

BAYSWATER E&P, LLC



Location:	COLORADO	Slot:	SLOT#20 RUBY WEST 9R (2602FSL & 2427FWL,SEC.07)
Field:	WELD COUNTY (NAD83/TRUE NORTH)	Well:	RUBY WEST 9R
Facility:	SEC.07-T07N-R66W	Wellbore:	RUBY WEST 9R PWB

Plot reference wellpath is RUBY WEST 9R PWP RevA.0	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
True vertical depths are referenced to Ensign 153 (23) (KB)	North Reference: True north
Reference wellpath measured depths are referenced to Ensign 153 (23) (KB)	Scale: True distance
Ensign 153 (23) (KB) to Mean Sea Level: 4948 feet	Coordinates are in feet referenced to Slot
Mean Sea Level to Ground level (At Slot: SLOT#20 RUBY WEST 9R (2602FSL & 2427FWL,SEC.07)): -4925 feet	Depths are in feet
Offset wellpath MDs are referenced to each path's default MD datum	Created by: paimetr on 2022-09-30, Database: WellArchitectDB

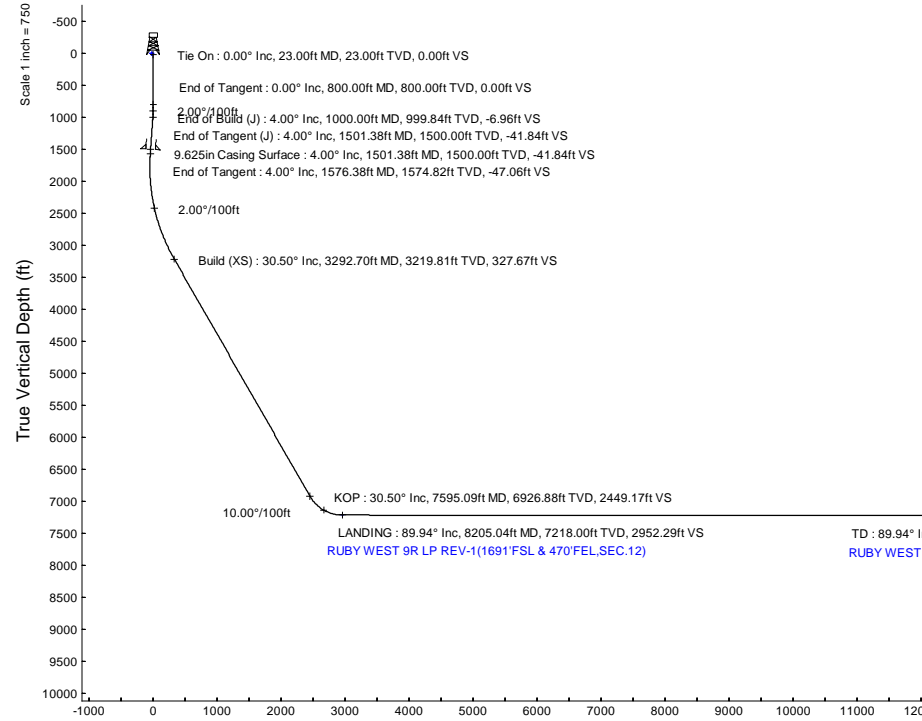
Location Information				
Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.07-T07N-R66W	3220206.894	1458936.654	40°35'25.7172"N	104°42'25.5672"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)
SLOT#20 RUBY WEST 9R (2602FSL & 2427FWL,SEC.07)	-285.27	-2.50	3220206.945	1458651.385
Ensign 153 (23) (KB) to Ground level (At Slot: SLOT#20 RUBY WEST 9R (2602FSL & 2427FWL,SEC.07))			Latitude	Longitude
Mean Sea Level to Ground level (At Slot: SLOT#20 RUBY WEST 9R (2602FSL & 2427FWL,SEC.07))			23ft	
Ensign 153 (23) (KB) to Mean Sea Level			-4925ft	
Ensign 153 (23) (KB) to Mean Sea Level			4948ft	

Hole and Casing Sections									
Name	Start MD (ft)	End MD (ft)	Interval (ft)	Start TVD (ft)	End TVD (ft)	Start Local N (ft)	Start Local E (ft)	End Local N (ft)	End Local E (ft)
9.625in Casing Surface	23.00	1501.38	1478.38	23.00	1500.00	0.00	0.00	0.00	41.95
Wellbore									
RUBY WEST 9R PWB									

