Ground Water and Surface Water Stable Isotope Data for East Maui, Hawaii

Supplement to Scholl et al., 2002, Journal of Hydrology, The influence of microclimates and fog on stable isotope signatures used in interpretation of regional hydrology: East Maui, Hawaii

Sample Location	Field ID Number	USGS or State ID	Latitude	Longitude	Date Collected	Altitude (feet)	Altitude (meters)	delta D (per mil)	delta O-18 (per mil)	Chloride (mg/L)	Field Sp. cond (uS/cm)	Field Temperature (degrees C)
Arboretum spring at 160 ft	G136	205235156090801	20.860	156.152	5/28/99	160	48.8	-9	-2.97	--	147.7	25
Awalau spring	G92	205259156172501	20.883	156.290	11/18/97	1420	432.8	-8	-2.81	12	70.9	19.9
Banana Spring	G70		20.833	156.156	9/11/97	720	219.4	-16	-3.84	--	131	18.7
Big Spring	G10		20.817	156.108	9/13/95	787	239.9	-22	-4.95	--	225	15.7
Big Spring	G38		20.817	156.108	9/9/96	787	239.9	-23	-4.81	4	232	15.6
Blue Pool spring	G44A		20.811	156.060	3/1/97	5	1.5	-15	-3.77	--	55	20.6
Blue Pool spring	G142		20.811	156.060	5/10/01	5	1.5	-9	-3.18	--	--	--
Blue Pool waterfall	G44B		20.811	156.060	3/1/97	80	24.4	-16	-3.90	--	54	20.6
Hamakuapoko well #1	G76	5420-02	20.899	156.337	8/4/97	702	214	-13	-3.55	--	--	--
Hanawi gulch, left bank spring at gage	G8		20.810	156.117	9/13/95	1325	403.8	-11	-3.17	--	63	19.2
Hanawi gulch, Spring 1	G13		20.818	156.107	9/13/95	600	182.9	-10	-3.25	--	55	20.5
Hanawi beach spring	G40		20.828	156.102	9/10/96	35	10.7	-8	-3.31	10	97	--
Hanawi stream at gage 5080	G9		20.810	156.117	9/13/95	1315	400.8	-9	-3.25	--	44.8	19.7
Hanawi stream before Spring 1	G12		20.818	156.111	9/13/95	575	175.3	-22	-4.64	--	207	16.8
Hanawi stream waterfall	G11		20.816	156.109	9/13/95	825	251.4	-12	-3.23	--	59.5	21.4
Hanawi stream at Hana highway	G17		20.812	156.113	2/26/96	1080	329.2	--	-3.8	--	--	19.1
Hanawi stream at lower gage	G16		20.821	156.107	2/26/96	500	152.4	--	-4.14	--	--	18.3
Hanawi stream at highway	G52		20.813	156.112	3/2/97	1080	329.2	-18	-4.34	--	42.6	19.9
Hanawi stream at mouth	G50		20.828	156.104	3/2/97	20	6.1	-18	-4.36	--	217	19.4
Heleleikeoha stream at highway	G46		20.801	156.064	3/1/97	660	201.2	-32	-5.55	--	23	24
Hokoana well, Maliko	G79	205611156203001	20.936	156.342	10/27/97	35	10.7	-10	-3.18	85	554	23.6
Honolulunui spring	G41		20.813	156.107	9/10/96	1000	304.8	-9	-3.19	7	47	19.9
Honomanu spring, shore	G21		20.864	156.170	2/26/96	1	0.3	--	-3.3	--	--	20.2
Honomanu spring, streambed	G2		20.860	156.172	9/10/95	30	9.1	-10	-3.10	--	156	20.9
Honomanu spring, streambed	G20		20.860	156.172	2/26/96	30	9.1	-9	-3.03	--	--	21.1
Hoolawa 1	G103	205559156142901	20.933	156.241	2/5/98	15	4.6	-6	-2.46	34	1030	18.4
Hoolawa 2A	G104	205501156144001	20.917	156.244	2/5/98	315	96.0	-7	-2.71	25	126.1	20.9
