



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: June 3, 2015

NM OIL CONSERVATION
ARTESIA DISTRICT

OCT 31 2016

Attention: Rob Schwartz

30-015-42849

RECEIVED

Re: Devon Energy
Well: Cotton Draw 182H
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:

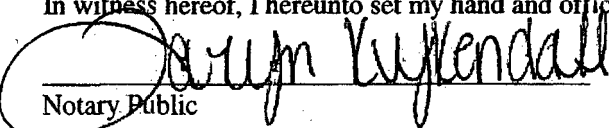
Name & Title Of Surveyor	Well Number	Surveyed Depths	Dates Performed	Type of Survey
Tanner Bauer	182H	7324 MD	5/11/2015	Measurement
MWD Supervisor		15330 MD	5/31/2015	While Drilling

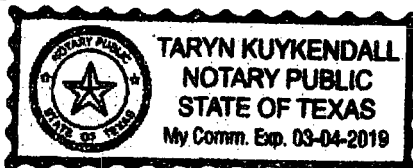
A notarized plan vs. actual is attached to the survey report. If any other information is required, please contact the undersigned at the letterhead address and phone number.

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



OCT 31 2016

RECEIVED

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, 24511 Pad	Units : US ft	North Reference : Grid
	Convergence Angle : 0.32	
	Position	Latitude : 32° 11' 16.06"
	Northings : 432578.15 US ft	Longitudes : -103° 43' 46.31"
	Easting : 728128.53 US ft	
	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	Latitude : 32° 11' 16.06"
	+E / -W : 0.00 US ft	Longitudes : -103° 43' 46.31"
	Easting : 728128.53 US ft	
	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	Comment :
	Well TVD Reference : 27.00 US ft	
	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)										
ID (US ft)	Int (ft)	A (ft)	TVD (US ft)	N Offset (US ft)	E Offset (US ft)	VS (US ft)	DLS (°/100 US ft)	Northings (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 V (°)	Az (°)	TVD (US ft)	H. Offset (US ft)	E. Offset (US ft)	VS (US ft)	D.S. (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	

ND Survey Report

Survey Points (Relative to Slor centre; TVD relative to Well TVD Reference.)										
MD (US ft.)	Inc (°)	Az (°)	TVD (US ft.)	H. Offset (US ft.)	E. Offset (US ft.)	NVS (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

devon

Cotton Draw Unit 182H
Eddy Co, NM



Weatherford

Plan Data for Cotton Draw Unit 182H

Plan Point Information:									
MD	Inc	Az	TVD	+N/-S	+E/-W	Northing	Easting	VSec	DLS
(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	98.75	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: 728178.53USft 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)	(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

Cotton Draw Unit 182H

CDU 181 SWD

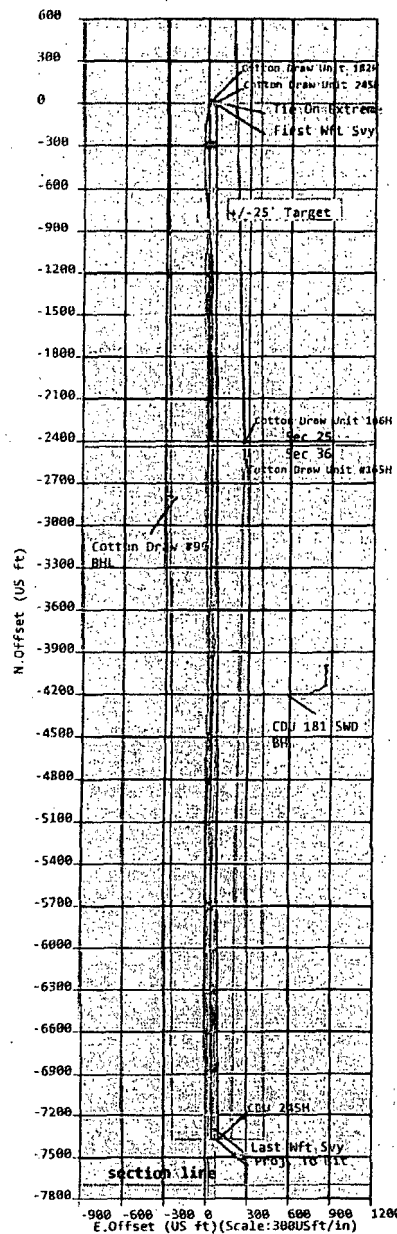
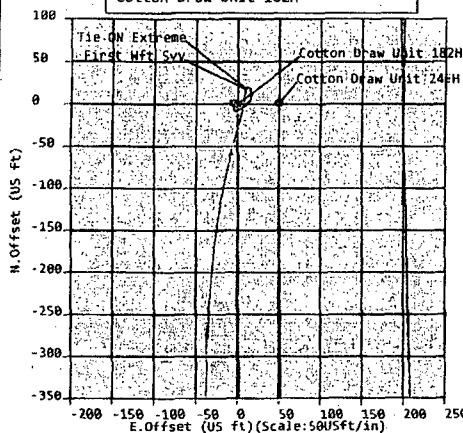
CDU 245H

