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PRINCIPAL FACTS FOR GRAVITY STATIONS IN  
THE RAFT RIVER VALLEY, IDAHO

BY

DON R. MABEY

ABBREVIATION OF HEADINGS OF THE ACCOMPANYING TABLES OF PRINCIPAL  
FACTS ARE EXPLAINED IN THE FOLLOWING LIST.

STATION	STATION DESIGNATION
LAT	NORTH LATITUDE IN DEGREES, MINUTES, AND HUNDREDTHS OF MINUTES
LONG	WEST LONGITUDE IN DEGREES, MINUTES, AND HUNDREDTHS OF MINUTES
ELEV(F)	ELEVATION ABOVE SEA LEVEL IN FEET
E	NO SIGNIFICANCE
OBS G	OBSERVED GRAVITY IN MILLIGALS MINUS 978000 MILLIGALS
FAA	FREE AIR ANOMALY IN MILLIGALS
BA 2.67	SIMPLE BOUGUER ANOMALY IN MILLIGALS FOR AN ASSUMED DENSITY OF 2.67 G PER CC
BA (OPT)	SIMPLE BOUGUER ANOMALY IN MILLIGALS FOR AN ASSUMED DENSITY OF 2.45 G PER CC

THESE DATA ARE REFERENCED TO AN OBSERVED GRAVITY VALUE OF 980031.1 MILLIGALS  
AT A POINT 4.5 FEET LOWER AND 1 FOOT NORTH OF BM S30 ON THE NORTH FACE OF  
RAILROAD STATION IN MINIDOKA, IDAHO.

**UNIVERSITY OF UTAH  
RESEARCH INSTITUTE  
EARTH SCIENCE LAB.**

STATION	LAT	LONG	ELEV(F)	E	OBS G	FAA	BA2.67	BA(OPT)		
BRIDGE	42	9.80	113	23.54	4713.0	0	1913.83	-16.83	-177.57	-154.33
RR001	42	13.31	113	19.65	4522.0	0	1949.88	-12.22	-166.45	-153.74
RR002	42	13.85	113	20.95	4488.0	0	1952.75	-12.60	-165.67	-153.06
RR003	42	13.84	113	22.15	4508.0	0	1953.60	-9.86	-163.61	-150.94
MALTA	42	21.02	113	22.13	4476.0	0	1964.38	-5.36	-158.02	-145.44
RR004	42	1.49	113	11.80	5428.0	0	1887.89	36.36	-148.27	-133.61
RR005	42	1.50	113	10.65	5667.0	0	1875.59	47.01	-146.27	-133.35
RR006	42	1.61	113	9.40	6031.0	0	1857.85	63.32	-142.38	-125.43
RR007	42	1.29	113	12.98	5257.0	0	1893.20	26.40	-152.89	-138.12
RR008	42	3.01	113	14.20	5123.0	0	1891.92	9.95	-164.78	-150.38
RR009	42	5.57	113	16.80	4931.0	0	1893.16	-10.68	-178.86	-165.00
RR010	42	6.25	113	17.60	4842.0	0	1897.69	-15.53	-180.67	-167.07
RR011	42	6.90	113	18.46	4785.0	0	1900.42	-19.13	-182.33	-168.88