Hoolawa 3	G105	205458156143801	20.916	156.244	2/5/98	400	121.9	-6	-2.57	19	97.1	19.5
Hoolawa 6	G106	205427156144901	20.908	156.247	2/5/98	600	182.9	-5	-2.68	16	--	--
Hoolawa 8	G107	205315156145301	20.888	156.248	2/5/98	1210	368.8	-5	-2.76	9	63.5	16.2
Hoolawa 10	G108	205424156144001	20.907	156.244	2/5/98	620	189.0	-6	-2.81	15	--	--
Hoolawa 12	G109	205318156143601	20.888	156.243	2/5/98	1220	371.8	-5	-2.84	10	54.8	14.9
Hoolawa spring	G110	205322156144201	20.889	156.245	2/5/98	1200	365.7	-6	-2.81	15	75	20
Hosmer's Grove spring	G5		20.776	156.240	9/12/95	6520	1987.2	-25	-4.88	--	46	11
Hosmer's Grove spring	G15		20.776	156.240	2/25/96	6520	1987.2	-22	-5.03	--	--	10.7
Hosmer's Grove spring	G26		20.776	156.240	9/4/96	6520	1987.2	-31	-5.77	--	--	--
Hosmer's Grove spring	G60		20.776	156.240	3/5/97	6520	1987.2	-33	-6.26	--	--	--
Hosmer's Grove spring	G61		20.776	156.240	9/8/97	6520	1987.2	-28	-5.27	--	27.7	13.9

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Kanemoeala spring	G102	205644156194901	20.946	156.330	11/19/97	50	15.2	-11	-3.11	38	390	22.9
Kapaula Dike spring	G137	204937156063701	20.827	156.110	4/20/00	4	1.2	-20	-4.68	--	--	--
Kapaula spring at 950 ft	G138	204903156070001	20.818	156.117	4/19/00	950	289.5	-10	-3.28	--	--	--
Kauhikoa spring, Maliko	G77	205335156193001	20.893	156.325	10/27/97	580	176.8	-9	-3.09	20	146.3	21.4
Kaupakulua 1	G96	205636156180501	20.943	156.301	11/17/97	5	1.5	-5	-2.81	8	53.5	21.3
Kaupakulua 3	G97	205546156180801	20.929	156.302	11/17/97	350	106.7	-8	-2.89	21	129.4	21.8
Kaupakulua 5	G98	205446156175401	20.913	156.298	11/17/97	630	192.0	-8	-2.96	10	62	21.1
Kaupakulua 9	G100	205352156173301	20.898	156.293	11/18/97	1030	313.9	-10	-2.96	12	76.1	20.4
Kaupakulua 11	G93	205156156170601	20.866	156.285	11/18/97	1780	542.5	-10	-3.31	7	53.5	17.6
Kaupakulua 12	G94	205201156171201	20.867	156.287	11/18/97	2030	618.7	-10	-3.35	7	51.8	18.5
Kaupakulua 13	G95	205110156162401	20.853	156.287	11/18/97	2250	685.8	-10	-3.40	7	47.4	18.3
Kaupakulua 14	G101	205248156170201	20.880	156.284	11/18/97	1400	426.7	-8	-2.93	11	60.1	18.9
Keanae well	G36		20.851	156.138	9/9/96	214	65.2	-19	-4.52	16	236	18.9
Kopiliula spring at 110 Ft	G123	205059156072001	20.833	156.122	5/10/99	110	33.5	-5	-2.58	23	106.7	22.3
Kopiliula spring at highway	G127	204912156081301	20.820	156.137	5/10/99	1270	387.1	-5	-2.72	12	109.3	20.4
Kopiliula stream at 160 Ft	G124	205059156072601	20.833	156.124	5/10/99	160	48.8	-11	-3.41	10	99.4	24.1
Kopiliula stream at highway	G126	204910156081201	20.819	156.137	5/10/99	1270	387.1	-8	-3.10	8	65.6	21.6
Kuhiwa well	G6	4806-48	20.803	156.105	9/13/95	1396	425.5	-38	-6.16	--	942	17.6
Kuhiwa well	G37	4806-48	20.803	156.105	9/9/96	1396	425.5	-32	-6.07	6	966	18.7