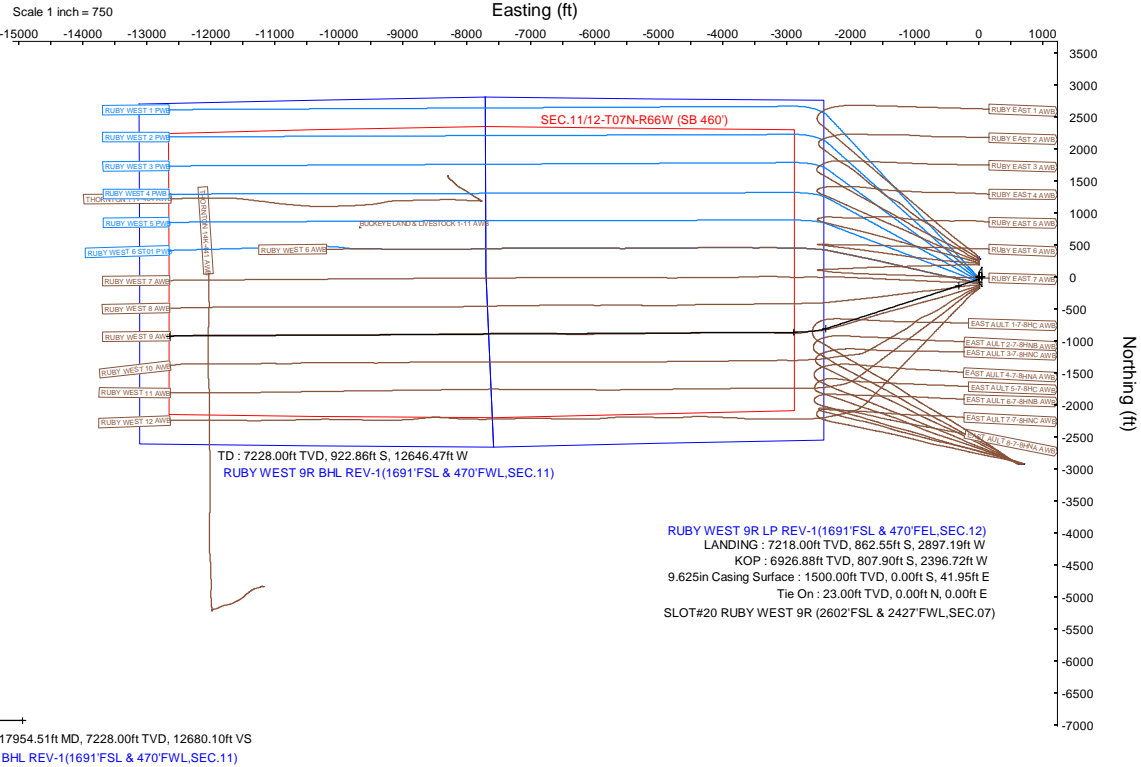
Survey Program				
Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment
23.00	1500.55	OWSG MWD rev2	OWSG MWD rev2 + IFR1	RUBY WEST 9R PWB
1500.55	17954.51	OWSG MWD rev2	OWSG MWD rev2 (MS+IFR1)	RUBY WEST 9R PWB

Bottom Hole Location				
MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)
17954.51	89.941	269.646	7228.00	-922.86
Grid East (US ft)				
3207569.58				
Grid North (US ft)				
1457615.51				
Latitude				
40°35'13.7472"N				
Longitude				
104°45'9.5148"W				

Targets							
Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude
SEC.11-T07N-R66W	N/A	7.00	285.27	2.50	3220206.89	1458936.65	40°35'25.7172"N
SEC.11/12-T07N-R66W (SB 460)	N/A	7.00	285.27	2.50	3220206.89	1458936.65	40°35'25.7172"N
SEC.12-T07N-R66W	N/A	7.00	285.27	2.50	3220206.89	1458936.65	40°35'25.7172"N
RUBY WEST 9R LP REV-1(1691FSL & 470FEL,SEC.12)	8205.04	7218.00	-862.55	-2897.19	3217317.66	1457762.99	40°35'14.3736"N
RUBY WEST 9R BHL REV-1(1691FSL & 470FWL,SEC.11)	17954.51	7228.00	-922.86	-12646.47	3207569.58	1457615.51	40°35'13.7472"N



Well Profile Data							
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)
Tie On	23.00	0.000	90.000	23.00	0.00	0.00	0.00
End of Tangent	800.00	0.000	90.000	800.00	0.00	0.00	0.00
End of Build (J)	1000.00	4.000	90.000	999.84	0.00	6.98	2.00
End of Tangent (J)	1501.38	4.000	90.000	1500.00	0.00	41.95	0.00
End of Tangent	1576.38	4.000	90.000	1574.82	0.00	47.18	0.00
Build (XS)	3292.70	30.500	252.129	3219.81	-137.81	-318.48	2.00
KOP	7595.09	30.500	252.129	6926.88	-807.90	-2396.72	0.00
LANDING	8205.04	89.941	269.646	7218.00	-862.55	-2897.19	10.00
TD	17954.51	89.941	269.646	7228.00	-922.86	-12646.47	0.00



HDR00202v1.0 (1/19/00 to 10/20/20) Dwg: 66-79F Filed: 5/19/06, 8:07 AM Magnetic North is 7.70 degrees East of True North (as 5/25/2022)

To correct azimuth from Magnetic to True add 7.70 degrees

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REFERENCE WELLPATH IDENTIFICATION

Operator	BAYSWATER E&P, LLC	Well	RUBY WEST 9R
Field	WELD COUNTY (NAD83/TRUE NORTH)	API/Legal	
Facility	SEC.07-T07N-R65W	Wellbore	RUBY WEST 9R PWB
Slot	SLOT#20 RUBY WEST 9R (2602'FSL & 2427'FWL,SEC.07)		

REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 6.0
North Reference	True	User	Painsetr
Scale	0.999974	Report Generated	9/30/2022 at 9:51:33 AM
Convergence at slot	0.51° East	Database	WellArchitectDB

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-285.27	-2.50	3220206.95	1458651.39	40.5896940°	-104.7071110°
Facility Reference Pt			3220206.89	1458936.65	40.5904770°	-104.7071020°
Field Reference Pt			3174587.00	1430859.71	40.5144139°	-104.8720750°

WELLPATH DATUM

Calculation method	Minimum curvature	Ensign 153 (23') (KB) to Facility Vertical Datum	4948.00ft
Horizontal Reference Pt	Slot	Ensign 153 (23') (KB) to Mean Sea Level	4948.00ft
Vertical Reference Pt	Ensign 153 (23') (KB)	Ensign 153 (23') (KB) to Ground Level at Slot (SLOT#20 RUBY WEST 9R (2602'FSL & 2427'FWL,SEC.07))	23.00ft
MD Reference Pt	Ensign 153 (23') (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	265.83°

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Slot	SLOT#20 RUBY WEST 9R (2602'FSL & 2427'FWL,SEC.07)		

