

TABLE 6. PROPERTIES OF SATURATED WATER VAPOR WITH AIR AT LOW TEMPERATURES^a (PART I, CONTINUED)

TEMP., F	PRESSURE OF SATURATED VAPOR $\times 10^{-3}$		WEIGHT OF SATURATED VAPOR				VOLUME IN CU FT BAROMETER, 29.92 IN. Hg		HEAT CONTENT PER LB		
	In. of Hg	Lb per Sq In.	per Cu Ft		per lb of Dry Air		of 1 lb of Dry Air	of 1 lb of Dry Air + Vapor to Saturate it	Dry Air 0 F Datum	Vapor 32 F Datum	Dry Air with Vapor to Saturate it
			Pounds $\times 10^{-3}$	Grains	Pounds $\times 10^{-3}$	Grains					
-60	101.4	49.808	0.20993	0.01470	2.108	0.14756	10.07	10.07	-14.48	1032.2	-14.46
-59	108.8	53.443	.22469	.01573	2.262	.15834	10.09	10.09	-14.23	1032.7	-14.21
-58	116.3	57.127	.23958	.01677	2.418	.16926	10.12	10.12	-13.99	1033.1	-13.97
-57	124.8	61.302	.25645	.01795	2.595	.18165	10.14	10.14	-13.75	1033.6	-13.72
-56	133.4	65.626	.27344	.01914	2.773	.19411	10.17	10.17	-13.50	1034.0	-13.47
-55	143.0	70.242	0.29239	0.02047	2.973	0.20811	10.19	10.19	-13.26	1034.5	-13.23
-54	153.0	75.154	.31207	.02184	3.181	.22267	10.22	10.22	-13.02	1034.9	-12.99
-53	163.5	80.311	.33267	.02329	3.399	.23793	10.24	10.24	-12.78	1035.4	-12.74
-52	174.9	85.911	.35499	.02485	3.636	.25452	10.27	10.27	-12.53	1035.8	-12.49
-51	187.0	91.854	.37862	.02650	3.888	.27216	10.29	10.29	-12.29	1036.3	-12.25
-50	199.9	98.191	0.40376	0.02826	4.156	0.29092	10.32	10.32	-12.05	1036.7	-12.01
-49	213.0	104.63	.42917	.03004	4.428	.30996	10.34	10.34	-11.81	1037.2	-11.76
-48	227.9	111.94	.45808	.03207	4.738	.33166	10.37	10.37	-11.57	1037.6	-11.52
-47	243.1	119.41	.48744	.03412	5.054	.35378	10.40	10.40	-11.32	1038.1	-11.27
-46	259.5	127.47	.51905	.03633	5.395	.37765	10.42	10.42	-11.08	1038.5	-11.02
-45	276.7	135.92	0.55213	0.03865	5.753	0.40271	10.45	10.45	-10.84	1039.0	-10.78
-44	295.0	144.90	.58722	.04111	6.133	.42931	10.47	10.47	-10.60	1039.4	-10.54
-43	314.7	154.58	.62493	.04375	6.543	.45801	10.50	10.50	-10.35	1039.9	-10.28
-42	335.3	164.70	.66426	.04650	6.971	.48797	10.52	10.52	-10.11	1040.3	-10.04
-41	357.6	175.65	.70672	.04947	7.435	.52045	10.55	10.55	-9.872	1040.8	-9.795
-40	380.3	186.80	0.7498	0.05249	7.907	0.55349	10.57	10.57	-9.629	1041.2	-9.547
-39	405.5	199.18	.7976	.05583	8.431	.59017	10.60	10.60	-9.388	1041.7	-9.300
-38	431.2	211.81	.8461	.05922	8.965	.62755	10.62	10.62	-9.146	1042.1	-9.053
-37	459.2	225.66	.8969	.06292	9.548	.66838	10.65	10.65	-8.905	1042.6	-8.805
-36	488.4	239.90	.9538	.06677	10.16	.71120	10.67	10.67	-8.663	1043.0	-8.557
-35	519.5	255.18	1.0122	0.07085	10.80	0.75600	10.69	10.69	-8.422	1043.5	-8.309
-34	552.4	271.34	1.0738	.07517	11.49	.80430	10.72	10.72	-8.180	1043.9	-8.060
-33	586.5	288.09	1.1374	.07962	12.20	.85400	10.75	10.75	-7.939	1044.4	-7.812
-32	623.7	306.36	1.2067	.08447	12.97	.90790	10.77	10.77	-7.698	1044.8	-7.562
-31	661.8	325.08	1.2774	.08942	13.76	.96320	10.80	10.80	-7.457	1045.3	-7.313
-30	701.0	344.33	1.3499	0.09449	14.58	1.0206	10.82	10.82	-7.216	1045.7	-7.064
-29	742.2	364.67	1.4260	.09982	15.43	1.0801	10.85	10.85	-6.975	1046.2	-6.814
-28	784.2	386.04	1.5066	.10616	16.45	1.1515	10.87	10.87	-6.734	1046.6	-6.562
-27	841.0	413.10	1.6083	.11258	17.49	1.2243	10.90	10.90	-6.493	1047.1	-6.310
-26	892.1	438.20	1.7021	.11914	18.55	1.2985	10.92	10.92	-6.251	1047.5	-6.057