RR012	42	7.75	113	19.98	4745.0	0	1905.44	-19.14	-180.98	-167.64
RR013	42	7.11	113	19.90	4757.0	0	1903.67	-13.33	-181.07	-167.70
RR014	42	6.39	113	19.97	4780.0	0	1900.55	-18.26	-181.29	-167.85
RR015	42	5.41	113	19.97	4810.0	0	1897.65	-17.32	-181.37	-167.85
RR016	42	4.30	113	19.96	4874.0	0	1892.06	-15.24	-181.47	-167.78
RR017	42	4.08	113	18.83	4875.0	0	1892.65	-14.22	-180.49	-166.79
RR018	42	4.30	113	18.34	4938.0	0	1890.57	-10.71	-179.13	-165.25
RR019	42	2.23	113	18.00	5026.0	0	1892.83	2.92	-168.50	-154.38
RR020	42	1.50	113	17.20	5149.0	0	1894.30	17.04	-158.57	-144.10
RR021	42	0.60	113	16.21	5286.0	0	1889.99	26.96	-153.33	-138.48
RR022	42	0.61	113	17.82	5269.0	0	1889.49	24.84	-154.87	-140.06
RR023	42	0.60	113	19.84	5244.0	0	1888.70	21.71	-157.14	-142.40
RR025	42	1.43	113	20.05	5189.0	0	1887.88	14.48	-162.50	-147.91
RR026	42	0.57	113	20.40	5396.0	0	1877.32	24.66	-159.38	-144.21
RR027	42	0.55	113	21.22	5495.0	0	1870.63	27.31	-160.11	-144.67
RR028	42	0.54	113	23.63	5561.0	0	1866.10	28.99	-160.67	-145.05
RR029	42	0.52	113	24.70	5563.0	0	1861.52	24.64	-165.10	-149.46
RR030	42	0.72	113	25.95	5489.0	0	1862.12	17.98	-169.23	-153.80
RR031	42	0.70	113	27.05	5555.0	0	1852.01	14.10	-175.36	-159.75
RR032	42	1.35	113	28.38	5419.0	0	1860.84	9.18	-175.64	-160.42
RR033	42	1.32	113	8.38	5469.0	0	1844.88	-2.03	-188.56	-173.19
RR038	42	1.53	113	27.60	5419.0	0	1859.68	7.75	-177.07	-161.84
RR039	42	1.42	113	25.55	5388.0	0	1868.19	13.51	-170.26	-155.11
RR040	42	2.89	113	25.90	5160.0	0	1880.82	2.51	-173.48	-158.98
RR041	42	2.90	113	24.30	5150.0	0	1880.47	1.21	-174.44	-159.97
RR042	42	2.32	113	22.94	5225.0	0	1881.22	9.87	-168.33	-153.65
RR043	42	4.07	113	22.38	4964.0	0	1887.98	-10.51	-179.81	-165.86
RR044	42	4.07	113	21.23	4934.0	0	1889.11	-12.20	-180.48	-166.62
RR045	42	6.44	113	22.38	4780.0	0	1902.44	-16.89	-179.92	-166.49
RR046	42	6.45	113	20.87	4826.0	0	1899.38	-15.65	-180.25	-166.68

