17.30	22.02	17.30	28.00	51.84	0.15
3443.02	1.12	56.45	3442.73	18.39	23.84	18.39	30.11	52.36	0.36
3537.65	0.80	51.58	3537.34	19.31	25.13	19.31	31.70	52.46	0.35
3632.28	1.24	64.01	3631.96	20.17	26.57	20.17	33.36	52.80	0.52
3726.91	1.68	76.43	3726.56	20.95	28.84	20.95	35.65	54.01	0.57
3821.54	1.92	84.83	3821.14	21.42	31.77	21.42	38.31	56.02	0.37
3916.17	2.15	101.23	3915.71	21.21	35.09	21.21	41.00	58.84	0.66
4010.80	3.03	107.24	4010.25	20.12	39.22	20.12	44.08	62.84	0.97
4105.43	3.91	112.26	4104.70	18.16	44.60	18.16	48.15	67.84	0.98
4200.06	3.71	122.46	4199.12	15.29	50.17	15.29	52.45	73.05	0.75
4294.69	3.51	123.66	4293.57	12.05	55.16	12.05	56.46	77.68	0.23
4389.32	3.29	123.10	4388.03	8.96	59.84	8.96	60.51	81.48	0.23
4483.95	3.08	122.55	4482.51	6.11	64.26	6.11	64.55	84.57	0.23
4578.58	2.80	116.42	4577.02	3.71	68.48	3.71	68.58	86.90	0.44
4673.21	2.53	110.29	4671.55	1.96	72.51	1.96	72.54	88.45	0.42
4767.84	2.36	109.58	4766.09	0.58	76.30	0.58	76.31	89.56	0.18
4862.47	2.20	108.87	4860.64	-0.66	79.86	-0.66	79.86	90.47	0.18
4957.10	1.73	106.82	4955.22	-1.66	82.94	-1.66	82.96	91.15	0.50
5051.73	1.26	104.78	5049.82	-2.34	85.32	-2.34	85.35	91.57	0.50
5146.36	1.14	112.49	5144.43	-2.97	87.20	-2.97	87.25	91.95	0.21
5240.99	1.03	120.20	5239.04	-3.76	88.81	-3.76	88.89	92.42	0.20
5335.62	0.74	95.76	5333.66	-4.24	90.15	-4.24	90.25	92.69	0.49
5430.25	0.46	71.33	5428.28	-4.18	91.12	-4.18	91.21	92.63	0.40
5524.88	0.54	88.90	5522.91	-4.05	91.92	-4.05	92.01	92.52	0.18
5619.51	0.61	106.47	5617.53	-4.19	92.85	-4.19	92.94	92.58	0.20
5714.14	0.59	91.72	5712.16	-4.35	93.81	-4.35	93.91	92.65	0.16
5808.77	0.56	76.96	5806.78	-4.26	94.75	-4.26	94.84	92.57	0.16

VES Survey Date: 10/27/2012

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
5903.40	0.61	82.95	5901.41	-4.09	95.69	-4.09	95.78	92.45	0.08
5998.03	0.65	88.93	5996.03	-4.02	96.73	-4.02	96.81	92.38	0.09
6092.66	0.57	76.27	6090.66	-3.90	97.72	-3.90	97.80	92.28	0.17
6187.29	0.49	63.61	6185.28	-3.61	98.54	-3.61	98.60	92.10	0.15
6281.92	0.53	69.29	6279.91	-3.27	99.31	-3.27	99.36	91.89	0.07
6376.55	0.58	74.97	6374.54	-3.00	100.17	-3.00	100.22	91.71	0.07
6471.18	0.56	71.13	6469.16	-2.72	101.07	-2.72	101.11	91.54	0.04
6565.81	0.55	67.29	6563.79	-2.40	101.93	-2.40	101.96	91.35	0.04
6660.44	0.64	67.65	6658.41	-2.02	102.84	-2.02	102.86	91.12	0.09
6755.07	0.72	68.02	6753.04	-1.60	103.88	-1.60	103.89	90.88	0.09
6849.70	0.87	72.77	6847.66	-1.16	105.12	-1.16	105.13	90.63	0.17
6944.33	1.02	77.52	6942.27	-0.77	106.63	-0.77	106.63	90.41	0.18
7038.96	0.96	78.65	7036.89	-0.43	108.23	-0.43	108.23	90.23	0.07
7133.59	0.89	79.78	7131.51	-0.14	109.73	-0.14	109.73	90.07	0.07
7228.22	1.02	68.51	7226.12	0.30	111.24	0.30	111.24	89.85	0.24
7322.85	1.16	57.25	7320.74	1.13	112.83	1.13	112.84	89.43	0.26
7417.48	1.16	66.28	7415.35	2.03	114.52	2.03	114.53	88.99	0.19
7512.11	1.17	75.31	7509.96	2.66	116.33	2.66	116.36	88.69	0.19
7606.74	1.11	92.01	7604.57	2.88	118.19	2.88	118.23	88.61	0.36