Cotton Draw Unit #165H

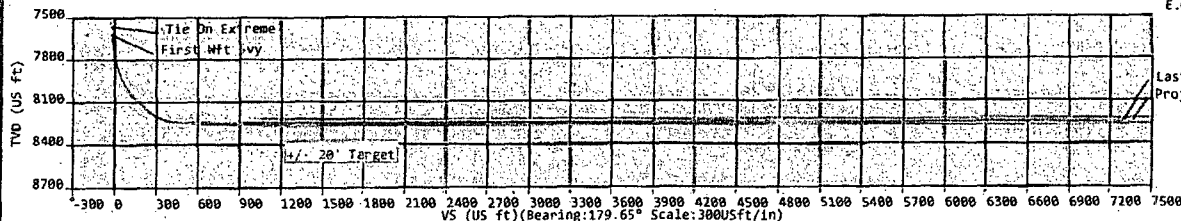
Cotton Draw Unit #166H

Cotton Draw #99

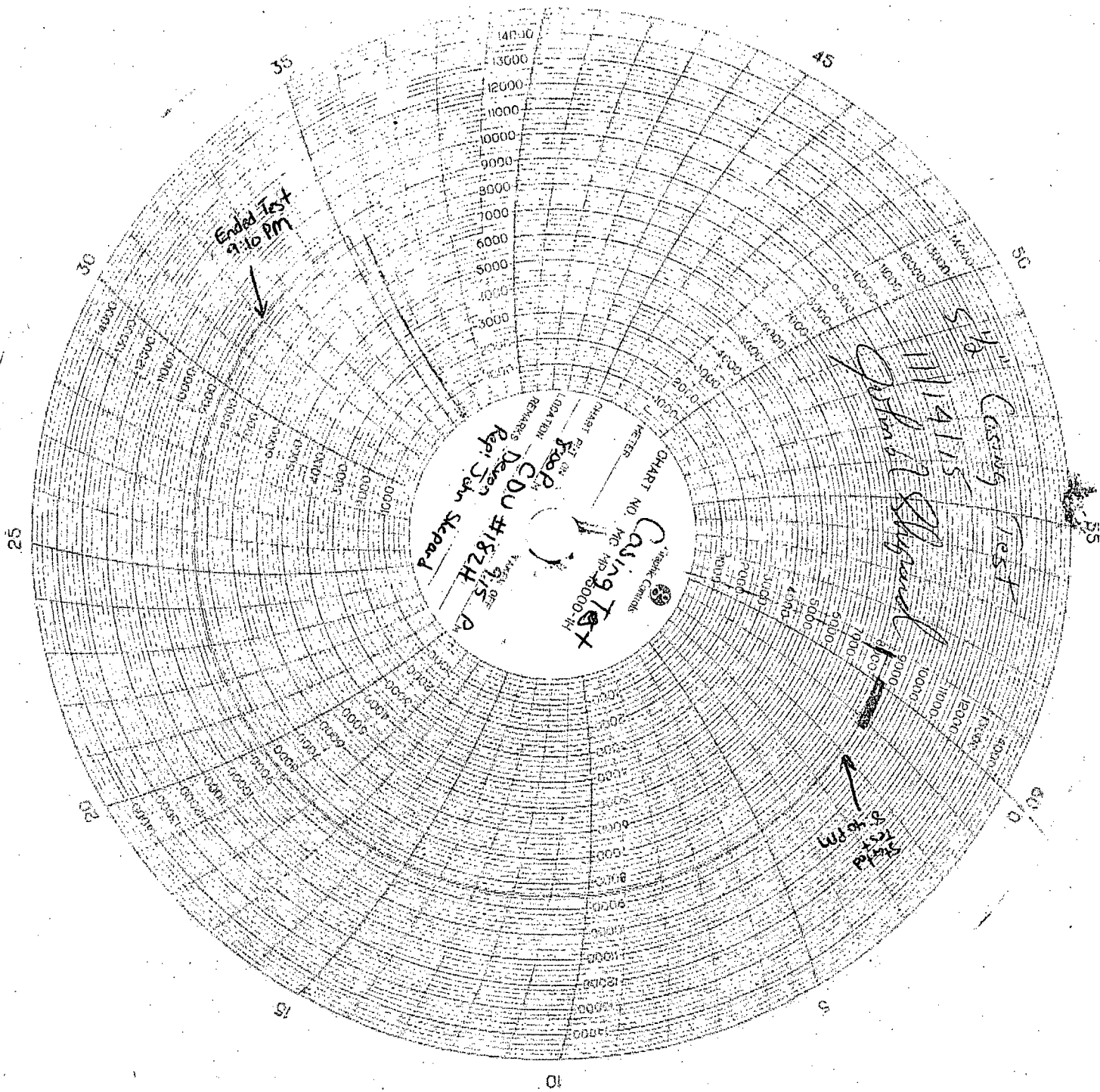
Cotton Draw Unit 182H

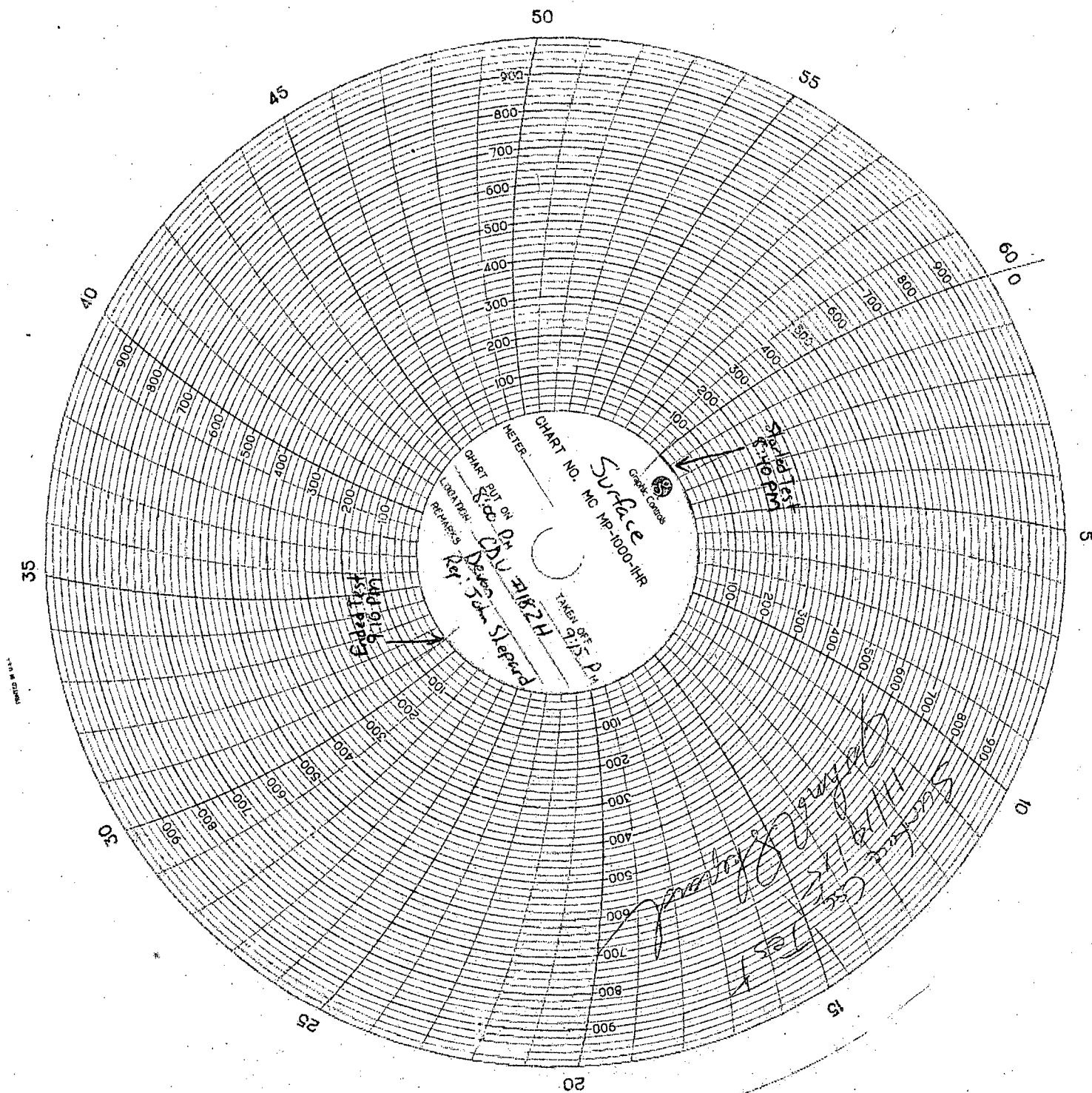


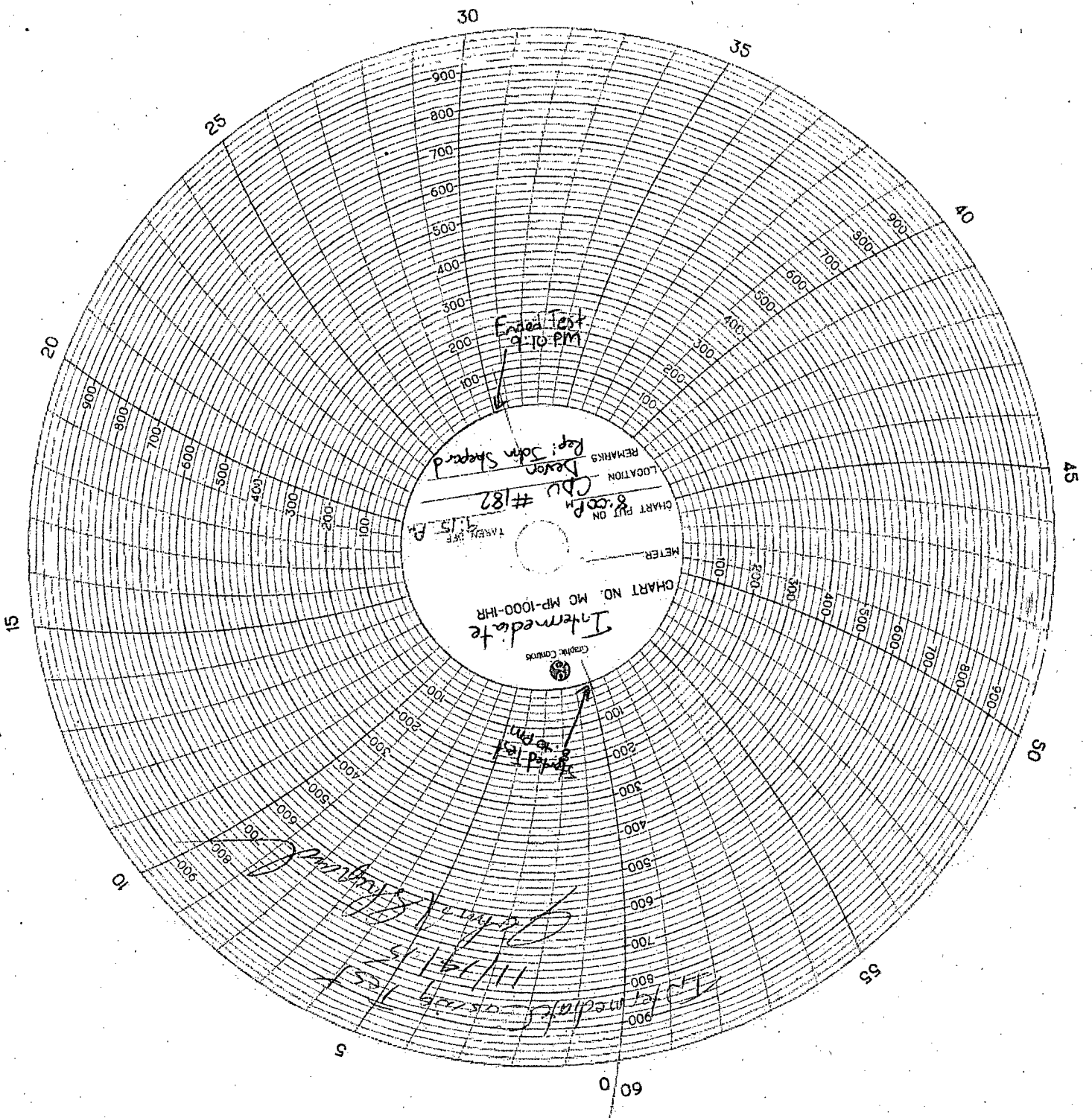
KB-3554
GL-3527



Sign Off: Russell Joyner







Well Name: COTTON DRAW UNIT 182H

Sub-Division DELAWARE BASIN WEST		Region BASIN WEST		Field Name PADUCA		County EDDY		State/Province NM		
Surface Legal Location SEC 25 24S R31E		APN/UM 3001542849		Latitude (°) 32° 11' 16.057" N		Longitude (°) 103° 43' 46.308" W		Original Elevation (ft) 3,554.30		
Ground Elev. MSL (ft) 3,527.30		KB - GL (ft) 27.00		Vertical Section Direction (°) 179.65						
Wellbore Name OH		Parent Wellbore OH		SAP Well ID 38366						
Kick Offs & Key Depths										
Date 5/13/2015		Type Kick Off		Top Depth (ftKB) 7,662.0						
Actual Deviation Survey EXTREME SURVEYS, Proposed? No		Definitive? Yes		Proposed? No		Proposed Deviation Survey				
Deviation Survey										
Date 5/13/2015		Description EXTREME SURVEYS								
MD Tie In (ftKB)		TVD Tie In (ftKB)		Inclination Tie In (°)		Azimuth Tie In (°)		NSTie In (ft)		
EWtie In (ft)										
Survey Data										
Date	MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NIS (ft)	EW (ft)	DLS (ft/100ft)	Survey Tool	Survey Company
5/11/2015	172.00	0.22	302.60	172.00	-0.18	-0.18	-0.28	0.13	MWD	EXTREME
5/11/2015	202.00	0.40	272.05	202.00	-0.22	-0.21	-0.43	0.79	MWD	EXTREME
5/11/2015	297.00	0.48	240.33	297.00	-0.03	0.03	-1.11	0.27	MWD	EXTREME
5/11/2015	389.00	0.40	210.89	388.99	0.43	-0.44	-1.61	0.26	MWD	EXTREME
