

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

NM OIL CONSERVATION Form C-102
ARTESIA DISTRICT Revised August 1, 2011
SEP 16 2015
Sign one copy to appropriate District Office

RECEIVED AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-43371		² Pool Code 55510		³ Pool Name Scanlon Draw; Bone Spring	
⁴ Property Code 38436		⁵ Property Name EMERALD PWU 20			⁶ Well Number 11H
⁷ OGRID NO. 6137		⁸ Operator Name DEVON ENERGY PRODUCTION CO., L.P.			⁹ Elevation 3331'
¹⁰ Surface Location					
UL or lot no. L	Section 20	Township 19S	Range 29E	Lot Idn 2434	Feet from the North/South line SOUTH 284
		East/West line WEST		County EDDY	
¹¹ Bottom Hole Location If Different From Surface					
UL or lot no. I	Section 20	Township 19S	Range 29E	Lot Idn 2270	Feet from the North/South line SOUTH 270
		East/West line EAST		County EDDY	
¹² Dedicated Acres 160		¹³ Joint or Infill		¹⁴ Consolidation Code	
¹⁵ Order No.					

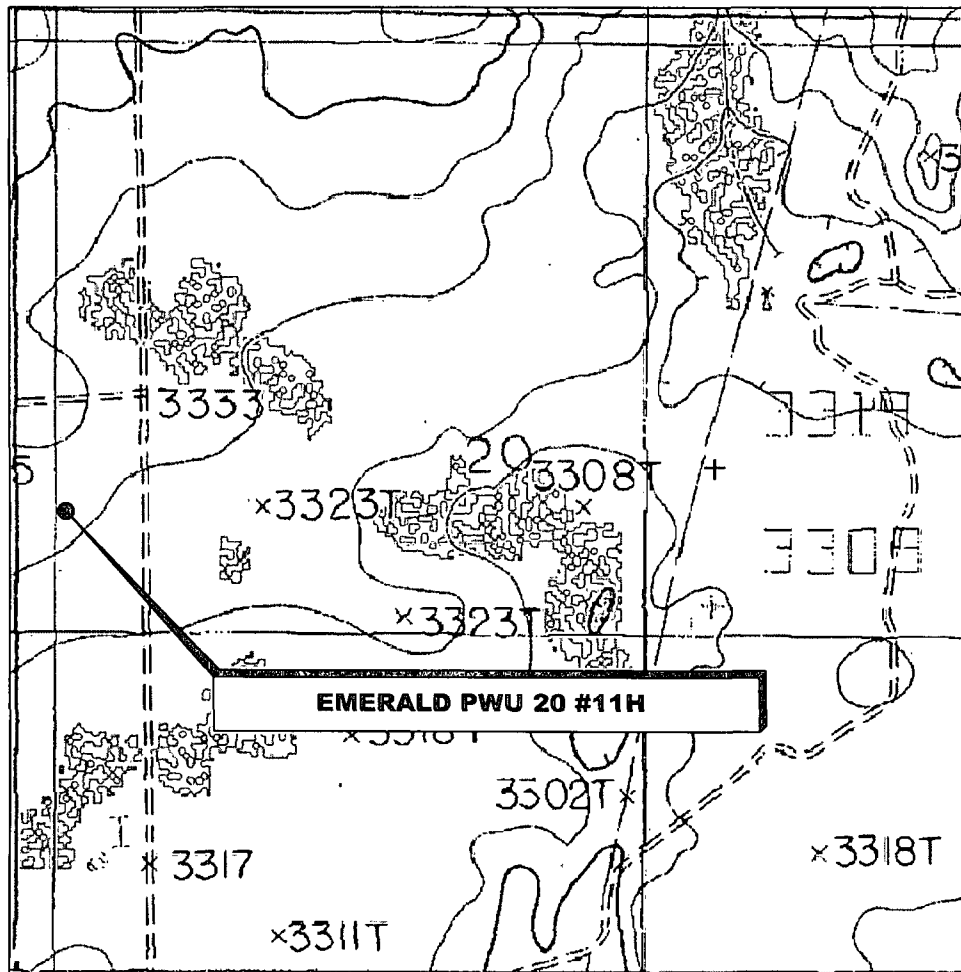
No allowable will be assigned to this completion until all interest have been consolidated or a non-standard unit has been approved by the division.

¹⁶ CORNER DATA NAD 83 GRID - NM EAST A: FOUND LIMESTONE ROCK N 596321.1 - E 611438.5 B: FOUND LIMESTONE ROCK 12"x4"x4.5" N 598960.3 - E 611433.1 C: FOUND 1/2" REBAR N 601599.9 - E 611427.2		¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. Signature <u>Megan Moravec</u> Date <u>9/15/2015</u> Printed Name <u>Megan Moravec, Regulatory Analyst</u> E-mail Address <u>Megan.Moravec@dmv.com</u>	
¹⁸ SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. Date of Survey <u>8-24-2015</u> Signature and Seal of Professional Surveyor <u>[Signature]</u> Certificate Number <u>20451</u>		¹⁹ GEODETIC DATA NAD 83 GRID - NM EAST SURFACE LOCATION N 598754.0 - E 611717.6 LAT: 32.64581443° N LONG: 104.10467500° W BOTTOM HOLE N 598580.9 - E 616458.9 LAT: 32.64530982° N LONG: 104.08927228° W	

Project Area: ☐ RRC - Firm No.: TX 10193838 NM 4655451 - Job No.: LS1507379

820
9/16/2015

LOCATION VERIFICATION MAP



**SECTION 20, TWP. 19 SOUTH, RGE. 29 EAST,
N. M. P. M., EDDY CO., NEW MEXICO**

OPERATOR: Devon Energy Production
Company, L. P.

LEASE: Emerald PWU 20

WELL NO.: 11H

ELEVATION: 3324'

LOCATION: 2434' FSL & 284' FWL

CONTOUR INTERVAL: 10'

USGS TOPO. SOURCE MAP:

Illinois Camp, NM (P. E. 1985)

Firm No.: TX 10193838 NM 4655451

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1	8-24-2015	REB
NO.	DATE	PS
JOB NO.: LS1507379		
DWG. NO.: 1507379LVM		