RR047	42	5.80	113	23.02	4838.0	0	1898.52	-14.40	-179.41	-165.81
RR048	42	6.35	113	23.33	4907.0	0	1896.42	-10.84	-178.22	-164.41
RR049	42	5.72	113	24.12	4896.0	0	1894.72	-12.54	-179.52	-165.56
RR050	42	5.22	113	25.30	4944.0	0	1892.80	-9.30	-177.92	-164.03
RR051	42	4.84	113	26.15	4960.0	0	1891.86	-8.16	-177.33	-163.39
RR052	42	4.04	113	27.91	4979.0	0	1887.19	-9.85	-179.67	-165.67
RR053	42	3.82	113	29.05	5004.0	0	1883.07	-11.29	-181.96	-167.90
RR054	42	7.30	113	27.66	5872.0	0	1848.60	30.61	-169.66	-153.16
RR055	42	7.20	113	26.65	5494.0	0	1872.27	18.91	-168.47	-153.03
RR056	42	6.95	113	25.50	5239.0	0	1884.23	7.23	-171.41	-156.68
RR057	42	7.21	113	24.50	5104.0	0	1893.42	3.39	-170.69	-156.35
RR058	42	8.39	113	25.35	5318.0	0	1890.39	18.70	-162.68	-147.73
RR059	42	8.48	113	27.42	5906.0	0	1850.04	33.48	-167.95	-151.36
RR060	42	8.97	113	26.05	5490.0	0	1878.55	22.16	-165.09	-149.66
RR061	42	9.80	113	26.35	5671.0	0	1867.34	26.72	-166.70	-150.76
RR062	42	10.84	113	25.59	5435.0	0	1889.63	25.28	-160.09	-144.02
RR063	42	11.63	113	25.84	5418.0	0	1891.67	24.53	-160.26	-149.03
RR064	42	12.24	113	24.18	5052.0	0	1910.08	7.63	-164.68	-150.48
RR065	42	8.74	113	20.18	4723.0	0	1909.13	-19.00	-180.09	-166.82
RR066	42	7.55	113	18.55	4750.0	0	1903.54	-20.27	-182.28	-168.93
RR067	42	7.55	113	16.18	4908.0	0	1899.55	-9.42	-176.81	-163.02
RR068	42	7.55	113	15.67	4956.0	0	1898.83	-5.62	-174.55	-160.73
RR069	42	7.56	113	14.25	5202.0	0	1894.21	12.87	-164.56	-149.94
RR070	42	7.59	113	12.91	5444.0	0	1886.82	28.18	-157.50	-142.20
RR071	42	6.90	113	11.77	5705.0	0	1874.65	41.56	-153.01	-136.99
RR072	42	6.89	113	12.89	5468.0	0	1884.09	28.75	-157.75	-142.38
RR073	42	8.54	113	18.56	4719.0	0	1908.40	-19.96	-180.91	-167.65
RR074	42	10.15	113	18.85	4673.0	0	1915.98	-18.96	-178.34	-165.21
RR075	42	10.12	113	16.80	4806.0	0	1911.84	-10.56	-174.47	-160.97
RR076	42	11.67	113	16.89	4739.0	0	1919.55	-11.46	-173.09	-159.77
RR077	42	13.93	113	16.54	4647.0	0	1935.95	-7.09	-165.58	-152.52
RR078	42	13.17	113	15.36	4804.0	0	1922.09	-5.06	-168.91	-155.41
RR079	42	11.85	113	12.35	5508.0	0	1897.22	38.21	-149.65	-134.17
RR080	42	12.75	113	14.18	5035.0	0	1915.11	10.30	-161.43	-147.28
RR081	42	14.49	113	18.83	4571.0	0	1938.15	-12.88	-168.78	-155.93
RR082	42	13.27	113	18.85	4602.0	0	1931.33	-14.96	-171.92	-158.98
RR083	42	12.11	113	18.82	4626.0	0	1926.13	-16.16	-173.94	-160.94
RR084	42	12.07	113	19.98	4622.0	0	1925.99	-16.62	-174.27	-161.28
RR085	42	9.05	113	21.06	4761.0	0	1909.15	-15.88	-178.26	-164.88
RR086	42	8.25	113	21.57	4818.0	0	1903.66	-14.81	-179.14	-165.60
RR087	42	8.18	113	24.07	5127.0	0	1896.62	7.30	-167.57	-153.16
RR088	42	7.60	113	22.06	4867.0	0	1899.72	-13.17	-179.17	-165.49
RR089	42	10.78	113	20.76	4709.0	0	1917.22	-15.28	-175.88	-162.65
RR090	42	11.90	113	21.13	4689.0	0	1922.44	-13.61	-173.54	-160.36
RR091	42	12.75	113	21.40	4671.0	0	1926.13	-12.89	-172.20	-159.08
RR092	42	11.93	113	22.25	4809.0	0	1917.11	-7.71	-171.73	-158.22
RR093	42	10.82	113	23.69	5005.0	0	1915.55	10.81	-159.89	-145.83
RR094	42	13.53	113	21.57	4634.0	0	1929.40	-14.26	-172.31	-159.29
RR095	42	14.50	113	21.86	4604.0	0	1930.66	-17.28	-174.31	-161.37
RR096	42	16.87	113	22.10	4548.0	0	1942.58	-14.17	-169.29	-156.51
RR097	42	17.10	113	23.32	4575.0	0	1943.90	-10.66	-166.70	-153.84
RR098	42	17.10	113	24.75	4670.0	0	1939.27	-6.35	-165.63	-152.51
RR099	42	16.77	113	26.40	4782.0	0	1942.45	7.84	-155.26	-141.82
RR100	42	15.67	113	26.13	4810.0	0	1931.50	1.17	-162.88	-149.37
RR101	42	13.82	113	24.02	4825.0	0	1920.12	-6.03	-170.60	-157.04
RR102	42	12.95	113	24.90	5020.0	0	1912.51	5.99	-165.22	-151.12
RR103	42	13.15	113	26.82	5430.0	0	1892.98	24.70	-160.50	-145.24

