

HOBBS OCD
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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: June 27, 2015

Attention: Rob Schwartz

Re: Devon Energy
Well: Cotton Draw 252H
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:

Name & Title Of Surveyor	Well Number	Surveyed Depths	Dates Performed	Type of Survey
Justin Nyguen MWD Supervisor	252H	7719 MD 12954 MD	6/14/2015 6/24/2015	Measurement While Drilling

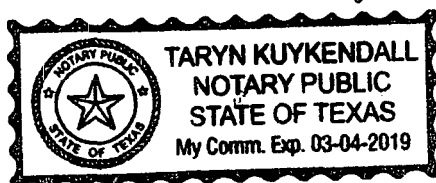
A notarized plan vs. actual is attached to the survey report. If any other information is required, please contact the undersigned at the letterhead address and phone number.

Jesus Aguilar
MWD Coordinator

On this, the 9th day of July, 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



MAR 30 2016

5D Survey Report

Devon Energy**Field Name:** *Lea Co, NM Nad 83 NMEZ***Site Name:** *Cotton Draw Unit 252H***Well Name:** *Cotton Draw Unit 252H***Survey:** *Wft MWD Svy*

23 June 2015

**Weatherford®**

Cotton Draw Unit 252H

Field Name Lea Co, NM Nad 83 NMEZ	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 252H	Units : US ft	North Reference : Grid	Convergence Angle : 0.33	
	Position	Northing : 419518.01 US ft	Latitude : 32° 9' 6.50"	
		Easting : 733772.13 US ft	Longitude : -103° 42' 41.51"	
	Elevation above Mean Sea Level:3448.00 US ft			
Comment :				
Slot Name Cotton Draw Unit 252H	Position (Offsets relative to Site Centre)			
	+N / -S : 0.00 US ft	Northing :419518.01 US ft	Latitude : 32°9'6.50"	
	+E / -W : 0.00 US ft	Easting :733772.13 US ft	Longitude : -103°42'41.51"	
	Slot TVD Reference : Ground Elevation			
Elevation above Mean Sea Level : 3448.00 US ft				
Comment :				
Well Name Cotton Draw Unit 252H	Type : Main well		UWI :	
	Rig Height <i>Kelly Bushing</i> : 27.00 US ft		Comment :	
	Relative to Mean Sea Level: 3475.00 US ft			
	Closure Distance : 4834.21 US ft		Closure Azimuth : 181.966°	
Vertical Section (Position of Origin Relative to Slot)				
+N / -S : 0.00 US ft +E / -W : 0.00 US ft Az :182.20°				

Survey Name : Wft MWD Svy

Date : 17/Jun/2015	Survey Tool : MWD	Comment :	Company :
Magnetic Model			
Model Name: BGGM	Date: 20/Jun/2015	Field Strength: 48185.3 nT	Declination: 7.34° Dip: 60.05°
Tie Point			
MD: 7665	Inclination: 1.19	Azimuth: 160.59	TVD: 7653.97 North Offset: 142.564 East Offset: 221.978

Well path created using minimum curvature

Survey Points (Relative to Slot centre, TVD relative to Kelly Bushing)											
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	
7665.00	1.19	160.59	7653.97	142.56	221.98	-150.98	0.00	419660.57	733994.11	Tie On Extreme	
7719.00	1.09	175.50	7707.96	141.52	222.21	-149.95	0.58	419659.53	733994.34	First Wft Svy	
7751.00	1.58	180.57	7739.95	140.78	222.22	-149.21	1.57	419658.79	733994.35		
7782.00	4.45	191.29	7770.90	139.17	221.98	-147.59	9.39	419657.18	733994.11		
7814.00	8.24	196.40	7802.70	135.75	221.09	-144.14	11.96	419653.76	733993.22		
7846.00	12.43	197.84	7834.18	130.27	219.39	-138.60	13.12	419648.28	733991.52		
7877.00	16.80	197.52	7864.17	122.82	217.02	-131.06	14.10	419640.83	733989.15		
7909.00	20.41	196.55	7894.49	113.06	214.04	-121.19	11.32	419631.07	733986.17		
7941.00	24.80	195.04	7924.02	101.22	210.70	-109.24	13.84	419619.23	733982.83		
7972.00	28.72	193.81	7951.70	87.71	207.24	-95.60	12.77	419605.72	733979.37		
8004.00	32.12	192.70	7979.29	71.94	203.53	-79.70	10.77	419589.95	733975.66		
8036.00	36.95	192.40	8005.64	54.23	199.59	-61.86	15.10	419572.24	733971.72		

