



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

30 015-42849

Devon Energy
333 W. Sherridan Ave
Oklahoma City, OK, 73102

Date: June 3, 2015

Attention: Rob Schwartz

Re: Devon Energy
Well: Cotton Draw 182H
Eddy County, New Mexico

NM OIL CONSERVATION
ARTESIA DISTRICT

MAR 15 2016

RECEIVED

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
Tanner Bauer	182H	7324 MD	5/11/2015	Measurement
MWD Supervisor		15330 MD	5/31/2015	While Drilling

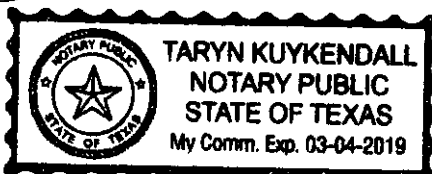
A notarized plan vs. actual is attached to the survey report. If any other information is required, please contact the undersigned at the letterhead address and phone number.

Jesus Aguilar
MWD Coordinator

On this, the 24th day of June, 2015, before me a notary public, the undersigned officer, personally appeared Jesus 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



5D Survey Report

Devon Energy

Field Name: *Eddy Co, NM (Nad 83 NME)*

Site Name: *Cotton Draw Unit 182, 245H Pad*

Well Name: *Cotton Draw Unit 182H*

Survey: *Wft MWD Svy*

01 June 2015



Cotton Draw Unit 182H

Field Name Eddy Co, NM (Nad 83 NME)	Map Units : US ft		Company Name : Devon Energy	
	Vertical Reference Datum (VRD) : Mean Sea Level			
	Projected Coordinate System : NAD83 / New Mexico East (ftUS)			
	Comment :			
Site Name Cotton Draw Unit 182, 245H Pad	Units : US ft	North Reference : Grid	Convergence Angle : 0.32	
	Position	Northing : 432578.15 US ft	Latitude : 32° 11' 16.06"	
		Easting : 728128.53 US ft	Longitude : -103° 43' 46.31"	
	Elevation above Mean Sea Level: 3527.00 US ft			
Comment :				
Slot Name Cotton Draw Unit 182H	Position (Offsets relative to Site Centre)			
	+N / -S : 0.00 US ft	Northing : 432578.15 US ft	Latitude : 32°11'16.06"	
	+E / -W : 0.00 US ft	Easting : 728128.53 US ft	Longitude : -103°43'46.31"	
	Slot TVD Reference : Ground Elevation			
Elevation above Mean Sea Level : 3527.00 US ft				
Comment :				
Well Name Cotton Draw Unit 182H	Type : Main well		UWI :	
	Rig Height <i>Well TVD Reference :</i> 27.00 US ft		Comment :	
	Relative to Mean Sea Level: 3554.00 US ft			
	Closure Distance : 7364.96 US ft		Closure Azimuth : 179.476°	
Vertical Section (Position of Origin Relative to Slot)				
+N / -S : 0.00 US ft +E / -W : 0.00 US ft Az : 179.65°				

Survey Name :Wft MWD Svy

Date : 14/May/2015		Survey Tool : MWD		Comment :		Company : Wft	
Magnetic Model							
Model Name: BGGM		Date: 15/May/2015		Field Strength: 48154.8 nT		Declination: 7.36°	
						Dip: 60.02°	
Tie Point							
MD: 7566		Inclination: 0.7		Azimuth: 194.75		TVD: 7564.57	
				North Offset: 17.125		East Offset: 11.936	

Well path created using minimum curvature

Survey Points (Relative to Slot centre, TVD relative to Well TVD Reference)										
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	VS (US ft)	DLS (°/100 US ft)	Northing (US ft)	Easting (US ft)	Comment
7624.00	0.56	203.43	7622.56	16.52	11.73	-16.45	0.00	432594.67	728140.26	First Wft Svy
7656.00	1.11	197.46	7654.56	16.08	11.58	-16.01	1.74	432594.23	728140.11	
7688.00	3.20	187.06	7686.54	14.90	11.38	-14.83	6.62	432593.05	728139.91	
7719.00	5.70	185.56	7717.44	12.51	11.12	-12.44	8.07	432590.66	728139.65	
7751.00	8.59	186.52	7749.19	8.55	10.69	-8.49	9.04	432586.70	728139.22	
7783.00	11.34	188.00	7780.70	3.06	9.98	-3.00	8.63	432581.21	728138.51	
7815.00	14.21	191.97	7811.91	-3.90	8.73	3.95	9.37	432574.25	728137.26	
7846.00	17.00	192.77	7841.76	-12.04	6.94	12.08	9.03	432566.11	728135.47	
7878.00	20.42	192.83	7872.07	-22.05	4.67	22.08	10.69	432556.10	728133.20	
7910.00	22.73	194.08	7901.82	-33.49	1.92	33.50	7.36	432544.66	728130.45	
7941.00	26.87	195.89	7929.96	-46.04	-1.45	46.03	13.58	432532.11	728127.08	

