

Location:	COLORADO	Slot:	SLOT#01 WASTE MANAGEMENT Y23-712(787FNL&756FEL,SEC.11)
Field:	WELD COUNTY (NOBLE NAD 83 GRID)	Well:	WASTE MANAGEMENT Y23-712
Facility:	SEC.11-T02N-R64W	Wellbore:	WASTE MANAGEMENT Y23-712 PWB

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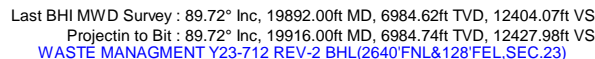
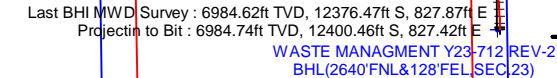
Plot reference w/depth is WASTE MANAGEMENT Y23-Y72 (REV. 0) PMP	Grid System: NAD83 / Lambert Colorado SPS; Northern Zone (501), US feet
This vertical depth is referenced to RQ2(K9B) (R9B)	* W/depth was transformed from a different geoidic datum
Measured depths are referenced to RQ2(K9B) (R9B)	North Reference: Grid north
Mean Sea Level (R9B) to Mean Sea Level: 4925 feet	Scale: True distance
Mean Sea Level to Ground level (At Slot: SLOTR01 WASTE MANAGEMENT Y23-Y72/787FNL6756/FEL_SEC11): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: gander on 2017-11-21
	Database: WA_DEN_Client.Dbf

SURFACE LOCATION: NWNE

40.15799N

104.51194W

API: 05-123-44840

[illegible]



Actual Wellpath Report

WASTE MANAGEMENT Y23-712 AWP

Page 1 of 12



REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#01 WASTE MANAGEMENT Y23-712(787'FNL&756'FEL,SEC.11)
Area	COLORADO	Well	WASTE MANAGEMENT Y23-712
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WASTE MANAGEMENT Y23-712 AWB
Facility	SEC.11-T02N-R64W		

REPORT SETUP INFORMATION			
Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 5.0
North Reference	Grid	User	Guenaler
Scale	0.999958	Report Generated	11/21/2017 at 9:19:56 AM
Convergence at slot	0.64° East	Database/Source file	WA_DEN_Denver_Defn/WASTE_MANAGEMENT_Y23-712_AWP.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	3276161.57	1301937.56	40°09'28.764"N	104°30'42.984"W
Facility Reference Pt			3276161.57	1301937.56	40°09'28.764"N	104°30'42.984"W
Field Reference Pt			3000000.00	4454105.15	48°46'34.315"N	105°30'00.000"W

WELLPATH DATUM			
Calculation method	Minimum curvature	RIG(30'KB) (RKB) to Facility Vertical Datum	4925.00ft
Horizontal Reference Pt	Slot	RIG(30'KB) (RKB) to Mean Sea Level	4925.00ft
Vertical Reference Pt	RIG(30'KB) (RKB)	RIG(30'KB) (RKB) to Ground Level at Slot (SLOT#01 WASTE MANAGEMENT Y23-712 (787'FNL&756'FEL,SEC.11))	4925.00ft
MD Reference Pt	RIG(30'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	176.35°



