



Clearance Report

Rev-B.0
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	Devon Energy	Slot	No.1H SHL
Area	Lea County, NM	Well	No.1H
Field	(Ragin Cajun) Sec 12, T26S, R34E	Wellbore	No.1H PWB
Facility	Ragin Cajun 12 Federal No.1H		

REPORT SETUP INFORMATION

Projection System	NAD83 / TM New Mexico SP, Eastern Zone (3001), US feet	Software System	WellArchitect® 4.0.1
North Reference	Grid	User	Gentbry
Scale	1	Report Generated	12/10/2013 at 2:35:38 PM
Convergence at slot	0.48° East	Database/Source file	MidlandDB/No.1H_PWB_CR.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	0.00	0.00	824135.11	383364.89	32°03'02.389"N	103°25'14.025"W
Facility Reference Pt			824135.11	383364.89	32°03'02.389"N	103°25'14.025"W
Field Reference Pt			824135.11	383364.89	32°03'02.389"N	103°25'14.025"W

WELLPATH DATUM

Calculation method	Minimum Curvature	Rig on No.1H SHL (KB) to Facility Vertical Datum	25.00ft
Horizontal Reference Pt	Slot	Rig on No.1H SHL (KB) to Mean Sea Level	3305.90ft
Vertical Reference Pt	Rig on No.1H SHL (KB)	Rig on No.1H SHL (KB) to Mud Line at Slot (No.1H SHL)	25.00ft
MD Reference Pt	Rig on No.1H SHL (KB)		
Field Vertical Reference	Mean Sea Level		

POSITIONAL UNCERTAINTY CALCULATION SETTINGS

Ellipse Confidence Limit	3.00 Std Dev	Ellipse Start MD	25.00ft	Surface Position Uncertainty	included
Declination	7.30° East of TN	Dip Angle	59.98°	Mag Field Strength	48266 nT
Slot Surface Uncertainty @ 1SD		Horizontal	0.100ft	Vertical	0.100ft
Facility Surface Uncertainty @ 1SD		Horizontal	3.300ft	Vertical	1.000ft

Positional Uncertainty values in the WELLPATH DATA table are the projection of the ellipsoid of uncertainty onto the vertical and horizontal planes

ANTI-COLLISION RULE

Rule Name	Baker Hughes Stop Drilling	Rule Based On	Ratio
Plane of Rule	Closest Approach	Threshold Value	1.00
Subtract Casing & Hole Size	yes	Apply Cone of Safety	no

SURVEY PROGRAM - Ref Wellbore: No.1H PWB Ref Wellpath: Rev-B.0

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
25.00	13814.36	NaviTrak (Standard)		No.1H PWB



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CALCULATION RANGE & CUTOFF

From: 25.00ft MD	To: 13814.36ft MD	C-C Cutoff: (none)
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OFFSET WELL CLEARANCE SUMMARY (2 Offset Wellpaths selected) Ratios are calculated in Closest Approach plane

Offset Facility	Offset Slot	Offset Well	Offset Wellbore	Offset Wellpath	C-C Clearance Distance			ACR Separation Ratio			
					Ref MD [ft]	Min C-C Clear Dist [ft]	Diverging from MD [ft]	Ref MD of Min Ratio [ft]	Min Ratio	Min Ratio Dvrg from [ft]	ACR Status
Rattlesnake Unit 13 Fed No.2H	No.2H SHL	No.2H	No.2H AWB	No.2H AWP	1357.18	42.92	8725.00	2625.00	1.88	8725.00	PASS
Rattlesnake Unit 13 Fed No.2H	No.2H SHL	No.2H	No.2H PWB	Rev-E.0	1357.18	42.92	8725.00	2625.00	1.88	10925.00	PASS



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Area	Lea County, NM	Well	No.1H
Field	(Ragin Cajun) Sec 12, T26S, R34E	Wellbore	No.1H PWB
Facility	Ragin Cajun 12 Federal No.1H		

CLEARANCE DATA - Offset Wellbore: No.2H AWB Offset Wellpath: No.2H AWP

Facility: Rattlesnake Unit 13 Fed No.2H Slot: No.2H SHL Well: No.2H Threshold Value=1.00 † = interpolated/extrapolated station

Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Horiz Bearing [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
25.00	25.00	0.00	0.00	24.50	24.90	-34.31	36.20	133.47	49.88	9.90	5.04	PASS
125.00†	125.00	0.00	0.00	124.27	124.66	-34.81	36.45	133.68	50.40	19.82	2.54	PASS
225.00†	225.00	0.00	0.00	224.21	224.60	-35.36	36.92	133.76	51.12	19.86	2.57	PASS
325.00†	325.00	0.00	0.00	324.11	324.50	-35.85	37.64	133.61	51.98	19.93	2.61	PASS
425.00†	425.00	0.00	0.00	424.12	424.51	-36.47	38.39	133.53	52.96	20.02	2.64	PASS
525.00†	525.00	0.00	0.00	524.43	524.81	-36.95	38.87	133.55	53.63	20.15	2.66	PASS
625.00†	625.00	0.00	0.00	624.88	625.26	-37.00	38.73	133.69	53.57	20.27	2.64	PASS
725.00†	725.00	0.00	0.00	725.12	725.50	-36.72	38.00	134.02	52.84	20.36	2.60	PASS
825.00†	825.00	0.00	0.00	825.33	825.70	-36.26	36.84	134.55	51.70	20.47	2.52	PASS
925.00†	925.00	0.00	0.00	925.51	925.87	-35.62	35.26	135.30	50.13	20.62	2.43	PASS
1025.00†	1025.00	0.00	0.00	1025.58	1025.92	-34.83	33.43	136.18	48.29	20.78	2.32	PASS
1125.00†	1125.00	0.00	0.00	1125.58	1125.90	-33.95	31.54	137.11	46.35	20.97	2.21	PASS
1225.00†	1225.00	0.00	0.00	1225.56	1225.85	-33.07	29.65	138.12	44.42	21.19	2.10	PASS
1250.00	1250.00	0.00	0.00	1250.55	1250.84	-32.84	29.19	138.36	43.94	21.25	2.07	PASS
1325.00†	1325.00	0.00	-0.74	1325.53	1325.80	-32.13	27.84	138.35	43.01	21.43	2.01	PASS
1357.18†	1357.16	0.00	-1.50	1357.65	1357.92	-31.84	27.27	137.90	42.92	21.52	1.99	PASS
1383.33	1383.31	0.00	-2.33	1383.83	1384.09	-31.61	26.81	137.33	42.99	21.59	1.99	PASS
1425.00†	1424.95	0.00	-3.78	1425.46	1425.71	-31.26	26.08	136.31	43.24	21.71	1.99	PASS
1525.00†	1524.89	0.00	-7.27	1525.41	1525.65	-30.48	24.41	133.89	43.97	22.00	2.00	PASS
1625.00†	1624.83	0.00	-10.76	1625.33	1625.55	-29.68	22.84	131.45	44.83	22.32	2.01	PASS
1725.00†	1724.76	0.00	-14.25	1725.25	1725.46	-28.87	21.48	128.94	45.95	22.66	2.03	PASS
1825.00†	1824.70	0.00	-17.74	1825.13	1825.33	-28.02	20.34	126.35	47.28	23.03	2.05	PASS
1883.33	1883.00	0.00	-19.78	1883.35	1883.54	-27.51	19.81	124.79	48.21	23.25	2.07	PASS
1925.00†	1924.65	0.00	-21.00	1924.91	1925.10	-27.16	19.54	123.82	48.80	23.41	2.08	PASS
2016.67	2016.31	0.00	-22.10	2016.44	2016.63	-26.37	19.20	122.55	49.00	23.75	2.06	PASS
2025.00†	2024.64	0.00	-22.10	2024.77	2024.95	-26.29	19.19	122.48	48.95	23.78	2.06	PASS
2125.00†	2124.64	0.00	-22.10	2124.76	2124.94	-25.26	19.11	121.51	48.33	24.11	2.00	PASS
2225.00†	2224.64	0.00	-22.10	2224.61	2224.79	-24.21	19.18	120.39	47.86	24.45	1.96	PASS
2325.00†	2324.64	0.00	-22.10	2324.49	2324.66	-23.23	19.53	119.16	47.68	24.77	1.92	PASS
2425.00†	2424.64	0.00	-22.10	2424.41	2424.57	-22.27	20.11	117.81	47.73	25.08	1.90	PASS
2525.00†	2524.64	0.00	-22.10	2524.33	2524.48	-21.32	20.86	116.38	47.97	25.40	1.89	PASS
2625.00†	2624.64	0.00	-22.10	2624.21	2624.36	-20.38	21.80	114.91	48.40	25.71	1.88	PASS
2725.00†	2724.64	0.00	-22.10	2724.03	2724.17	-19.35	23.11	113.17	49.18	26.02	1.89	PASS
2825.00†	2824.64	0.00	-22.10	2823.87	2823.98	-18.19	24.82	111.19	50.32	26.33	1.91	PASS
2925.00†	2924.64	0.00	-22.10	2923.74	2923.83	-16.84	26.86	108.98	51.78	26.66	1.94	PASS
3025.00†	3024.64	0.00	-22.10	3023.70	3023.75	-15.24	29.10	106.57	53.43	27.00	1.98	PASS
3125.00†	3124.64	0.00	-22.10	3123.71	3123.72	-13.46	31.32	104.14	55.10	27.35	2.01	PASS
3225.00†	3224.64	0.00	-22.10	3223.62	3223.58	-11.54	33.53	101.72	56.83	27.71	2.05	PASS
3325.00†	3324.64	0.00	-22.10	3323.45	3323.36	-9.34	36.00	99.13	58.86	28.09	2.10	PASS
3425.00†	3424.64	0.00	-22.10	3423.09	3422.93	-6.92	38.75	96.48	61.27	28.49	2.15	PASS
3525.00†	3524.64	0.00	-22.10	3522.62	3522.36	-4.10	42.18	93.65	64.46	28.90	2.23	PASS
3625.00†	3624.64	0.00	-22.10	3622.45	3622.07	-0.95	46.02	90.80	68.18	29.34	2.32	PASS
3725.00†	3724.64	0.00	-22.10	3722.51	3722.00	2.41	49.72	88.08	71.92	29.80	2.41	PASS
3825.00†	3824.64	0.00	-22.10	3822.76	3822.14	5.79	53.06	85.59	75.43	30.28	2.49	PASS
3925.00†	3924.64	0.00	-22.10	3923.19	3922.49	8.79	55.85	83.57	78.47	30.78	2.55	PASS



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Field	(Ragin Cajun) Sec 12, T26S, R34E	Wellbore	No.1H PWB
Facility	Ragin Cajun 12 Federal No.1H		

CLEARANCE DATA - Offset Wellbore: No.2H AWB Offset Wellpath: No.2H AWP

Facility: Rattlesnake Unit 13 Fed No.2H Slot: No.2H SHL Well: No.2H Threshold Value=1.00 † = interpolated/extrapolated station

Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Horiz Bearing [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
4025.00†	4024.64	0.00	-22.10	4023.30	4022.53	11.40	58.19	81.92	81.13	31.29	2.59	PASS
4125.00†	4124.64	0.00	-22.10	4122.59	4121.75	14.19	60.78	80.29	84.14	31.81	2.65	PASS
4225.00†	4224.64	0.00	-22.10	4222.12	4221.18	17.50	63.92	78.50	87.85	32.34	2.72	PASS
4325.00†	4324.64	0.00	-22.10	4322.03	4320.98	21.00	67.21	76.77	91.82	32.90	2.79	PASS
4425.00†	4424.64	0.00	-22.10	4422.08	4420.90	24.53	70.40	75.15	95.78	33.46	2.86	PASS
4525.00†	4524.64	0.00	-22.10	4521.94	4520.66	28.08	73.42	73.62	99.64	34.04	2.93	PASS
4625.00†	4624.64	0.00	-22.10	4620.96	4619.56	31.56	76.90	72.32	104.03	34.62	3.01	PASS
4725.00†	4724.64	0.00	-22.10	4719.95	4718.38	34.85	81.48	71.41	109.46	35.20	3.11	PASS
4825.00†	4824.64	0.00	-22.10	4819.89	4818.15	37.71	86.54	70.86	115.18	35.80	3.22	PASS
4925.00†	4924.64	0.00	-22.10	4919.68	4917.79	40.23	91.53	70.50	120.74	36.40	3.32	PASS
5025.00†	5024.64	0.00	-22.10	5018.99	5016.92	42.69	96.87	70.26	126.64	36.99	3.42	PASS
5125.00†	5124.64	0.00	-22.10	5118.76	5116.51	44.79	102.68	70.25	132.82	37.59	3.53	PASS
5225.00†	5224.64	0.00	-22.10	5219.43	5217.00	46.85	108.24	70.23	138.72	38.21	3.63	PASS
5325.00†	5324.64	0.00	-22.10	5320.33	5317.77	48.79	113.03	70.15	143.84	38.84	3.70	PASS
5425.00†	5424.64	0.00	-22.10	5421.17	5418.51	50.41	117.22	70.11	148.29	39.47	3.76	PASS
5525.00†	5524.64	0.00	-22.10	5521.25	5518.50	51.99	120.93	70.03	152.31	40.09	3.80	PASS
5625.00†	5624.64	0.00	-22.10	5621.45	5618.62	53.62	124.56	69.92	156.27	40.73	3.84	PASS
5725.00†	5724.64	0.00	-22.10	5722.33	5719.44	55.20	127.82	69.79	159.85	41.37	3.86	PASS
5825.00†	5824.64	0.00	-22.10	5823.05	5820.11	56.71	130.50	69.61	162.86	42.02	3.88	PASS
5925.00†	5924.64	0.00	-22.10	5923.48	5920.50	58.16	132.79	69.42	165.51	42.67	3.88	PASS
6025.00†	6024.64	0.00	-22.10	6024.04	6021.03	59.39	134.81	69.27	167.81	43.32	3.87	PASS
6125.00†	6124.64	0.00	-22.10	6124.15	6121.13	60.46	136.69	69.16	169.95	43.97	3.86	PASS
6225.00†	6224.64	0.00	-22.10	6224.76	6221.72	61.48	138.31	69.03	171.82	44.63	3.85	PASS
6325.00†	6324.64	0.00	-22.10	6325.17	6322.11	62.53	139.62	68.86	173.41	45.29	3.83	PASS
6425.00†	6424.64	0.00	-22.10	6425.57	6422.50	63.57	140.64	68.66	174.74	45.95	3.80	PASS
6525.00†	6524.64	0.00	-22.10	6525.76	6522.68	64.53	141.51	68.48	175.89	46.61	3.77	PASS
6625.00†	6624.64	0.00	-22.10	6625.85	6622.77	65.43	142.33	68.30	176.98	47.27	3.74	PASS
6725.00†	6724.64	0.00	-22.10	6726.00	6722.91	66.23	143.11	68.15	178.00	47.93	3.71	PASS
6825.00†	6824.64	0.00	-22.10	6826.15	6823.06	66.93	143.83	68.03	178.93	48.60	3.68	PASS
6925.00†	6924.64	0.00	-22.10	6926.31	6923.21	67.57	144.48	67.92	179.77	49.27	3.65	PASS
7025.00†	7024.64	0.00	-22.10	7026.59	7023.49	68.20	145.02	67.80	180.50	49.93	3.61	PASS
7125.00†	7124.64	0.00	-22.10	7126.76	7123.65	68.79	145.41	67.68	181.08	50.59	3.58	PASS
7225.00†	7224.64	0.00	-22.10	7226.97	7223.86	69.32	145.72	67.56	181.58	51.25	3.54	PASS
7325.00†	7324.64	0.00	-22.10	7327.13	7324.03	69.66	145.99	67.49	181.96	51.92	3.50	PASS
7425.00†	7424.64	0.00	-22.10	7427.24	7424.13	69.68	146.32	67.52	182.27	52.58	3.47	PASS
7525.00†	7524.64	0.00	-22.10	7527.32	7524.21	69.40	146.72	67.65	182.53	53.19	3.43	PASS
7625.00†	7624.64	0.00	-22.10	7627.53	7624.42	68.70	147.20	67.91	182.71	53.74	3.40	PASS
7725.00†	7724.64	0.00	-22.10	7728.05	7724.93	67.47	147.69	68.33	182.70	54.25	3.37	PASS
7825.00†	7824.64	0.00	-22.10	7829.02	7825.88	65.75	147.91	68.86	182.29	54.72	3.33	PASS
7925.00†	7924.64	0.00	-22.10	7929.75	7926.59	63.76	147.65	69.41	181.34	55.16	3.29	PASS
8025.00†	8024.64	0.00	-22.10	8029.41	8026.23	61.90	147.28	69.93	180.35	55.60	3.24	PASS
8125.00†	8124.64	0.00	-22.10	8128.89	8125.70	59.97	147.19	70.49	179.61	56.06	3.20	PASS
8225.00†	8224.64	0.00	-22.10	8228.40	8225.19	58.02	147.42	71.11	179.18	56.55	3.17	PASS
8325.00†	8324.64	0.00	-22.10	8327.85	8324.61	55.80	147.98	71.84	179.00	57.05	3.14	PASS
8425.00†	8424.64	0.00	-22.10	8427.26	8423.99	53.40	148.98	72.67	179.23	57.51	3.12	PASS



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Facility	Ragin Cajun 12 Federal No.1H		

CLEARANCE DATA - Offset Wellbore: No.2H AWB Offset Wellpath: No.2H AWP

Facility: Rattlesnake Unit 13 Fed No.2H Slot: No.2H SHL Well: No.2H Threshold Value=1.00 † = interpolated/extrapolated station

Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Horiz Bearing [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
8525.00†	8524.64	0.00	-22.10	8532.94	8529.43	47.32	149.70	74.60	178.26	57.80	3.08	PASS
8592.00	8591.64	0.00	-22.10	8615.67	8610.75	32.58	148.05	79.16	174.30	57.68	3.02	PASS
8625.00†	8624.62	1.09	-22.11	8658.14	8651.53	21.40	144.25	83.04	169.74	57.47	2.95	PASS
8725.00†	8723.07	17.64	-22.23	8758.91	8743.82	-14.72	126.72	102.26	153.83	56.92	2.70	PASS
8825.00†	8816.25	53.48	-22.49	8820.71	8796.49	-43.61	112.38	125.75	167.35	56.82	2.95	PASS
8925.00†	8900.41	107.17	-22.88	8855.02	8824.05	-62.00	103.47	143.25	224.54	56.66	3.96	PASS
9025.00†	8972.18	176.56	-23.38	8868.23	8834.30	-69.47	99.80	153.41	307.76	56.46	5.45	PASS
9125.00†	9028.68	258.86	-23.97	8865.88	8832.49	-68.13	100.46	159.17	401.12	56.43	7.11	PASS
9225.00†	9067.65	350.78	-24.64	8852.48	8822.05	-60.59	104.16	162.62	496.12	56.65	8.76	PASS
9325.00†	9087.51	448.61	-25.35	8831.55	8805.33	-49.25	109.65	164.83	587.97	57.15	10.29	PASS
9374.82	9090.00	498.35	-25.70	8819.40	8795.42	-42.93	112.71	165.66	631.60	57.47	10.99	PASS
9387.74	9089.97	511.27	-25.80	8816.11	8792.70	-41.26	113.52	165.85	642.70	57.53	11.17	PASS
9425.00†	9089.80	548.52	-26.07	8806.94	8785.09	-36.67	115.76	166.38	674.85	57.72	11.69	PASS
9525.00†	9089.35	648.52	-26.79	8785.26	8766.73	-26.33	120.87	167.66	762.44	58.23	13.09	PASS
9625.00†	9088.90	748.52	-27.51	8765.40	8749.51	-17.49	125.32	168.72	851.65	58.68	14.51	PASS
9725.00†	9088.45	848.51	-28.24	8747.07	8733.33	-9.81	129.22	169.61	942.14	59.08	15.95	PASS
9825.00†	9088.00	948.51	-28.96	8728.68	8716.85	-2.54	132.90	170.34	1033.66	59.42	17.40	PASS
9925.00†	9087.55	1048.51	-29.68	8711.93	8701.63	3.75	135.99	170.99	1126.01	59.73	18.85	PASS
10025.00†	9087.10	1148.50	-30.40	8698.06	8688.90	8.69	138.38	171.58	1219.10	60.03	20.31	PASS
10125.00†	9086.64	1248.50	-31.13	8685.52	8677.28	12.94	140.42	172.10	1312.87	60.31	21.77	PASS
10225.00†	9086.19	1348.49	-31.85	8674.83	8667.29	16.39	142.05	172.56	1407.21	60.58	23.23	PASS
10325.00†	9085.74	1448.49	-32.57	8665.43	8658.44	19.27	143.34	172.98	1502.07	60.82	24.70	PASS
10425.00†	9085.29	1548.49	-33.30	8656.89	8650.34	21.76	144.39	173.36	1597.39	61.05	26.16	PASS
10525.00†	9084.84	1648.48	-34.02	8648.51	8642.34	24.08	145.32	173.70	1693.12	61.26	27.64	PASS
10625.00†	9084.39	1748.48	-34.74	8636.57	8630.89	27.28	146.47	173.99	1789.14	61.44	29.12	PASS
10725.00†	9083.94	1848.48	-35.47	8625.43	8620.17	30.15	147.38	174.26	1885.42	61.61	30.60	PASS
10825.00†	9083.49	1948.47	-36.19	8616.40	8611.45	32.40	148.00	174.51	1981.94	61.78	32.08	PASS
10925.00†	9083.04	2048.47	-36.91	8610.09	8605.34	33.92	148.38	174.75	2078.69	61.94	33.56	PASS
11025.00†	9082.58	2148.47	-37.63	8604.24	8599.66	35.27	148.68	174.96	2175.67	62.10	35.03	PASS
11125.00†	9082.13	2248.46	-38.36	8598.80	8594.35	36.48	148.92	175.16	2272.86	62.26	36.51	PASS
11225.00†	9081.68	2348.46	-39.08	8593.72	8589.39	37.57	149.11	175.34	2370.23	62.40	37.98	PASS
11325.00†	9081.23	2448.45	-39.80	8588.97	8584.75	38.55	149.25	175.51	2467.76	62.54	39.46	PASS
11425.00†	9080.78	2548.45	-40.53	8584.91	8580.77	39.37	149.36	175.67	2565.46	62.68	40.93	PASS
11525.00†	9080.33	2648.45	-41.25	8581.38	8577.32	40.05	149.44	175.82	2663.29	62.82	42.40	PASS
11625.00†	9079.88	2748.44	-41.97	8578.07	8574.06	40.67	149.50	175.96	2761.26	62.95	43.87	PASS
11725.00†	9079.43	2848.44	-42.70	8574.95	8571.00	41.24	149.56	176.08	2859.34	63.07	45.33	PASS
11825.00†	9078.98	2948.44	-43.42	8572.02	8568.11	41.76	149.60	176.20	2957.53	63.20	46.80	PASS
11925.00†	9078.52	3048.43	-44.14	8569.24	8565.37	42.24	149.64	176.31	3055.83	63.32	48.26	PASS
12025.00†	9078.07	3148.43	-44.86	8566.62	8562.79	42.67	149.67	176.42	3154.22	63.44	49.72	PASS
12125.00†	9077.62	3248.43	-45.59	8564.13	8560.33	43.08	149.69	176.51	3252.69	63.56	51.18	PASS
12225.00†	9077.17	3348.42	-46.31	8561.77	8558.00	43.45	149.71	176.61	3351.24	63.67	52.63	PASS
12325.00†	9076.72	3448.42	-47.03	8559.54	8555.79	43.79	149.72	176.69	3449.86	63.79	54.08	PASS
12425.00†	9076.27	3548.41	-47.76	8557.41	8553.69	44.11	149.73	176.78	3548.55	63.90	55.53	PASS
12525.00†	9075.82	3648.41	-48.48	8555.38	8551.68	44.41	149.73	176.85	3647.31	64.02	56.98	PASS
12625.00†	9075.37	3748.41	-49.20	8552.88	8549.21	44.76	149.73	176.93	3746.12	64.13	58.42	PASS



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REFERENCE WELLPATH IDENTIFICATION

Operator	Devon Energy	Slot	No.1H SHL
Area	Lea County, NM	Well	No.1H
Field	(Ragin Cajun) Sec 12, T26S, R34E	Wellbore	No.1H PWB
Facility	Ragin Cajun 12 Federal No.1H		

CLEARANCE DATA - Offset Wellbore: No.2H AWB Offset Wellpath: No.2H AWP

Facility: Rattlesnake Unit 13 Fed No.2H Slot: No.2H SHL Well: No.2H Threshold Value=1.00 † = interpolated/extrapolated station

Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Horiz Bearing [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
12725.00†	9074.91	3848.40	-49.92	8550.36	8546.71	45.11	149.73	177.00	3844.98	64.24	59.85	PASS
12825.00†	9074.46	3948.40	-50.65	8547.94	8544.32	45.44	149.73	177.06	3943.89	64.35	61.29	PASS
12925.00†	9074.01	4048.40	-51.37	8545.62	8542.02	45.75	149.73	177.12	4042.85	64.46	62.72	PASS
13025.00†	9073.56	4148.39	-52.09	8543.40	8539.81	46.04	149.73	177.18	4141.85	64.57	64.14	PASS
13125.00†	9073.11	4248.39	-52.82	8541.26	8537.69	46.31	149.72	177.24	4240.89	64.68	65.56	PASS
13225.00†	9072.66	4348.39	-53.54	8539.21	8535.66	46.57	149.72	177.30	4339.97	64.79	66.98	PASS
13325.00†	9072.21	4448.38	-54.26	8537.23	8533.70	46.81	149.71	177.35	4439.08	64.91	68.39	PASS
13425.00†	9071.76	4548.38	-54.99	8535.33	8531.81	47.04	149.71	177.40	4538.23	65.02	69.80	PASS
13525.00†	9071.31	4648.38	-55.71	8533.50	8529.99	47.25	149.70	177.44	4637.40	65.13	71.20	PASS
13625.00†	9070.85	4748.37	-56.43	8531.74	8528.24	47.46	149.69	177.49	4736.61	65.24	72.60	PASS
13725.00†	9070.40	4848.37	-57.15	8530.04	8526.55	47.65	149.68	177.53	4835.85	65.35	73.99	PASS
13814.36	9070.00	4937.73	-57.80	8528.57	8525.09	47.82	149.68	177.57	4924.55	65.45	75.24	PASS