5/11/2015	449.00	0.62	290.46	448.99	0.49	-0.51	-2.02	1.12	MWD	EXTREME
5/11/2015	617.00	0.48	253.26	616.98	0.37	-0.39	-3.55	0.22	MWD	EXTREME
5/11/2015	722.00	0.70	262.16	721.98	0.68	-0.60	-4.60	0.23	MWD	EXTREME
5/11/2015	829.00	0.48	233.95	828.97	0.92	-0.96	-5.61	0.33	MWD	EXTREME
5/11/2015	891.00	0.48	239.57	890.97	1.20	-1.24	-6.05	0.08	MWD	EXTREME
5/11/2015	1,080.00	1.10	133.67	1,079.96	2.86	-2.90	-5.42	0.70	MWD	EXTREME
5/11/2015	1,265.00	2.02	47.58	1,264.91	1.91	-1.92	-1.72	1.21	MWD	EXTREME
5/11/2015	1,361.00	1.80	7.15	1,360.86	-0.72	0.72	-0.29	1.39	MWD	EXTREME
5/11/2015	1,457.00	1.71	322.54	1,456.82	-3.35	3.35	-0.97	1.39	MWD	EXTREME
5/11/2015	1,553.00	1.58	265.46	1,552.78	-4.40	4.38	-3.16	1.64	MWD	EXTREME
5/11/2015	1,648.00	1.41	219.84	1,647.76	-3.41	3.38	-5.22	1.23	MWD	EXTREME
5/11/2015	1,743.00	1.71	158.14	1,742.73	-1.20	1.17	-5.44	1.71	MWD	EXTREME
5/11/2015	1,932.00	1.41	54.48	1,931.88	0.08	-0.10	-2.49	1.30	MWD	EXTREME
5/11/2015	2,121.00	1.80	310.55	2,120.64	3.20	3.18	-2.86	1.34	MWD	EXTREME
5/11/2015	2,311.00	1.89	227.27	2,310.57	3.04	3.00	-7.43	1.29	MWD	EXTREME
5/11/2015	2,501.00	1.89	136.17	2,500.50	1.35	1.39	-7.56	1.42	MWD	EXTREME
5/11/2015	2,691.00	1.71	70.47	2,690.43	2.69	2.70	-2.72	1.03	MWD	EXTREME
5/11/2015	2,881.00	1.58	342.27	2,880.37	-0.74	0.74	-0.84	1.21	MWD	EXTREME
5/11/2015	2,976.00	1.80	300.66	2,975.34	2.76	2.75	-2.52	1.28	MWD	EXTREME
5/11/2015	3,166.00	1.80	190.27	3,165.28	-1.37	1.33	-5.62	1.56	MWD	EXTREME
5/11/2015	3,358.00	1.80	102.64	3,357.22	2.28	2.30	-3.22	1.30	MWD	EXTREME