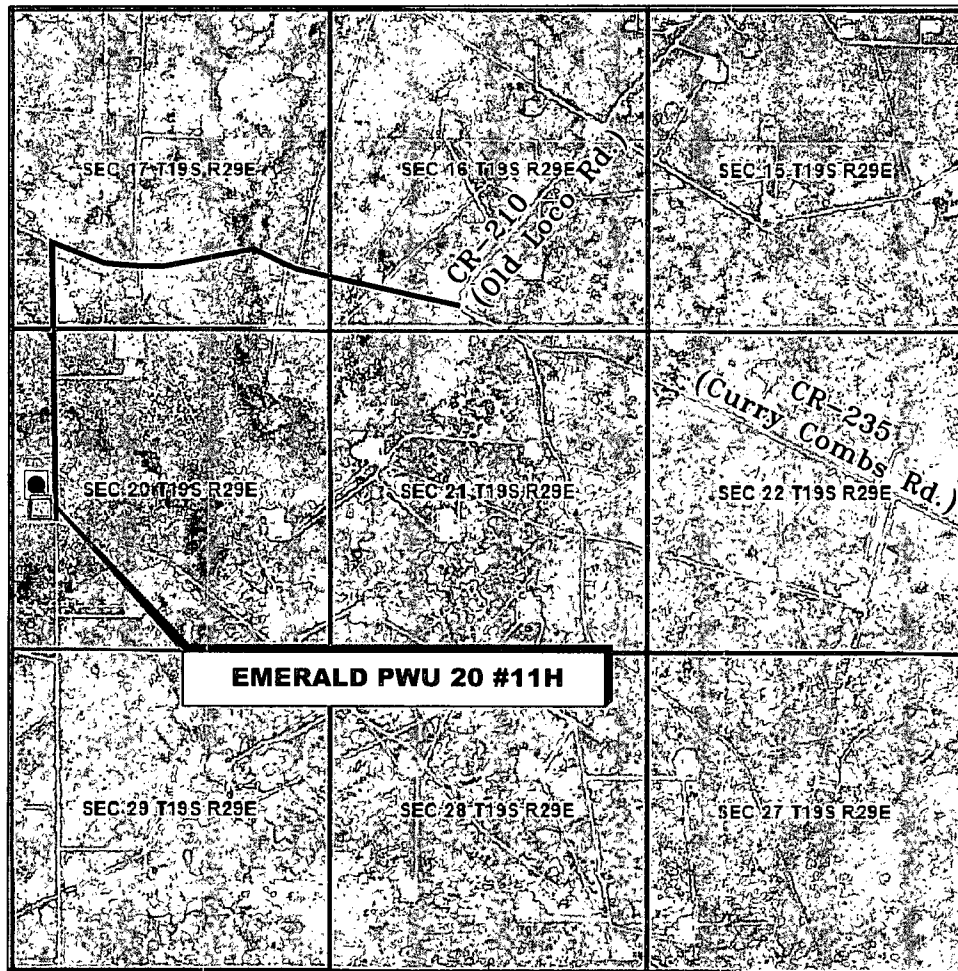
RRC

308 W. BROADWAY ST., HOBBS, NM 88240 (575) 964-8200

SCALE: 1"=1000'
DATE: 8-24-2015
SURVEYED BY: BC/CG
DRAWN BY: PDJ
APPROVED BY: REB
SHEET : 1 OF 3

VICINITY MAP

NOT TO SCALE



*SECTION 20, TWP. 19 SOUTH, RGE. 29 EAST,
N. M. P. M., EDDY CO., NEW MEXICO*

OPERATOR: Devon Energy Production
Company, L. P.

LOCATION: 2434' FSL & 284' FWL
ELEVATION: 3331'

LEASE: Emerald PWU 20
WELL NO.: 11H

Firm No.: TX 10193838 NM 4655451

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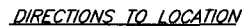
1	8-24-2015	REB
NO.	DATE	PS
JOB NO.: LS1507379		
DWG. NO.: 1507379VM		

RRC

308 W. BROADWAY ST., HOBBS, NM 88240 (575) 964-8200

SCALE: NTS
DATE: 8-24-2015
SURVEYED BY: BC/CG
DRAWN BY: PDJ
APPROVED BY: REB
SHEET : 2 OF 3

EMERALD PWU 20 #11H
(2434' FSL & 284' FWL)
SECTION 20, T19S, R29E,
N. M. P. M., EDDY COUNTY, NEW MEXICO



BEARINGS ARE
NAD 83 GRID - NM EAST
DISTANCES ARE GROUND

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RRC

SCALE: 1" = 100'
DATE: 8-24-2015
SURVEYED BY: BC/CG
DRAWN BY: PDJ
APPROVED BY: REB
SHEET : 3 OF 3

SEP 16 2015

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devon

Emerald PWU 20 11H
Eddy Co, NM



KB:3349
GL:3324

Plan Data for Emerald PWU 20 11H

Plan Point Information:									
Dogleg Severity Unit: °/100.00ft				Position offsets from Slot centre					
MD	Inc	Az	TVD	+N/-S	+E/-W	Northing	Easting	VSec	DLS
(USft)	(°)	(°)	(USft)	(USft)	(USft)	(USft)	(USft)	(USft)	(DLSU)
0.00	0.00	0.00	0.00	0.00	0.00	597711.10	616458.20	0.00	0.00
3000.00	0.00	0.00	3000.00	0.00	0.00	597711.10	616458.20	0.00	0.00
3800.00	8.00	10.00	3797.40	54.91	9.68	597766.01	616467.88	-9.59	1.00
7175.00	8.00	10.00	7139.56	517.49	91.25	598228.59	616549.45	-90.34	0.00
7975.00	0.00	0.00	7936.96	572.40	100.93	598283.50	616559.13	-99.93	1.00
8293.44	0.00	0.00	8255.40	572.40	100.93	598283.50	616559.13	-99.93	0.00
8593.44	30.00	340.00	8541.88	644.53	74.68	598355.63	616532.88	-73.55	10.00
9394.47	90.00	270.10	8959.00	871.71	-489.34	598582.81	615968.86	490.87	10.00
13660.84	90.00	270.10	8959.00	879.47	-4755.70	598590.57	611702.50	4757.23	0.00

Plan Data for Emerald PWU 20 11H

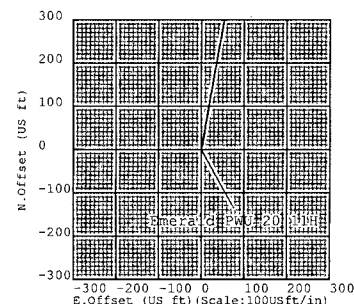
Slot: Emerald PWU 20 11H
Position:
Offset is from Site centre
+N/-S: 0.00USft Northing: 597711.10USft Latitude: 32.642919°
+E/-W: 0.00USft Easting: 616458.20USft Longitude: -104.089281°
Elevation Above VRD: 3324.00USft