POSITIONAL UNCERTAINTY - Offset Wellbore: No.2H AWB Offset Wellpath: No.2H AWP

Slot Surface Uncertainty @ 1SD	Horizontal	0.100ft	Vertical	0.100ft
Facility Surface Uncertainty @ 1SD	Horizontal	3.300ft	Vertical	1.000ft

WELLPATH COMPOSITION - Offset Wellbore: No.2H AWB Offset Wellpath: No.2H AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	8377.50	Generic gyro - northseeking (Standard)	GyroData <74.8-8377.5>	No.2H AWB
8377.50	10855.00	NaviTrak (Standard)	BHI MWD NaviTrak <8461-XXXX>	No.2H AWB

OFFSET WELLPATH MD REFERENCE - Offset Wellbore: No.2H AWB Offset Wellpath: No.2H AWP

MD Reference: Rig on No.2H SHL (KB)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	25.00ft



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REFERENCE WELLPATH IDENTIFICATION

Operator	Devon Energy	Slot	No.1H SHL
Area	Lea County, NM	Well	No.1H
Field	(Ragin Cajun) Sec 12, T26S, R34E	Wellbore	No.1H PWB
Facility	Ragin Cajun 12 Federal No.1H		

CLEARANCE DATA - Offset Wellbore: No.2H PWB Offset Wellpath: Rev-E.0

Facility: Rattlesnake Unit 13 Fed No.2H Slot: No.2H SHL Well: No.2H Threshold Value=1.00 † = interpolated/extrapolated station

Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Horiz Bearing [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
25.00	25.00	0.00	0.00	24.50	24.90	-34.31	36.20	133.47	49.88	9.90	5.04	PASS
125.00†	125.00	0.00	0.00	124.27	124.66	-34.81	36.45	133.68	50.40	19.82	2.54	PASS
225.00†	225.00	0.00	0.00	224.21	224.60	-35.36	36.92	133.76	51.12	19.86	2.57	PASS
325.00†	325.00	0.00	0.00	324.11	324.50	-35.85	37.64	133.61	51.98	19.93	2.61	PASS
425.00†	425.00	0.00	0.00	424.12	424.51	-36.47	38.39	133.53	52.96	20.02	2.64	PASS
525.00†	525.00	0.00	0.00	524.43	524.81	-36.95	38.87	133.55	53.63	20.15	2.66	PASS
625.00†	625.00	0.00	0.00	624.88	625.26	-37.00	38.73	133.69	53.57	20.27	2.64	PASS
725.00†	725.00	0.00	0.00	725.12	725.50	-36.72	38.00	134.02	52.84	20.36	2.60	PASS
825.00†	825.00	0.00	0.00	825.33	825.70	-36.26	36.84	134.55	51.70	20.47	2.52	PASS
925.00†	925.00	0.00	0.00	925.51	925.87	-35.62	35.26	135.30	50.13	20.62	2.43	PASS
1025.00†	1025.00	0.00	0.00	1025.58	1025.92	-34.83	33.43	136.18	48.29	20.78	2.32	PASS
1125.00†	1125.00	0.00	0.00	1125.58	1125.90	-33.95	31.54	137.11	46.35	20.97	2.21	PASS
1225.00†	1225.00	0.00	0.00	1225.56	1225.85	-33.07	29.65	138.12	44.42	21.19	2.10	PASS
1250.00	1250.00	0.00	0.00	1250.55	1250.84	-32.84	29.19	138.36	43.94	21.25	2.07	PASS
1325.00†	1325.00	0.00	-0.74	1325.53	1325.80	-32.13	27.84	138.35	43.01	21.43	2.01	PASS
1357.18†	1357.16	0.00	-1.50	1357.65	1357.92	-31.84	27.27	137.90	42.92	21.52	1.99	PASS
1383.33	1383.31	0.00	-2.33	1383.83	1384.09	-31.61	26.81	137.33	42.99	21.59	1.99	PASS
1425.00†	1424.95	0.00	-3.78	1425.46	1425.71	-31.26	26.08	136.31	43.24	21.71	1.99	PASS
1525.00†	1524.89	0.00	-7.27	1525.41	1525.65	-30.48	24.41	133.89	43.97	22.00	2.00	PASS
1625.00†	1624.83	0.00	-10.76	1625.33	1625.55	-29.68	22.84	131.45	44.83	22.32	2.01	PASS
1725.00†	1724.76	0.00	-14.25	1725.25	1725.46	-28.87	21.48	128.94	45.95	22.66	2.03	PASS
1825.00†	1824.70	0.00	-17.74	1825.13	1825.33	-28.02	20.34	126.35	47.28	23.03	2.05	PASS
1883.33	1883.00	0.00	-19.78	1883.35	1883.54	-27.51	19.81	124.79	48.21	23.25	2.07	PASS
1925.00†	1924.65	0.00	-21.00	1924.91	1925.10	-27.16	19.54	123.82	48.80	23.41	2.08	PASS
2016.67	2016.31	0.00	-22.10	2016.44	2016.63	-26.37	19.20	122.55	49.00	23.75	2.06	PASS
2025.00†	2024.64	0.00	-22.10	2024.77	2024.95	-26.29	19.19	122.48	48.95	23.78	2.06	PASS
2125.00†	2124.64	0.00	-22.10	2124.76	2124.94	-25.26	19.11	121.51	48.33	24.11	2.00	PASS
2225.00†	2224.64	0.00	-22.10	2224.61	2224.79	-24.21	19.18	120.39	47.86	24.45	1.96	PASS
2325.00†	2324.64	0.00	-22.10	2324.49	2324.66	-23.23	19.53	119.16	47.68	24.77	1.92	PASS
2425.00†	2424.64	0.00	-22.10	2424.41	2424.57	-22.27	20.11	117.81	47.73	25.08	1.90	PASS
2525.00†	2524.64	0.00	-22.10	2524.33	2524.48	-21.32	20.86	116.38	47.97	25.40	1.89	PASS
2625.00†	2624.64	0.00	-22.10	2624.21	2624.36	-20.38	21.80	114.91	48.40	25.71	1.88	PASS
2725.00†	2724.64	0.00	-22.10	2724.03	2724.17	-19.35	23.11	113.17	49.18	26.02	1.89	PASS
2825.00†	2824.64	0.00	-22.10	2823.87	2823.98	-18.19	24.82	111.19	50.32	26.33	1.91	PASS
2925.00†	2924.64	0.00	-22.10	2923.74	2923.83	-16.84	26.86	108.98	51.78	26.66	1.94	PASS
3025.00†	3024.64	0.00	-22.10	3023.70	3023.75	-15.24	29.10	106.57	53.43	27.00	1.98	PASS
3125.00†	3124.64	0.00	-22.10	3123.71	3123.72	-13.46	31.32	104.14	55.10	27.35	2.01	PASS
3225.00†	3224.64	0.00	-22.10	3223.62	3223.58	-11.54	33.53	101.72	56.83	27.71	2.05	PASS
3325.00†	3324.64	0.00	-22.10	3323.45	3323.36	-9.34	36.00	99.13	58.86	28.09	2.10	PASS
3425.00†	3424.64	0.00	-22.10	3423.09	3422.93	-6.92	38.75	96.48	61.27	28.49	2.15	PASS
3525.00†	3524.64	0.00	-22.10	3522.62	3522.36	-4.10	42.18	93.65	64.46	28.90	2.23	PASS
3625.00†	3624.64	0.00	-22.10	3622.45	3622.07	-0.95	46.02	90.80	68.18	29.34	2.32	PASS
3725.00†	3724.64	0.00	-22.10	3722.51	3722.00	2.41	49.72	88.08	71.92	29.80	2.41	PASS
3825.00†	3824.64	0.00	-22.10	3822.76	3822.14	5.79	53.06	85.59	75.43	30.28	2.49	PASS
3925.00†	3924.64	0.00	-22.10	3923.19	3922.49	8.79	55.85	83.57	78.47	30.78	2.55	PASS