5D Survey Report

Survey Points (Relative to Slot centre, TVD relative to Kelly Bushing.)										
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
8067.00	41.57	191.92	8029.64	35.06	195.47	-42.54	14.94	419553.07	733967.60	
8099.00	45.69	191.91	8052.80	13.46	190.91	-20.78	12.88	419531.47	733963.04	
8131.00	48.67	191.92	8074.54	-9.50	186.06	2.35	9.31	419508.51	733958.19	
8163.00	51.03	192.09	8095.18	-33.43	180.97	26.45	7.39	419484.58	733953.10	
8194.00	53.50	191.40	8114.15	-57.43	175.99	50.63	8.16	419460.58	733948.12	
8226.00	55.33	192.24	8132.77	-82.90	170.65	76.29	6.10	419435.11	733942.78	
8258.00	57.35	194.34	8150.50	-108.81	164.53	102.42	8.35	419409.20	733936.66	
8289.00	59.41	196.41	8166.76	-134.26	157.52	128.12	8.75	419383.75	733929.65	
8321.00	63.01	198.11	8182.17	-161.04	149.20	155.19	12.17	419356.97	733921.33	
8353.00	66.03	199.02	8195.93	-188.42	140.00	182.90	9.78	419329.59	733912.13	
8384.00	68.67	199.84	8207.87	-215.39	130.48	210.22	8.86	419302.62	733902.61	
8402.34	71.01	199.72	8214.19	-231.59	124.66	226.64	12.77	419286.42	733896.79	Cross Prod. Box
8416.00	72.75	199.63	8218.44	-243.82	120.29	239.02	12.77	419274.19	733892.42	
8448.00	76.95	199.57	8226.80	-272.91	109.93	268.49	13.13	419245.10	733882.06	
8480.00	81.72	199.12	8232.72	-302.57	99.51	298.53	14.97	419215.44	733871.64	
8511.00	86.29	197.04	8235.96	-331.87	89.95	328.17	16.18	419186.14	733862.08	
8543.00	89.37	193.82	8237.17	-362.69	81.45	359.29	13.92	419155.32	733853.58	
8575.00	90.77	190.83	8237.13	-393.95	74.62	390.79	10.32	419124.06	733846.75	
8614.00	91.82	187.43	8236.25	-432.44	68.43	429.49	9.12	419085.57	733840.56	
8646.00	92.94	186.65	8234.92	-464.17	64.51	461.35	4.26	419053.84	733836.64	
8677.00	93.85	186.50	8233.08	-494.91	60.97	492.20	2.97	419023.10	733833.10	
8709.00	94.19	185.93	8230.84	-526.64	57.51	524.05	2.07	418991.37	733829.64	
8741.00	94.68	185.28	8228.37	-558.39	54.40	555.89	2.54	418959.62	733826.53	
8772.00	94.68	184.28	8225.84	-589.18	51.82	586.76	3.22	418928.83	733823.95	
8804.00	94.55	183.13	8223.26	-621.01	49.76	618.64	3.61	418897.00	733821.89	
8836.00	93.92	181.28	8220.90	-652.90	48.53	650.55	6.09	418865.11	733820.66	
8868.00	93.36	179.79	8218.87	-684.83	48.23	682.47	4.97	418833.18	733820.36	
8899.00	93.22	179.20	8217.09	-715.78	48.51	713.39	1.95	418802.23	733820.64	