Plan Data for Emerald PWU 20 11H

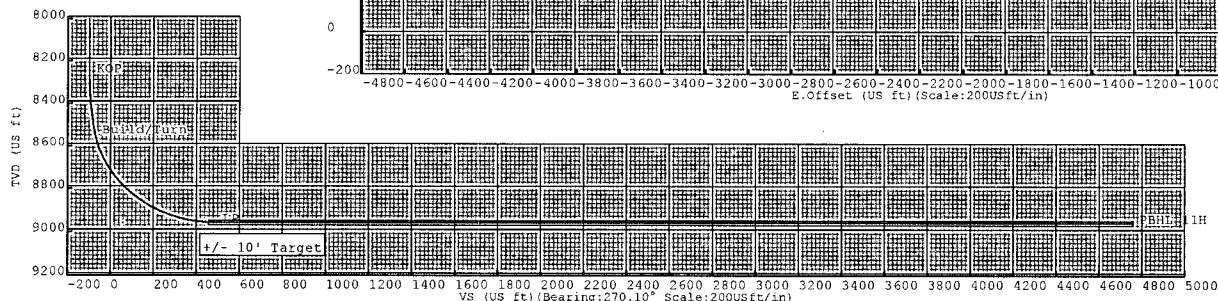
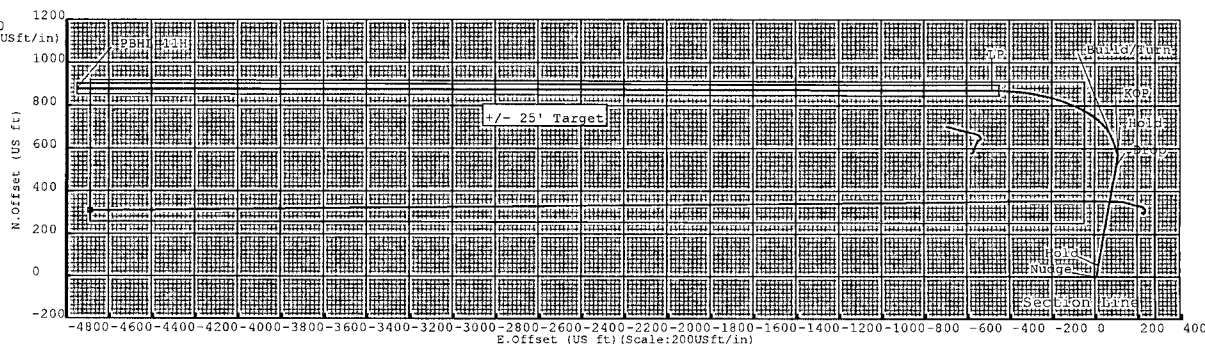
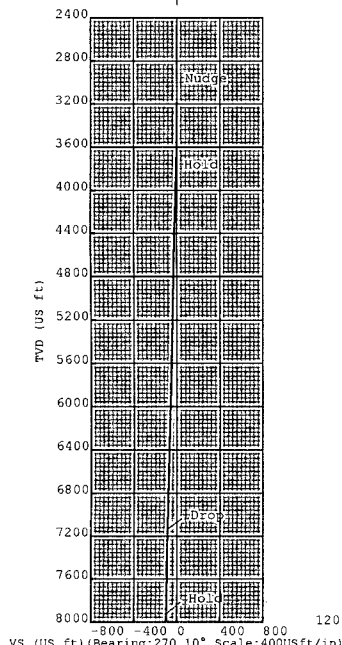
Well: Emerald PWU 20 11H
Type: Main-Well
File Number:
Plan Folder: P1 Plan: P1.V1
Vertical Section: Position offset of origin from Slot centre:
+N/-S: 0.00USft Azimuth: 269.50°
+E/-W: 0.00USft
Magnetic Parameters:
Model: Field Strength: Declination: Dip: Date:
bggm2015 48398(nT) 7.52° 60.42° 2015-11-01

Plan Data for Emerald PWU 20 11H

Target Set Information:
Name: Emerald PWU 20 11H Tgt
Position offsets from Slot centre
Name TVD Elevation +N/-S +E/-W Northing Easting
(USft) (USft) (USft) (USft) (USft)
LP Tgt 8959.00 -5610.00 870.91 -55.86 598582.01 616402.34
PBHL 11H 8959.00 -5610.00 879.47 -4755.70 598590.57 611702.50



Emerald PWU 20 11H
Parkway 13
#7



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5D Plan Report

Devon Energy

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

Site Name: *Emerald PWU 20 11H*

Well Name: *Emerald PWU 20 11H*

Plan: *P1:V1*

3 September 2015



Weatherford®


Weatherford®

Emerald PWU 20 11H

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: Emerald PWU 20 11H	Units: US ft North Reference: Grid Convergence Angle: 0.13 <table style="width: 100%;"> <tr> <td style="width: 33%;">Position:</td> <td style="width: 33%;">Northing: 597711.10US ft</td> <td style="width: 33%;">Latitude: 32° 38' 34.51"</td> </tr> <tr> <td></td> <td>Easting: 616458.20US ft</td> <td>Longitude: -104° 5' 21.41"</td> </tr> </table> Elevation above MSL: 3324.00 US ft Comment:	Position:	Northing: 597711.10US ft	Latitude: 32° 38' 34.51"		Easting: 616458.20US ft	Longitude: -104° 5' 21.41"																					
Position:	Northing: 597711.10US ft	Latitude: 32° 38' 34.51"																										
	Easting: 616458.20US ft	Longitude: -104° 5' 21.41"																										
Slot: Emerald PWU 20 11H	Position (Relative to Site Centre) <table style="width: 100%;"> <tr> <td style="width: 33%;">+N/-S: 0.00US ft</td> <td style="width: 33%;">Northing: 597711.10US ft</td> <td style="width: 33%;">Latitude: 32°38'34.51"</td> </tr> <tr> <td>+E/-W: 0.00US ft</td> <td>Easting: 616458.20US ft</td> <td>Longitude: -104°5'21.41"</td> </tr> </table> Slot TVD Reference: Ground Elevation Elevation above MSL: 3324.00US ft Comment:	+N/-S: 0.00US ft	Northing: 597711.10US ft	Latitude: 32°38'34.51"	+E/-W: 0.00US ft	Easting: 616458.20US ft	Longitude: -104°5'21.41"																					
+N/-S: 0.00US ft	Northing: 597711.10US ft	Latitude: 32°38'34.51"																										
+E/-W: 0.00US ft	Easting: 616458.20US ft	Longitude: -104°5'21.41"																										
Well: Emerald PWU 20 11H	<table style="width: 100%;"> <tr> <td style="width: 33%;">Type: Main well</td> <td style="width: 33%;">UWI:</td> <td style="width: 33%;">Plan: P1:V1</td> </tr> <tr> <td>File Number:</td> <td>Comment:</td> <td></td> </tr> <tr> <td>Closure Distance: 4836.34US ft</td> <td>Closure Azimuth: 280.48°</td> <td></td> </tr> <tr> <td colspan="3">Vertical Section: Position of Origin (Relative to Slot centre)</td> </tr> <tr> <td>+N/-S: 0.00US ft</td> <td>+E/-W: 0.00US ft</td> <td>Az: 270.10°</td> </tr> <tr> <td colspan="3">Magnetic Parameters:</td> </tr> <tr> <td>Model: bggm2015</td> <td>Field Strength: 48398.3nT</td> <td>Declination: 7.52°</td> </tr> <tr> <td></td> <td></td> <td>Dip: 60.42°</td> </tr> <tr> <td></td> <td></td> <td>Date: 01/Nov/2015</td> </tr> </table>	Type: Main well	UWI:	Plan: P1:V1	File Number:	Comment:		Closure Distance: 4836.34US ft	Closure Azimuth: 280.48°		Vertical Section: Position of Origin (Relative to Slot centre)			+N/-S: 0.00US ft	+E/-W: 0.00US ft	Az: 270.10°	Magnetic Parameters:			Model: bggm2015	Field Strength: 48398.3nT	Declination: 7.52°			Dip: 60.42°			Date: 01/Nov/2015
Type: Main well	UWI:	Plan: P1:V1																										
File Number:	Comment:																											
Closure Distance: 4836.34US ft	Closure Azimuth: 280.48°																											
Vertical Section: Position of Origin (Relative to Slot centre)																												
+N/-S: 0.00US ft	+E/-W: 0.00US ft	Az: 270.10°																										
Magnetic Parameters:																												
Model: bggm2015	Field Strength: 48398.3nT	Declination: 7.52°																										
		Dip: 60.42°																										
		Date: 01/Nov/2015																										

Drill floor: Plan: P1:V1		
Rig Height (Kelly Bushing): 25.00us ft	Elevation above MSL: 3349.00us ft	Inclination: 0.00° Azimuth: 0.00°

Target set: Emerald PWU 20 11H Tgt Comment:							
Target Name:	Shape:	TVD (US ft)	N. Offset (US ft)	E. Offset (US ft)	Northing (USft)	Easting (USft)	Comment
LP Tgt	Point	8959.00	870.91	-55.86	598582.01	616402.34	
PBHL 11H	Cuboid	8959.00	879.47	-4755.70	598590.57	611702.50	

Wellpath created using minimum curvature.