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REFERENCE WELLPATH IDENTIFICATION

Operator	Devon Energy	Slot	No.1H SHL
Area	Lea County, NM	Well	No.1H
Field	(Ragin Cajun) Sec 12, T26S, R34E	Wellbore	No.1H PWB
Facility	Ragin Cajun 12 Federal No.1H		

CLEARANCE DATA - Offset Wellbore: No.2H PWB Offset Wellpath: Rev-E.0

Facility: Rattlesnake Unit 13 Fed No.2H Slot: No.2H SHL Well: No.2H Threshold Value=1.00 † = interpolated/extrapolated station

Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Horiz Bearing [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
4025.00†	4024.64	0.00	-22.10	4023.30	4022.53	11.40	58.19	81.92	81.13	31.29	2.59	PASS
4125.00†	4124.64	0.00	-22.10	4122.59	4121.75	14.19	60.78	80.29	84.14	31.81	2.65	PASS
4225.00†	4224.64	0.00	-22.10	4222.12	4221.18	17.50	63.92	78.50	87.85	32.34	2.72	PASS
4325.00†	4324.64	0.00	-22.10	4322.03	4320.98	21.00	67.21	76.77	91.82	32.90	2.79	PASS
4425.00†	4424.64	0.00	-22.10	4422.08	4420.90	24.53	70.40	75.15	95.78	33.46	2.86	PASS
4525.00†	4524.64	0.00	-22.10	4521.94	4520.66	28.08	73.42	73.62	99.64	34.04	2.93	PASS
4625.00†	4624.64	0.00	-22.10	4620.96	4619.56	31.56	76.90	72.32	104.03	34.62	3.01	PASS
4725.00†	4724.64	0.00	-22.10	4719.95	4718.38	34.85	81.48	71.41	109.46	35.20	3.11	PASS
4825.00†	4824.64	0.00	-22.10	4819.89	4818.15	37.71	86.54	70.86	115.18	35.80	3.22	PASS
4925.00†	4924.64	0.00	-22.10	4919.68	4917.79	40.23	91.53	70.50	120.74	36.40	3.32	PASS
5025.00†	5024.64	0.00	-22.10	5018.99	5016.92	42.69	96.87	70.26	126.64	36.99	3.42	PASS
5125.00†	5124.64	0.00	-22.10	5118.76	5116.51	44.79	102.68	70.25	132.82	37.59	3.53	PASS
5225.00†	5224.64	0.00	-22.10	5219.43	5217.00	46.85	108.24	70.23	138.72	38.21	3.63	PASS
5325.00†	5324.64	0.00	-22.10	5320.33	5317.77	48.79	113.03	70.15	143.84	38.84	3.70	PASS
5425.00†	5424.64	0.00	-22.10	5421.17	5418.51	50.41	117.22	70.11	148.29	39.47	3.76	PASS
5525.00†	5524.64	0.00	-22.10	5521.25	5518.50	51.99	120.93	70.03	152.31	40.09	3.80	PASS
5625.00†	5624.64	0.00	-22.10	5621.45	5618.62	53.62	124.56	69.92	156.27	40.73	3.84	PASS
5725.00†	5724.64	0.00	-22.10	5722.33	5719.44	55.20	127.82	69.79	159.85	41.37	3.86	PASS
5825.00†	5824.64	0.00	-22.10	5823.05	5820.11	56.71	130.50	69.61	162.86	42.02	3.88	PASS
5925.00†	5924.64	0.00	-22.10	5923.48	5920.50	58.16	132.79	69.42	165.51	42.67	3.88	PASS
6025.00†	6024.64	0.00	-22.10	6024.04	6021.03	59.39	134.81	69.27	167.81	43.32	3.87	PASS
6125.00†	6124.64	0.00	-22.10	6124.15	6121.13	60.46	136.69	69.16	169.95	43.97	3.86	PASS
6225.00†	6224.64	0.00	-22.10	6224.76	6221.72	61.48	138.31	69.03	171.82	44.63	3.85	PASS
6325.00†	6324.64	0.00	-22.10	6325.17	6322.11	62.53	139.62	68.86	173.41	45.29	3.83	PASS
6425.00†	6424.64	0.00	-22.10	6425.57	6422.50	63.57	140.64	68.66	174.74	45.95	3.80	PASS
6525.00†	6524.64	0.00	-22.10	6525.76	6522.68	64.53	141.51	68.48	175.89	46.61	3.77	PASS
6625.00†	6624.64	0.00	-22.10	6625.85	6622.77	65.43	142.33	68.30	176.98	47.27	3.74	PASS
6725.00†	6724.64	0.00	-22.10	6726.00	6722.91	66.23	143.11	68.15	178.00	47.93	3.71	PASS
6825.00†	6824.64	0.00	-22.10	6826.15	6823.06	66.93	143.83	68.03	178.93	48.60	3.68	PASS
6925.00†	6924.64	0.00	-22.10	6926.31	6923.21	67.57	144.48	67.92	179.77	49.27	3.65	PASS
7025.00†	7024.64	0.00	-22.10	7026.59	7023.49	68.20	145.02	67.80	180.50	49.93	3.61	PASS
7125.00†	7124.64	0.00	-22.10	7126.76	7123.65	68.79	145.41	67.68	181.08	50.59	3.58	PASS
7225.00†	7224.64	0.00	-22.10	7226.97	7223.86	69.32	145.72	67.56	181.58	51.25	3.54	PASS
7325.00†	7324.64	0.00	-22.10	7327.13	7324.03	69.66	145.99	67.49	181.96	51.92	3.50	PASS
7425.00†	7424.64	0.00	-22.10	7427.24	7424.13	69.68	146.32	67.52	182.27	52.58	3.47	PASS
7525.00†	7524.64	0.00	-22.10	7527.32	7524.21	69.40	146.72	67.65	182.53	53.19	3.43	PASS
7625.00†	7624.64	0.00	-22.10	7627.53	7624.42	68.70	147.20	67.91	182.71	53.74	3.40	PASS
7725.00†	7724.64	0.00	-22.10	7728.05	7724.93	67.47	147.69	68.33	182.70	54.25	3.37	PASS
7825.00†	7824.64	0.00	-22.10	7829.02	7825.88	65.75	147.91	68.86	182.29	54.72	3.33	PASS
7925.00†	7924.64	0.00	-22.10	7929.75	7926.59	63.76	147.65	69.41	181.34	55.16	3.29	PASS
8025.00†	8024.64	0.00	-22.10	8029.41	8026.23	61.90	147.28	69.93	180.35	55.60	3.24	PASS
8125.00†	8124.64	0.00	-22.10	8128.89	8125.70	59.97	147.19	70.49	179.61	56.06	3.20	PASS
8225.00†	8224.64	0.00	-22.10	8228.40	8225.19	58.02	147.42	71.11	179.18	56.55	3.17	PASS
8325.00†	8324.64	0.00	-22.10	8327.85	8324.61	55.80	147.98	71.84	179.00	57.05	3.14	PASS
8425.00†	8424.64	0.00	-22.10	8427.43	8424.16	53.39	148.96	72.67	179.20	57.51	3.12	PASS