WELLPATH DATA (189 stations) † = interpolated, ‡ = extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00†	0.000	90.000	0.00	0.00	0.00	0.00	3220206.95	1458651.39	40.5896940	-104.7071110	0.00	
23.00	0.000	90.000	23.00	0.00	0.00	0.00	3220206.95	1458651.39	40.5896940	-104.7071110	0.00	Tie On
123.00†	0.000	90.000	123.00	0.00	0.00	0.00	3220206.95	1458651.39	40.5896940	-104.7071110	0.00	
223.00†	0.000	90.000	223.00	0.00	0.00	0.00	3220206.95	1458651.39	40.5896940	-104.7071110	0.00	
323.00†	0.000	90.000	323.00	0.00	0.00	0.00	3220206.95	1458651.39	40.5896940	-104.7071110	0.00	
423.00†	0.000	90.000	423.00	0.00	0.00	0.00	3220206.95	1458651.39	40.5896940	-104.7071110	0.00	
523.00†	0.000	90.000	523.00	0.00	0.00	0.00	3220206.95	1458651.39	40.5896940	-104.7071110	0.00	
623.00†	0.000	90.000	623.00	0.00	0.00	0.00	3220206.95	1458651.39	40.5896940	-104.7071110	0.00	
723.00†	0.000	90.000	723.00	0.00	0.00	0.00	3220206.95	1458651.39	40.5896940	-104.7071110	0.00	
800.00	0.000	90.000	800.00	0.00	0.00	0.00	3220206.95	1458651.39	40.5896940	-104.7071110	0.00	End of Tangent
823.00†	0.460	90.000	823.00	-0.09	0.00	0.09	3220207.04	1458651.39	40.5896940	-104.7071107	2.00	
923.00†	2.460	90.000	922.96	-2.63	0.00	2.64	3220209.59	1458651.41	40.5896940	-104.7071015	2.00	
1000.00	4.000	90.000	999.84	-6.96	0.00	6.98	3220213.92	1458651.45	40.5896940	-104.7070859	2.00	End of Build (J)
1023.00†	4.000	90.000	1022.78	-8.56	0.00	8.58	3220215.53	1458651.46	40.5896940	-104.7070801	0.00	
1123.00†	4.000	90.000	1122.54	-15.52	0.00	15.56	3220222.50	1458651.52	40.5896940	-104.7070550	0.00	
1223.00†	4.000	90.000	1222.29	-22.47	0.00	22.53	3220229.48	1458651.59	40.5896940	-104.7070299	0.00	
1323.00†	4.000	90.000	1322.05	-29.43	0.00	29.51	3220236.45	1458651.65	40.5896940	-104.7070047	0.00	
1423.00†	4.000	90.000	1421.81	-36.39	0.00	36.49	3220243.43	1458651.71	40.5896940	-104.7069796	0.00	
1501.38	4.000	90.000	1500.00	-41.84	0.00	41.95	3220248.90	1458651.76	40.5896940	-104.7069599	0.00	End of Tangent (J)
1523.00†	4.000	90.000	1521.56	-43.35	0.00	43.46	3220250.40	1458651.77	40.5896940	-104.7069545	0.00	
1576.38	4.000	90.000	1574.82	-47.06	0.00	47.18	3220254.13	1458651.81	40.5896940	-104.7069411	0.00	End of Tangent
1623.00†	3.115	94.745	1621.34	-49.93	-0.10	50.07	3220257.02	1458651.73	40.5896937	-104.7069307	2.00	
1723.00†	1.432	124.422	1721.26	-53.59	-1.04	53.81	3220260.76	1458650.83	40.5896912	-104.7069173	2.00	
1823.00†	1.550	208.577	1821.24	-53.84	-2.93	54.20	3220261.16	1458648.94	40.5896860	-104.7069159	2.00	
1923.00†	3.279	234.347	1921.15	-50.67	-5.78	51.23	3220258.22	1458646.06	40.5896781	-104.7069266	2.00	
2023.00†	5.206	241.792	2020.87	-44.09	-9.60	44.90	3220251.93	1458642.19	40.5896677	-104.7069493	2.00	
2123.00†	7.172	245.195	2120.28	-34.10	-14.36	35.24	3220242.31	1458637.34	40.5896546	-104.7069841	2.00	
2223.00†	9.154	247.135	2219.27	-20.72	-20.07	22.24	3220229.36	1458631.52	40.5896389	-104.7070309	2.00	
2323.00†	11.142	248.389	2317.70	-3.97	-26.72	5.93	3220213.11	1458624.72	40.5896207	-104.7070897	2.00	
2423.00†	13.133	249.266	2415.46	16.14	-34.30	-13.68	3220193.57	1458616.96	40.5895999	-104.7071603	2.00	

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Slot	SLOT#20 RUBY WEST 9R (2602'FSL & 2427'FWL,SEC.07)		