RR104	4	6.76	113	29.98	4900.0	0	1941.33	17.82	-149.30	-135.53
RR105	4	6.55	113	27.39	4769.0	0	1947.60	12.10	-150.55	-137.15
RR106	42	20.98	113	23.04	4586.0	0	1960.24	0.91	-155.51	-142.62
RR107	42	21.28	113	23.95	4812.0	0	1953.07	14.53	-149.59	-136.06
RR108	42	21.00	113	21.12	4446.0	0	1962.32	-10.21	-161.84	-149.35
RR109	42	20.35	113	19.36	4499.0	0	1954.79	-11.77	-165.22	-152.57
RR110	42	19.69	113	18.31	4547.0	0	1953.27	-7.80	-162.88	-150.11
RR111	42	19.69	113	16.47	4604.0	0	1955.64	-0.07	-157.10	-144.16
RR112	42	19.69	113	15.64	4634.0	0	1947.95	-4.94	-162.99	-149.97
RR113	42	19.68	113	14.13	4698.0	0	1939.87	-6.99	-167.22	-154.02
RR114	42	19.68	113	12.92	4759.0	0	1933.94	-7.19	-169.50	-156.12
RR115	42	18.80	113	12.89	4779.0	0	1934.24	-3.69	-166.69	-153.26
RR116	42	17.90	113	12.08	4787.0	0	1933.53	-2.30	-165.57	-152.11
RR117	42	16.22	113	10.60	4934.0	0	1926.16	11.36	-158.63	-144.62
RR118	42	16.21	113	11.77	4908.0	0	1928.53	6.60	-160.79	-147.00
RR119	42	15.35	113	11.77	5023.0	0	1925.21	15.36	-155.94	-141.82
RR120	42	16.20	113	12.89	4825.0	0	1931.53	1.82	-162.74	-149.18
RR121	42	16.19	113	14.13	4750.0	0	1930.86	-5.89	-167.89	-154.54
RR122	42	16.10	113	15.94	4663.0	0	1936.34	-8.45	-167.49	-154.38
RR123	42	15.86	113	17.60	4606.0	0	1941.72	-8.07	-165.17	-152.22
RR124	42	16.55	113	18.83	4561.0	0	1945.65	-9.55	-165.11	-152.29
RR125	42	17.95	113	18.85	4568.0	0	1950.58	-5.91	-161.70	-148.87
RR126	42	15.80	113	20.35	4542.0	0	1940.62	-15.09	-170.00	-157.24
RR127	42	15.79	113	21.55	4547.0	0	1937.87	-17.35	-172.44	-159.66
RR128	42	17.73	113	22.11	4529.0	0	1946.26	-13.56	-168.03	-155.31
RR129	42	29.58	113	12.90	4487.0	0	1987.37	5.85	-147.19	-134.58
RR130	42	28.40	113	3.80	4726.0	0	1973.22	15.93	-145.26	-131.98
RR131	42	26.60	113	9.70	5081.0	0	1946.54	25.31	-147.98	-133.70
RR132	42	25.05	113	10.61	4980.0	0	1946.30	17.90	-151.95	-137.95
RR133	42	24.90	113	11.75	4752.0	0	1964.40	14.80	-147.28	-133.92
RR134	42	24.90	113	12.94	4629.0	0	1975.42	14.26	-143.62	-130.61
RR135	42	25.78	113	12.88	4659.0	0	1978.31	18.65	-140.25	-127.16
RR136	42	26.63	113	12.91	4625.0	0	1982.33	18.20	-139.54	-126.55
RR137	42	27.50	113	12.93	4558.0	0	1981.13	9.40	-146.06	-133.25
RR138	42	28.42	113	12.93	4533.0	0	1983.55	8.09	-146.51	-133.77
RR139	42	28.45	113	14.11	4483.0	0	1990.34	10.14	-142.76	-130.16
RR140	42	24.02	113	10.60	4931.0	0	1949.01	17.55	-150.63	-136.78
RR141	42	23.17	113	10.60	4890.0	0	1950.05	16.01	-150.77	-137.03
RR142	42	22.29	113	10.60	4900.0	0	1942.47	10.68	-156.44	-142.67
RR143	42	21.40	113	10.60	4874.0	0	1937.92	5.03	-161.21	-147.51
RR144	42	20.51	113	10.60	4850.0	0	1934.68	0.86	-164.56	-150.93
RR145	42	19.63	113	9.91	4887.0	0	1936.06	7.04	-159.64	-145.91
RR149	42	19.65	113	8.22	5117.0	0	1930.55	23.11	-151.41	-137.03
RR150	42	17.93	113	8.24	5086.0	0	1922.87	15.09	-158.37	-144.08
RR151	42	17.05	113	8.23	5103.0	0	1918.71	13.86	-160.19	-145.85
RR153	42	16.20	113	8.20	5027.0	0	1925.19	14.46	-156.99	-142.87
RR154	42	17.95	113	10.60	4923.0	0	1928.15	5.03	-162.88	-149.04
RR155	42	19.66	113	11.20	4835.0	0	1931.83	-2.13	-167.03	-153.44
RR156	42	21.37	113	12.89	4715.0	0	1942.71	-5.09	-165.90	-152.65
RR157	42	20.55	113	23.97	4599.0	0	1953.16	-4.30	-161.16	-148.24
RR111R	42	19.69	113	16.47	4604.0	0	1955.67	-0.04	-157.07	-144.13
RR158	42	21.43	113	16.46	4587.0	0	1954.44	-5.47	-161.92	-149.03
RR159	42	21.44	113	17.68	4542.0	0	1959.51	-4.65	-159.56	-146.80
RR160	42	19.70	113	17.68	4566.0	0	1955.81	-3.48	-159.21	-146.38
RR161	42	17.95	113	16.50	4642.0	0	1944.92	-4.61	-162.94	-149.89
RR162	42	19.70	113	22.13	4496.0	0	1956.65	-9.23	-162.57	-149.93