Actual Wellpath Report
WASTE MANAGEMENT Y23-712 AWP
Page 2 of 12



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WELLPATH DATA (212 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00	0.000	31.100	0.00	0.00	0.00	0.00	40°09'28.764"N	104°30'42.984"W	0.00	
84.00	0.220	31.100	84.00	-0.13	0.14	0.08	40°09'28.765"N	104°30'42.983"W	0.26	
180.00	0.270	315.290	180.00	-0.45	0.46	0.02	40°09'28.769"N	104°30'42.984"W	0.32	
271.00	0.270	19.640	271.00	-0.81	0.81	-0.06	40°09'28.772"N	104°30'42.985"W	0.32	
366.00	0.680	73.510	366.00	-1.14	1.18	0.56	40°09'28.776"N	104°30'42.977"W	0.59	
460.00	0.290	33.330	459.99	-1.46	1.54	1.22	40°09'28.779"N	104°30'42.968"W	0.53	
554.00	0.600	263.110	553.99	-1.62	1.68	0.86	40°09'28.780"N	104°30'42.973"W	0.87	
649.00	0.310	185.130	648.99	-1.34	1.36	0.35	40°09'28.777"N	104°30'42.979"W	0.65	
743.00	0.250	244.540	742.99	-1.01	1.02	0.14	40°09'28.774"N	104°30'42.982"W	0.30	
837.00	0.090	293.910	836.99	-0.97	0.96	-0.11	40°09'28.774"N	104°30'42.985"W	0.22	
932.00	0.440	274.340	931.99	-1.05	1.02	-0.55	40°09'28.774"N	104°30'42.991"W	0.38	
1026.00	0.110	222.220	1025.98	-1.04	0.98	-0.97	40°09'28.774"N	104°30'42.996"W	0.41	
1121.00	0.120	204.970	1120.98	-0.89	0.82	-1.07	40°09'28.772"N	104°30'42.998"W	0.04	
1216.00	0.170	140.510	1215.98	-0.69	0.62	-1.02	40°09'28.770"N	104°30'42.997"W	0.17	
1310.00	0.170	197.370	1309.98	-0.45	0.38	-0.97	40°09'28.768"N	104°30'42.996"W	0.17	
1405.00	0.400	229.760	1404.98	-0.12	0.04	-1.27	40°09'28.764"N	104°30'43.000"W	0.29	
1499.00	0.100	227.730	1498.98	0.13	-0.23	-1.58	40°09'28.762"N	104°30'43.004"W	0.32	
1594.00	0.290	290.540	1593.98	0.08	-0.20	-1.87	40°09'28.762"N	104°30'43.008"W	0.27	
1688.00	0.130	279.700	1687.98	-0.04	-0.10	-2.20	40°09'28.763"N	104°30'43.012"W	0.17	
1782.00	0.350	322.760	1781.98	-0.30	0.14	-2.47	40°09'28.766"N	104°30'43.016"W	0.29	
1877.00	0.460	309.710	1876.98	-0.81	0.62	-2.94	40°09'28.770"N	104°30'43.022"W	0.15	
1971.00	0.040	80.940	1970.98	-1.07	0.87	-3.20	40°09'28.773"N	104°30'43.025"W	0.52	
2024.00	0.190	129.040	2023.98	-1.01	0.81	-3.11	40°09'28.772"N	104°30'43.024"W	0.31	Tie to Surface Gyro
2070.00	0.340	46.970	2069.98	-1.05	0.86	-2.96	40°09'28.773"N	104°30'43.022"W	0.80	
2164.00	5.190	27.400	2163.84	-4.87	4.83	-0.79	40°09'28.812"N	104°30'42.994"W	5.18	
2259.00	7.320	21.260	2258.27	-14.04	14.28	3.38	40°09'28.905"N	104°30'42.938"W	2.35	
2354.00	9.250	18.700	2352.27	-26.59	27.16	8.02	40°09'29.031"N	104°30'42.877"W	2.07	
2448.00	11.400	21.690	2444.75	-41.97	42.95	13.88	40°09'29.187"N	104°30'42.799"W	2.36	
2543.00	12.830	23.740	2537.63	-59.82	61.33	21.59	40°09'29.368"N	104°30'42.697"W	1.57	
2637.00	13.080	28.170	2629.24	-78.13	80.26	30.82	40°09'29.554"N	104°30'42.576"W	1.09	



Actual Wellpath Report
WASTE MANAGEMENT Y23-712 AWP
Page 3 of 12



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Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WASTE MANAGEMENT Y23-712 AWB
Facility	SEC.11-T02N-R64W		

WELLPATH DATA (212 stations)											
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments	
2732.00	13.170	32.430	2721.76	-96.01	98.87	41.70	40°09'29.736"N	104°30'42.433"W	1.02		
2826.00	13.230	36.210	2813.28	-112.92	116.59	53.79	40°09'29.910"N	104°30'42.274"W	0.92		
2920.00	13.050	35.070	2904.82	-129.46	133.95	66.25	40°09'30.080"N	104°30'42.112"W	0.34		
3015.00	12.920	34.150	2997.39	-146.21	151.52	78.37	40°09'30.253"N	104°30'41.953"W	0.26		
3111.00	12.820	36.000	3090.97	-162.89	169.02	90.66	40°09'30.424"N	104°30'41.792"W	0.44		
3205.00	12.700	40.780	3182.66	-178.30	185.28	103.54	40°09'30.583"N	104°30'41.624"W	1.13		
3300.00	12.910	45.990	3275.30	-192.63	200.56	117.99	40°09'30.733"N	104°30'41.436"W	1.23		
3394.00	12.670	48.250	3366.96	-205.79	214.72	133.23	40°09'30.871"N	104°30'41.237"W	0.59		
3489.00	12.850	49.560	3459.62	-218.54	228.51	149.05	40°09'31.006"N	104°30'41.032"W	0.36		
3584.00	12.940	48.080	3552.22	-231.46	242.47	165.00	40°09'31.142"N	104°30'40.824"W	0.36		
3678.00	12.910	45.820	3643.84	-244.80	256.82	180.36	40°09'31.282"N	104°30'40.624"W	0.54		
3773.00	12.630	47.140	3736.49	-258.26	271.28	195.59	40°09'31.423"N	104°30'40.426"W	0.43		
3867.00	12.920	46.330	3828.17	-271.51	285.53	210.72	40°09'31.562"N	104°30'40.229"W	0.36		
3962.00	13.130	40.740	3920.73	-286.05	301.04	225.45	40°09'31.714"N	104°30'40.037"W	1.34		
4056.00	13.230	34.200	4012.25	-302.18	318.02	238.46	40°09'31.880"N	104°30'39.867"W	1.59		
4151.00	13.230	28.550	4104.74	-319.96	336.56	249.77	40°09'32.062"N	104°30'39.719"W	1.36		
4245.00	13.060	29.060	4196.27	-338.00	355.30	260.07	40°09'32.246"N	104°30'39.584"W	0.22		
4340.00	12.820	32.450	4288.86	-355.54	373.57	270.93	40°09'32.426"N	104°30'39.441"W	0.84		
4435.00	13.010	40.140	4381.47	-371.78	390.64	283.48	40°09'32.593"N	104°30'39.277"W	1.82		
4529.00	13.120	44.380	4473.03	-386.55	406.36	297.77	40°09'32.747"N	104°30'39.091"W	1.03		
4624.00	12.940	44.270	4565.59	-400.89	421.68	312.73	40°09'32.896"N	104°30'38.896"W	0.19		
4718.00	12.880	46.340	4657.21	-414.67	436.45	327.66	40°09'33.041"N	104°30'38.702"W	0.50		
4813.00	13.120	50.130	4749.78	-427.85	450.67	343.60	40°09'33.179"N	104°30'38.494"W	0.93		
4907.00	12.950	56.820	4841.36	-439.35	463.27	360.60	40°09'33.302"N	104°30'38.273"W	1.61		
5002.00	13.460	61.220	4933.85	-449.29	474.42	379.20	40°09'33.410"N	104°30'38.032"W	1.19		
5096.00	13.440	63.440	5025.28	-458.18	484.58	398.56	40°09'33.508"N	104°30'37.781"W	0.55		
5191.00	13.640	56.240	5117.64	-468.10	495.74	417.75	40°09'33.617"N	104°30'37.533"W	1.79		
5285.00	12.190	45.430	5209.28	-480.16	508.86	434.04	40°09'33.744"N	104°30'37.321"W	2.99		
5380.00	12.620	39.260	5302.06	-494.33	523.94	447.75	40°09'33.892"N	104°30'37.142"W	1.47		
5474.00	13.210	35.700	5393.68	-510.16	540.61	460.52	40°09'34.055"N	104°30'36.975"W	1.05		