Kuhiwa well	G133	204810156062001	20.803	156.106	5/12/99	1396	425.5	-31	-6.05	7	940	18.5
Kuhiwa well	G141	204810156062001	20.803	156.106	4/18/00	1396	425.5	-31	-6.03	--	--	--
Kuiaha 6	G80	205545156191601	20.929	156.321	10/29/97	310	94.5	-10	-2.98	23	188.9	22.1
Kuiaha 7 down	G82	205528156191901	20.924	156.322	10/29/97	360	109.7	-9	-2.97	22	172.4	24.9
Kuiaha 7 up	G81	205523156193001	20.923	156.325	10/29/97	380	115.8	-9	-2.93	20	146.6	23.8
Kuiaha 9	G83	205456156193001	20.916	156.325	10/29/97	530	161.5	-6	-2.75	11	83.8	20.9
Kuiaha 11	G84	205343156185801	20.895	156.316	10/29/97	960	292.6	-10	-3.09	20	140.4	20.5
Kuiaha 14	G85	205529156190601	20.925	156.318	10/28/97	375	114.3	-7	-2.78	24	167.2	22.9
Kuiaha 15	G86	205503156191001	20.918	156.319	10/28/97	475	144.8	-8	-2.86	23	158.8	22.2
Kuiaha 16 (above ditch)	G87	205451156185701	20.914	156.316	10/28/97	560	170.7	-9	-2.91	23	131	22.2
Kuiaha 22	G88	205443156184501	20.912	156.313	10/28/97	575	175.3	-8	-2.70	22	135.2	22.2
Kuiaha 23	G89	205344156182301	20.896	156.306	10/28/97	930	283.5	-7	-2.96	12	87	23.5
Kuiaha 25	G90	205252156182101	20.881	156.306	10/28/97	1260	384.0	-9	-2.98	12	89.3	20.5
Kuiaha 26	G91	205222156181101	20.873	156.303	10/28/97	1420	432.8	-7	-3.04	11	80.7	19.7
Levinson well	G27		20.924	156.233	9/5/96	359	109.4	-9	-2.78	53	326	--
Lower Kula spring	G111	205030156154501	20.842	156.263	2/6/98	2800	853.4	-9	-3.32	7	--	--
Maalaea spring	G23		20.787	156.466	2/27/96	10	3.0	-10	-2.86	--	--	26.2
Makapipi stream at bridge	G132	205042156064701	20.828	156.096	5/12/99	80	24.4	-8	-3.44	9	63.8	20.6
Makapipi stream at highway	G48		20.811	156.099	3/2/97	900	274.3	-13	-3.42	--	50.3	19.2
Makapipi stream at mouth	G49		20.830	156.097	3/2/97	50	15.2	-19	-4.33	--	59.1	21.2
Makapipi stream at mouth	G131	205050156064801	20.831	156.097	5/12/99	2	0.6	-12	-3.45	8	64.5	21.1
Makapipi Tunnel (East)	G7		20.805	156.107	9/13/95	1380	420.6	-12	-3.24	--	49	18.6
Makapipi Tunnel	G134	204812156062001	20.803	156.106	5/12/99	1380	420.6	-5	-2.97	9	49.1	18.5
Maliko 15, Waiohiwi Falls	G78	205103156171501	20.851	156.288	10/29/97	1960	597.4	-13	-3.50	9	62.9	19.5

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Maliko Gulch spring	G30		20.936	156.342	9/6/96	102	31.1	-8	-2.95	19	312	23.7
Maliko well pump 11	G31	5520-01	20.932	156.339	9/6/96	75	22.9	-14	-3.66	813	2810	21.6
Marquard well	G32	5514-01	20.932	156.240	9/6/96	134	40.8	-12	-3.27	72	320	26
Moku Huki spring at 15 ft	G125	205051156070701	20.831	156.119	5/10/99	15	4.6	-9	-2.98	22	137.7	22.4
Mossman Spring	G51		20.812	156.104	3/2/97	980	298.7	-9	-3.12	--	52	19.3
Nuaailua roadcut	G18		20.862	156.156	2/26/96	240	73.1	-9	-2.77	--	--	22.7
Nuaailua roadcut	G39		20.862	156.156	9/9/96	240	73.1	-6	-2.81	--	--	--