VES Survey Date: 10/27/2012

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
333 W. Sherridan Ave
Oklahoma City, OK, 73102

Date: November 12, 2012

Attention: John Logemann

Re: Devon Energy
Well: Cotton Draw Unit #157H
Lea 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:

Name & Title Of Surveyor	Well Number	Surveyed Depths	Dates Performed	Type of Survey
John Self	157H	7612' MD	10/26/2012	Measurement
MWD Supervisor		12682' MD	11/09/2012	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
MWD Ops. Coordinator

On this, the 12th day of November, 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.

Jayme Wilson
Notary Public

JAYME WILSON
Notary Public
STATE OF TEXAS
My Comm. Exp. February 3, 2014

devon

Cotton Draw Unit #157H
Lea County, New Mexico

KB ELEV: 3420
GL ELEV: 3395

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	10842.00	90.07	358.44	8340.17	2854.71	42.74	0.00	0.00	2854.48	
2	10860.82	90.46	358.03	8340.08	2873.53	42.16	3.00	-46.23	2873.30	
3	12736.62	90.46	358.03	8325.00	4748.16	-22.25	0.00	0.00	4748.21	PBHL

WELL DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
CDU #157H	0.00	0.00	409385.29	730929.45	32°07'26.385N	103°43'15.265W	N/A

TARGET DETAILS

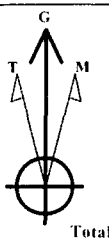
Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
PBHL	8325.00	4748.16	-22.25	414133.45	730907.20	Rectangle (2470x50)

SITE DETAILS

Cotton Draw Unit #157H

Site Centre Northing: 409385.29
Easting: 730929.45

Ground Level: 3395.00
Positional Uncertainty: 0.00
Convergence: 0.33



Azimuths to Grid North
True North: -0.33°
Magnetic North: 7.16°

Magnetic Field
Strength: 48429nT
Dip Angle: 60.03°
Date: 10/25/2012
Model: IGRF2010