Actual Wellpath Report
WASTE MANAGEMENT Y23-712 AWP
Page 4 of 12



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Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WASTE MANAGEMENT Y23-712 AWB
Facility	SEC.11-T02N-R64W		

WELLPATH DATA (212 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
5569.00	12.550	32.200	5486.29	-526.92	558.16	472.35	40°09'34.227"N	104°30'36.821"W	1.08	
5664.00	12.680	31.320	5579.00	-543.83	575.80	483.27	40°09'34.400"N	104°30'36.677"W	0.24	
5758.00	13.310	29.320	5670.59	-561.36	594.05	493.93	40°09'34.580"N	104°30'36.537"W	0.82	
5853.00	13.170	29.370	5763.07	-579.60	613.02	504.60	40°09'34.766"N	104°30'36.397"W	0.15	
5947.00	13.320	28.660	5854.57	-597.73	631.85	515.04	40°09'34.951"N	104°30'36.260"W	0.24	
6042.00	13.240	28.420	5947.03	-616.20	651.02	525.47	40°09'35.139"N	104°30'36.123"W	0.10	
6136.00	13.100	27.010	6038.56	-634.49	669.98	535.43	40°09'35.325"N	104°30'35.992"W	0.37	
6231.00	13.280	26.530	6131.05	-653.18	689.33	545.19	40°09'35.516"N	104°30'35.864"W	0.22	
6325.00	11.690	32.770	6222.83	-670.17	707.00	555.17	40°09'35.689"N	104°30'35.733"W	2.22	
6420.00	9.340	84.960	6316.43	-678.12	715.79	568.09	40°09'35.774"N	104°30'35.565"W	9.95	
6515.00	11.060	135.810	6410.10	-671.37	709.92	582.15	40°09'35.715"N	104°30'35.385"W	9.32	
6609.00	17.900	145.750	6501.07	-652.06	691.49	596.58	40°09'35.531"N	104°30'35.201"W	7.72	
6704.00	26.110	154.620	6589.10	-620.01	660.48	613.79	40°09'35.223"N	104°30'34.984"W	9.30	
6798.00	35.050	166.700	6670.02	-574.05	615.39	628.91	40°09'34.776"N	104°30'34.796"W	11.50	
6891.00	42.350	171.460	6742.57	-516.42	558.33	639.72	40°09'34.211"N	104°30'34.665"W	8.47	
6986.00	52.710	174.470	6806.63	-446.57	488.87	648.14	40°09'33.523"N	104°30'34.567"W	11.15	
7081.00	62.530	176.590	6857.45	-366.45	408.99	654.30	40°09'32.733"N	104°30'34.499"W	10.51	
7175.00	68.970	178.700	6896.04	-280.82	323.41	657.78	40°09'31.887"N	104°30'34.466"W	7.15	
7270.00	77.400	178.870	6923.50	-190.04	232.57	659.71	40°09'30.989"N	104°30'34.454"W	8.88	
7364.00	85.260	179.010	6937.66	-97.29	139.73	661.42	40°09'30.072"N	104°30'34.446"W	8.36	
7459.00	86.950	179.910	6944.11	-2.65	44.96	662.32	40°09'29.135"N	104°30'34.448"W	2.01	
7553.00	88.090	181.640	6948.18	90.98	-48.94	661.05	40°09'28.208"N	104°30'34.478"W	2.20	
7648.00	87.010	181.740	6952.24	185.48	-143.81	658.25	40°09'27.270"N	104°30'34.527"W	1.14	
7742.00	87.110	181.420	6957.06	278.96	-237.65	655.66	40°09'26.343"N	104°30'34.574"W	0.36	
7837.00	87.050	180.390	6961.90	373.53	-332.51	654.16	40°09'25.406"N	104°30'34.607"W	1.08	
7932.00	87.040	179.440	6966.80	468.22	-427.38	654.30	40°09'24.469"N	104°30'34.619"W	1.00	
8027.00	88.890	179.300	6970.17	563.03	-522.31	655.34	40°09'23.531"N	104°30'34.619"W	1.95	
8121.00	89.940	179.670	6971.13	656.88	-616.30	656.19	40°09'22.602"N	104°30'34.622"W	1.18	
8216.00	89.880	179.410	6971.28	751.73	-711.30	656.95	40°09'21.663"N	104°30'34.626"W	0.28	
8310.00	89.970	181.900	6971.40	845.46	-805.29	655.88	40°09'20.734"N	104°30'34.653"W	2.65	