WELLPATH DATA (189 stations) † = interpolated, ‡ = extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
2523.00†	15.127	249.916	2512.43	39.58	-42.80	-36.56	3220170.77	1458608.26	40.5895765	-104.7072426	2.00	
2623.00†	17.122	250.417	2608.49	66.32	-52.22	-62.69	3220144.73	1458598.61	40.5895507	-104.7073367	2.00	
2723.00†	19.118	250.817	2703.52	96.34	-62.54	-92.03	3220115.48	1458588.03	40.5895224	-104.7074423	2.00	
2823.00†	21.115	251.143	2797.42	129.58	-73.74	-124.54	3220083.07	1458576.54	40.5894916	-104.7075594	2.00	
2923.00†	23.112	251.416	2890.06	166.02	-85.82	-160.20	3220047.53	1458564.14	40.5894584	-104.7076878	2.00	
3023.00†	25.110	251.647	2981.33	205.60	-98.75	-198.94	3220008.90	1458550.86	40.5894229	-104.7078273	2.00	
3123.00†	27.108	251.846	3071.12	248.29	-112.54	-240.73	3219967.23	1458536.70	40.5893851	-104.7079778	2.00	
3223.00†	29.107	252.020	3159.32	294.02	-127.14	-285.52	3219922.58	1458521.70	40.5893450	-104.7081390	2.00	
3292.70	30.500	252.129	3219.81	327.67	-137.81	-318.48	3219889.71	1458510.74	40.5893157	-104.7082577	2.00	Build (XS)
3323.00†	30.500	252.129	3245.91	342.61	-142.52	-333.12	3219875.12	1458505.89	40.5893028	-104.7083104	0.00	
3423.00†	30.500	252.129	3332.07	391.92	-158.10	-381.42	3219826.96	1458489.89	40.5892600	-104.7084843	0.00	
3523.00†	30.500	252.129	3418.24	441.23	-173.67	-429.73	3219778.80	1458473.88	40.5892173	-104.7086582	0.00	
3623.00†	30.500	252.129	3504.40	490.54	-189.25	-478.03	3219730.64	1458457.88	40.5891745	-104.7088321	0.00	
3723.00†	30.500	252.129	3590.56	539.85	-204.82	-526.34	3219682.48	1458441.87	40.5891318	-104.7090061	0.00	
3823.00†	30.500	252.129	3676.73	589.16	-220.40	-574.64	3219634.31	1458425.86	40.5890890	-104.7091800	0.00	
3923.00†	30.500	252.129	3762.89	638.47	-235.97	-622.95	3219586.15	1458409.86	40.5890463	-104.7093539	0.00	
4023.00†	30.500	252.129	3849.05	687.78	-251.55	-671.25	3219537.99	1458393.85	40.5890035	-104.7095278	0.00	
4123.00†	30.500	252.129	3935.22	737.09	-267.12	-719.55	3219489.83	1458377.85	40.5889608	-104.7097017	0.00	
4223.00†	30.500	252.129	4021.38	786.40	-282.70	-767.86	3219441.67	1458361.84	40.5889180	-104.7098756	0.00	
4323.00†	30.500	252.129	4107.54	835.71	-298.27	-816.16	3219393.50	1458345.83	40.5888753	-104.7100496	0.00	
4423.00†	30.500	252.129	4193.71	885.02	-313.85	-864.47	3219345.34	1458329.83	40.5888325	-104.7102235	0.00	
4523.00†	30.500	252.129	4279.87	934.33	-329.42	-912.77	3219297.18	1458313.82	40.5887897	-104.7103974	0.00	
4623.00†	30.500	252.129	4366.03	983.64	-345.00	-961.08	3219249.02	1458297.82	40.5887470	-104.7105713	0.00	
4723.00†	30.500	252.129	4452.20	1032.95	-360.57	-1009.38	3219200.86	1458281.81	40.5887042	-104.7107452	0.00	
4823.00†	30.500	252.129	4538.36	1082.26	-376.15	-1057.68	3219152.70	1458265.81	40.5886615	-104.7109191	0.00	
4923.00†	30.500	252.129	4624.52	1131.57	-391.72	-1105.99	3219104.53	1458249.80	40.5886187	-104.7110931	0.00	
5023.00†	30.500	252.129	4710.69	1180.88	-407.30	-1154.29	3219056.37	1458233.79	40.5885760	-104.7112670	0.00	
5123.00†	30.500	252.129	4796.85	1230.18	-422.87	-1202.60	3219008.21	1458217.79	40.5885332	-104.7114409	0.00	
5223.00†	30.500	252.129	4883.01	1279.49	-438.45	-1250.90	3218960.05	1458201.78	40.5884905	-104.7116148	0.00	
5323.00†	30.500	252.129	4969.18	1328.80	-454.02	-1299.21	3218911.89	1458185.78	40.5884477	-104.7117887	0.00	

Planned Wellpath Report

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Facility	SEC.07-T07N-R65W	Wellbore	RUBY WEST 9R PWB
Slot	SLOT#20 RUBY WEST 9R (2602'FSL & 2427'FWL,SEC.07)		