Total Correction to Grid North: 7.16°

LEGEND

CDU #157H.1.Plan #6
CDU #157H.1.Gyro
Wft Svy

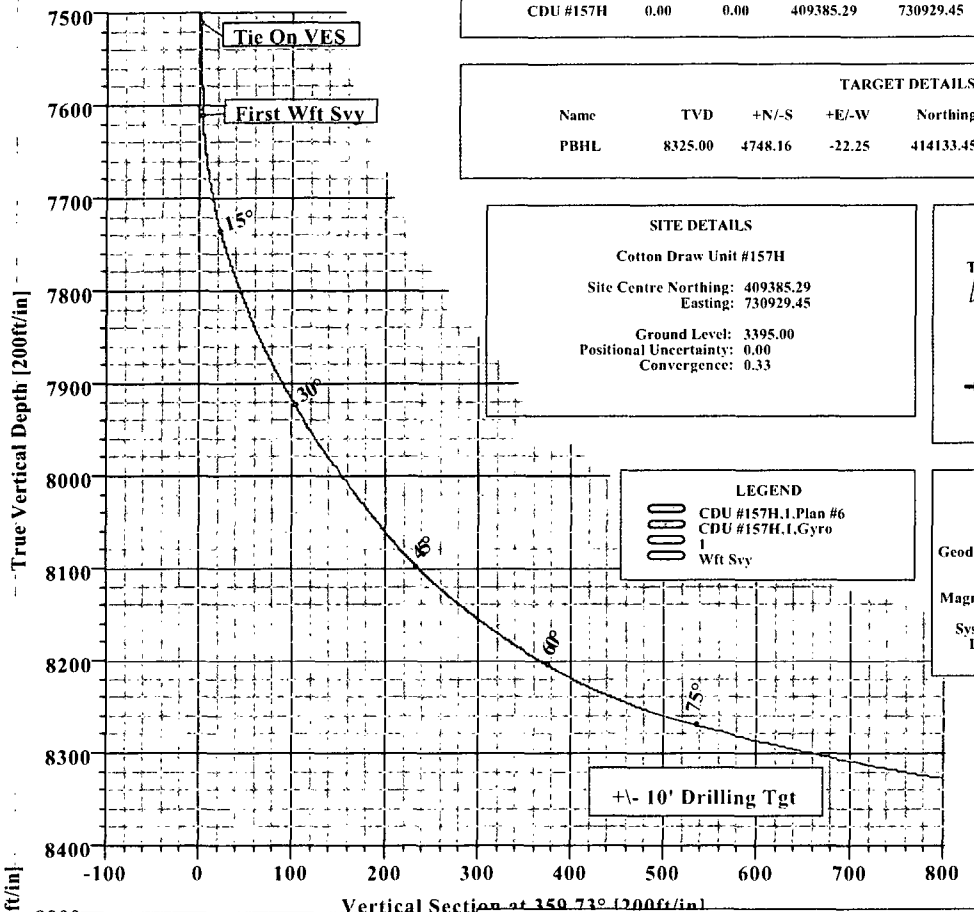
FIELD DETAILS

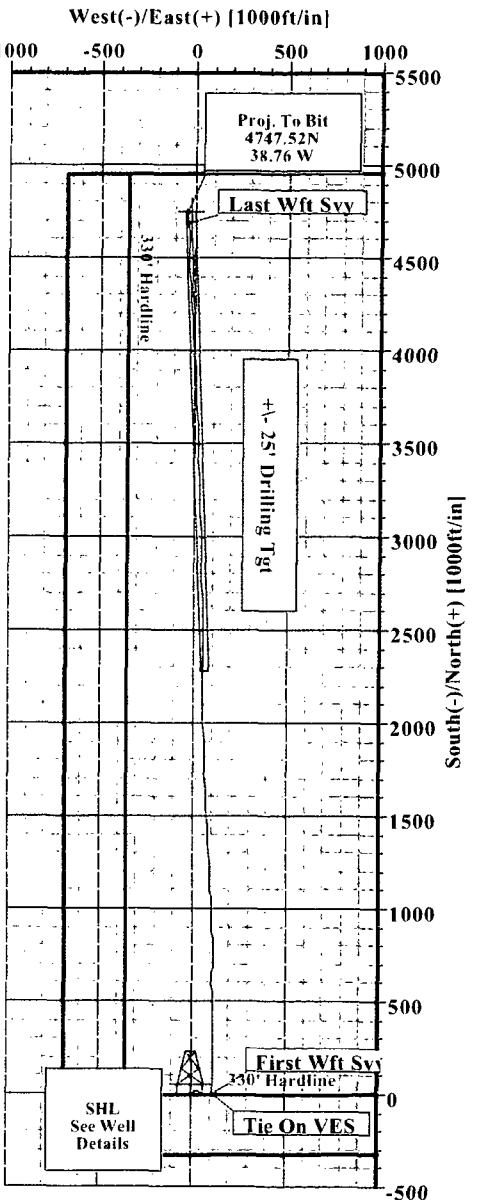
Lea County, New Mexico (NAD 83)