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Page 5 of 12



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8405.00	89.940	182.860	6971.48	939.93	-900.20	651.93	40°09'19.797"N	104°30'34.718"W	1.01	
8499.00	89.910	182.640	6971.60	1033.34	-994.10	647.42	40°09'18.870"N	104°30'34.789"W	0.24	
8594.00	89.970	181.410	6971.70	1127.88	-1089.04	644.07	40°09'17.932"N	104°30'34.846"W	1.30	
8688.00	89.880	180.350	6971.82	1221.58	-1183.02	642.62	40°09'17.003"N	104°30'34.878"W	1.13	
8783.00	89.850	179.150	6972.05	1316.41	-1278.02	643.04	40°09'16.064"N	104°30'34.886"W	1.26	
8877.00	89.940	178.120	6972.22	1410.33	-1371.99	645.28	40°09'15.136"N	104°30'34.871"W	1.10	
8972.00	89.850	178.640	6972.39	1505.27	-1466.95	647.96	40°09'14.197"N	104°30'34.850"W	0.56	
9067.00	89.970	179.110	6972.54	1600.18	-1561.93	649.83	40°09'13.258"N	104°30'34.840"W	0.51	
9161.00	89.970	179.550	6972.59	1694.05	-1655.93	650.93	40°09'12.329"N	104°30'34.839"W	0.47	
9256.00	90.120	180.230	6972.52	1788.87	-1750.93	651.11	40°09'11.391"N	104°30'34.851"W	0.73	
9350.00	90.030	179.800	6972.40	1882.68	-1844.93	651.08	40°09'10.462"N	104°30'34.864"W	0.47	
9445.00	89.380	179.540	6972.88	1977.52	-1939.92	651.63	40°09'09.523"N	104°30'34.871"W	0.74	
9539.00	88.740	178.900	6974.43	2071.38	-2033.90	652.91	40°09'08.594"N	104°30'34.868"W	0.96	
9634.00	89.020	179.920	6976.28	2166.23	-2128.88	653.89	40°09'07.656"N	104°30'34.869"W	1.11	
9729.00	87.910	179.740	6978.83	2261.02	-2223.84	654.17	40°09'06.717"N	104°30'34.879"W	1.18	
9824.00	86.890	178.260	6983.14	2355.81	-2318.72	655.83	40°09'05.779"N	104°30'34.871"W	1.89	
9918.00	87.690	176.540	6987.58	2449.69	-2412.52	660.09	40°09'04.852"N	104°30'34.830"W	2.02	
10013.00	88.280	175.960	6990.92	2544.63	-2507.26	666.29	40°09'03.915"N	104°30'34.764"W	0.87	
10107.00	89.290	175.530	6992.92	2638.60	-2600.97	673.27	40°09'02.988"N	104°30'34.687"W	1.17	
10202.00	89.910	176.670	6993.58	2733.60	-2695.75	679.73	40°09'02.051"N	104°30'34.618"W	1.37	
10296.00	90.060	178.170	6993.60	2827.58	-2789.65	683.96	40°09'01.123"N	104°30'34.577"W	1.60	
10391.00	89.910	179.420	6993.63	2922.49	-2884.63	685.96	40°09'00.184"N	104°30'34.565"W	1.33	
10485.00	89.880	180.750	6993.80	3016.29	-2978.63	685.82	40°08'59.255"N	104°30'34.580"W	1.42	
10580.00	89.970	181.310	6993.93	3110.97	-3073.61	684.11	40°08'58.317"N	104°30'34.616"W	0.60	
10674.00	90.340	181.070	6993.67	3204.63	-3167.59	682.16	40°08'57.388"N	104°30'34.654"W	0.47	
10769.00	89.690	180.660	6993.65	3299.33	-3262.58	680.72	40°08'56.450"N	104°30'34.687"W	0.81	
10864.00	89.750	180.250	6994.11	3394.09	-3357.57	679.97	40°08'55.511"N	104°30'34.710"W	0.44	
10958.00	89.750	179.930	6994.52	3487.89	-3451.57	679.82	40°08'54.583"N	104°30'34.725"W	0.34	
11053.00	89.750	178.950	6994.93	3582.75	-3546.57	680.75	40°08'53.644"N	104°30'34.727"W	1.03	
11147.00	89.720	178.410	6995.37	3676.67	-3640.54	682.92	40°08'52.715"N	104°30'34.713"W	0.58	