5D Survey Report

Survey Points (Relative to Slot centre, TVD relative to Well TVD Reference)										
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	VS (US ft)	DLS (°/100 US ft)	Northing (US ft)	Easting (US ft)	Comment
7973.00	30.11	194.24	7958.08	-60.78	-5.41	60.75	10.42	432517.37	728123.12	
8005.00	32.65	193.04	7985.40	-76.97	-9.33	76.92	8.17	432501.18	728119.20	
8036.00	35.76	192.37	8011.03	-93.97	-13.16	93.89	10.11	432484.18	728115.37	
8068.00	38.53	190.30	8036.54	-112.92	-16.95	112.81	9.50	432465.23	728111.58	
8100.00	41.14	189.02	8061.11	-133.12	-20.38	133.00	8.55	432445.03	728108.15	
8132.00	44.08	186.91	8084.66	-154.57	-23.37	154.43	10.21	432423.58	728105.16	
8163.00	46.85	185.98	8106.40	-176.53	-25.85	176.37	9.19	432401.62	728102.68	
8195.00	48.54	185.15	8127.94	-200.08	-28.14	199.91	5.62	432378.07	728100.39	
8227.00	49.69	184.88	8148.88	-224.18	-30.25	224.00	3.65	432353.97	728098.28	
8259.00	52.28	183.20	8169.03	-248.98	-32.00	248.78	9.06	432329.17	728096.53	
8290.00	56.43	182.35	8187.09	-274.14	-33.21	273.93	13.57	432304.01	728095.32	
8322.00	61.34	181.96	8203.62	-301.51	-34.24	301.29	15.38	432276.64	728094.29	
8354.00	66.70	180.58	8217.63	-330.26	-34.87	330.04	17.19	432247.89	728093.66	
8385.00	72.00	179.64	8228.56	-359.25	-34.92	359.03	17.33	432218.90	728093.61	
8417.00	77.81	179.37	8236.89	-390.13	-34.65	389.92	18.17	432188.02	728093.88	
8428.00	79.88	179.71	8239.02	-400.93	-34.57	400.71	19.06	432177.22	728093.96	
8460.00	85.38	179.54	8243.12	-432.65	-34.36	432.43	17.20	432145.50	728094.17	
8492.00	87.41	177.17	8245.13	-464.57	-33.44	464.36	9.74	432113.58	728095.09	
8587.00	87.83	174.95	8249.08	-559.26	-26.92	559.08	2.38	432018.89	728101.61	
8682.00	87.55	173.27	8252.91	-653.67	-17.18	653.56	1.79	431924.48	728111.35	
8777.00	88.81	173.30	8255.93	-747.97	-6.08	747.92	1.33	431830.18	728122.45	
8872.00	90.21	175.21	8256.74	-842.49	3.43	842.49	2.49	431735.66	728131.96	
8967.00	92.38	180.49	8254.59	-937.35	7.00	937.38	6.01	431640.80	728135.53	
9062.00	92.45	181.05	8250.59	-1032.26	5.72	1032.28	0.59	431545.89	728134.25	
9157.00	92.31	181.28	8246.64	-1127.16	3.79	1127.16	0.28	431450.99	728132.32	
9253.00	89.37	179.92	8245.23	-1223.13	2.79	1223.13	3.37	431355.02	728131.32	
9347.00	87.76	178.71	8247.59	-1317.09	3.91	1317.09	2.14	431261.06	728132.44	
9442.00	87.20	178.66	8251.77	-1411.97	6.09	1411.98	0.59	431166.18	728134.62	