Use Points				
MD: 0.00USft	Inclination: 0.00°	Azimuth: 0.00°	TVD: 0.00USft	North Offset: 0.00USft
				East Offset: 0.00USft

5D Plan Report

Salient 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 (°/100US ft)	B. Rate (°/100US ft)	T. Rate (°/100US ft)	T. Face (°)	Comment
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3000.00	0.00	0.00	3000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nudge
3800.00	8.00	10.00	3797.40	54.91	9.68	-9.59	1.00	1.00	0.00	10.00	Hold
7175.00	8.00	10.00	7139.56	517.49	91.25	-90.34	0.00	0.00	0.00	0.00	Drop
7975.00	0.00	0.00	7936.96	572.40	100.93	-99.93	1.00	-1.00	0.00	180.00	Hold
8293.44	0.00	0.00	8255.40	572.40	100.93	-99.93	0.00	0.00	0.00	0.00	KOP
8593.44	30.00	340.00	8541.88	644.53	74.68	-73.55	10.00	10.00	0.00	340.00	Build/Turn
9394.47	90.00	270.10	8959.00	871.71	-489.34	490.87	10.00	7.49	-8.73	287.59	LP
13660.84	90.00	270.10	8959.00	879.47	-4755.70	4757.23	0.00	0.00	0.00	0.00	PBHL 11H

Interpolated 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 (°/100US ft)	Northing (US ft)	Easting (US ft)		Comment
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	597711.10	616458.20		
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	597711.10	616458.20		
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	597711.10	616458.20		
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	597711.10	616458.20		
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	597711.10	616458.20		
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	597711.10	616458.20		
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	597711.10	616458.20		
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	597711.10	616458.20		
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	597711.10	616458.20		
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	597711.10	616458.20		
1000.00	0.00	0.00	1000.00	0.00	0.00	0.00	0.00	597711.10	616458.20		
1100.00	0.00	0.00	1100.00	0.00	0.00	0.00	0.00	597711.10	616458.20		
1200.00	0.00	0.00	1200.00	0.00	0.00	0.00	0.00	597711.10	616458.20		
1300.00	0.00	0.00	1300.00	0.00	0.00	0.00	0.00	597711.10	616458.20		
1400.00	0.00	0.00	1400.00	0.00	0.00	0.00	0.00	597711.10	616458.20		
1500.00	0.00	0.00	1500.00	0.00	0.00	0.00	0.00	597711.10	616458.20		
1600.00	0.00	0.00	1600.00	0.00	0.00	0.00	0.00	597711.10	616458.20		
1700.00	0.00	0.00	1700.00	0.00	0.00	0.00	0.00	597711.10	616458.20		
1800.00	0.00	0.00	1800.00	0.00	0.00	0.00	0.00	597711.10	616458.20		
1900.00	0.00	0.00	1900.00	0.00	0.00	0.00	0.00	597711.10	616458.20		
2000.00	0.00	0.00	2000.00	0.00	0.00	0.00	0.00	597711.10	616458.20		
2100.00	0.00	0.00	2100.00	0.00	0.00	0.00	0.00	597711.10	616458.20		
2200.00	0.00	0.00	2200.00	0.00	0.00	0.00	0.00	597711.10	616458.20		
2300.00	0.00	0.00	2300.00	0.00	0.00	0.00	0.00	597711.10	616458.20		
2400.00	0.00	0.00	2400.00	0.00	0.00	0.00	0.00	597711.10	616458.20		
2500.00	0.00	0.00	2500.00	0.00	0.00	0.00	0.00	597711.10	616458.20		
2600.00	0.00	0.00	2600.00	0.00	0.00	0.00	0.00	597711.10	616458.20		
2700.00	0.00	0.00	2700.00	0.00	0.00	0.00	0.00	597711.10	616458.20		
2800.00	0.00	0.00	2800.00	0.00	0.00	0.00	0.00	597711.10	616458.20		
2900.00	0.00	0.00	2900.00	0.00	0.00	0.00	0.00	597711.10	616458.20		
3000.00	0.00	0.00	3000.00	0.00	0.00	0.00	0.00	597711.10	616458.20		Nudge
3100.00	1.00	10.00	3099.99	0.86	0.15	-0.15	1.00	597711.96	616458.35		
3200.00	2.00	10.00	3199.96	3.44	0.61	-0.60	1.00	597714.54	616458.81		
3300.00	3.00	10.00	3299.86	7.73	1.36	-1.35	1.00	597718.83	616459.56		
3400.00	4.00	10.00	3399.68	13.74	2.42	-2.40	1.00	597724.84	616460.62		
3500.00	5.00	10.00	3499.37	21.47	3.79	-3.75	1.00	597732.57	616461.99		
3600.00	6.00	10.00	3598.90	30.91	5.45	-5.40	1.00	597742.01	616463.65		
3700.00	7.00	10.00	3698.26	42.06	7.42	-7.34	1.00	597753.16	616465.62		
3800.00	8.00	10.00	3797.40	54.91	9.68	-9.59	1.00	597766.01	616467.88		Hold
3900.00	8.00	10.00	3896.43	68.62	12.10	-11.98	0.00	597779.72	616470.30		
4000.00	8.00	10.00	3995.46	82.32	14.52	-14.37	0.00	597793.42	616472.72		
4100.00	8.00	10.00	4094.48	96.03	16.93	-16.77	0.00	597807.13	616475.13		
4200.00	8.00	10.00	4193.51	109.74	19.35	-19.16	0.00	597820.84	616477.55		
4300.00	8.00	10.00	4292.54	123.44	21.77	-21.55	0.00	597834.54	616479.97		
4400.00	8.00	10.00	4391.56	137.15	24.18	-23.94	0.00	597848.25	616482.38		
4500.00	8.00	10.00	4490.59	150.85	26.60	-26.34	0.00	597861.95	616484.80		