5/11/2015	3,546.00	1.49	320.48	3,545.19	1.04	1.08	-1.89	1.66	MWD	EXTREME
5/11/2015	3,736.00	1.58	193.96	3,735.16	1.67	1.69	-4.10	1.44	MWD	EXTREME
5/11/2015	3,926.00	2.11	103.65	3,925.09	5.05	5.06	-1.33	1.39	MWD	EXTREME
5/11/2015	4,116.00	2.11	307.34	4,115.04	3.76	3.76	-0.71	2.17	MWD	EXTREME
5/11/2015	4,206.00	2.02	190.92	4,205.01	4.30	4.32	-2.33	3.90	MWD	EXTREME
5/11/2015	4,359.00	1.49	154.54	4,357.94	8.75	8.76	-1.99	0.79	MWD	EXTREME
5/11/2015	4,559.00	1.10	57.06	4,557.91	10.07	10.06	-0.74	0.98	MWD	EXTREME
5/11/2015	4,696.00	1.49	57.77	4,694.88	8.42	8.40	-3.35	0.28	MWD	EXTREME
5/11/2015	4,845.00	1.19	45.78	4,843.84	6.32	6.29	-6.10	0.27	MWD	EXTREME
5/11/2015	5,035.00	1.01	68.76	5,033.80	4.36	4.30	-9.08	0.25	MWD	EXTREME
5/11/2015	5,225.00	1.10	45.86	5,223.77	2.50	2.43	-11.95	0.23	MWD	EXTREME
5/11/2015	5,415.00	0.79	45.64	5,413.74	0.33	-0.24	-14.19	0.16	MWD	EXTREME
5/11/2015	5,604.00	1.10	31.36	5,602.72	2.12	2.22	-16.07	0.20	MWD	EXTREME
5/11/2015	5,797.00	1.01	26.57	5,795.69	5.21	5.32	-17.79	0.07	MWD	EXTREME
5/11/2015	5,987.00	1.10	359.06	5,985.66	8.53	8.64	-18.51	0.27	MWD	EXTREME
5/11/2015	6,177.00	0.79	350.76	6,175.63	11.65	11.76	-18.27	0.18	MWD	EXTREME
5/11/2015	6,367.00	0.48	352.47	6,365.62	13.73	13.84	-17.96	0.16	MWD	EXTREME
5/11/2015	6,557.00	0.48	339.37	6,555.61	15.27	15.38	-17.57	0.06	MWD	EXTREME
5/11/2015	6,747.00	0.48	8.07	6,745.60	16.80	16.91	-17.40	0.13	MWD	EXTREME
5/11/2015	6,842.00	0.48	306.24	6,840.60	17.43	17.54	-17.14	0.52	MWD	EXTREME
5/11/2015	7,032.00	0.48	303.47	7,030.59	18.36	18.45	-15.83	0.01	MWD	EXTREME