8931.00	92.24	178.29	8215.56	-747.73	49.21	745.29	4.18	418770.28	733821.34	
8963.00	90.77	177.13	8214.72	-779.70	50.49	777.18	5.85	418738.31	733822.62	
8994.00	89.23	176.66	8214.72	-810.65	52.16	808.05	5.19	418707.36	733824.29	
9026.00	87.41	176.07	8215.66	-842.57	54.19	839.87	5.98	418675.44	733826.32	
9058.00	85.94	176.89	8217.52	-874.45	56.15	871.65	5.26	418643.56	733828.28	
9090.00	84.88	177.38	8220.08	-906.31	57.75	903.43	3.65	418611.70	733829.88	
9121.00	85.73	178.96	8222.62	-937.19	58.73	934.24	5.77	418580.82	733830.86	
9153.00	86.57	181.26	8224.76	-969.12	58.67	966.15	7.64	418548.89	733830.80	
9185.00	86.99	182.02	8226.56	-1001.05	57.76	998.10	2.71	418516.96	733829.89	
9216.00	87.83	182.71	8227.96	-1031.99	56.48	1029.06	3.51	418486.02	733828.61	
9248.00	89.09	182.61	8228.82	-1063.95	55.00	1061.05	3.95	418454.06	733827.13	
9280.00	90.28	183.44	8229.00	-1095.90	53.31	1093.05	4.53	418422.11	733825.44	
9343.00	90.63	184.29	8228.50	-1158.75	49.06	1156.02	1.46	418359.26	733821.19	
9438.00	90.56	184.63	8227.51	-1253.46	41.67	1250.94	0.37	418264.55	733813.80	
9533.00	90.91	184.91	8226.29	-1348.12	33.78	1345.83	0.47	418169.89	733805.91	
9628.00	90.91	184.27	8224.78	-1442.81	26.17	1440.74	0.67	418075.20	733798.30	
9723.00	90.56	184.08	8223.57	-1537.55	19.26	1535.67	0.42	417980.46	733791.39	
9818.00	90.49	184.15	8222.69	-1632.30	12.44	1630.62	0.10	417885.71	733784.57	
9913.00	89.51	184.40	8222.69	-1727.03	5.36	1725.55	1.06	417790.98	733777.49	
10008.00	90.77	185.02	8222.46	-1821.71	-2.44	1820.46	1.48	417696.30	733769.69	
10103.00	90.21	185.76	8221.65	-1916.28	-11.36	1915.31	0.98	417601.73	733760.77	
10199.00	89.72	185.95	8221.71	-2011.78	-21.16	2011.11	0.55	417506.23	733750.97	
10294.00	89.93	186.87	8222.00	-2106.19	-31.76	2105.86	0.99	417411.82	733740.37	
10389.00	89.86	185.66	8222.17	-2200.62	-42.13	2200.61	1.28	417317.39	733730.00	
10484.00	90.56	186.48	8221.83	-2295.08	-52.18	2295.40	1.13	417222.93	733719.95	
10579.00	90.14	185.41	8221.24	-2389.57	-62.01	2390.19	1.21	417128.44	733710.12	
10674.00	89.86	184.85	8221.24	-2484.19	-70.51	2485.06	0.66	417033.82	733701.62	
10769.00	90.42	183.74	8221.01	-2578.92	-77.62	2580.00	1.31	416939.09	733694.51	
10864.00	91.19	183.69	8219.68	-2673.71	-83.78	2674.96	0.81	416844.30	733688.35	
10959.00	89.30	182.45	8219.27	-2768.57	-88.87	2769.94	2.38	416749.44	733683.26	