RR163	42	18.21	113	23.60	4618.0	0	1950.14	-2.04	-159.54	-146.57
RR165	42	13.77	113	29.74	5439.0	0	1916.80	40.95	-144.54	-129.27
RR166	42	19.82	113	29.86	5740.0	0	1903.37	54.23	-141.54	-125.41
RR170	42	29.28	113	25.91	4478.0	0	1976.03	-5.89	-158.61	-146.03
RR171	42	29.28	113	25.10	4509.0	0	1975.60	-3.41	-157.20	-144.52
RR172	42	29.28	113	24.20	4452.0	0	1975.09	-9.27	-161.11	-148.60
RR173	42	29.29	113	22.42	4429.0	0	1974.62	-11.92	-162.98	-150.53
RR174	42	29.29	113	20.91	4410.0	0	1972.14	-16.13	-166.58	-154.19
RR175	42	27.28	113	19.39	4386.0	0	1972.95	-17.62	-167.21	-154.88
RR176	42	29.29	113	17.67	4396.0	0	1977.86	-11.78	-161.71	-149.36
RR177	42	29.23	113	15.30	4430.0	0	1992.00	5.64	-145.45	-133.00
RR178	42	29.29	113	17.03	4364.0	0	1982.63	-10.02	-156.86	-146.60
RR179	42	28.40	113	17.68	4328.0	0	1979.68	-15.02	-162.63	-150.47
RR180	42	27.54	113	17.67	4384.0	0	1975.36	-12.79	-162.31	-149.99
RR181	42	26.67	113	17.68	4393.0	0	1973.49	-12.51	-162.34	-150.00
RR182	42	25.80	113	17.68	4432.0	0	1968.99	-12.04	-163.20	-150.75
RR183	42	24.43	113	17.09	4467.0	0	1967.95	-7.74	-160.09	-147.54
RR184	42	24.93	113	15.32	4506.0	0	1972.15	-0.62	-154.30	-141.64
RR185	42	24.90	113	14.23	4556.0	0	1980.03	12.00	-143.39	-130.58
RR186	42	23.40	113	16.22	4540.0	0	1966.09	-1.19	-156.04	-143.28
RR187	42	23.70	113	17.22	4503.0	0	1965.57	-5.64	-159.23	-146.57
RR188	42	24.94	113	18.20	4449.0	0	1966.17	-11.97	-163.71	-151.21
RR189	42	24.93	113	19.99	4394.0	0	1966.18	-17.12	-166.98	-154.63
RR190	42	24.94	113	21.27	4385.0	0	1965.54	-18.62	-168.18	-155.85
RR191	42	24.94	113	23.97	4422.0	0	1963.94	-16.74	-167.56	-155.13
RR192	42	24.46	113	25.15	4560.0	0	1961.78	-5.21	-160.73	-147.92
RR193	42	24.07	113	25.92	4755.0	0	1953.45	-5.37	-156.80	-143.44
RR194	42	23.38	113	22.82	4425.0	0	1965.15	-12.91	-163.83	-151.39
RR195	42	21.81	113	22.15	4452.0	0	1963.26	-9.92	-161.76	-149.25
RR196	42	22.61	113	22.30	4431.0	0	1967.68	-8.66	-159.79	-147.33
RR197	42	26.50	113	24.20	4404.0	0	1971.51	-13.20	-163.40	-151.03
RR198	42	27.55	113	24.20	4412.0	0	1976.24	-9.29	-159.77	-147.37
RR199	42	28.99	113	28.30	5707.0	0	1903.07	37.09	-157.55	-141.51
RR200	42	27.75	113	28.30	5887.0	0	1892.82	45.61	-155.17	-138.63
RR201	42	26.30	113	29.10	5780.0	0	1900.09	45.00	-152.14	-135.89
RR203	42	21.10	113	28.17	6645.0	0	1837.77	71.76	-154.88	-136.21
RR372	42	15.30	113	28.62	5217.0	0	1914.31	22.79	-155.14	-140.48
RR373	42	0.45	113	28.35	5671.0	0	1844.51	17.88	-175.54	-159.60