5D Plan Report

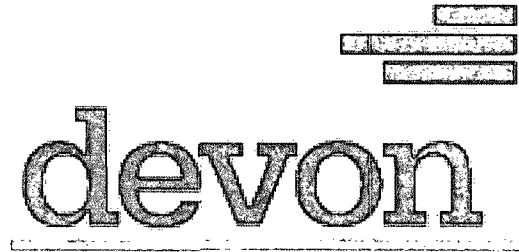
Interpolated Points (Relative to Slot centre) (TVD relative to Kelly Bushing)										
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N. Offset (US ft)	E. Offset (US ft)	VS (US ft)	DLS (°/100US ft)	Northing (US ft)	Easting (US ft)	Comment
4600.00	8.00	10.00	4589.62	164.56	29.02	-28.73	0.00	597875.66	616487.22	
4700.00	8.00	10.00	4688.64	178.27	31.43	-31.12	0.00	597889.37	616489.63	
4800.00	8.00	10.00	4787.67	191.97	33.85	-33.51	0.00	597903.07	616492.05	
4900.00	8.00	10.00	4886.70	205.68	36.27	-35.91	0.00	597916.78	616494.47	
5000.00	8.00	10.00	4985.72	219.38	38.68	-38.30	0.00	597930.48	616496.88	
5100.00	8.00	10.00	5084.75	233.09	41.10	-40.69	0.00	597944.19	616499.30	
5200.00	8.00	10.00	5183.78	246.79	43.52	-43.09	0.00	597957.89	616501.72	
5300.00	8.00	10.00	5282.81	260.50	45.93	-45.48	0.00	597971.60	616504.13	
5400.00	8.00	10.00	5381.83	274.21	48.35	-47.87	0.00	597985.31	616506.55	
5500.00	8.00	10.00	5480.86	287.91	50.77	-50.26	0.00	597999.01	616508.97	
5600.00	8.00	10.00	5579.89	301.62	53.18	-52.66	0.00	598012.72	616511.38	
5700.00	8.00	10.00	5678.91	315.32	55.60	-55.05	0.00	598026.42	616513.80	
5800.00	8.00	10.00	5777.94	329.03	58.02	-57.44	0.00	598040.13	616516.22	
5900.00	8.00	10.00	5876.97	342.74	60.43	-59.84	0.00	598053.84	616518.63	
6000.00	8.00	10.00	5975.99	356.44	62.85	-62.23	0.00	598067.54	616521.05	
6100.00	8.00	10.00	6075.02	370.15	65.27	-64.62	0.00	598081.25	616523.47	
6200.00	8.00	10.00	6174.05	383.85	67.68	-67.01	0.00	598094.95	616525.88	
6300.00	8.00	10.00	6273.07	397.56	70.10	-69.41	0.00	598108.66	616528.30	
6400.00	8.00	10.00	6372.10	411.27	72.52	-71.80	0.00	598122.37	616530.72	
6500.00	8.00	10.00	6471.13	424.97	74.93	-74.19	0.00	598136.07	616533.13	
6600.00	8.00	10.00	6570.15	438.68	77.35	-76.58	0.00	598149.78	616535.55	
6700.00	8.00	10.00	6669.18	452.38	79.77	-78.98	0.00	598163.48	616537.97	
6800.00	8.00	10.00	6768.21	466.09	82.18	-81.37	0.00	598177.19	616540.38	
6900.00	8.00	10.00	6867.23	479.79	84.60	-83.76	0.00	598190.89	616542.80	
7000.00	8.00	10.00	6966.26	493.50	87.02	-86.16	0.00	598204.60	616545.22	
7100.00	8.00	10.00	7065.29	507.21	89.43	-88.55	0.00	598218.31	616547.63	
7175.00	8.00	10.00	7139.56	517.49	91.25	-90.34	0.00	598228.59	616549.45	Drop
7200.00	7.75	10.00	7164.32	520.86	91.84	-90.93	1.00	598231.96	616550.04	
7300.00	6.75	10.00	7263.52	533.29	94.03	-93.10	1.00	598244.39	616552.23	
7400.00	5.75	10.00	7362.93	544.01	95.92	-94.97	1.00	598255.11	616554.12	
7500.00	4.75	10.00	7462.50	553.02	97.51	-96.55	1.00	598264.12	616555.71	
7600.00	3.75	10.00	7562.23	560.32	98.80	-97.82	1.00	598271.42	616557.00	
7700.00	2.75	10.00	7662.07	565.90	99.78	-98.80	1.00	598277.00	616557.98	
7800.00	1.75	10.00	7761.99	569.77	100.47	-99.47	1.00	598280.87	616558.67	
7900.00	0.75	10.00	7861.96	571.92	100.84	-99.85	1.00	598283.02	616559.04	
7975.00	0.00	0.00	7936.96	572.40	100.93	-99.93	1.00	598283.50	616559.13	Hold
8000.00	0.00	0.00	7961.96	572.40	100.93	-99.93	0.00	598283.50	616559.13	
8100.00	0.00	0.00	8061.96	572.40	100.93	-99.93	0.00	598283.50	616559.13	
8200.00	0.00	0.00	8161.96	572.40	100.93	-99.93	0.00	598283.50	616559.13	
8293.44	0.00	0.00	8255.40	572.40	100.93	-99.93	0.00	598283.50	616559.13	KOP
8300.00	0.66	340.00	8261.96	572.43	100.92	-99.92	10.00	598283.53	616559.12	
8400.00	10.66	340.00	8361.35	581.68	97.55	-96.53	10.00	598292.78	616555.75	
8500.00	20.66	340.00	8457.52	607.01	88.33	-87.27	10.00	598318.11	616546.53	
8593.44	30.00	340.00	8541.88	644.53	74.68	-73.55	10.00	598355.63	616532.88	Build/Turn
8600.00	30.20	338.76	8547.56	647.61	73.52	-72.39	10.00	598358.71	616531.72	
8700.00	34.60	321.91	8632.14	693.52	46.82	-45.61	10.00	598404.62	616505.02	
8800.00	40.79	309.02	8711.35	736.54	3.82	-2.54	10.00	598447.64	616462.02	
8900.00	48.09	299.22	8782.78	775.38	-54.18	55.53	10.00	598486.48	616404.02	
9000.00	56.04	291.52	8844.26	808.84	-125.42	126.83	10.00	598519.94	616332.78	
9100.00	64.39	285.17	8893.93	835.92	-207.73	209.19	10.00	598547.02	616250.47	
9200.00	72.98	279.66	8930.26	855.78	-298.61	300.10	10.00	598566.88	616159.59	
9300.00	81.70	274.64	8952.17	867.84	-395.30	396.82	10.00	598578.94	616062.90	
9394.48	90.00	270.10	8959.00	871.71	-489.34	490.87	10.00	598582.81	615968.86	LP
9400.00	90.00	270.10	8959.00	871.72	-494.87	496.39	0.00	598582.82	615963.33	
9500.00	90.00	270.10	8959.00	871.90	-594.87	596.39	0.00	598583.00	615863.33	
9600.00	90.00	270.10	8959.00	872.08	-694.87	696.39	0.00	598583.18	615763.33	
9700.00	90.00	270.10	8959.00	872.27	-794.87	796.39	0.00	598583.37	615663.33	
9800.00	90.00	270.10	8959.00	872.45	-894.87	896.39	0.00	598583.55	615563.33	
9900.00	90.00	270.10	8959.00	872.63	-994.87	996.39	0.00	598583.73	615463.33	