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REFERENCE WELLPATH IDENTIFICATION

Operator	Devon Energy	Slot	No.1H SHL
Area	Lea County, NM	Well	No.1H
Field	(Ragin Cajun) Sec 12, T26S, R34E	Wellbore	No.1H PWB
Facility	Ragin Cajun 12 Federal No.1H		

CLEARANCE DATA - Offset Wellbore: No.2H PWB Offset Wellpath: Rev-E.0

Facility: Rattlesnake Unit 13 Fed No.2H Slot: No.2H SHL Well: No.2H Threshold Value=1.00 † = interpolated/extrapolated station

Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Horiz Bearing [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
8525.00†	8524.64	0.00	-22.10	8540.69	8537.18	47.46	148.51	74.46	177.53	58.02	3.06	PASS
8592.00	8591.64	0.00	-22.10	8621.92	8616.82	32.85	142.84	78.74	170.06	57.15	2.98	PASS
8625.00†	8624.62	1.09	-22.11	8659.65	8652.95	22.86	138.54	82.29	164.58	59.01	2.79	PASS
8725.00†	8723.07	17.64	-22.23	8755.83	8741.32	-11.48	122.95	101.34	149.19	58.25	2.56	PASS
8825.00†	8816.25	53.48	-22.49	8820.32	8796.72	-41.28	108.93	125.79	163.19	57.19	2.85	PASS
8925.00†	8900.41	107.17	-22.88	8856.43	8826.12	-60.20	99.89	143.74	220.47	57.40	3.84	PASS
9025.00†	8972.18	176.56	-23.38	8870.87	8837.51	-68.20	96.04	153.99	303.82	57.82	5.25	PASS
9125.00†	9028.68	258.86	-23.97	8869.58	8836.50	-67.48	96.39	159.75	397.39	58.13	6.84	PASS
9225.00†	9067.65	350.78	-24.64	8856.90	8826.49	-60.46	99.76	163.17	492.69	58.45	8.43	PASS
9325.00†	9087.51	448.61	-25.35	8835.86	8809.53	-49.23	105.14	165.31	584.93	58.87	9.94	PASS
9374.82	9090.00	498.35	-25.70	8822.92	8798.89	-42.59	108.30	166.09	628.74	59.09	10.64	PASS
9387.74	9089.97	511.27	-25.80	8819.40	8795.96	-40.82	109.14	166.27	639.89	59.13	10.82	PASS
9425.00†	9089.80	548.52	-26.07	8809.54	8787.72	-35.94	111.46	166.76	672.13	59.25	11.34	PASS
9525.00†	9089.35	648.52	-26.79	8785.28	8767.06	-24.44	116.89	167.95	759.86	59.54	12.76	PASS
9625.00†	9088.90	748.52	-27.51	8763.85	8748.39	-14.89	121.36	168.97	849.06	59.82	14.19	PASS
9725.00†	9088.45	848.51	-28.24	8744.82	8731.52	-6.92	125.06	169.84	939.50	60.09	15.64	PASS
9825.00†	9088.00	948.51	-28.96	8727.85	8716.25	-0.21	128.16	170.60	1030.99	60.33	17.09	PASS
9925.00†	9087.55	1048.51	-29.68	8712.65	8702.39	5.48	130.76	171.26	1123.38	60.55	18.55	PASS
10025.00†	9087.10	1148.50	-30.40	8698.96	8689.78	10.34	132.96	171.83	1216.54	60.75	20.03	PASS
10125.00†	9086.64	1248.50	-31.13	8686.58	8678.28	14.51	134.84	172.34	1310.36	60.93	21.51	PASS
10225.00†	9086.19	1348.49	-31.85	8675.35	8667.77	18.11	136.45	172.79	1404.75	61.12	22.98	PASS
10325.00†	9085.74	1448.49	-32.57	8665.11	8658.12	21.24	137.83	173.19	1499.64	61.36	24.44	PASS
10425.00†	9085.29	1548.49	-33.30	8655.76	8649.25	23.98	139.03	173.55	1594.98	61.59	25.90	PASS
10525.00†	9084.84	1648.48	-34.02	8647.17	8641.08	26.38	140.08	173.87	1690.69	61.82	27.35	PASS
10625.00†	9084.39	1748.48	-34.74	8639.26	8633.51	28.50	141.00	174.17	1786.75	62.04	28.80	PASS
10725.00†	9083.94	1848.48	-35.47	8631.96	8626.51	30.38	141.80	174.43	1883.12	61.99	30.38	PASS
10825.00†	9083.49	1948.47	-36.19	8625.21	8620.01	32.06	142.51	174.67	1979.75	58.10	34.08	PASS
10925.00†	9083.04	2048.47	-36.91	8618.94	8613.95	33.55	143.14	174.89	2076.62	61.63	33.70	PASS
11025.00†	9082.58	2148.47	-37.63	8613.11	8608.30	34.89	143.69	175.10	2173.71	62.09	35.01	PASS
11125.00†	9082.13	2248.46	-38.36	8607.67	8603.02	36.10	144.19	175.28	2271.00	62.34	36.43	PASS
11225.00†	9081.68	2348.46	-39.08	8602.58	8598.07	37.19	144.64	175.46	2368.46	62.52	37.88	PASS
11325.00†	9081.23	2448.45	-39.80	8597.82	8593.43	38.17	145.04	175.62	2466.08	62.68	39.35	PASS