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MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
5423.00†	30.500	252.129	5055.34	1378.11	-469.60	-1347.51	3218863.72	1458169.77	40.5884049	-104.7119626	0.00	
5523.00†	30.500	252.129	5141.50	1427.42	-485.17	-1395.81	3218815.56	1458153.76	40.5883622	-104.7121365	0.00	
5623.00†	30.500	252.129	5227.67	1476.73	-500.75	-1444.12	3218767.40	1458137.76	40.5883194	-104.7123105	0.00	
5723.00†	30.500	252.129	5313.83	1526.04	-516.32	-1492.42	3218719.24	1458121.75	40.5882767	-104.7124844	0.00	
5823.00†	30.500	252.129	5399.99	1575.35	-531.90	-1540.73	3218671.08	1458105.75	40.5882339	-104.7126583	0.00	
5923.00†	30.500	252.129	5486.16	1624.66	-547.47	-1589.03	3218622.92	1458089.74	40.5881911	-104.7128322	0.00	
6023.00†	30.500	252.129	5572.32	1673.97	-563.05	-1637.34	3218574.75	1458073.74	40.5881484	-104.7130061	0.00	
6123.00†	30.500	252.129	5658.48	1723.28	-578.62	-1685.64	3218526.59	1458057.73	40.5881056	-104.7131800	0.00	
6223.00†	30.500	252.129	5744.65	1772.59	-594.20	-1733.95	3218478.43	1458041.72	40.5880629	-104.7133539	0.00	
6323.00†	30.500	252.129	5830.81	1821.90	-609.77	-1782.25	3218430.27	1458025.72	40.5880201	-104.7135278	0.00	
6423.00†	30.500	252.129	5916.97	1871.21	-625.35	-1830.55	3218382.11	1458009.71	40.5879774	-104.7137018	0.00	
6523.00†	30.500	252.129	6003.13	1920.52	-640.92	-1878.86	3218333.94	1457993.71	40.5879346	-104.7138757	0.00	
6623.00†	30.500	252.129	6089.30	1969.83	-656.50	-1927.16	3218285.78	1457977.70	40.5878918	-104.7140496	0.00	
6723.00†	30.500	252.129	6175.46	2019.14	-672.07	-1975.47	3218237.62	1457961.69	40.5878491	-104.7142235	0.00	
6823.00†	30.500	252.129	6261.62	2068.45	-687.65	-2023.77	3218189.46	1457945.69	40.5878063	-104.7143974	0.00	
6923.00†	30.500	252.129	6347.79	2117.76	-703.22	-2072.08	3218141.30	1457929.68	40.5877635	-104.7145713	0.00	
7023.00†	30.500	252.129	6433.95	2167.07	-718.80	-2120.38	3218093.14	1457913.68	40.5877208	-104.7147452	0.00	
7123.00†	30.500	252.129	6520.11	2216.38	-734.37	-2168.68	3218044.97	1457897.67	40.5876780	-104.7149191	0.00	
7223.00†	30.500	252.129	6606.28	2265.69	-749.95	-2216.99	3217996.81	1457881.67	40.5876353	-104.7150930	0.00	
7323.00†	30.500	252.129	6692.44	2315.00	-765.52	-2265.29	3217948.65	1457865.66	40.5875925	-104.7152669	0.00	
7423.00†	30.500	252.129	6778.60	2364.31	-781.10	-2313.60	3217900.49	1457849.65	40.5875497	-104.7154409	0.00	
7523.00†	30.500	252.129	6864.77	2413.62	-796.67	-2361.90	3217852.33	1457833.65	40.5875070	-104.7156148	0.00	
7595.09	30.500	252.129	6926.88	2449.17	-807.90	-2396.72	3217817.61	1457822.11	40.5874761	-104.7157401	0.00	KOP
7623.00†	33.133	253.886	6950.60	2463.51	-812.19	-2410.80	3217803.57	1457817.69	40.5874644	-104.7157908	10.00	
7723.00†	42.714	258.578	7029.41	2524.05	-826.53	-2470.45	3217744.05	1457802.82	40.5874250	-104.7160056	10.00	
7823.00†	52.428	261.812	7096.80	2597.42	-838.92	-2543.10	3217671.52	1457789.78	40.5873910	-104.7162671	10.00	
7923.00†	62.209	264.291	7150.74	2681.38	-848.99	-2626.55	3217588.16	1457778.97	40.5873633	-104.7165676	10.00	
8023.00†	72.027	266.357	7189.58	2773.39	-856.43	-2718.26	3217496.52	1457770.71	40.5873428	-104.7168978	10.00	
8123.00†	81.864	268.203	7212.14	2870.64	-861.02	-2815.45	3217399.39	1457765.25	40.5873302	-104.7172477	10.00	
8205.04	89.941	269.646	7218.00†	2952.29	-862.55	-2897.19	3217317.66	1457762.99	40.5873260	-104.7175420	10.00	LANDING

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REFERENCE WELLPATH IDENTIFICATION

Operator	BAYSWATER E&P, LLC	Well	RUBY WEST 9R
Field	WELD COUNTY (NAD83/TRUE NORTH)	API/Legal	
Facility	SEC.07-T07N-R65W	Wellbore	RUBY WEST 9R PWB
Slot	SLOT#20 RUBY WEST 9R (2602'FSL & 2427'FWL,SEC.07)		

WELLPATH DATA (189 stations) † = interpolated, ‡ = extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8223.00†	89.941	269.646	7218.02	2970.21	-862.66	-2915.15	3217299.70	1457762.72	40.5873257	-104.7176067	0.00	
8323.00†	89.941	269.646	7218.12	3069.98	-863.28	-3015.15	3217199.72	1457761.21	40.5873240	-104.7179667	0.00	
8423.00†	89.941	269.646	7218.22	3169.76	-863.90	-3115.15	3217099.73	1457759.69	40.5873222	-104.7183267	0.00	
8523.00†	89.941	269.646	7218.33	3269.54	-864.52	-3215.15	3216999.75	1457758.18	40.5873205	-104.7186867	0.00	
8623.00†	89.941	269.646	7218.43	3369.32	-865.13	-3315.14	3216899.76	1457756.67	40.5873188	-104.7190468	0.00	
8723.00†	89.941	269.646	7218.53	3469.09	-865.75	-3415.14	3216799.78	1457755.16	40.5873170	-104.7194068	0.00	
8823.00†	89.941	269.646	7218.63	3568.87	-866.37	-3515.14	3216699.79	1457753.64	40.5873153	-104.7197668	0.00	
8923.00†	89.941	269.646	7218.74	3668.65	-866.99	-3615.14	3216599.80	1457752.13	40.5873135	-104.7201269	0.00	
9023.00†	89.941	269.646	7218.84	3768.43	-867.61	-3715.14	3216499.82	1457750.62	40.5873118	-104.7204869	0.00	
9123.00†	89.941	269.646	7218.94	3868.21	-868.23	-3815.13	3216399.83	1457749.10	40.5873101	-104.7208469	0.00	
9223.00†	89.941	269.646	7219.04	3967.98	-868.85	-3915.13	3216299.85	1457747.59	40.5873083	-104.7212070	0.00	
9323.00†	89.941	269.646	7219.15	4067.76	-869.47	-4015.13	3216199.86	1457746.08	40.5873066	-104.7215670	0.00	
9423.00†	89.941	269.646	7219.25	4167.54	-870.08	-4115.13	3216099.88	1457744.57	40.5873048	-104.7219270	0.00	
9523.00†	89.941	269.646	7219.35	4267.32	-870.70	-4215.13	3215999.89	1457743.05	40.5873031	-104.7222871	0.00	
9623.00†	89.941	269.646	7219.45	4367.10	-871.32	-4315.12	3215899.90	1457741.54	40.5873014	-104.7226471	0.00	
9723.00†	89.941	269.646	7219.56	4466.87	-871.94	-4415.12	3215799.92	1457740.03	40.5872996	-104.7230071	0.00	
9823.00†	89.941	269.646	7219.66	4566.65	-872.56	-4515.12	3215699.93	1457738.52	40.5872979	-104.7233671	0.00	
9923.00†	89.941	269.646	7219.76	4666.43	-873.18	-4615.12	3215599.95	1457737.00	40.5872961	-104.7237272	0.00	
10023.00†	89.941	269.646	7219.86	4766.21	-873.80	-4715.12	3215499.96	1457735.49	40.5872944	-104.7240872	0.00	
10123.00†	89.941	269.646	7219.97	4865.98	-874.41	-4815.11	3215399.97	1457733.98	40.5872926	-104.7244472	0.00	
10223.00†	89.941	269.646	7220.07	4965.76	-875.03	-4915.11	3215299.99	1457732.46	40.5872909	-104.7248073	0.00	
10323.00†	89.941	269.646	7220.17	5065.54	-875.65	-5015.11	3215200.00	1457730.95	40.5872891	-104.7251673	0.00	
10423.00†	89.941	269.646	7220.27	5165.32	-876.27	-5115.11	3215100.02	1457729.44	40.5872873	-104.7255273	0.00	
10523.00†	89.941	269.646	7220.38	5265.10	-876.89	-5215.11	3215000.03	1457727.93	40.5872856	-104.7258874	0.00	
10623.00†	89.941	269.646	7220.48	5364.87	-877.51	-5315.10	3214900.05	1457726.41	40.5872838	-104.7262474	0.00	
10723.00†	89.941	269.646	7220.58	5464.65	-878.13	-5415.10	3214800.06	1457724.90	40.5872821	-104.7266074	0.00	
10823.00†	89.941	269.646	7220.69	5564.43	-878.75	-5515.10	3214700.07	1457723.39	40.5872803	-104.7269674	0.00	
10923.00†	89.941	269.646	7220.79	5664.21	-879.36	-5615.10	3214600.09	1457721.88	40.5872786	-104.7273275	0.00	
11023.00†	89.941	269.646	7220.89	5763.99	-879.98	-5715.10	3214500.10	1457720.36	40.5872768	-104.7276875	0.00	
11123.00†	89.941	269.646	7220.99	5863.76	-880.60	-5815.09	3214400.12	1457718.85	40.5872750	-104.7280475	0.00	