5D Plan Report

Interpolated Points: (Relative to Slot centre) (TVD relative to Kelly Bushing)										Comment
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N. Offset (US ft)	E. Offset (US ft)	VS (US ft)	DLS (%/100US ft)	Northing (US ft)	Easting (US ft)	
10000.00	90.00	270.10	8959.00	872.81	-1094.87	1096.39	0.00	598583.91	615363.33	
10100.00	90.00	270.10	8959.00	872.99	-1194.87	1196.39	0.00	598584.09	615263.33	
10200.00	90.00	270.10	8959.00	873.18	-1294.87	1296.39	0.00	598584.28	615163.33	
10300.00	90.00	270.10	8959.00	873.36	-1394.87	1396.39	0.00	598584.46	615063.33	
10400.00	90.00	270.10	8959.00	873.54	-1494.87	1496.39	0.00	598584.64	614963.33	
10500.00	90.00	270.10	8959.00	873.72	-1594.87	1596.39	0.00	598584.82	614863.33	
10600.00	90.00	270.10	8959.00	873.90	-1694.87	1696.39	0.00	598585.00	614763.33	
10700.00	90.00	270.10	8959.00	874.08	-1794.87	1796.39	0.00	598585.18	614663.33	
10800.00	90.00	270.10	8959.00	874.27	-1894.87	1896.39	0.00	598585.37	614563.33	
10900.00	90.00	270.10	8959.00	874.45	-1994.87	1996.39	0.00	598585.55	614463.33	
11000.00	90.00	270.10	8959.00	874.63	-2094.87	2096.39	0.00	598585.73	614363.33	
11100.00	90.00	270.10	8959.00	874.81	-2194.87	2196.39	0.00	598585.91	614263.33	
11200.00	90.00	270.10	8959.00	874.99	-2294.87	2296.39	0.00	598586.09	614163.33	
11300.00	90.00	270.10	8959.00	875.18	-2394.87	2396.39	0.00	598586.28	614063.33	
11400.00	90.00	270.10	8959.00	875.36	-2494.87	2496.39	0.00	598586.46	613963.33	
11500.00	90.00	270.10	8959.00	875.54	-2594.87	2596.39	0.00	598586.64	613863.33	
11600.00	90.00	270.10	8959.00	875.72	-2694.87	2696.39	0.00	598586.82	613763.33	
11700.00	90.00	270.10	8959.00	875.90	-2794.87	2796.39	0.00	598587.00	613663.33	
11800.00	90.00	270.10	8959.00	876.09	-2894.87	2896.39	0.00	598587.19	613563.33	
11900.00	90.00	270.10	8959.00	876.27	-2994.87	2996.39	0.00	598587.37	613463.33	
12000.00	90.00	270.10	8959.00	876.45	-3094.87	3096.39	0.00	598587.55	613363.33	
12100.00	90.00	270.10	8959.00	876.63	-3194.87	3196.39	0.00	598587.73	613263.33	
12200.00	90.00	270.10	8959.00	876.81	-3294.87	3296.39	0.00	598587.91	613163.33	
12300.00	90.00	270.10	8959.00	876.99	-3394.87	3396.39	0.00	598588.09	613063.33	
12400.00	90.00	270.10	8959.00	877.18	-3494.86	3496.39	0.00	598588.28	612963.34	
12500.00	90.00	270.10	8959.00	877.36	-3594.86	3596.39	0.00	598588.46	612863.34	
12600.00	90.00	270.10	8959.00	877.54	-3694.86	3696.39	0.00	598588.64	612763.34	
12700.00	90.00	270.10	8959.00	877.72	-3794.86	3796.39	0.00	598588.82	612663.34	
12800.00	90.00	270.10	8959.00	877.90	-3894.86	3896.39	0.00	598589.00	612563.34	
12900.00	90.00	270.10	8959.00	878.09	-3994.86	3996.39	0.00	598589.19	612463.34	
13000.00	90.00	270.10	8959.00	878.27	-4094.86	4096.39	0.00	598589.37	612363.34	
13100.00	90.00	270.10	8959.00	878.45	-4194.86	4196.39	0.00	598589.55	612263.34	
13200.00	90.00	270.10	8959.00	878.63	-4294.86	4296.39	0.00	598589.73	612163.34	
13300.00	90.00	270.10	8959.00	878.81	-4394.86	4396.39	0.00	598589.91	612063.34	
13400.00	90.00	270.10	8959.00	879.00	-4494.86	4496.39	0.00	598590.10	611963.34	
13500.00	90.00	270.10	8959.00	879.18	-4594.86	4596.39	0.00	598590.28	611863.34	
13600.00	90.00	270.10	8959.00	879.36	-4694.86	4696.39	0.00	598590.46	611763.34	
13660.84	90.00	270.10	8959.00	879.47	-4755.70	4757.23	0.00	598590.57	611702.50	PBHL 11H

SEP 16 2015

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5D Anti-Collision Report



Devon Energy

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

Site Name: *Emerald PWU 20 11H*

Well Name: *Emerald PWU 20 11H*



3 September 2015





Emerald PWU 20 11H

Field Name: Eddy Co, NM (Nad 83 NME)	Map Units: US ft Vertical Reference Datum (VRD): Mean Sea Level Projected Coordinate System: NAD83 / New Mexico East (ftUS) Comment:	Company Name: Devon Energy
Site: Emerald PWU 20 11H	Units: US ft North Reference: Grid Convergence Angle: 0.13 Position: Northing: 597711.10US ft Latitude: 32° 38' 34.51" Easting: 616458.20US ft Longitude: -104° 5' 21.41" Elevation above MSL: 3324.00 US ft Comment:	
Slot: Emerald PWU 20 11H	Position (Relative to Site Centre) +N/-S: 0.00US ft Northing: 597711.10US ft Latitude: 32° 38' 34.51" +E/-W: 0.00US ft Easting: 616458.20US ft Longitude: -104° 5' 21.41" Slot TVD Reference: Ground Elevation Elevation above MSL: 3324.00US ft Comment:	
Well: Emerald PWU 20 11H	Type: Main well UWI: Plan: Working Plan File Number: Comment: Closure Distance: 4836.34US ft Closure Azimuth: 280.48° Vertical Section: Position of Origin (Relative to Slot centre) +N/-S: 0.00US ft +E/-W: 0.00US ft Az: 0.00° Magnetic Parameters: Model: bggm2015 Field Strength: 48398.3nT Declination: 7.52° Dip: 60.42° Date: 01/Nov/2015	

Drill floor: Plan: Working Plan		
Rig Height (Kelly Bushing): 25.00us ft	Elevation above MSL: 3349.00us ft	Inclination: 0.00° Azimuth: 0.00°

Collision / Uncertainty Analysis				
Primary Well	Start MD (USFt)	End MD (USFt)	Collision Risk Interval	No. of Std. Deviations in Error Computation
Emerald PWU 20 11H (p)	0.00	13660.84	30.00	2

Secondary Well Names:
7 (s) Parkway 13 (s)

Anti-Collision Report Terminology
S.Minor, S.Major: Radii of the ellipse of uncertainty at the current location as seen in the along hole direction. PHI: Angle between high-side vector and semi-minor axis TVD Spread: Total TVD range of the ellipsoid of uncertainty at the current location. ES: Distance between the extremities of the primary and secondary uncertainty ellipsoids in the direction Cr-Cr. T.Face to Sec: Angle between the Hi-Side vector of the primary well at the current location and line of closest approach between the two wells.

5D Anti-Collision Report

AC Filter Info: the following filter has been applied: Separation Factor.

Separation factors calculated using Pedal Curve (Independent Uncertainty). Surface Uncertainty (S.U.) Not Applied. Wellpath created using minimum curvature.