5/11/2015	7,223.00	0.62	289.85	7,221.59	19.15	19.24	-14.19	0.10	MWD	EXTREME
5/11/2015	7,409.00	0.60	214.46	7,407.58	18.70	18.78	-12.70	0.40	MWD	EXTREME
5/11/2015	7,508.00	0.70	203.06	7,506.57	17.72	17.79	-12.17	0.16	MWD	EXTREME
5/11/2015	7,566.00	0.70	194.75	7,564.57	17.05	17.12	-11.94	0.17	MWD	EXTREME
5/11/2015	7,624.00	0.56	203.43	7,622.56	16.45	16.52	-11.73	0.29	MWD	WEATHERFORD
5/11/2015	7,656.00	1.11	197.46	7,654.56	16.01	16.08	-11.58	1.74	MWD	WEATHERFORD
5/11/2015	7,688.00	3.20	187.06	7,686.54	14.83	14.90	-11.38	6.62	MWD	WEATHERFORD
5/11/2015	7,719.00	5.70	185.56	7,717.44	12.44	12.51	-11.12	8.07	MWD	WEATHERFORD
5/11/2015	7,751.00	8.59	186.52	7,749.19	8.49	8.55	-10.69	9.04	MWD	WEATHERFORD
5/11/2015	7,783.00	11.34	188.00	7,780.70	3.00	3.06	-9.98	8.63	MWD	WEATHERFORD
5/11/2015	7,815.00	14.21	191.97	7,811.91	3.95	3.90	-8.73	9.37	MWD	WEATHERFORD
5/14/2015	7,846.00	17.00	192.77	7,841.76	12.08	12.04	-6.94	9.03	MWD	WEATHERFORD
5/14/2015	7,878.00	20.42	192.83	7,872.07	22.08	22.06	-4.67	10.68	MWD	WEATHERFORD
5/14/2015	7,910.00	22.73	194.08	7,901.82	33.50	33.49	-1.92	7.36	MWD	WEATHERFORD
5/14/2015	7,941.00	26.87	195.89	7,929.96	46.03	46.04	-1.45	13.58	MWD	WEATHERFORD
5/14/2015	7,973.00	30.11	194.24	7,958.08	60.75	60.78	-5.41	10.42	MWD	WEATHERFORD
5/14/2015	8,005.00	32.65	193.04	7,985.40	78.92	78.97	-9.33	8.17	MWD	WEATHERFORD
5/14/2015	8,038.00	35.76	192.37	8,011.03	93.89	93.97	-13.16	10.11	MWD	WEATHERFORD
5/14/2015	8,068.00	38.53	190.30	8,036.54	112.81	112.92	-16.95	9.50	MWD	WEATHERFORD
5/14/2015	8,100.00	41.14	189.02	8,061.11	133.00	133.12	-20.38	8.55	MWD	WEATHERFORD