Nuaailua roadcut	G59		20.862	156.156	3/3/97	240	73.1	-7	-2.85	--	100.4	21.9
Nuaailua roadcut	G74		20.862	156.156	9/11/97	240	73.1	-8	-2.82	--	104.8	22.5
Ohia Spring	G19		20.854	156.145	2/26/96	200	61.0	-22	-4.65	--	--	17.8
Ohia Spring	G35		20.854	156.145	9/9/96	200	61.0	-22	-4.73	4	131	18.3
Ohia Spring	G56		20.854	156.145	3/2/97	200	61.0	-23	-4.85	--	147.3	17.7
Ohia Spring	G75		20.854	156.145	9/11/97	200	61.0	-21	-4.41	--	113.8	18.6
Palauhulu stream above Banana Spring	G69		20.829	156.162	9/11/97	890	271.3	-11	-3.21	--	85.2	21.8
Palauhulu stream above Store Spring	G72		20.848	156.149	9/11/97	450	137.2	-15	-3.75	--	94.8	27
Palauhulu stream at head of Keanae Val	G71		20.821	156.166	9/11/97	1040	317.0	-9	-2.97	--	38.1	22.7
Palauhulu stream at highway	G57		20.860	156.149	3/2/97	75	22.9	-20	-4.52	--	122.3	20.2
Palauhulu stream at highway	G73		20.859	156.150	9/11/97	75	22.9	-18	-4.25	--	121.4	20.8
Palauhulu at 1000 ft	G119	204919156100001	20.823	156.167	5/12/99	1000	304.8	-4	-2.48	9	44.3	22.9
Palauhulu at highway	G122	205133156085801	20.859	156.149	5/12/99	70	21.3	-16	-4.14	9	135.4	20.6
Palauhulu below bridge	G121	204948156094401	20.830	156.162	5/12/99	880	268.2	-11	-3.47	8	104.8	20.7
Palauhulu upstream of Store Spring	G120	205051156085501	20.850	156.148	5/12/99	320	97.5	-14	-4.04	9	116	24.3
Piinaau stream at 160'	G129	205113156091101	20.854	156.153	5/12/99	160	48.8	-3	-2.41	15	61.3	22.7
Piinaau stream at highway	G58		20.861	156.151	3/2/97	35	10.7	-9	-3.24	--	54	22.5
Piinaau stream at highway	G130	205240156090201	20.861	156.151	5/12/99	30	9.1	-14	-3.64	9	110.5	21.3
Plunkett Spring	G128	205037156100801	20.827	156.169	5/12/99	1000	304.8	-14	-3.85	9	130	18.5
Santos spring (Souza)	G99	205322156173501	20.889	156.293	11/18/97	1180	359.6	-6	-2.54	18	129	21.2
Tavares spring	G29		20.925	156.230	9/5/96	40	12.2	-8	-2.95	121	521	--
Tavares well	G28	5513-01	20.925	156.232	9/5/96	288	87.8	-10	-2.83	96	384	--
Ulaino springs at stream mouth	G45		20.810	156.059	3/1/97	10	3.0	-14	-3.50	--	262	21.8
Ulaino springs, from riverbank wall	G143		20.809	156.060	5/10/01	25	7.6	-9	-2.96	--	--	--
Unnamed Keanae Valley stream	G118	205150156090401	20.847	156.151	5/12/99	400	121.9	-17	-4.35	6	113.9	21.5
Waianapanapa cave	G43		20.793	156.007	3/1/97	1	0.3	-12	-3.30	1270	4300	20.1
Waihou Spring	G1		20.809	156.289	9/9/95	3350	1021.0	-24	-4.70	--	81	16.1
Waihou Spring	G14		20.809	156.289	2/24/96	3350	1021.0	-17	-4.07	--	--	16
Waihou Spring	G34		20.809	156.289	9/8/96	3350	1021.0	-22	-4.54	--	--	--
Waihou Spring	G42		20.809	156.289	2/24/97	3350	1021.0	-26	-4.87	--	742	15.5
Waihou Spring	G65		20.809	156.289	9/9/97	3350	1021.0	-23	-4.73	--	81.2	16.6