Anti-Collision Summary (TVD relative to Kelly Bushing)

Secondary Well Name	Pri MD (US ft)	TVD (US ft)	Sec MD (US ft)	ES (US ft)	CC (US ft)	SF	Risk
#7 (s)	6532.73	6503.54	6514.10	47.79	78.60	2.55	
Parkway 13 (s)	9525.00	8959.00	8952.51	141.84	187.44	4.11	

Primary Well: Emerald PWU 2011H (p) (TVD relative to Kelly Bushing) (All Azimuth Relative to GRID NORTH)

MD (US ft)	TVD (US ft)	T.Face to Sec (°)	S.Major (US ft)	S.Minor (US ft)	TVD Spread (US ft)	Secondary Well Name	ES (US ft)	CC (US ft)	SF	Risk
5520.00	5500.66	58.31	13.22	12.39	13.69	#7 (s)	103.44	130.21	4.86	
5550.00	5530.37	59.55	13.31	12.46	13.77	#7 (s)	100.19	127.11	4.72	
5580.00	5560.08	60.83	13.40	12.53	13.85	#7 (s)	97.02	124.13	4.58	
5610.00	5589.79	62.15	13.49	12.60	13.93	#7 (s)	93.97	121.26	4.44	
5640.00	5619.50	63.53	13.58	12.67	14.01	#7 (s)	91.04	118.49	4.32	
5670.00	5649.20	64.97	13.67	12.74	14.10	#7 (s)	88.13	115.75	4.19	
5700.00	5678.91	66.47	13.76	12.81	14.18	#7 (s)	85.21	113.02	4.06	
5730.00	5708.62	68.05	13.85	12.88	14.26	#7 (s)	82.33	110.31	3.94	
5760.00	5738.33	69.69	13.94	12.96	14.34	#7 (s)	79.46	107.63	3.82	
5790.00	5768.04	71.42	14.03	13.03	14.43	#7 (s)	76.60	104.97	3.70	
5820.00	5797.74	73.22	14.13	13.10	14.51	#7 (s)	73.80	102.34	3.59	
5850.00	5827.45	75.10	14.22	13.17	14.60	#7 (s)	71.11	99.79	3.48	
5880.00	5857.16	77.09	14.31	13.24	14.68	#7 (s)	68.52	97.38	3.37	
5910.00	5886.87	79.18	14.40	13.31	14.76	#7 (s)	66.06	95.14	3.27	
5940.00	5916.58	81.39	14.49	13.38	14.85	#7 (s)	63.77	93.05	3.18	
5970.00	5946.28	83.74	14.58	13.46	14.94	#7 (s)	61.66	91.08	3.10	
6000.00	5975.99	86.21	14.67	13.53	15.02	#7 (s)	59.72	89.26	3.02	
6030.00	6005.70	88.82	14.76	13.60	15.11	#7 (s)	57.82	87.59	2.94	
6060.00	6035.41	91.54	14.86	13.67	15.20	#7 (s)	56.13	86.09	2.87	
6090.00	6065.12	94.36	14.95	13.74	15.28	#7 (s)	54.71	84.77	2.82	
6120.00	6094.83	97.27	15.04	13.81	15.37	#7 (s)	53.44	83.65	2.77	
6150.00	6124.53	100.25	15.13	13.89	15.46	#7 (s)	52.31	82.72	2.72	
6180.00	6154.24	103.28	15.22	13.96	15.55	#7 (s)	51.46	81.98	2.69	
6210.00	6183.95	106.35	15.32	14.03	15.64	#7 (s)	50.81	81.44	2.66	
6240.00	6213.66	109.42	15.41	14.10	15.73	#7 (s)	50.29	81.09	2.63	
6270.00	6243.37	112.51	15.50	14.17	15.81	#7 (s)	50.08	80.99	2.62	
6300.00	6273.07	115.59	15.59	14.24	15.90	#7 (s)	50.11	81.12	2.62	
6330.00	6302.78	118.66	15.69	14.32	16.00	#7 (s)	50.39	81.50	2.62	
6360.00	6332.49	121.74	15.78	14.39	16.09	#7 (s)	50.90	82.09	2.63	
6390.00	6362.20	125.39	15.87	14.46	16.18	#7 (s)	51.24	82.41	2.64	
6420.00	6391.91	129.86	15.96	14.53	16.27	#7 (s)	51.11	82.20	2.64	
6450.00	6421.61	135.49	16.06	14.60	16.36	#7 (s)	50.37	81.34	2.63	
6480.00	6451.32	141.73	16.15	14.67	16.45	#7 (s)	49.28	80.10	2.60	
6510.00	6481.03	148.41	16.24	14.75	16.55	#7 (s)	48.26	79.01	2.57	
6540.00	6510.74	155.55	16.34	14.82	16.64	#7 (s)	47.81	78.58	2.55	
6570.00	6540.45	162.90	16.43	14.89	16.73	#7 (s)	48.59	79.45	2.57	
6600.00	6570.15	170.27	16.52	14.96	16.83	#7 (s)	51.34	82.21	2.66	
6630.00	6599.86	177.47	16.62	15.03	16.92	#7 (s)	56.45	87.18	2.84	
6660.00	6629.57	184.21	16.71	15.11	17.02	#7 (s)	63.71	94.28	3.08	
6690.00	6659.28	190.35	16.80	15.18	17.11	#7 (s)	72.87	103.37	3.39	
6720.00	6688.99	195.92	16.90	15.25	17.21	#7 (s)	83.93	114.26	3.77	
6750.00	6718.69	201.12	16.99	15.32	17.31	#7 (s)	96.49	126.68	4.20	
6780.00	6748.40	205.68	17.08	15.39	17.40	#7 (s)	110.39	140.32	4.69	
9420.00	8959.00	270.60	24.82	13.37	27.07	Parkway 13 (s)	173.58	219.88	4.75	
9450.00	8959.00	270.34	25.30	13.45	27.23	Parkway 13 (s)	159.41	205.73	4.44	

5D Anti-Collision Report

Primary Well: Emerald PWU 2011H (p) (TVD relative to Kelly Bushing) (All Azimuth Relative to GRID NORTH)										
MD (US ft)	TVD (US ft)	T.Face to Sec (°)	S.Major (US ft)	S.Minor (US ft)	TVD Spread (US ft)	Secondary Well Name	ES (US ft)	CC (US ft)	SF	Risk
9480.00	8959.00	270.09	25.78	13.53	27.39	Parkway 13 (s)	148.98	195.19	4.22	
9510.00	8959.00	269.83	26.28	13.62	27.56	Parkway 13 (s)	143.10	188.87	4.13	
9540.00	8959.00	269.58	26.82	13.71	27.74	Parkway 13 (s)	141.93	187.21	4.13	
9570.00	8959.00	269.32	27.35	13.80	27.93	Parkway 13 (s)	145.83	190.31	4.28	
9600.00	8959.00	269.06	27.89	13.89	28.11	Parkway 13 (s)	154.35	197.96	4.54	
9630.00	8959.00	268.81	28.47	13.99	28.31	Parkway 13 (s)	166.77	209.66	4.89	