Well Name: COTTON DRAW UNIT 182H

Sub-Division		Region		Field Name		County		State/Province		
DELAWARE BASIN WEST		BASIN WEST		PADUCA		EDDY		NM		
Surface Legal Location		APN/UM		Latitude (°)		Longitude (°)		Orig KB Elevation (ft)		
SEC 25 24S R31E		3001542849		32° 11' 18.057" N		103° 43' 46.306" W		3,554.30		
Ground Elev MSL (ft)		KB - GL (ft)								
3,527.30										
Survey Data										
Date	MD (KKB)	Incl (°)	Azim (°)	TVD (KKB)	VS (ft)	NS (ft)	EW (ft)	DLS (ft/1000)	Survey Tool	Survey Company
5/14/2015	8,132.00	44.08	186.91	8,084.66	184.43	154.57	-23.37	10.21	MWD	WEATHERFORD
5/14/2015	8,183.00	46.85	185.98	8,106.40	178.37	178.53	-25.85	9.19	MWD	WEATHERFORD
5/14/2015	8,195.00	48.54	185.15	8,127.84	199.91	200.08	-28.14	5.62	MWD	WEATHERFORD
5/14/2015	8,227.00	49.69	184.88	8,148.68	224.00	224.18	-30.25	3.65	MWD	WEATHERFORD
5/14/2015	8,259.00	52.28	183.20	8,169.03	248.78	248.98	-32.00	9.06	MWD	WEATHERFORD
5/14/2015	8,290.00	56.43	182.35	8,187.09	273.93	274.14	-33.21	13.57	MWD	WEATHERFORD
5/14/2015	8,322.00	61.34	181.06	8,203.62	301.29	301.51	-34.24	15.38	MWD	WEATHERFORD
5/14/2015	8,354.00	66.70	180.58	8,217.63	330.04	330.26	-34.87	17.19	MWD	WEATHERFORD
5/14/2015	8,385.00	72.00	179.64	8,228.56	359.03	359.25	-34.92	17.33	MWD	WEATHERFORD
5/14/2015	8,417.00	77.81	179.37	8,236.89	389.92	390.13	-34.65	18.17	MWD	WEATHERFORD
5/14/2015	8,428.00	79.68	179.71	8,239.02	400.71	400.93	-34.57	19.06	MWD	WEATHERFORD
5/14/2015	8,460.00	85.38	179.54	8,243.12	432.43	432.65	-34.38	17.20	MWD	WEATHERFORD
5/14/2015	8,492.00	87.41	177.17	8,245.13	464.36	464.57	-33.44	9.74	MWD	WEATHERFORD
5/14/2015	8,587.00	87.83	174.95	8,249.08	559.08	559.26	-28.92	2.38	MWD	WEATHERFORD
5/14/2015	8,682.00	87.55	173.27	8,252.91	653.58	653.67	-17.18	1.79	MWD	WEATHERFORD
5/14/2015	8,777.00	88.81	173.30	8,255.93	747.92	747.97	-6.08	1.33	MWD	WEATHERFORD
5/14/2015	8,872.00	90.21	175.21	8,256.74	842.49	842.49	-3.43	2.49	MWD	WEATHERFORD
5/14/2015	8,967.00	92.38	180.49	8,254.59	937.38	937.35	-7.00	6.01	MWD	WEATHERFORD
5/14/2015	9,062.00	92.45	181.05	8,250.59	1,032.28	1,032.26	-5.72	0.59	MWD	WEATHERFORD
5/14/2015	9,157.00	92.31	181.28	8,248.64	1,127.16	1,127.16	-3.79	0.28	MWD	WEATHERFORD
5/14/2015	9,253.00	89.37	179.92	8,245.23	1,223.13	1,223.13	-2.79	3.37	MWD	WEATHERFORD
5/14/2015	9,347.00	87.76	178.71	8,247.59	1,317.09	1,317.09	-3.91	2.14	MWD	WEATHERFORD
5/14/2015	9,442.00	87.20	178.66	8,251.77	1,411.98	1,411.97	-6.09	0.59	MWD	WEATHERFORD
5/14/2015	9,537.00	87.41	178.67	8,256.23	1,506.88	1,506.84	-8.30	0.22	MWD	WEATHERFORD
5/14/2015	9,632.00	88.53	177.45	8,259.60	1,601.77	1,601.72	-11.51	1.74	MWD	WEATHERFORD
5/14/2015	9,727.00	90.14	177.74	8,260.70	1,696.69	1,696.63	-15.50	1.72	MWD	WEATHERFORD
5/14/2015	9,822.00	90.70	175.89	8,260.00	1,791.57	1,791.48	-20.78	2.03	MWD	WEATHERFORD
5/14/2015	9,917.00	89.58	176.48	8,259.77	1,886.39	1,886.28	-27.11	1.32	MWD	WEATHERFORD
5/14/2015	10,012.00	90.49	177.92	8,259.71	1,981.30	1,981.15	-31.77	1.81	MWD	WEATHERFORD
5/14/2015	10,107.00	90.14	180.73	8,259.19	2,076.29	2,076.13	-32.89	2.98	MWD	WEATHERFORD
5/14/2015	10,202.00	88.67	180.33	8,260.18	2,171.27	2,171.12	-32.01	1.60	MWD	WEATHERFORD
5/14/2015	10,297.00	89.44	181.43	8,261.74	2,266.23	2,266.09	-30.55	1.41	MWD	WEATHERFORD
5/14/2015	10,392.00	89.51	182.93	8,262.61	2,361.14	2,361.01	-26.94	1.58	MWD	WEATHERFORD
5/14/2015	10,487.00	89.58	184.87	8,263.37	2,455.87	2,455.79	-20.48	2.04	MWD	WEATHERFORD
5/14/2015	10,582.00	91.61	186.43	8,262.38	2,550.33	2,550.31	-11.13	2.69	MWD	WEATHERFORD
5/14/2015	10,677.00	90.35	184.26	8,260.78	2,644.84	2,644.88	-2.28	2.64	MWD	WEATHERFORD