11425.00†	9080.78	2548.45	-40.53	8593.35	8589.06	39.07	145.40	175.76	2563.85	62.82	40.82	PASS
11525.00†	9080.33	2648.45	-41.25	8589.15	8584.95	39.89	145.72	175.90	2661.76	62.94	42.29	PASS
11625.00†	9079.88	2748.44	-41.97	8585.19	8581.08	40.63	146.02	176.03	2759.78	63.07	43.76	PASS
11725.00†	9079.43	2848.44	-42.70	8581.46	8577.42	41.32	146.28	176.15	2857.91	63.18	45.23	PASS
11825.00†	9078.98	2948.44	-43.42	8577.93	8573.95	41.94	146.52	176.26	2956.15	63.30	46.70	PASS
11925.00†	9078.52	3048.43	-44.14	8574.59	8570.67	42.52	146.74	176.37	3054.48	63.42	48.17	PASS
12025.00†	9078.07	3148.43	-44.86	8571.43	8567.56	43.05	146.95	176.47	3152.90	63.53	49.63	PASS
12125.00†	9077.62	3248.43	-45.59	8568.42	8564.60	43.54	147.13	176.56	3251.40	63.65	51.08	PASS
12225.00†	9077.17	3348.42	-46.31	8565.57	8561.79	44.00	147.30	176.65	3349.98	63.76	52.54	PASS
12325.00†	9076.72	3448.42	-47.03	8562.86	8559.12	44.42	147.45	176.73	3448.62	63.87	53.99	PASS
12425.00†	9076.27	3548.41	-47.76	8560.27	8556.56	44.81	147.60	176.81	3547.33	63.98	55.44	PASS
12525.00†	9075.82	3648.41	-48.48	8557.81	8554.13	45.17	147.73	176.88	3646.09	64.10	56.89	PASS
12625.00†	9075.37	3748.41	-49.20	8555.45	8551.80	45.51	147.85	176.95	3744.92	64.21	58.33	PASS



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REFERENCE WELLPATH IDENTIFICATION

Operator	Devon Energy	Slot	No.1H SHL
Area	Lea County, NM	Well	No.1H
Field	(Ragin Cajun) Sec 12, T26S, R34E	Wellbore	No.1H PWB
Facility	Ragin Cajun 12 Federal No.1H		

CLEARANCE DATA - Offset Wellbore: No.2H PWB Offset Wellpath: Rev-E.0

Facility: Rattlesnake Unit 13 Fed No.2H Slot: No.2H SHL Well: No.2H Threshold Value=1.00 † = interpolated/extrapolated station

Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Horiz Bearing [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
12725.00†	9074.91	3848.40	-49.92	8553.21	8549.58	45.83	147.96	177.02	3843.79	64.32	59.76	PASS
12825.00†	9074.46	3948.40	-50.65	8551.06	8547.46	46.12	148.06	177.09	3942.71	64.43	61.20	PASS
12925.00†	9074.01	4048.40	-51.37	8549.00	8545.42	46.40	148.16	177.15	4041.68	64.53	62.63	PASS
13025.00†	9073.56	4148.39	-52.09	8547.03	8543.47	46.66	148.25	177.20	4140.70	64.64	64.05	PASS
13125.00†	9073.11	4248.39	-52.82	8545.13	8541.59	46.90	148.33	177.26	4239.75	64.75	65.48	PASS
13225.00†	9072.66	4348.39	-53.54	8543.31	8539.79	47.13	148.40	177.31	4338.84	64.86	66.89	PASS
13325.00†	9072.21	4448.38	-54.26	8541.57	8538.06	47.35	148.47	177.36	4437.96	64.97	68.30	PASS
13425.00†	9071.76	4548.38	-54.99	8539.90	8536.40	47.55	148.54	177.41	4537.12	65.08	69.71	PASS
13525.00†	9071.31	4648.38	-55.71	8538.28	8534.80	47.74	148.60	177.46	4636.31	65.19	71.12	PASS
13625.00†	9070.85	4748.37	-56.43	8536.73	8533.25	47.92	148.66	177.50	4735.54	65.30	72.52	PASS
13725.00†	9070.40	4848.37	-57.15	8535.23	8531.77	48.09	148.71	177.54	4834.78	65.42	73.91	PASS
13814.36	9070.00	4937.73	-57.80	8533.94	8530.48	48.24	148.76	177.58	4923.50	65.52	75.15	PASS

POSITIONAL UNCERTAINTY - Offset Wellbore: No.2H PWB Offset Wellpath: Rev-E.0

Slot Surface Uncertainty @ 1SD	Horizontal	0.100ft	Vertical	0.100ft
Facility Surface Uncertainty @ 1SD	Horizontal	3.300ft	Vertical	1.000ft

SURVEY PROGRAM - Offset Wellbore: No.2H PWB Offset Wellpath: Rev-E.0

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
25.00	8377.50	Generic gyro - northseeking (Standard)		No.2H AWB
8377.50	13857.72	NaviTrak (Standard)		No.2H PWB

OFFSET WELLPATH MD REFERENCE - Offset Wellbore: No.2H PWB Offset Wellpath: Rev-E.0

MD Reference: Rig on No.2H SHL (KB)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	25.00ft