RR376	42	4.22	113	15.18	5054.0	0	1891.15	0.89	-171.48	-157.28
RR391	42	14.45	113	23.37	4697.0	0	1927.56	-11.57	-171.77	-158.57
RR392	42	15.51	113	24.88	4750.0	0	1930.35	-5.38	-167.39	-154.04
RR393	42	14.78	113	25.64	4931.0	0	1917.65	0.03	-168.15	-154.29
RR394	42	13.65	113	25.12	5032.0	0	1911.30	4.86	-166.76	-152.62
RR395	42	13.06	113	23.06	4823.0	0	1918.51	-6.68	-171.18	-157.63
RR396	42	11.13	113	24.33	5136.0	0	1907.21	14.32	-160.85	-146.42
RR397	42	10.42	113	24.29	5125.0	0	1908.94	16.08	-158.72	-144.32
RR398	42	10.08	113	25.02	5264.0	0	1901.63	22.34	-157.20	-142.41
RR411	42	10.98	113	22.05	4802.0	0	1914.92	-9.14	-172.92	-159.42
RR399	42	10.14	113	22.39	4868.0	0	1912.09	-4.51	-170.54	-156.86
RR400	42	10.13	113	23.55	5016.0	0	1913.37	10.70	-160.38	-146.29
RR401	42	9.26	113	22.76	4950.0	0	1907.53	-0.05	-168.87	-154.96
RR402	42	5.58	113	21.80	4839.0	0	1897.60	-14.90	-179.95	-166.35
RR403	42	4.97	113	24.12	4876.0	0	1896.98	-11.13	-177.43	-163.73
RR404	42	4.05	113	24.70	5011.0	0	1887.49	-6.55	-177.46	-163.38
RR405	42	5.23	113	26.55	5236.0	0	1876.46	1.80	-176.78	-162.07
RR406	42	13.40	113	19.98	4590.0	0	1931.25	-16.35	-172.90	-160.00