Waikamoi bank spring Hana highway lev	G3		20.876	156.189	9/10/95	600	182.9	-10	-3.02	--	157	21.2
Waikamoi bank spring, stream level	G4		20.875	156.191	9/10/95	550	167.6	-10	-3.18	--	119	22.8
Waikamoi reservoir, 4360'	G24		20.812	156.233	2/23/96	4360	1329.0	--	-4.41	--	--	12.2
Waikamoi spring at 3200'	G63		20.827	156.224	9/9/97	3255	992.1	-10	-3.34	--	36.7	18
Waikamoi stream above Hamakua ditch	G66		20.862	156.199	9/10/97	900	274.3	-7	-2.87	--	40.6	21.6

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Waikamoi stream above Manuel Luis dit	G67		20.873	156.192	9/10/97	760	231.6	-7	-2.66	--	65.4	25.9
Waikamoi stream at 3200'	G64		20.831	156.225	9/9/97	3173	967.1	-12	-3.42	--	44.2	18.9
Waikamoi stream at former gage 4480'	G62		20.807	156.234	9/9/97	4480	1365.4	-17	-3.80	--	17.1	15.9
Waikamoi stream at Hana highway	G22		20.875	156.191	2/26/96	550	167.6	--	-3.25	--	--	20.3
Waikamoi stream at Hana highway	G68		20.875	156.191	9/10/97	550	167.6	-8	-2.97	--	102.6	23.3
Waikamoi stream headwaters	G25		20.779	156.243	2/26/96	6450	1965.9	--	-5.32	--	--	--
Waikamoi stream headwaters	G33		20.779	156.243	9/8/96	6450	1965.9	-17	-4.01	--	--	--
Wailuanui spring at 40 ft	G135	205134156085401	20.843	156.132	5/28/99	40	12.2	-8	-2.94	--	123.6	20.7
Wailuanui stream at highway	G53		20.836	156.141	3/2/97	660	201.2	-11	-3.50	--	51.5	22.1
Wailuanui stream at mouth	G55		20.843	156.131	3/2/97	1	0.3	-11	-3.36	--	128.2	23.5
Waiokamilo stream at highway	G54		20.852	156.139	3/2/97	220	67.1	-14	-3.68	--	121	21.3
Waiokamilo 1	G112	205106156085501	20.852	156.132	5/11/99	80	24.4	-13	-3.66	8	--	--
Waiokamilo 4.1	G113	205105156082601	20.851	156.141	5/11/99	240	73.1	-14	-3.61	9	123.3	19.9
Waiokamilo 4.2	G114	205104156082501	20.851	156.140	5/11/99	240	73.1	-13	-3.73	8	135	20.3
Waiokamilo 5	G115	205140156094401	20.844	156.146	5/11/99	440	134.1	-15	-3.87	8	138.9	19.1
Waiokamilo 6	G116	205012156090201	20.837	156.151	5/11/99	560	170.7	-15	-3.88	8	136.6	19.6
Waiokamilo 8	G117	205053156092301	20.831	156.156	5/11/99	730	222.5	-16	-4.03	8	146.5	18.9

Notes: Location names followed by a number, such as Hoolawa 1, belong to a series of samples taken at the same time at different altitudes along the stream.
Oxygen isotope ratio determinations are done using the carbon dioxide-water equilibration technique of Epstein and Mayeda (1953). Precision is +- 0.2 per mil.
Hydrogen isotope ratios are determined using the gaseous hydrogen equilibration procedure published by Coplen, Wildman, and Chen (1991). Precision is +- 2 per mil.
Stable isotope analyses were done at the Reston Stable Isotope Laboratory of the U.S. Geological Survey, except samples with only oxygen-18 values, these were analyzed at the USGS Menlo Park Laboratory.