Secondary Well: #7 (s) (TVD relative to Kelly Bushing) (All Azimuth Relative to GRID NORTH)										
Pri MD (US ft)	TVD (US ft)	Sec MD (US ft)	T.Face to Sec (°)	S.Major (US ft)	S.Minor (US ft)	TVD Spread (US ft)	ES (US ft)	CC (US ft)	SF	Risk
5520.00	5504.76	5499.96	58.31	12.29	12.28	3.93	103.44	130.21	4.86	
5550.00	5534.21	5529.44	59.55	12.37	12.35	3.95	100.19	127.11	4.72	
5580.00	5563.69	5558.93	60.83	12.44	12.43	3.97	97.02	124.13	4.58	
5610.00	5593.18	5588.45	62.15	12.51	12.50	3.99	93.97	121.26	4.44	
5640.00	5622.95	5618.24	63.53	12.59	12.57	4.01	91.04	118.49	4.32	
5670.00	5652.88	5648.20	64.97	12.66	12.65	4.04	88.13	115.75	4.19	
5700.00	5682.80	5678.15	66.47	12.74	12.72	4.06	85.21	113.02	4.06	
5730.00	5712.72	5708.10	68.05	12.81	12.79	4.08	82.33	110.31	3.94	
5760.00	5742.65	5738.06	69.69	12.88	12.87	4.11	79.46	107.63	3.82	
5790.00	5772.56	5768.01	71.42	12.96	12.94	4.13	76.60	104.97	3.70	
5820.00	5802.47	5797.95	73.22	13.03	13.01	4.15	73.80	102.34	3.59	
5850.00	5832.06	5827.58	75.10	13.11	13.09	4.18	71.11	99.79	3.48	
5880.00	5861.62	5857.18	77.09	13.18	13.16	4.20	68.52	97.38	3.37	
5910.00	5891.20	5886.79	79.18	13.25	13.23	4.23	66.06	95.14	3.27	
5940.00	5920.87	5916.50	81.39	13.32	13.31	4.25	63.77	93.05	3.18	
5970.00	5950.61	5946.27	83.74	13.40	13.38	4.28	61.66	91.08	3.10	
6000.00	5980.33	5976.03	86.21	13.47	13.45	4.30	59.72	89.26	3.02	
6030.00	6010.03	6005.77	88.82	13.54	13.52	4.33	57.82	87.59	2.94	
6060.00	6039.74	6035.51	91.54	13.61	13.59	4.35	56.13	86.09	2.87	
6090.00	6069.44	6065.25	94.36	13.68	13.66	4.38	54.71	84.77	2.82	
6120.00	6099.13	6094.98	97.27	13.75	13.73	4.41	53.44	83.65	2.77	
6150.00	6128.86	6124.75	100.25	13.82	13.80	4.43	52.31	82.72	2.72	
6180.00	6158.60	6154.53	103.28	13.89	13.87	4.46	51.46	81.98	2.69	
6210.00	6188.34	6184.32	106.35	13.97	13.94	4.49	50.81	81.44	2.66	
6240.00	6218.03	6214.05	109.42	14.04	14.01	4.52	50.29	81.09	2.63	
6270.00	6247.64	6243.71	112.51	14.11	14.08	4.54	50.08	80.99	2.62	
6300.00	6277.25	6273.37	115.59	14.18	14.15	4.57	50.11	81.12	2.62	
6330.00	6306.90	6303.07	118.66	14.24	14.22	7.22	50.39	81.50	2.62	
6360.00	6336.86	6333.08	121.74	14.28	14.25	15.97	50.90	82.09	2.63	
6390.00	6368.69	6365.02	125.39	14.28	14.21	16.07	51.24	82.41	2.64	
6420.00	6400.57	6397.16	129.86	14.28	14.15	16.16	51.11	82.20	2.64	
6450.00	6432.72	6429.91	135.49	14.28	14.03	16.24	50.37	81.34	2.63	
6480.00	6463.40	6461.47	141.73	14.29	13.95	16.32	49.28	80.10	2.60	
6510.00	6492.59	6491.80	148.41	14.29	13.86	16.40	48.26	79.01	2.57	
6540.00	6520.49	6521.07	155.55	14.30	13.76	16.48	47.81	78.58	2.55	
6570.00	6546.47	6548.64	162.90	14.31	13.66	16.55	48.59	79.45	2.57	
6600.00	6570.88	6574.88	170.27	14.33	13.54	16.61	51.34	82.21	2.66	
6630.00	6594.33	6600.43	177.47	14.35	13.42	16.67	56.45	87.18	2.84	
6660.00	6616.89	6625.38	184.21	14.37	13.29	16.72	63.71	94.28	3.08	
6690.00	6638.40	6649.59	190.35	14.40	13.13	16.78	72.87	103.37	3.39	
6720.00	6658.82	6673.07	195.92	14.43	12.95	16.82	83.93	114.26	3.77	
6750.00	6678.98	6696.80	201.12	14.47	12.79	16.87	96.49	126.68	4.20	
6780.00	6697.83	6719.47	205.68	14.52	12.64	16.91	110.39	140.32	4.69	

5D Anti-Collision Report

Secondary Well: Parkway 19 (S) (TVD relative to Kelly Bushing) (All Azimuth Relative to GRID NORTH)										
Pri. MD (US ft)	TVD (US ft)	Sec MD (US ft)	T. Face to Sec (°)	S. Major (US ft)	S. Minor (US ft)	TVD Spread (US ft)	ES (US ft)	CC (US ft)	SF	Risk
9420.00	8957.05	8949.59	270.60	18.15	18.14	8.27	173.58	219.88	4.75	
9450.00	8957.88	8950.42	270.34	18.16	18.14	8.27	159.41	205.73	4.44	
9480.00	8958.72	8951.25	270.09	18.16	18.15	8.27	148.98	195.19	4.22	
9510.00	8959.55	8952.09	269.83	18.16	18.15	8.28	143.10	188.87	4.13	
9540.00	8960.39	8952.92	269.58	18.16	18.15	8.28	141.93	187.21	4.13	
9570.00	8961.22	8953.76	269.32	18.16	18.15	8.28	145.83	190.31	4.28	
9600.00	8962.05	8954.59	269.06	18.16	18.15	8.28	154.35	197.96	4.54	
9630.00	8962.89	8955.43	268.81	18.16	18.15	8.28	166.77	209.66	4.89	

**Weatherford**

Weatherford Drilling Services

GeoDec4 v2.1.0.0

Report Date: September 03, 2015
Job Number: _____
Customer: Devon Energy
Well Name: Emerald PWU 20 11H
API Number: _____
Rig Name: _____
Location: Eddy Co, NM Nad83 NME
Block: _____
Engineer: _____

NAD83 / New Mexico East (ftUS)	NAD83 (1986)
Projected Coordinate System	Geodetic Coordinate System
Datum: North American Datum 1983 (1986)	Datum: North American Datum 1983 (1986)
Ellipsoid: GRS 1980	Ellipsoid: GRS 1980
EPSG: 2257	EPSG: 4269
North: 597711.1 US Survey Foot	Latitude: 32.642919 Degree
East: 616458.2 US Survey Foot	Longitude: -104.089281 Degree
Convergence: 0.13°	
Declination: 7.52°	
Total Correction: 7.39°	
Datum Transformation: none	

Geodetic Location WGS84

MSL Elevation = 0 m
Latitude = 32° 38' 34.51" N
Longitude = 104° 05' 21.41" W

Magnetic Declination = 7.52 deg	[True North Offset]
Local Gravity = .9988 g	Checksum = 6647
Local Field Strength = 48398 nT	Magnetic Vector X = 23688 nT
Magnetic Dip = 60.42 deg	Magnetic Vector Y = 3127 nT
Magnetic Model = bggm2015.dat	Magnetic Vector Z = 42089 nT
Run Date = November 01, 2015	Magnetic Vector H = 23894 nT

Signed: _____ Date: _____

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