Actual Wellpath Report
WASTE MANAGEMENT Y23-712 AWP
Page 6 of 12



REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#01 WASTE MANAGEMENT Y23-712(787'FNL&756'FEL,SEC.11)
Area	COLORADO	Well	WASTE MANAGEMENT Y23-712
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WASTE MANAGEMENT Y23-712 AWB
Facility	SEC.11-T02N-R64W		

WELLPATH DATA (212 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11242.00	89.750	179.020	6995.81	3771.58	-3735.51	685.05	40°08'51.776"N	104°30'34.699"W	0.64	
11336.00	90.220	178.990	6995.83	3865.48	-3829.50	686.68	40°08'50.847"N	104°30'34.691"W	0.50	
11431.00	90.370	178.260	6995.34	3960.41	-3924.47	688.96	40°08'49.909"N	104°30'34.676"W	0.78	
11525.00	90.430	177.490	6994.69	4054.37	-4018.40	692.44	40°08'48.980"N	104°30'34.644"W	0.82	
11620.00	90.400	177.770	6994.00	4149.34	-4113.32	696.37	40°08'48.042"N	104°30'34.607"W	0.30	
11715.00	90.340	179.010	6993.39	4244.28	-4208.28	699.04	40°08'47.103"N	104°30'34.587"W	1.31	
11809.00	90.400	178.550	6992.78	4338.19	-4302.25	701.04	40°08'46.174"N	104°30'34.574"W	0.49	
11904.00	90.220	181.320	6992.27	4432.99	-4397.24	701.15	40°08'45.236"N	104°30'34.587"W	2.92	
11998.00	90.980	181.820	6991.28	4526.60	-4491.20	698.57	40°08'44.307"N	104°30'34.633"W	0.97	
12093.00	89.970	178.960	6990.49	4621.35	-4586.19	697.93	40°08'43.369"N	104°30'34.655"W	3.19	
12187.00	88.950	178.180	6991.38	4715.27	-4680.15	700.27	40°08'42.440"N	104°30'34.639"W	1.37	
12281.00	88.430	179.490	6993.53	4809.15	-4774.10	702.18	40°08'41.512"N	104°30'34.628"W	1.50	
12376.00	88.400	180.120	6996.16	4903.94	-4869.07	702.51	40°08'40.573"N	104°30'34.637"W	0.66	
12470.00	88.400	180.600	6998.78	4997.68	-4963.03	701.92	40°08'39.645"N	104°30'34.658"W	0.51	
12565.00	88.210	180.870	7001.59	5092.36	-5057.98	700.70	40°08'38.707"N	104°30'34.688"W	0.35	
12659.00	89.720	180.990	7003.29	5186.04	-5151.95	699.17	40°08'37.778"N	104°30'34.721"W	1.61	
12754.00	90.400	179.710	7003.19	5280.80	-5246.94	698.59	40°08'36.840"N	104°30'34.742"W	1.53	
12848.00	91.940	183.480	7001.27	5374.37	-5340.87	695.98	40°08'35.912"N	104°30'34.789"W	4.33	
12943.00	90.990	183.320	6998.84	5468.62	-5435.67	690.35	40°08'34.976"N	104°30'34.875"W	1.01	
13037.00	91.050	183.750	6997.17	5561.86	-5529.47	684.55	40°08'34.049"N	104°30'34.963"W	0.46	
13132.00	90.950	182.780	6995.51	5656.16	-5624.30	679.14	40°08'33.113"N	104°30'35.047"W	1.03	
13226.00	90.370	180.300	6994.43	5749.76	-5718.26	676.62	40°08'32.185"N	104°30'35.093"W	2.71	
13321.00	90.180	177.910	6993.97	5844.64	-5813.24	678.10	40°08'31.246"N	104°30'35.087"W	2.52	
13416.00	90.980	176.340	6993.01	5939.62	-5908.11	682.87	40°08'30.308"N	104°30'35.039"W	1.85	
13510.00	90.990	176.390	6991.39	6033.61	-6001.91	688.82	40°08'29.381"N	104°30'34.976"W	0.05	
13605.00	90.860	176.370	6989.86	6128.60	-6096.70	694.82	40°08'28.443"N	104°30'34.913"W	0.14	
13699.00	90.400	174.780	6988.83	6222.58	-6190.41	702.07	40°08'27.516"N	104°30'34.833"W	1.76	
13794.00	89.630	175.010	6988.80	6317.55	-6285.04	710.53	40°08'26.580"N	104°30'34.737"W	0.85	
13889.00	89.480	174.750	6989.54	6412.51	-6379.65	719.00	40°08'25.645"N	104°30'34.642"W	0.32	
13983.00	89.480	174.650	6990.39	6506.47	-6473.25	727.69	40°08'24.719"N	104°30'34.544"W	0.11	