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REFERENCE WELLPATH IDENTIFICATION

Operator	BAYSWATER E&P, LLC	Well	RUBY WEST 9R
Field	WELD COUNTY (NAD83/TRUE NORTH)	API/Legal	
Facility	SEC.07-T07N-R65W	Wellbore	RUBY WEST 9R PWB
Slot	SLOT#20 RUBY WEST 9R (2602'FSL & 2427'FWL,SEC.07)		

WELLPATH DATA (189 stations) † = interpolated, ‡ = extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11223.00†	89.941	269.646	7221.10	5963.54	-881.22	-5915.09	3214300.13	1457717.34	40.5872733	-104.7284076	0.00	
11323.00†	89.941	269.646	7221.20	6063.32	-881.84	-6015.09	3214200.15	1457715.82	40.5872715	-104.7287676	0.00	
11423.00†	89.941	269.646	7221.30	6163.10	-882.46	-6115.09	3214100.16	1457714.31	40.5872697	-104.7291276	0.00	
11523.00†	89.941	269.646	7221.40	6262.88	-883.08	-6215.09	3214000.17	1457712.80	40.5872680	-104.7294877	0.00	
11623.00†	89.941	269.646	7221.51	6362.65	-883.69	-6315.08	3213900.19	1457711.29	40.5872662	-104.7298477	0.00	
11723.00†	89.941	269.646	7221.61	6462.43	-884.31	-6415.08	3213800.20	1457709.77	40.5872644	-104.7302077	0.00	
11823.00†	89.941	269.646	7221.71	6562.21	-884.93	-6515.08	3213700.22	1457708.26	40.5872627	-104.7305677	0.00	
11923.00†	89.941	269.646	7221.81	6661.99	-885.55	-6615.08	3213600.23	1457706.75	40.5872609	-104.7309278	0.00	
12023.00†	89.941	269.646	7221.92	6761.76	-886.17	-6715.08	3213500.25	1457705.24	40.5872591	-104.7312878	0.00	
12123.00†	89.941	269.646	7222.02	6861.54	-886.79	-6815.08	3213400.26	1457703.72	40.5872573	-104.7316478	0.00	
12223.00†	89.941	269.646	7222.12	6961.32	-887.41	-6915.07	3213300.27	1457702.21	40.5872556	-104.7320079	0.00	
12323.00†	89.941	269.646	7222.22	7061.10	-888.02	-7015.07	3213200.29	1457700.70	40.5872538	-104.7323679	0.00	
12423.00†	89.941	269.646	7222.33	7160.88	-888.64	-7115.07	3213100.30	1457699.18	40.5872520	-104.7327279	0.00	
12523.00†	89.941	269.646	7222.43	7260.65	-889.26	-7215.07	3213000.32	1457697.67	40.5872502	-104.7330880	0.00	
12623.00†	89.941	269.646	7222.53	7360.43	-889.88	-7315.07	3212900.33	1457696.16	40.5872485	-104.7334480	0.00	
12723.00†	89.941	269.646	7222.63	7460.21	-890.50	-7415.06	3212800.35	1457694.65	40.5872467	-104.7338080	0.00	
12823.00†	89.941	269.646	7222.74	7559.99	-891.12	-7515.06	3212700.36	1457693.13	40.5872449	-104.7341680	0.00	
12923.00†	89.941	269.646	7222.84	7659.77	-891.74	-7615.06	3212600.37	1457691.62	40.5872431	-104.7345281	0.00	
13023.00†	89.941	269.646	7222.94	7759.54	-892.36	-7715.06	3212500.39	1457690.11	40.5872413	-104.7348881	0.00	
13123.00†	89.941	269.646	7223.04	7859.32	-892.97	-7815.06	3212400.40	1457688.60	40.5872396	-104.7352481	0.00	
13223.00†	89.941	269.646	7223.15	7959.10	-893.59	-7915.05	3212300.42	1457687.08	40.5872378	-104.7356082	0.00	
13323.00†	89.941	269.646	7223.25	8058.88	-894.21	-8015.05	3212200.43	1457685.57	40.5872360	-104.7359682	0.00	
13423.00†	89.941	269.646	7223.35	8158.65	-894.83	-8115.05	3212100.45	1457684.06	40.5872342	-104.7363282	0.00	
13523.00†	89.941	269.646	7223.45	8258.43	-895.45	-8215.05	3212000.46	1457682.54	40.5872324	-104.7366883	0.00	
13623.00†	89.941	269.646	7223.56	8358.21	-896.07	-8315.05	3211900.47	1457681.03	40.5872306	-104.7370483	0.00	
13723.00†	89.941	269.646	7223.66	8457.99	-896.69	-8415.04	3211800.49	1457679.52	40.5872288	-104.7374083	0.00	
13823.00†	89.941	269.646	7223.76	8557.77	-897.30	-8515.04	3211700.50	1457678.01	40.5872270	-104.7377683	0.00	
13923.00†	89.941	269.646	7223.86	8657.54	-897.92	-8615.04	3211600.52	1457676.49	40.5872252	-104.7381284	0.00	
14023.00†	89.941	269.646	7223.97	8757.32	-898.54	-8715.04	3211500.53	1457674.98	40.5872234	-104.7384884	0.00	
14123.00†	89.941	269.646	7224.07	8857.10	-899.16	-8815.04	3211400.55	1457673.47	40.5872216	-104.7388484	0.00	