9537.00	87.41	178.67	8256.23	-1506.84	8.30	1506.86	0.22	431071.31	728136.83	
9632.00	88.53	177.45	8259.60	-1601.72	11.51	1601.77	1.74	430976.43	728140.04	
9727.00	90.14	177.74	8260.70	-1696.63	15.50	1696.69	1.72	430881.52	728144.03	
9822.00	90.70	175.89	8260.00	-1791.48	20.78	1791.57	2.03	430786.67	728149.31	
9917.00	89.58	176.46	8259.77	-1886.26	27.11	1886.39	1.32	430691.89	728155.64	
10012.00	90.49	177.92	8259.71	-1981.15	31.77	1981.30	1.81	430597.00	728160.30	
10107.00	90.14	180.73	8259.19	-2076.13	32.89	2076.29	2.98	430502.02	728161.42	
10202.00	88.67	180.33	8260.18	-2171.12	32.01	2171.27	1.60	430407.03	728160.54	
10297.00	89.44	181.43	8261.74	-2266.09	30.55	2266.23	1.41	430312.06	728159.08	
10392.00	89.51	182.93	8262.61	-2361.01	26.94	2361.14	1.58	430217.14	728155.47	
10487.00	89.58	184.87	8263.37	-2455.79	20.48	2455.87	2.04	430122.36	728149.01	
10582.00	91.61	186.43	8262.38	-2550.31	11.13	2550.33	2.69	430027.84	728139.66	
10677.00	90.35	184.26	8260.76	-2644.88	2.28	2644.84	2.64	429933.27	728130.81	
10772.00	89.09	180.76	8261.22	-2739.77	-1.88	2739.71	3.92	429838.38	728126.65	
10867.00	89.65	181.89	8262.27	-2834.74	-4.08	2834.66	1.33	429743.41	728124.45	
10962.00	91.75	180.95	8261.11	-2929.69	-6.43	2929.60	2.42	429648.46	728122.10	
11057.00	90.28	178.27	8259.42	-3024.67	-5.78	3024.57	3.22	429553.48	728122.75	
11152.00	88.18	176.40	8260.70	-3119.54	-1.37	3119.48	2.96	429458.61	728127.16	
11247.00	90.14	177.93	8262.09	-3214.41	3.33	3214.37	2.62	429363.74	728131.86	
11343.00	90.56	178.14	8261.51	-3310.35	6.62	3310.33	0.49	429267.80	728135.15	
11438.00	89.86	178.54	8261.16	-3405.31	9.37	3405.30	0.85	429172.84	728137.90	
11533.00	89.65	177.87	8261.56	-3500.26	12.35	3500.27	0.74	429077.89	728140.88	
11628.00	90.07	178.41	8261.80	-3595.21	15.43	3595.24	0.72	428982.94	728143.96	
11723.00	90.21	179.64	8261.56	-3690.20	17.05	3690.23	1.30	428887.95	728145.58	
11818.00	90.35	180.18	8261.10	-3785.19	17.20	3785.23	0.59	428792.96	728145.73	
11913.00	91.12	179.81	8259.88	-3880.19	17.21	3880.22	0.90	428697.96	728145.74	
12009.00	91.54	180.89	8257.65	-3976.16	16.62	3976.18	1.21	428601.99	728145.15	
12104.00	89.93	178.47	8256.43	-4071.14	17.15	4071.17	3.06	428507.01	728145.68	
12180.00	88.95	177.81	8257.18	-4147.09	19.62	4147.13	1.55	428431.06	728148.15	
12218.00	88.53	177.64	8258.01	-4185.05	21.12	4185.10	1.19	428393.10	728149.65	
12313.00	90.91	179.07	8258.48	-4280.00	23.85	4280.07	2.92	428298.15	728152.38	