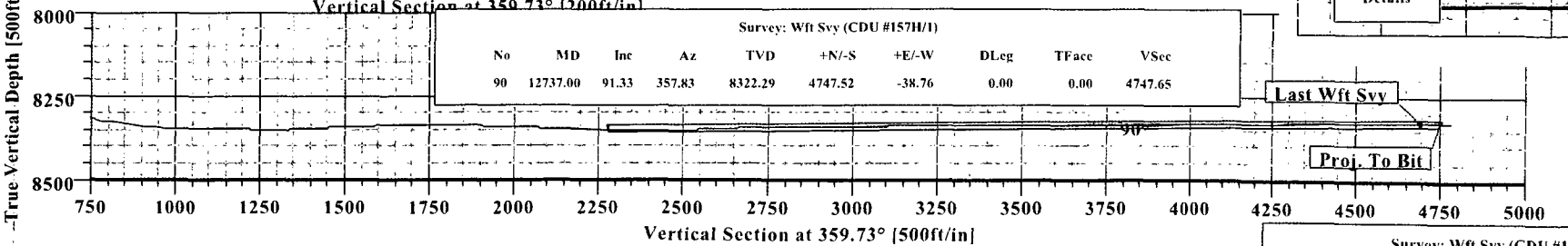
Geodetic System: US State Plane Coordinate System 1983
Ellipsoid: GRS 1980
Zone: New Mexico, Eastern Zone
Magnetic Model: IGRF2010

System Datum: Mean Sea Level
Local North: Grid North

Weatherford







Survey: Wft Svy (CDU #157H/1)

No	MD	Inc	Az	TVD	+N/-S	+E/-W	DLeg	TFace	VSec
90	12737.00	91.33	357.83	8322.29	4747.52	-38.76	0.00	0.00	4747.65

Survey: Wft Svy (CDU #157H/1)

Created By: Russell W. Joyner Date: 11/9/2012

Weatherford
WFT Survey Report X & Y's

Company:	Devon Energy	**Date:** 11/9/2012 **Time:** 09:01:26	**Page:** 1
Field:	Lea County, New Mexico (NAD 83)	**Co-ordinate(NE) Reference:**	Well: CDU #157H, Grid North
Site:	Cotton Draw Unit #157H	**Vertical (TVD) Reference:**	SITE 3420.0
Well:	CDU #157H	**Section (VS) Reference:**	Well (0.00N,0.00E,359.73Azi)
Wellpath:	1	**Survey Calculation Method:**	Minimum Curvature **Db:** Sybase

Survey:	Wft Svy	**Start Date:**	11/2/2012
Company:	Weatherford	**Engineer:**	Russell W. Joyner
Tool:	MWD;MWD - Standard	**Tied-to:**	User Defined

Field:	Lea County, New Mexico (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 #157H				
Site Position:		**Northing:**	409385.29 ft	**Latitude:**	32 7 26.385 N
From:	Map	**Easting:**	730929.45 ft	**Longitude:**	103 43 15.265 W
Position Uncertainty:	0.00 ft			**North Reference:**	Grid
Ground Level:	3395.00 ft			**Grid Convergence:**	0.33 deg

Well:	CDU #157H				**Slot Name:**	
Well Position:	+N/-S	0.00 ft	**Northing:**	409385.29 ft	**Latitude:**	32 7 26.385 N
	+E/-W	0.00 ft	**Easting :**	730929.45 ft	**Longitude:**	103 43 15.265 W
Position Uncertainty:		0.00 ft				

Wellpath:	1			**Drilled From:**	Surface
				Tie-on Depth:	0.00 ft
Current Datum:	SITE	**Height**	3420.00 ft	**Above System Datum:**	Mean Sea Level
Magnetic Data:	10/25/2012			**Declination:**	7.48 deg
Field Strength:	48429 nT			**Mag Dip Angle:**	60.03 deg