Actual Wellpath Report
WASTE MANAGEMENT Y23-712 AWP
Page 7 of 12



REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#01 WASTE MANAGEMENT Y23-712(787'FNL&756'FEL,SEC.11)
Area	COLORADO	Well	WASTE MANAGEMENT Y23-712
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WASTE MANAGEMENT Y23-712 AWB
Facility	SEC.11-T02N-R64W		

WELLPATH DATA (212 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
14078.00	89.750	175.800	6991.03	6601.45	-6567.92	735.59	40°08'23.782"N	104°30'34.455"W	1.24	
14172.00	89.660	178.100	6991.51	6695.44	-6661.77	740.60	40°08'22.854"N	104°30'34.405"W	2.45	
14267.00	89.660	179.260	6992.08	6790.35	-6756.75	742.78	40°08'21.916"N	104°30'34.390"W	1.22	
14361.00	89.630	179.490	6992.66	6884.22	-6850.74	743.81	40°08'20.987"N	104°30'34.390"W	0.25	
14456.00	90.520	180.510	6992.54	6979.02	-6945.74	743.81	40°08'20.048"N	104°30'34.404"W	1.42	
14550.00	90.180	184.600	6991.96	7072.45	-7039.62	739.62	40°08'19.121"N	104°30'34.471"W	4.37	
14645.00	90.430	179.300	6991.46	7166.96	-7134.53	736.39	40°08'18.183"N	104°30'34.527"W	5.59	
14739.00	90.800	177.920	6990.45	7260.88	-7228.50	738.67	40°08'17.255"N	104°30'34.511"W	1.52	
14834.00	90.580	177.490	6989.30	7355.85	-7323.41	742.47	40°08'16.316"N	104°30'34.475"W	0.51	
14928.00	90.740	176.940	6988.22	7449.83	-7417.29	747.04	40°08'15.388"N	104°30'34.430"W	0.61	
15023.00	89.480	175.460	6988.04	7544.82	-7512.08	753.33	40°08'14.451"N	104°30'34.363"W	2.05	
15117.00	89.290	174.010	6989.05	7638.78	-7605.68	761.96	40°08'13.525"N	104°30'34.265"W	1.56	
15212.00	89.410	177.520	6990.12	7733.75	-7700.40	768.97	40°08'12.588"N	104°30'34.189"W	3.70	
15306.00	88.890	180.940	6991.52	7827.61	-7794.36	770.24	40°08'11.659"N	104°30'34.186"W	3.68	
15401.00	88.890	181.350	6993.36	7922.26	-7889.33	768.34	40°08'10.721"N	104°30'34.224"W	0.43	
15495.00	89.140	180.620	6994.98	8015.94	-7983.30	766.72	40°08'09.793"N	104°30'34.258"W	0.82	
15590.00	89.480	181.110	6996.12	8110.63	-8078.28	765.29	40°08'08.855"N	104°30'34.290"W	0.63	
15779.00	89.420	180.140	6997.93	8299.09	-8267.26	763.23	40°08'06.987"N	104°30'34.344"W	0.51	
15873.00	89.420	181.440	6998.89	8392.81	-8361.24	761.93	40°08'06.059"N	104°30'34.374"W	1.38	
15968.00	89.420	182.430	6999.85	8487.35	-8456.18	758.72	40°08'05.121"N	104°30'34.429"W	1.04	
16062.00	89.480	183.730	7000.75	8580.69	-8550.04	753.67	40°08'04.194"N	104°30'34.508"W	1.38	
16252.00	89.420	178.460	7002.57	8769.96	-8739.93	750.04	40°08'02.318"N	104°30'34.582"W	2.77	
16346.00	89.260	178.040	7003.66	8863.91	-8833.88	752.91	40°08'01.389"N	104°30'34.558"W	0.48	
16440.00	89.380	177.530	7004.77	8957.87	-8927.80	756.55	40°08'00.461"N	104°30'34.525"W	0.56	
16535.00	89.480	176.680	7005.72	9052.86	-9022.67	761.35	40°07'59.523"N	104°30'34.477"W	0.90	
16629.00	89.910	178.820	7006.22	9146.82	-9116.59	765.04	40°07'58.594"N	104°30'34.443"W	2.32	
16724.00	90.490	182.170	7005.89	9241.56	-9211.58	764.21	40°07'57.656"N	104°30'34.467"W	3.58	
16819.00	90.340	182.630	7005.20	9336.02	-9306.49	760.24	40°07'56.719"N	104°30'34.532"W	0.51	
16913.00	90.550	182.430	7004.47	9429.47	-9400.40	756.09	40°07'55.791"N	104°30'34.599"W	0.31	
17008.00	90.370	181.800	7003.71	9523.99	-9495.33	752.58	40°07'54.853"N	104°30'34.658"W	0.69	



Actual Wellpath Report
WASTE MANAGEMENT Y23-712 AWP
Page 8 of 12



REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#01 WASTE MANAGEMENT Y23-712(787'FNL&756'FEL,SEC.11)
Area	COLORADO	Well	WASTE MANAGEMENT Y23-712
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WASTE MANAGEMENT Y23-712 AWB
Facility	SEC.11-T02N-R64W		