SD Survey Report

Survey Points (Relative to Slot centre, TVD relative to Well TVD Reference)										
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	VS (US ft)	DLS (°/100 US ft)	Northing (US ft)	Easting (US ft)	Comment
12409.00	90.91	179.92	8256.95	-4375.99	24.70	4376.06	0.89	428202.16	728153.23	
12504.00	91.33	180.74	8255.10	-4470.97	24.15	4471.03	0.97	428107.18	728152.68	
12599.00	91.05	181.07	8253.12	-4565.93	22.65	4565.99	0.46	428012.22	728151.18	
12694.00	90.98	181.62	8251.44	-4660.89	20.42	4660.93	0.58	427917.26	728148.95	
12788.00	91.19	182.05	8249.66	-4754.83	17.41	4754.84	0.51	427823.32	728145.94	
12885.00	90.21	181.02	8248.47	-4851.78	14.81	4851.78	1.47	427726.37	728143.34	
12980.00	89.86	179.57	8248.42	-4946.78	14.32	4946.77	1.57	427631.37	728142.85	
13075.00	89.37	178.74	8249.05	-5041.76	15.73	5041.77	1.01	427536.39	728144.26	
13170.00	88.74	177.41	8250.62	-5136.70	18.92	5136.71	1.55	427441.45	728147.45	
13265.00	88.95	178.34	8252.54	-5231.61	22.44	5231.65	1.00	427346.54	728150.97	
13360.00	89.02	178.24	8254.22	-5326.55	25.27	5326.61	0.13	427251.60	728153.80	
13455.00	89.51	180.16	8255.44	-5421.53	26.60	5421.59	2.09	427156.62	728155.13	
13550.00	90.07	180.74	8255.79	-5516.53	25.85	5516.58	0.85	427061.62	728154.38	
13644.00	90.70	182.59	8255.15	-5610.48	23.12	5610.52	2.08	426967.67	728151.65	
13739.00	90.49	182.49	8254.17	-5705.38	18.91	5705.39	0.24	426872.77	728147.44	
13834.00	90.28	179.47	8253.53	-5800.35	17.29	5800.35	3.19	426777.80	728145.82	
13930.00	90.21	179.93	8253.12	-5896.35	17.79	5896.35	0.48	426681.80	728146.32	
14024.00	90.70	180.71	8252.37	-5990.35	17.26	5990.34	0.98	426587.80	728145.79	
14119.00	91.12	179.25	8250.86	-6085.33	17.30	6085.32	1.60	426492.82	728145.83	
14214.00	91.12	178.42	8249.01	-6180.29	19.23	6180.29	0.87	426397.86	728147.76	
14309.00	91.54	179.36	8246.80	-6275.25	21.07	6275.26	1.08	426302.90	728149.60	
14404.00	90.84	179.65	8244.83	-6370.22	21.89	6370.24	0.80	426207.93	728150.42	
14500.00	89.44	178.65	8244.59	-6466.21	23.31	6466.23	1.79	426111.94	728151.84	
14595.00	89.79	179.25	8245.23	-6561.19	25.05	6561.22	0.73	426016.96	728153.58	
14690.00	91.68	179.56	8244.01	-6656.17	26.04	6656.21	2.02	425921.98	728154.57	
14785.00	90.63	177.75	8242.10	-6751.12	28.27	6751.17	2.20	425827.03	728156.80	
14880.00	89.93	174.35	8241.63	-6845.88	34.81	6845.97	3.65	425732.27	728163.34	
14975.00	89.51	174.69	8242.10	-6940.45	43.89	6940.58	0.57	425637.70	728172.42	
15070.00	89.30	174.85	8243.09	-7035.04	52.54	7035.23	0.28	425543.11	728181.07	
15166.00	89.51	177.50	8244.08	-7130.82	58.95	7131.04	2.77	425447.33	728187.48	
15261.00	89.51	177.49	8244.89	-7225.72	63.10	7225.97	0.01	425352.43	728191.63	
15330.00	89.79	178.52	8245.32	-7294.68	65.50	7294.94	1.55	425283.47	728194.03	Last Wft Svy
15400.00	89.79	178.52	8245.57	-7364.65	67.31	7364.93	0.00	425213.50	728195.84	Proj. To Bit



Cotton Draw Unit 182H
Eddy Co, NM

Plan Data for Cotton Draw Unit 182H

Plan Point Information:									
DogLeg Severity Unit: */100.00ft									
Position offsets from Slot centre									
MD	Inc	Az	TVD	+N/-S	+E/-W	Northing	Easting	VSec	OLS
(USft)	(°)	(°)	(USft)	(USft)	(USft)	(USft)	(USft)	(USft)	(DLSU)
8872.00	90.21	175.21	8256.74	-842.49	3.43	431735.66	728131.96	842.49	2.49
9333.15	90.75	179.79	8252.87	-1303.06	23.54	431275.09	728152.07	1303.18	1.00
9515.15	90.75	179.79	8250.49	-1485.04	24.21	431093.11	728152.74	1485.16	0.00
9590.16	90.00	179.79	8250.00	-1560.04	24.48	431018.11	728153.01	1560.16	1.00
15406.15	90.00	179.79	8250.00	-7376.00	45.51	425202.15	728174.04	7376.14	0.00