^aCompiled by W. M. Sawdon, vapor pressures converted from *International Critical Tables*.TABLE 6. PROPERTIES OF SATURATED WATER VAPOR WITH AIR AT LOW TEMPERATURES^a (PART I, CONCLUDED)

TEMP., F	PRESSURE OF SATURATED VAPOR $\times 10^{-3}$		WEIGHT OF SATURATED VAPOR				VOLUME IN CU FT BAROMETER, 29.92 IN. Hg		HEAT CONTENT PER LB		
	In. of Hg	Lb per Sq In.	per Cu Ft		per lb of Dry Air		of 1 lb of Dry Air	of 1 lb of Dry Air + Vapor to Saturate it	Dry Air 0 F Datum	Vapor 32 F Datum	Dry Air with Vapor to Saturate it
			Pounds $\times 10^{-3}$	Grains	Pounds $\times 10^{-3}$	Grains					
-25	946.4	464.87	1.8016	0.12611	19.68	1.3776	10.95	10.95	-6.011	1048.0	-5.805
-24	1003.	492.67	1.9049	.13334	20.86	1.4602	10.97	10.97	-5.770	1048.4	-5.551
-23	1064.	522.64	2.0162	.14113	22.13	1.5491	11.00	11.00	-5.529	1048.9	-5.297
-22	1128.	553.09	2.1287	.14901	23.42	1.6394	11.02	11.02	-5.288	1049.3	-5.042
-21	1192.	585.51	2.2484	.15739	24.79	1.7353	11.05	11.05	-5.047	1049.8	-4.787
-20	1262.0	619.89	2.3750	0.16625	26.25	1.8375	11.07	11.07	-4.807	1050.2	-4.531
-19	1337.	659.73	2.5105	.17574	27.81	1.9467	11.10	11.10	-4.566	1050.7	-4.274
-18	1416.	695.54	2.6527	.18569	29.45	2.0615	11.13	11.13	-4.325	1051.1	-4.015
-17	1496.	734.84	2.7963	.19574	31.12	2.1784	11.15	11.15	-4.085	1051.6	-3.758
-16	1584.	778.06	2.9542	.20679	32.95	2.3065	11.18	11.18	-3.844	1052.0	-3.497
-15	1675.0	822.76	3.1168	0.21818	34.84	2.4388	11.20	11.21	-3.604	1052.5	-3.237
-14	1772.	870.41	3.2899	.23029	36.86	2.5802	11.23	11.24	-3.363	1052.9	-2.975
-13	1874.	920.51	3.4714	.24300	38.98	2.7286	11.25	11.26	-3.123	1053.4	-2.712
-12	1980.	972.58	3.6596	.25617	41.19	2.8833	11.28	11.29	-2.883	1053.8	-2.449
-11	2093.	1028.1	3.8599	.27019	43.54	3.0478	11.30	11.31	-2.642	1054.3	-2.183
-10	2210.0	1085.6	4.0666	0.28466	45.98	3.2186	11.33	11.34	-2.402	1054.7	-1.917
-9	2335.	1147.0	4.2871	.30009	48.58	3.4058	11.35	11.36	-2.162	1055.2	-1.649
-8	2469.	1209.8	4.5120	.31584	51.25	3.5875	11.38	11.39	-1.921	1055.6	-1.380
-7	2502.	1229.0	4.5734	.32014	52.06	3.6442	11.40	11.41	-1.681	1056.1	-1.131
-6	2745.	1348.3	5.0066	.35046	57.12	3.9984	11.43	11.44	-1.441	1056.5	-0.8375
-5	2898.0	1423.5	5.2738	0.36917	60.30	4.2210	11.45	11.46	-1.201	1057.0	-0.5636
-4	3055.	1500.6	5.5473	.38831	63.57	4.4499	11.48	11.49	-0.9604	1057.4	-0.2882
-3	3222.	1582.6	5.8379	.40865	67.05	4.6935	11.50	11.51	-0.7203	1057.9	-0.01098
-2	3397.	1668.6	6.1414	.42990	70.69	4.9483	11.53	11.54	-0.4802	1058.3	+0.2679
-1	3580.	1758.5	6.4583	.45208	74.50	5.2150	11.55	11.57	-0.2401	1058.8	+0.5487
0	3773.0	1853.3	6.7914	0.47500	78.52	5.5000	11.58	11.59	0	1059.2	+0.8317

^aCompiled by W. M. Sawdon, vapor pressures converted from *International Critical Tables*.