WELLPATH DATA (212 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
17102.00	90.520	181.730	7002.98	9617.57	-9589.28	749.69	40°07'53.925"N	104°30'34.708"W	0.18	
17197.00	90.120	181.010	7002.44	9712.20	-9684.25	747.41	40°07'52.987"N	104°30'34.751"W	0.87	
17291.00	90.550	181.000	7001.90	9805.89	-9778.23	745.77	40°07'52.059"N	104°30'34.786"W	0.46	
17386.00	90.370	180.090	7001.13	9900.63	-9873.23	744.86	40°07'51.120"N	104°30'34.811"W	0.98	
17480.00	90.490	177.260	7000.43	9994.54	-9967.19	747.04	40°07'50.191"N	104°30'34.797"W	3.01	
17575.00	89.820	178.650	7000.17	10089.50	-10062.12	750.43	40°07'49.253"N	104°30'34.767"W	1.62	
17670.00	89.880	179.390	7000.42	10184.39	-10157.11	752.05	40°07'48.314"N	104°30'34.760"W	0.78	
17764.00	90.000	180.090	7000.52	10278.23	-10251.11	752.48	40°07'47.385"N	104°30'34.768"W	0.76	
17859.00	90.430	179.940	7000.16	10373.03	-10346.11	752.45	40°07'46.446"N	104°30'34.782"W	0.48	
17953.00	90.980	178.870	6999.00	10466.89	-10440.09	753.43	40°07'45.518"N	104°30'34.783"W	1.28	
18047.00	91.020	177.770	6997.36	10560.82	-10534.04	756.18	40°07'44.589"N	104°30'34.761"W	1.17	
18142.00	90.120	177.140	6996.42	10655.79	-10628.94	760.40	40°07'43.651"N	104°30'34.720"W	1.16	
18237.00	90.150	177.400	6996.19	10750.78	-10723.83	764.93	40°07'42.713"N	104°30'34.675"W	0.28	
18331.00	90.120	178.290	6995.97	10844.75	-10817.76	768.46	40°07'41.784"N	104°30'34.643"W	0.95	
18426.00	90.950	178.500	6995.09	10939.68	-10912.72	771.12	40°07'40.845"N	104°30'34.623"W	0.90	
18521.00	90.920	179.670	6993.54	11034.56	-11007.69	772.64	40°07'39.907"N	104°30'34.617"W	1.23	
18615.00	90.890	180.550	6992.05	11128.34	-11101.68	772.46	40°07'38.978"N	104°30'34.633"W	0.94	
18710.00	91.350	180.500	6990.19	11223.07	-11196.66	771.59	40°07'38.040"N	104°30'34.658"W	0.49	
18804.00	91.450	179.420	6987.90	11316.85	-11290.63	771.65	40°07'37.111"N	104°30'34.670"W	1.15	
18899.00	91.390	179.180	6985.54	11411.70	-11385.59	772.81	40°07'36.173"N	104°30'34.669"W	0.26	
18993.00	91.450	178.130	6983.21	11505.59	-11479.54	775.02	40°07'35.244"N	104°30'34.654"W	1.12	
19088.00	90.770	178.320	6981.37	11600.52	-11574.47	777.96	40°07'34.306"N	104°30'34.630"W	0.74	
19182.00	90.680	178.690	6980.18	11694.45	-11668.43	780.41	40°07'33.377"N	104°30'34.612"W	0.41	
19277.00	89.910	176.010	6979.69	11789.42	-11763.32	784.81	40°07'32.439"N	104°30'34.569"W	2.94	
19371.00	89.850	175.040	6979.89	11883.41	-11857.03	792.14	40°07'31.512"N	104°30'34.488"W	1.03	
19465.00	90.580	174.620	6979.54	11977.38	-11950.65	800.61	40°07'30.586"N	104°30'34.392"W	0.90	
19560.00	89.050	174.600	6979.85	12072.33	-12045.22	809.53	40°07'29.650"N	104°30'34.291"W	1.61	
19655.00	87.910	175.000	6982.37	12167.26	-12139.80	818.14	40°07'28.715"N	104°30'34.194"W	1.27	
19749.00	89.880	176.750	6984.18	12261.23	-12233.53	824.90	40°07'27.788"N	104°30'34.120"W	2.80	
19844.00	89.820	179.420	6984.43	12356.18	-12328.47	828.07	40°07'26.849"N	104°30'34.093"W	2.81	



Actual Wellpath Report

WASTE MANAGEMENT Y23-712 AWP

Page 9 of 12



REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#01 WASTE MANAGEMENT Y23-712(787'FNL&756'FEL,SEC.11)
Area	COLORADO	Well	WASTE MANAGEMENT Y23-712
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WASTE MANAGEMENT Y23-712 AWB
Facility	SEC.11-T02N-R64W		

WELLPATH DATA (212 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
19892.00	89.720	181.070	6984.62	12404.07	-12376.47	827.87	40°07'26.375"N	104°30'34.103"W	3.44	Last BHI MWD Survey
19916.00	89.720	181.070	6984.74	12427.98	-12400.46	827.42	40°07'26.138"N	104°30'34.112"W	0.00	Projectin to Bit