5D Survey Report

Survey Points (Relative to Slot centre, TVD relative to Kelly Bushing)										
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
11054.00	89.86	182.93	8219.97	-2863.46	-93.32	2864.93	0.78	416654.55	733678.81	
11149.00	89.86	183.49	8220.20	-2958.31	-98.64	2959.92	0.59	416559.70	733673.49	
11244.00	90.42	183.41	8219.97	-3053.14	-104.36	3054.89	0.60	416464.87	733667.77	
11339.00	91.33	183.79	8218.52	-3147.94	-110.32	3149.85	1.04	416370.07	733661.81	
11434.00	91.68	183.19	8216.02	-3242.73	-116.11	3244.79	0.73	416275.28	733656.02	
11529.00	91.26	182.28	8213.59	-3337.59	-120.64	3339.76	1.05	416180.42	733651.49	
11624.00	89.23	179.99	8213.18	-3432.56	-122.52	3434.73	3.22	416085.45	733649.61	
11719.00	89.93	180.08	8213.88	-3527.55	-122.58	3529.66	0.74	415990.46	733649.55	
11814.00	90.91	180.74	8213.18	-3622.55	-123.26	3624.61	1.24	415895.46	733648.87	
11909.00	90.91	181.15	8211.67	-3717.52	-124.82	3719.57	0.43	415800.49	733647.31	
12004.00	89.93	180.71	8210.97	-3812.50	-126.36	3814.55	1.13	415705.51	733645.77	
12099.00	89.93	179.74	8211.09	-3907.50	-126.74	3909.49	1.02	415610.51	733645.39	
12194.00	88.88	181.12	8212.08	-4002.49	-127.45	4004.43	1.83	415515.52	733644.68	
12290.00	90.28	182.38	8212.78	-4098.44	-130.38	4100.42	1.96	415419.57	733641.75	
12385.00	90.14	182.29	8212.43	-4193.36	-134.25	4195.42	0.18	415324.65	733637.88	
12480.00	91.40	183.71	8211.16	-4288.22	-139.22	4290.40	2.00	415229.79	733632.91	
12575.00	91.68	182.86	8208.60	-4383.03	-144.67	4385.35	0.94	415134.98	733627.46	
12670.00	91.68	183.04	8205.82	-4477.86	-149.55	4480.30	0.19	415040.15	733622.58	
12765.00	92.31	182.96	8202.51	-4572.67	-154.52	4575.23	0.67	414945.34	733617.61	
12860.00	90.91	183.14	8199.84	-4667.50	-159.57	4670.18	1.49	414850.51	733612.56	
12954.00	89.79	181.82	8199.27	-4761.40	-163.64	4764.18	1.84	414756.61	733608.49	Last Wft Svy
13024.00	89.79	181.82	8199.52	-4831.37	-165.86	4834.17	0.00	414686.64	733606.27	Proj. To Bit



Cotton Draw Unit 252H
Lea Co, NM



Plan Data for Cotton Draw Unit 252H

Plan Point Information:									
Dogleg Severity Unit: °/100.00ft									
MD	Inc	Az	TVD	+N/-S	+E/-W	Northing	Easting	VSec	DLS
(USft)	(°)	(°)	(USft)	(USft)	(USft)	(USft)	(USft)	(USft)	(DLSU)
10959.00	89.30	182.45	8219.32	-2768.57	-88.85	416749.44	733683.28	2769.94	2.38
11029.00	89.30	182.45	8220.17	-2838.50	-91.84	416679.51	733680.29	2839.93	0.00
11090.29	90.50	182.70	8220.28	-2899.72	-94.59	416618.29	733677.54	2901.22	2.00
11342.29	90.50	182.70	8218.08	-3151.43	-106.46	416366.58	733665.67	3153.20	0.00
11357.10	90.20	182.70	8217.99	-3166.23	-107.16	416351.78	733664.97	3168.01	2.00
13040.80	90.20	182.70	8212.00	-4848.05	-186.56	414669.96	733585.57	4851.64	0.00