Vertical Section:	**Depth From (TVD)**	**+N/-S**	**+E/-W**	**Direction**
	ft	ft	ft	deg
	0.00	0.00	0.00	359.73

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
7512.11	1.17	75.31	7509.96	2.66	116.33	0.00	2.11	409387.95	731045.78	Tie On VES
7612.00	2.07	18.41	7609.81	4.63	117.89	1.74	4.07	409389.92	731047.34	First Wft Svy
7643.00	5.27	3.79	7640.75	6.58	118.16	10.67	6.03	409391.87	731047.61	
7674.00	8.76	357.47	7671.51	10.36	118.15	11.51	9.81	409395.65	731047.60	
7705.00	11.74	0.94	7702.01	15.88	118.09	9.81	15.32	409401.17	731047.54	
7737.00	14.70	0.26	7733.16	23.19	118.17	9.26	22.64	409408.48	731047.62	
7768.00	17.51	0.73	7762.94	31.79	118.24	9.07	31.23	409417.08	731047.69	
7800.00	20.03	0.54	7793.24	42.09	118.36	7.88	41.53	409427.38	731047.81	
7831.00	22.48	359.53	7822.13	53.32	118.36	7.99	52.76	409438.61	731047.81	
7863.00	25.07	357.95	7851.41	66.22	118.07	8.33	65.66	409451.51	731047.52	
7894.00	27.41	357.61	7879.21	79.91	117.53	7.56	79.36	409465.20	731046.98	
7926.00	28.97	357.69	7907.41	95.02	116.91	4.88	94.46	409480.31	731046.36	
7957.00	30.67	358.89	7934.31	110.42	116.46	5.81	109.87	409495.71	731045.91	
7988.00	33.34	359.38	7960.59	126.85	116.21	8.65	126.30	409512.14	731045.66	
8020.00	35.73	359.31	7986.95	144.99	116.00	7.47	144.44	409530.28	731045.45	
8051.00	36.17	358.47	8012.05	163.18	115.65	2.13	162.64	409548.47	731045.10	
8083.00	37.83	358.37	8037.60	182.43	115.12	5.19	181.89	409567.72	731044.57	
8114.00	39.62	358.72	8061.79	201.82	114.63	5.82	201.28	409587.11	731044.08	
8146.00	42.86	0.57	8085.85	222.91	114.51	10.82	222.37	409608.20	731043.96	
8177.00	46.90	1.89	8107.81	244.77	114.99	13.37	244.23	409630.06	731044.44	
8208.00	49.72	2.29	8128.43	267.91	115.83	9.15	267.36	409653.20	731045.28	
8240.00	51.89	2.87	8148.65	292.68	116.95	6.93	292.12	409677.97	731046.40	
8271.00	54.46	1.95	8167.23	317.47	117.99	8.62	316.91	409702.76	731047.44	
8302.00	56.84	359.64	8184.72	343.06	118.34	9.84	342.49	409728.35	731047.79	