5/14/2015	10,772.00	89.09	180.76	8,261.22	2,739.71	2,739.77	-1.88	3.92	MWD	WEATHERFORD
5/14/2015	10,867.00	89.65	181.89	8,262.27	2,834.66	2,834.74	-4.08	1.33	MWD	WEATHERFORD
5/14/2015	10,962.00	91.75	180.95	8,261.11	2,929.60	2,929.69	-6.43	2.42	MWD	WEATHERFORD
5/14/2015	11,057.00	90.28	178.27	8,259.42	3,024.57	3,024.67	-5.78	3.22	MWD	WEATHERFORD
5/14/2015	11,152.00	88.18	176.40	8,260.70	3,119.48	3,119.54	-1.37	2.98	MWD	WEATHERFORD
5/14/2015	11,247.00	90.14	177.93	8,262.09	3,214.37	3,214.41	-3.33	2.62	MWD	WEATHERFORD
5/14/2015	11,343.00	90.56	178.14	8,261.51	3,310.33	3,310.35	-6.82	0.49	MWD	WEATHERFORD
5/14/2015	11,438.00	89.86	178.54	8,261.16	3,405.30	3,405.31	-9.37	0.85	MWD	WEATHERFORD
5/14/2015	11,533.00	89.65	177.87	8,261.56	3,500.27	3,500.26	-12.35	0.74	MWD	WEATHERFORD
5/14/2015	11,628.00	90.07	178.41	8,261.80	3,595.24	3,595.21	-15.43	0.72	MWD	WEATHERFORD
5/14/2015	11,723.00	90.21	179.64	8,261.56	3,690.23	3,690.20	-17.05	1.30	MWD	WEATHERFORD
5/14/2015	11,818.00	90.35	180.18	8,261.10	3,785.23	3,785.19	-17.20	0.59	MWD	WEATHERFORD
5/14/2015	11,913.00	91.12	179.81	8,259.88	3,880.22	3,880.19	-17.21	0.90	MWD	WEATHERFORD
5/14/2015	12,009.00	91.54	180.89	8,257.65	3,976.18	3,976.16	-16.62	1.21	MWD	WEATHERFORD
5/14/2015	12,104.00	89.93	178.47	8,256.43	4,071.17	4,071.14	-17.15	3.06	MWD	WEATHERFORD
5/14/2015	12,180.00	88.95	177.81	8,257.18	4,147.13	4,147.09	-19.62	1.55	MWD	WEATHERFORD
5/14/2015	12,218.00	88.53	177.64	8,258.01	4,185.10	4,185.05	-21.12	1.19	MWD	WEATHERFORD
5/14/2015	12,313.00	90.91	179.07	8,258.48	4,280.07	4,280.00	-23.85	2.92	MWD	WEATHERFORD
5/14/2015	12,409.00	90.91	179.92	8,256.95	4,378.06	4,375.99	-24.70	0.89	MWD	WEATHERFORD
5/14/2015	12,504.00	91.33	180.74	8,255.10	4,471.03	4,470.97	-24.15	0.97	MWD	WEATHERFORD
5/14/2015	12,599.00	91.05	181.07	8,253.12	4,565.99	4,565.93	-22.65	0.46	MWD	WEATHERFORD
5/14/2015	12,694.00	90.98	181.62	8,251.44	4,660.93	4,660.89	-20.42	0.58	MWD	WEATHERFORD
5/14/2015	12,788.00	91.19	182.05	8,249.66	4,754.84	4,754.83	-17.41	0.51	MWD	WEATHERFORD
5/14/2015	12,885.00	90.21	181.02	8,248.47	4,851.78	4,851.78	-14.81	1.47	MWD	WEATHERFORD
5/14/2015	12,980.00	89.86	179.57	8,248.42	4,946.77	4,946.78	-14.32	1.57	MWD	WEATHERFORD
5/14/2015	13,075.00	89.37	178.74	8,249.05	5,041.77	5,041.76	-15.73	1.01	MWD	WEATHERFORD
5/14/2015	13,170.00	88.74	177.41	8,250.62	5,136.71	5,136.70	-18.92	1.55	MWD	WEATHERFORD
5/28/2015	13,265.00	88.95	178.34	8,252.54	5,231.65	5,231.61	-22.44	1.00	MWD	WEATHERFORD
5/28/2015	13,360.00	89.02	178.24	8,254.22	5,326.61	5,326.55	-25.27	0.13	MWD	WEATHERFORD
5/28/2015	13,455.00	89.51	180.16	8,255.44	5,421.59	5,421.53	-26.60	2.09	MWD	WEATHERFORD
5/28/2015	13,550.00	90.07	180.74	8,255.79	5,516.58	5,516.53	-25.85	0.85	MWD	WEATHERFORD
5/28/2015	13,644.00	90.70	182.59	8,255.15	5,610.52	5,610.48	-23.12	2.08	MWD	WEATHERFORD
5/28/2015	13,739.00	90.49	182.49	8,254.17	5,705.39	5,705.38	-18.91	0.24	MWD	WEATHERFORD
5/28/2015	13,834.00	90.28	179.47	8,253.53	5,800.35	5,800.35	-17.29	3.19	MWD	WEATHERFORD
5/28/2015	13,930.00	90.21	179.93	8,253.12	5,896.35	5,896.35	-17.79	0.46	MWD	WEATHERFORD
5/28/2015	14,024.00	90.70	180.71	8,252.37	5,990.34	5,990.35	-17.26	0.98	MWD	WEATHERFORD
5/29/2015	14,119.00	91.12	179.25	8,250.86	6,085.32	6,085.33	-17.30	1.60	MWD	WEATHERFORD
5/29/2015	14,214.00	91.12	178.42	8,249.01	6,180.29	6,180.29	-19.23	0.87	MWD	WEATHERFORD
5/29/2015	14,309.00	91.54	179.36	8,246.80	6,275.26	6,275.25	-21.07	1.08	MWD	WEATHERFORD
5/29/2015	14,404.00	90.84	179.65	8,244.83	6,370.24	6,370.22	-21.89	0.80	MWD	WEATHERFORD
5/29/2015	14,500.00	89.44	178.65	8,244.59	6,466.23	6,466.21	-23.31	1.79	MWD	WEATHERFORD