HOLE & CASING SECTIONS - Ref Wellbore: WASTE MANAGEMENT Y23-712 AWB Ref Wellpath: WASTE MANAGEMENT Y23-712 AWP									
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]
13.5in Open Hole	30.00	2029.00	1999.00	30.00	2028.98	0.02	0.01	0.80	-3.10
9.625in Casing Surface	30.00	2029.00	1999.00	30.00	2028.98	0.02	0.01	0.80	-3.10
8.5in Open Hole	2029.00	19916.00	17887.00	2028.98	6984.74	0.80	-3.10	-12400.46	827.42



Actual Wellpath Report

WASTE MANAGEMENT Y23-712 AWP

Page 10 of 12



REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#01 WASTE MANAGEMENT Y23-712(787'FNL&756'FEL,SEC.11)
Area	COLORADO	Well	WASTE MANAGEMENT Y23-712
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WASTE MANAGEMENT Y23-712 AWB
Facility	SEC.11-T02N-R64W		

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
WASTE MANAGMENT Y23-712 SECTION 11	0.00	0.00	0.00	3276161.57	1301937.56	40°09'28.764"N	104°30'42.984"W	polygon
WASTE MANAGMENT Y23-712 SECTION 14	0.00	0.00	0.00	3276161.57	1301937.56	40°09'28.764"N	104°30'42.984"W	polygon
WASTE MANAGMENT Y23-712 SECTION 23	0.00	0.00	0.00	3276161.57	1301937.56	40°09'28.764"N	104°30'42.984"W	polygon
WASTE MANAGMENT Y23-712 SECTION 11 HARDLINE (460'SETBACK)	6700.00	0.00	0.00	3276161.57	1301937.56	40°09'28.764"N	104°30'42.984"W	polygon
WASTE MANAGMENT Y23-712 SECTION 14 HARDLINE (460'SETBACK)	6700.00	0.00	0.00	3276161.57	1301937.56	40°09'28.764"N	104°30'42.984"W	polygon
WASTE MANAGMENT Y23-712 SECTION 23 HARDLINE (460'SETBACK)	6700.00	0.00	0.00	3276161.57	1301937.56	40°09'28.764"N	104°30'42.984"W	polygon
WASTE MANAGMENT Y23-712 LANDING POINT_2	6940.00	130.00	635.00	3276796.54	1302067.55	40°09'29.979"N	104°30'34.787"W	point
WASTE MANAGMENT Y23-712 LANDING POINT	6960.00	130.00	635.00	3276796.54	1302067.55	40°09'29.979"N	104°30'34.787"W	point
WASTE MANAGMENT Y23-712 REV-2 BHL (2640'FNL&128'FEL,SEC.23)	7377.97	-12410.78	792.73	3276954.26	1289527.32	40°07'26.040"N	104°30'34.560"W	point
WASTE MANAGMENT Y23-712 BHL REV-1 (2640'FNL&128'FEL,SEC.23)	7397.97	-12410.78	792.73	3276954.26	1289527.32	40°07'26.040"N	104°30'34.560"W	point



Actual Wellpath Report

WASTE MANAGEMENT Y23-712 AWP

Page 11 of 12



REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#01 WASTE MANAGEMENT Y23-712(787'FNL&756'FEL,SEC.11)
Area	COLORADO	Well	WASTE MANAGEMENT Y23-712
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WASTE MANAGEMENT Y23-712 AWB
Facility	SEC.11-T02N-R64W		

WELLPATH COMPOSITION - Ref Wellbore: WASTE MANAGEMENT Y23-712 AWB Ref Wellpath: WASTE MANAGEMENT Y23-712 AWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	2024.00	Gyrodatta standard - Drop gyro or Multi-shot	BHI/ATC 8.5' Hole OWSG+IFR+MSA <84'-2024'>	WASTE MANAGEMENT Y23-712 AWB
2024.00	19892.00	OWSG MWD rev2 + IFR1 + Multi-Station Correction	BHI/ATC 8.5" Hole OWSG MWD+IFR+MSA <2070'-19892'>	WASTE MANAGEMENT Y23-712 AWB
19892.00	19916.00	Blind Drilling (std)	Projection to bit	WASTE MANAGEMENT Y23-712 AWB



Actual Wellpath Report

WASTE MANAGEMENT Y23-712 AWP

Page 12 of 12



REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#01 WASTE MANAGEMENT Y23-712(787'FNL&756'FEL,SEC.11)
Area	COLORADO	Well	WASTE MANAGEMENT Y23-712
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WASTE MANAGEMENT Y23-712 AWB
Facility	SEC.11-T02N-R64W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
2024.00	0.190	129.040	2023.98	Tie to Surface Gyro
19892.00	89.720	181.070	6984.62	Last BHI MWD Survey
19916.00	89.720	181.070	6984.74	Projectin to Bit

COMMENTS	
<div>Wellpath general comments</div> <div>SURFACE LOCATION: NENE</div> <div>40.15799N</div> <div>104.51194W</div> <div>API: 05-123-44840</div>	