Weatherford
WFT Survey Report X & Y's

Company:	Devon Energy	**Date:** 11/9/2012 **Time:** 09:01:26 **Page:**	2
Field:	Lea County, New Mexico (NAD 83)	**Co-ordinate(NE) Reference:**	Well: CDU #157H, Grid North
Site:	Cotton Draw Unit #157H	**Vertical (TVD) Reference:**	SITE 3420.0
Well:	CDU #157H	**Section (VS) Reference:**	Well (0.00N,0.00E,359.73Azi)
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
8334.00	59.32	357.36	8201.64	370.20	117.62	9.83	369.64	409755.49	731047.07	
8365.00	62.35	357.17	8216.74	397.24	116.33	9.79	396.69	409782.53	731045.78	
8397.00	65.61	357.37	8230.78	425.96	114.96	10.20	425.41	409811.25	731044.41	
8428.00	69.11	357.33	8242.71	454.53	113.64	11.29	453.99	409839.82	731043.09	
8459.00	71.43	357.84	8253.18	483.69	112.41	7.64	483.15	409868.98	731041.86	
8482.00	72.91	357.04	8260.22	505.56	111.43	7.24	505.03	409890.85	731040.88	
8497.00	74.13	358.27	8264.47	519.93	110.84	11.31	519.40	409905.22	731040.29	
8514.00	75.07	358.28	8268.99	536.31	110.35	5.53	535.79	409921.60	731039.80	
8545.00	75.57	358.69	8276.84	566.29	109.56	2.06	565.77	409951.58	731039.01	
8576.00	76.15	359.39	8284.42	596.35	109.05	2.88	595.82	409981.64	731038.50	
8608.00	76.88	0.16	8291.88	627.46	108.93	3.27	626.94	410012.75	731038.38	
8640.00	77.60	0.94	8298.95	658.67	109.23	3.27	658.15	410043.96	731038.68	
8671.00	78.31	0.77	8305.42	688.98	109.68	2.35	688.46	410074.27	731039.13	
8703.00	78.60	0.36	8311.82	720.34	109.99	1.55	719.81	410105.63	731039.44	
8734.00	79.51	0.16	8317.71	750.77	110.13	3.00	750.24	410136.06	731039.58	
8766.00	80.55	0.58	8323.25	782.29	110.33	3.50	781.76	410167.58	731039.78	
8797.00	81.44	359.83	8328.10	812.90	110.44	3.74	812.37	410198.19	731039.89	
8829.00	81.86	358.33	8332.75	844.56	109.93	4.82	844.03	410229.85	731039.38	
8861.00	82.71	357.38	8337.04	876.25	108.75	3.96	875.72	410261.54	731038.20	
8892.00	84.11	357.11	8340.60	907.01	107.27	4.60	906.49	410292.30	731036.72	
8924.00	86.15	357.40	8343.32	938.85	105.74	6.44	938.34	410324.14	731035.19	
8955.00	87.41	357.46	8345.06	969.77	104.35	4.07	969.27	410355.06	731033.80	
8987.00	87.41	357.35	8346.50	1001.71	102.91	0.34	1001.21	410387.00	731032.36	
9018.00	88.53	357.12	8347.60	1032.65	101.41	3.69	1032.16	410417.94	731030.86	
9050.00	89.51	356.32	8348.15	1064.59	99.58	3.95	1064.11	410449.88	731029.03	
9081.00	90.00	356.25	8348.28	1095.53	97.57	1.60	1095.05	410480.82	731027.02	
9145.00	89.72	357.45	8348.44	1159.43	94.05	1.93	1158.97	410544.72	731023.50	
9239.00	89.09	356.37	8349.41	1253.28	88.99	1.33	1252.85	410638.57	731018.44	
9332.00	91.89	356.94	8348.62	1346.11	83.56	3.07	1345.70	410731.40	731013.01	
9427.00	93.15	357.59	8344.44	1440.91	79.03	1.49	1440.52	410826.20	731008.48	
9522.00	91.89	358.10	8340.27	1535.75	75.47	1.43	1535.38	410921.04	731004.92	
9617.00	92.31	357.23	8336.78	1630.61	71.60	1.02	1630.25	411015.90	731001.05	
9711.00	89.93	357.02	8334.95	1724.46	66.88	2.54	1724.13	411109.75	730996.33	
9804.00	88.67	357.78	8336.08	1817.36	62.67	1.58	1817.04	411202.65	730992.12	
9898.00	87.97	357.53	8338.84	1911.24	58.82	0.79	1910.94	411296.53	730988.27	
9993.00	88.18	358.69	8342.03	2006.13	55.69	1.24	2005.85	411391.42	730985.14	
10088.00	89.16	359.50	8344.24	2101.09	54.19	1.34	2100.81	411486.38	730983.64	
10182.00	88.18	358.84	8346.42	2195.05	52.83	1.26	2194.78	411580.34	730982.28	
10276.00	88.25	359.20	8349.35	2288.99	51.22	0.39	2288.73	411674.28	730980.67	
10371.00	90.14	359.70	8350.68	2383.98	50.31	2.06	2383.71	411769.27	730979.76	
10465.00	90.35	359.44	8350.28	2477.97	49.60	0.36	2477.71	411863.26	730979.05	
10559.00	92.80	359.82	8347.69	2571.93	49.00	2.64	2571.67	411957.22	730978.45	
10653.00	92.31	358.82	8343.50	2665.83	47.88	1.18	2665.57	412051.12	730977.33	
10747.00	90.84	358.25	8340.92	2759.76	45.48	1.68	2759.51	412145.05	730974.93	
10842.00	90.07	358.44	8340.17	2854.71	42.74	0.83	2854.48	412240.00	730972.19	
10936.00	90.63	358.45	8339.59	2948.68	40.19	0.60	2948.46	412333.97	730969.64	
11030.00	90.07	358.73	8339.02	3042.65	37.87	0.67	3042.43	412427.94	730967.32	
11124.00	91.33	358.44	8337.87	3136.61	35.55	1.38	3136.41	412521.90	730965.00	
11219.00	91.96	357.91	8335.14	3231.52	32.53	0.87	3231.33	412616.81	730961.98	
11313.00	89.37	357.39	8334.05	3325.43	28.67	2.81	3325.25	412710.72	730958.12	
11407.00	88.46	357.37	8335.83	3419.31	24.38	0.97	3419.16	412804.60	730953.83	
11501.00	89.44	357.73	8337.55	3513.21	20.36	1.11	3513.07	412898.50	730949.81	