Well Name: COTTON DRAW UNIT 182H

Sub-Division DELAWARE BASIN WEST	Region BASIN WEST	Field Name PADUCA	County EDDY	State/Province NM						
Surface Legal Location SEC 25 24S R31E	API/Well 3001542849	Latitude (°) 32° 11' 16.057" N	Longitude (°) 103° 43' 46.306" W	Orig KB Elevation (ft) 3,554.30						
				Ground Elev MSL (ft) 3,527.30						
				KB - GL (ft) 27.00						
Survey Data										
Date	MD (ft)	Incl (°)	Azm (°)	TVD (ft)	VS (ft)	N/S (ft)	E/W (ft)	DLS (ft/100ft)	Survey Tool	Survey Company
5/29/2015	14,595.00	89.79	179.25	8,246.23	6,561.22	6,561.19	25.05	0.73	MWD	WEATHERFORD
5/29/2015	14,690.00	91.68	179.58	8,244.01	6,656.21	6,656.17	26.04	2.02	MWD	WEATHERFORD
5/29/2015	14,785.00	90.63	177.75	8,242.10	6,751.17	6,751.12	28.27	2.20	MWD	WEATHERFORD
5/29/2015	14,880.00	89.93	174.35	8,241.63	6,845.97	6,845.88	34.81	3.65	MWD	WEATHERFORD
5/29/2015	14,975.00	89.51	174.69	8,242.10	6,940.58	6,940.45	43.89	0.57	MWD	WEATHERFORD
5/29/2015	15,070.00	89.30	174.85	8,243.09	7,035.23	7,035.04	52.54	0.28	MWD	WEATHERFORD
5/29/2015	15,166.00	89.51	177.50	8,244.08	7,131.04	7,130.82	58.95	2.77	MWD	WEATHERFORD
5/29/2015	15,261.00	89.51	177.49	8,244.89	7,225.97	7,225.72	63.10	0.01	MWD	WEATHERFORD
5/29/2015	15,330.00	89.79	178.52	8,245.32	7,294.94	7,294.68	65.50	1.55	MWD	WEATHERFORD
5/29/2015	15,400.00	89.79	178.52	8,245.57	7,364.93	7,364.65	67.31	0.00	MWD	WEATHERFORD