Planned Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION

Operator	BAYSWATER E&P, LLC	Well	RUBY WEST 9R
Field	WELD COUNTY (NAD83/TRUE NORTH)	API/Legal	
Facility	SEC.07-T07N-R65W	Wellbore	RUBY WEST 9R PWB
Slot	SLOT#20 RUBY WEST 9R (2602'FSL & 2427'FWL,SEC.07)		

WELLPATH DATA (189 stations) † = interpolated, ‡ = extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
14223.00†	89.941	269.646	7224.17	8956.88	-899.78	-8915.03	3211300.56	1457671.96	40.5872198	-104.7392085	0.00	
14323.00†	89.941	269.646	7224.28	9056.66	-900.40	-9015.03	3211200.57	1457670.44	40.5872181	-104.7395685	0.00	
14423.00†	89.941	269.646	7224.38	9156.43	-901.02	-9115.03	3211100.59	1457668.93	40.5872163	-104.7399285	0.00	
14523.00†	89.941	269.646	7224.48	9256.21	-901.64	-9215.03	3211000.60	1457667.42	40.5872145	-104.7402885	0.00	
14623.00†	89.941	269.646	7224.58	9355.99	-902.25	-9315.03	3210900.62	1457665.90	40.5872126	-104.7406486	0.00	
14723.00†	89.941	269.646	7224.69	9455.77	-902.87	-9415.02	3210800.63	1457664.39	40.5872108	-104.7410086	0.00	
14823.00†	89.941	269.646	7224.79	9555.54	-903.49	-9515.02	3210700.65	1457662.88	40.5872090	-104.7413686	0.00	
14923.00†	89.941	269.646	7224.89	9655.32	-904.11	-9615.02	3210600.66	1457661.37	40.5872072	-104.7417287	0.00	
15023.00†	89.941	269.646	7224.99	9755.10	-904.73	-9715.02	3210500.67	1457659.85	40.5872054	-104.7420887	0.00	
15123.00†	89.941	269.646	7225.10	9854.88	-905.35	-9815.02	3210400.69	1457658.34	40.5872036	-104.7424487	0.00	
15223.00†	89.941	269.646	7225.20	9954.66	-905.97	-9915.01	3210300.70	1457656.83	40.5872018	-104.7428088	0.00	
15323.00†	89.941	269.646	7225.30	10054.43	-906.58	-10015.01	3210200.72	1457655.32	40.5872000	-104.7431688	0.00	
15423.00†	89.941	269.646	7225.40	10154.21	-907.20	-10115.01	3210100.73	1457653.80	40.5871982	-104.7435288	0.00	
15523.00†	89.941	269.646	7225.51	10253.99	-907.82	-10215.01	3210000.75	1457652.29	40.5871964	-104.7438888	0.00	
15623.00†	89.941	269.646	7225.61	10353.77	-908.44	-10315.01	3209900.76	1457650.78	40.5871946	-104.7442489	0.00	
15723.00†	89.941	269.646	7225.71	10453.55	-909.06	-10415.00	3209800.77	1457649.27	40.5871928	-104.7446089	0.00	
15823.00†	89.941	269.646	7225.81	10553.32	-909.68	-10515.00	3209700.79	1457647.75	40.5871909	-104.7449689	0.00	
15923.00†	89.941	269.646	7225.92	10653.10	-910.30	-10615.00	3209600.80	1457646.24	40.5871891	-104.7453290	0.00	
16023.00†	89.941	269.646	7226.02	10752.88	-910.92	-10715.00	3209500.82	1457644.73	40.5871873	-104.7456890	0.00	
16123.00†	89.941	269.646	7226.12	10852.66	-911.53	-10815.00	3209400.83	1457643.21	40.5871855	-104.7460490	0.00	
16223.00†	89.941	269.646	7226.22	10952.43	-912.15	-10914.99	3209300.84	1457641.70	40.5871837	-104.7464090	0.00	
16323.00†	89.941	269.646	7226.33	11052.21	-912.77	-11014.99	3209200.86	1457640.19	40.5871819	-104.7467691	0.00	
16423.00†	89.941	269.646	7226.43	11151.99	-913.39	-11114.99	3209100.87	1457638.68	40.5871800	-104.7471291	0.00	
16523.00†	89.941	269.646	7226.53	11251.77	-914.01	-11214.99	3209000.89	1457637.16	40.5871782	-104.7474891	0.00	
16623.00†	89.941	269.646	7226.63	11351.55	-914.63	-11314.99	3208900.90	1457635.65	40.5871764	-104.7478492	0.00	
16723.00†	89.941	269.646	7226.74	11451.32	-915.25	-11414.98	3208800.92	1457634.14	40.5871746	-104.7482092	0.00	
16823.00†	89.941	269.646	7226.84	11551.10	-915.86	-11514.98	3208700.93	1457632.63	40.5871727	-104.7485692	0.00	
16923.00†	89.941	269.646	7226.94	11650.88	-916.48	-11614.98	3208600.94	1457631.11	40.5871709	-104.7489293	0.00	
17023.00†	89.941	269.646	7227.04	11750.66	-917.10	-11714.98	3208500.96	1457629.60	40.5871691	-104.7492893	0.00	
17123.00†	89.941	269.646	7227.15	11850.44	-917.72	-11814.98	3208400.97	1457628.09	40.5871673	-104.7496493	0.00	