Plan Data for Cotton Draw Unit 182H

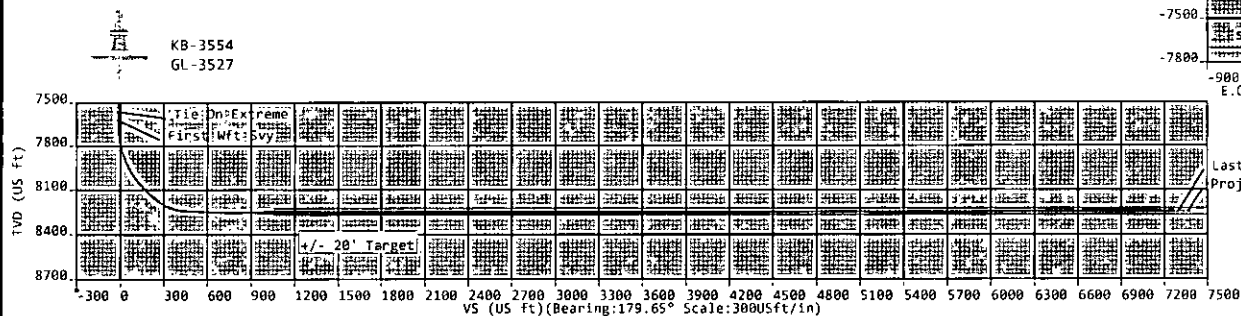
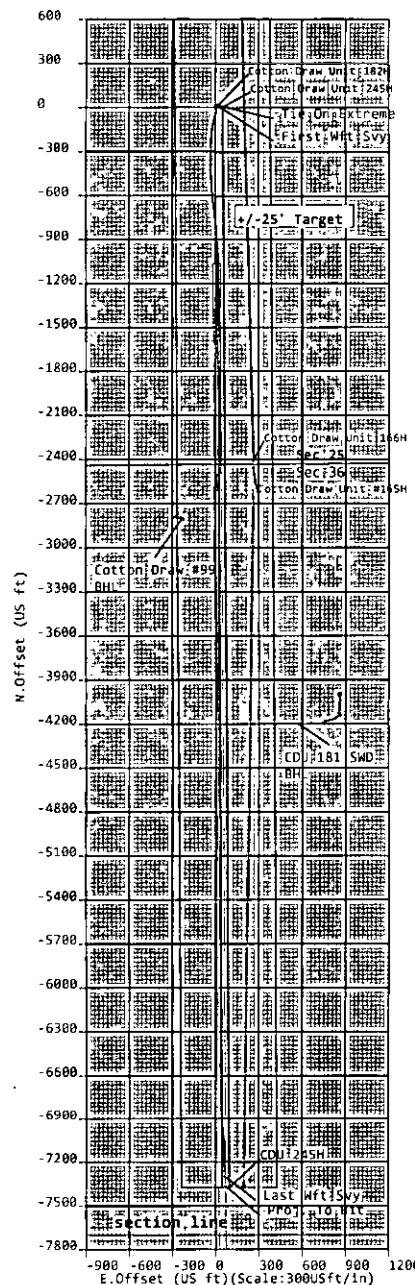
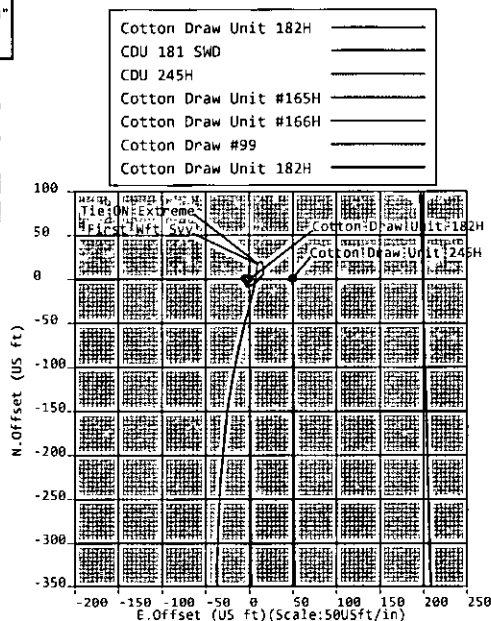
Slot: Cotton Draw Unit 182H
Position:
Offset is from Site centre
+N/-S: 0.00USft Northing: 432578.15USft Latitude: 32°11'16.1"
+E/-W: 0.00USft Easting: 728128.53USft Longitude: -103°43'46.3"
Elevation Above VRD: 3527.00USft

Plan Data for Cotton Draw Unit 182H

Target Set Information:
Name: Cotton Draw Unit 182
Position offsets from Slot centre
Name TVD +N/-S +E/-W Northing Easting Shape Comment
(USft) (USft) (USft) (USft) (USft)
PBHL 182H 8250.00 -7376.00 45.51 425202.15 728174.04 Cuboid

Plan Data for Cotton Draw Unit 182H

Well: Cotton Draw Unit 182H
Type: Main-Well
File Number:
Plan Folder: P3 Plan: P3.V1
Vertical Section: Position offset of origin from Slot centre:
+N/-S: 0.00USft Azimuth: 179.65°
+E/-W: 0.00USft
Magnetic Parameters:
Model: Field Strength: Declination: Dip: Date:
BGM 48154(nT) 7.36° 60.02° 2015-05-15



Sign Off: Russell Joyner