Plan Data for Cotton Draw Unit 252H

Slot: Cotton Draw Unit 252H
Position:
Offset is from Site centre
+N/-S: 0.00USft Northing: 419518.00USft Latitude: 32°9'6.5"
+E/-W: 0.00USft Easting: 733772.13USft Longitude: -103°42'41.5"
Elevation Above VRD: 3448.00USft

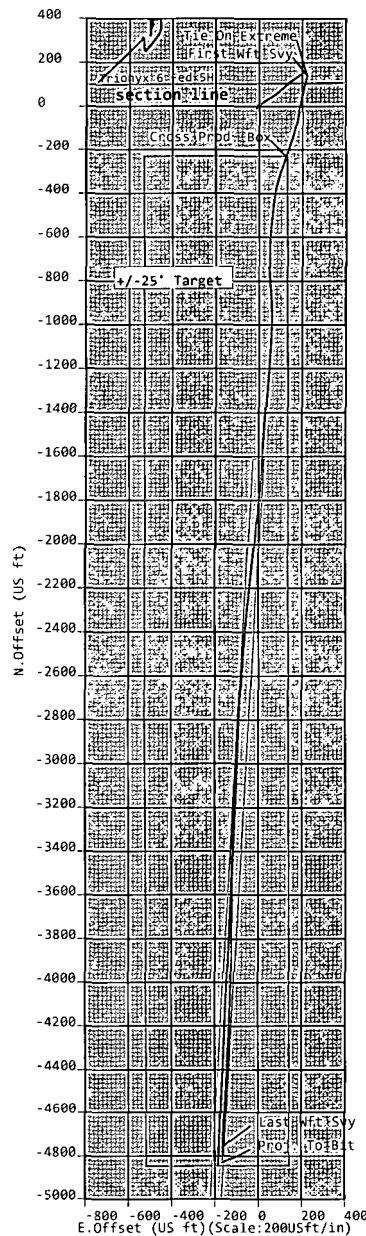
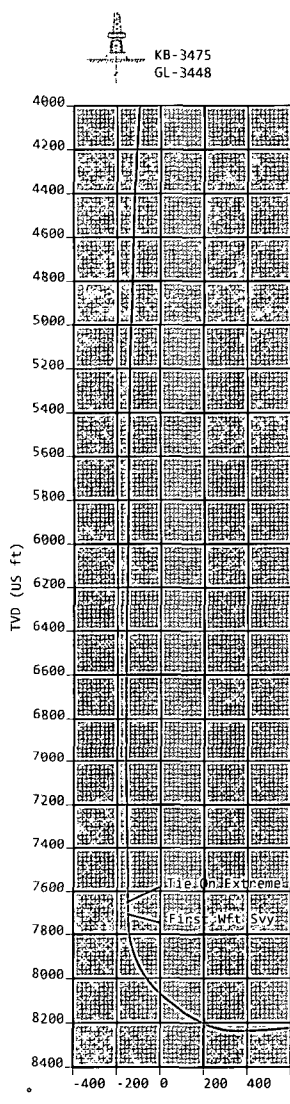
Plan Data for Cotton Draw Unit 252H

Target Set Information:
Name: Cotton Draw Unit 252H
Position offsets from Slot centre
Name TVD +N/-S +E/-W Northing Easting Shape Comment
(USft) (USft) (USft) (USft) (USft)
PBHL 252H 8212.00 -4848.05 -186.56 414669.96 733585.57 Cuboid

Plan Data for Cotton Draw Unit 252H

Well: Cotton Draw Unit 252H
Type: Main-Well
File Number:
Plan Folder: P5 Plan: P5:V1
Vertical Section: Position offset of origin from Slot centre:
+N/-S: 0.00USft Azimuth: 182.20°
+E/-W: 0.00USft
Magnetic Parameters:
Model: Field Strength: Declination: Dip: Date:
BGM 48185(nT) 7.34° 60.05° 2015-06-20

Cotton Draw Unit 252H
Trionyx 6 Fed 5H
Cotton Draw Unit 252H



Sign Off: Russell Joyner