Weatherford
WFT Survey Report X & Y's

Company:	Devon Energy	**Date:** 11/9/2012 **Time:** 09:01:26	**Page:** 3
Field:	Lea County, New Mexico (NAD 83)	**Co-ordinate(NE) Reference:**	Well: CDU #157H, Grid North
Site:	Cotton Draw Unit #157H	**Vertical (TVD) Reference:**	SITE 3420.0
Well:	CDU #157H	**Section (VS) Reference:**	Well (0.00N,0.00E,359.73Azi)
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
11595.00	91.12	357.55	8337.09	3607.12	16.49	1.80	3607.01	412992.41	730945.94	
11689.00	90.49	357.26	8335.77	3701.02	12.23	0.74	3700.92	413086.31	730941.68	
11783.00	90.28	357.02	8335.14	3794.90	7.54	0.34	3794.82	413180.19	730936.99	
11877.00	90.77	357.12	8334.28	3888.77	2.74	0.53	3888.71	413274.06	730932.19	
11972.00	90.70	357.00	8333.06	3983.64	-2.13	0.15	3983.60	413368.93	730927.32	
12066.00	90.49	355.93	8332.09	4077.45	-7.93	1.16	4077.44	413462.74	730921.52	
12161.00	91.54	355.56	8330.40	4172.17	-14.98	1.17	4172.20	413557.46	730914.47	
12255.00	91.19	356.98	8328.16	4265.95	-21.09	1.56	4266.00	413651.24	730908.36	
12348.00	91.47	356.99	8326.01	4358.79	-25.98	0.30	4358.87	413744.08	730903.47	
12443.00	89.58	357.59	8325.13	4453.68	-30.47	2.09	4453.77	413838.97	730898.98	
12537.00	90.21	359.06	8325.31	4547.63	-33.22	1.70	4547.74	413932.92	730896.23	
12631.00	90.77	358.64	8324.50	4641.61	-35.10	0.74	4641.73	414026.90	730894.35	
12682.00	91.33	357.83	8323.57	4692.58	-36.67	1.93	4692.70	414077.87	730892.78	Last Wft Svy
12737.00	91.33	357.83	8322.29	4747.52	-38.76	0.00	4747.65	414132.81	730890.69	Proj. To Bit

Annotation

MD ft	TVD ft	
7512.11	7509.96	Tie On VES
7612.00	7609.81	First Wft Svy
12682.00	8323.57	Last Wft Svy
12737.00	8322.29	Proj. To Bit