Planned Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BAYSWATER E&P, LLC	Well	RUBY WEST 9R
Field	WELD COUNTY (NAD83/TRUE NORTH)	API/Legal	
Facility	SEC.07-T07N-R65W	Wellbore	RUBY WEST 9R PWB
Slot	SLOT#20 RUBY WEST 9R (2602'FSL & 2427'FWL,SEC.07)		

WELLPATH DATA (189 stations) † = interpolated, ‡ = extrapolated station												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
17223.00†	89.941	269.646	7227.25	11950.21	-918.34	-11914.97	3208300.99	1457626.57	40.5871654	-104.7500093	0.00	
17323.00†	89.941	269.646	7227.35	12049.99	-918.96	-12014.97	3208201.00	1457625.06	40.5871636	-104.7503694	0.00	
17423.00†	89.941	269.646	7227.45	12149.77	-919.58	-12114.97	3208101.02	1457623.55	40.5871618	-104.7507294	0.00	
17523.00†	89.941	269.646	7227.56	12249.55	-920.20	-12214.97	3208001.03	1457622.04	40.5871599	-104.7510894	0.00	
17623.00†	89.941	269.646	7227.66	12349.32	-920.81	-12314.97	3207901.04	1457620.52	40.5871581	-104.7514495	0.00	
17723.00†	89.941	269.646	7227.76	12449.10	-921.43	-12414.96	3207801.06	1457619.01	40.5871563	-104.7518095	0.00	
17823.00†	89.941	269.646	7227.87	12548.88	-922.05	-12514.96	3207701.07	1457617.50	40.5871544	-104.7521695	0.00	
17923.00†	89.941	269.646	7227.97	12648.66	-922.67	-12614.96	3207601.09	1457615.99	40.5871526	-104.7525295	0.00	
17954.51	89.941	269.646	7228.00‡	12680.10	-922.86	-12646.47	3207569.58	1457615.51	40.5871520	-104.7526430	0.00	TD

HOLE & CASING SECTIONS									
- Ref Wellbore: RUBY WEST 9R PWB Ref Wellpath: RUBY WEST 9R PWP Rev-A.0									
String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing Surface	23.00	1501.38	1478.38	23.00	1500.00	0.00	0.00	0.00	41.95

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
1) RUBY WEST 9R LP REV-1 (1691'FSL & 470'FEL,SEC.12)	8205.04	7218.00	-862.55	-2897.19	3217317.66	1457762.99	40.5873260	-104.7175420	point
2) RUBY WEST 9R BHL REV-1 (1691'FSL & 470'FWL,SEC.11)	17954.51	7228.00	-922.86	-12646.47	3207569.58	1457615.51	40.5871520	-104.7526430	point

Planned Wellpath Report

RUBY WEST 9R PWP Rev-A.0

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BAYSWATER E&P, LLC	Well	RUBY WEST 9R
Field	WELD COUNTY (NAD83/TRUE NORTH)	API/Legal	
Facility	SEC.07-T07N-R65W	Wellbore	RUBY WEST 9R PWB
Slot	SLOT#20 RUBY WEST 9R (2602'FSL & 2427'FWL,SEC.07)		

SURVEY PROGRAM - Ref Wellbore: RUBY WEST 9R PWB Ref Wellpath: RUBY WEST 9R PWP Rev-A.0				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
23.00	1500.55	OWSG MWD rev2 + IFR1		RUBY WEST 9R PWB
1500.55	17954.51	OWSG MWD rev2 (MS+IFR1)		RUBY WEST 9R PWB

REFERENCE WELLPATH IDENTIFICATION

Operator	BAYSWATER E&P, LLC	Well	RUBY WEST 9R
Field	WELD COUNTY (NAD83/TRUE NORTH)	API/Legal	
Facility	SEC.07-T07N-R65W	Wellbore	RUBY WEST 9R PWB
Slot	SLOT#20 RUBY WEST 9R (2602'FSL & 2427'FWL,SEC.07)		

DESIGN COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
23.00	0.000	90.000	23.00	Tie On
800.00	0.000	90.000	800.00	End of Tangent
1000.00	4.000	90.000	999.84	End of Build (J)
1501.38	4.000	90.000	1500.00	End of Tangent (J)
1576.38	4.000	90.000	1574.82	End of Tangent
3292.70	30.500	252.129	3219.81	Build (XS)
7595.09	30.500	252.129	6926.88	KOP
8205.04	89.941	269.646	7218.00	LANDING
17954.51	89.941	269.646	7228.00	TD