

**SUMMARY OF
HORIZONTAL HYDRAULIC CONDUCTIVITY VALUES
FOR GEOLOGIC AND HYDROGEOLOGIC UNITS IN NEW JERSEY
January, 2012**

Geologic unit	Number of tests	Arithmetic mean (ft/d)	Minimum (ft/d)	Maximum (ft/d)	Median (ft/d)	Standard deviation
Outwash deposits	2	150.00	123.00	177.00	150.00	38.18
Deltaic sediment	1	59.00	59.00	59.00		
Fluvial over lacustrine sediment	2	206.50	110.00	303.00	206.50	136.47
Till (Quaternary)	1	32.00	32.00	32.00		
Till (late Wisconsinan)	1	142.90	142.90	142.90		
Stratified drift	10	218.10	55.00	417.00	200.00	105.02
Glaciolacustrine sand and gravel	1	267.00	267.00	267.00		
Glaciolacustrine sand and gravel (late Wisconsinan)	3	119.37	35.91	285.00	37.21	143.44
Glaciolacustrine sand and gravel (Illinoian)	1	28.00	28.00	28.00		
Unnamed Formation at Cape May	1	93.18	93.18	93.18		
Cohansey Formation	19	128.59	14.14	217.00	132.74	58.02
Cohansey & Kirkwood Formations	16	148.00	36.32	420.00	114.50	99.40
Atlantic City Formation	2	9.80	6.60	13.00	9.80	4.53
Kirkwood Formation - lower member (sand facies)	24	109.55	22.00	285.00	113.50	52.99
Kirkwood Formation - Belleplain Member	1	191.00	191.00	191.00		
Kirkwood Formation - Wildwood Member	3	187.33	80.00	365.00	117.00	154.97
Kirkwood Formation - Shiloh Marl Member	3	64.67	33.00	124.00	37.00	51.42
Kirkwood Formation	5	94.58	57.00	154.00	95.00	37.88
Shark River Formation - Toms River Member	4	59.75	32.00	79.00	64.00	20.85
Vincentown Formation	1	213.00	213.00	213.00		
Mount Laurel Formation	4	30.34	22.00	41.00	29.18	8.97
Mount Laurel and Wenonah Formations	11	11.36	5.00	30.25	9.00	7.62
Englishtown Formation	6	29.28	10.30	41.90	31.40	11.52
Magothy, Raritan, and Potomac Formations	1	13.00	13.00	13.00		
Magothy Formation	15	72.52	0.00	314.00	50.80	84.25
Magothy Formation - Old Bridge Sand Member (No. 3 sand)	3	114.53	63.80	197.00	82.80	72.05
Raritan Formation	2	72.90	71.60	74.20	72.90	1.84
Raritan Formation - Farrington Sand Member (No. 1 sand)	2	133.45	132.00	134.90	133.45	2.05
Potomac Formation	4	81.50	49.00	107.00	85.00	28.16
Potomac Formation, Unit 3 (upper subsurface and outcrop)	4	174.03	94.60	288.00	156.75	81.49
Potomac Formation, Unit 2 (middle subsurface)	1	24.00	24.00	24.00		
Brunswick Group (Passaic Formation through Boonton Formation)	2	1.12	0.54	1.70	1.12	0.82
Towaco Formation	1	5.00	5.00	5.00		
Passaic Formation	9	6.17	0.97	21.50	2.51	7.06
Passaic Formation - conglomeratic sandstone	2	5.57	3.67	7.46	5.57	2.68
Passaic Formation - sandstone	1	1.20	1.20	1.20		
Martinsburg Formation - Ramseyburg Member	2	0.65	0.62	0.67	0.65	0.04
Allentown Dolomite	4	47.00	1.11	180.00	3.44	88.69
Allentown Dolomite - Limeport Member	1	2.23	2.23	2.23		
Leithsville Formation	2	16.10	11.20	21.00	16.10	6.93
Leithsville Formation and Hardyston Quartzite, undivided	1	13.50	13.50	13.50		
late Proterozoic rocks, undifferentiated	1	0.05	0.05	0.05		
Hornblende granite	1	0.51	0.51	0.51		
Pyroxene granite	2	0.31	0.03	0.58	0.31	0.39
Hydrogeologic unit						
continous or discontinous till	2	87.45	32.00	142.90	87.45	78.42
glacial sand and gravel	20	180.31	28.00	417.00	182.50	111.11
Cohansey aquifer	5	108.06	14.14	216.00	93.18	73.98
Kirkwood-Cohansey water-table aquifer system	34	140.47	36.32	420.00	117.37	76.99
Atlantic City "800-foot" sand aquifer	30	102.50	22.00	285.00	99.50	51.69
Piney Point aquifer	6	43.10	6.60	79.00	44.00	30.50
Vincentown aquifer	1	213.00	213.00	213.00		
Mount Laurel-Wenonah aquifer	15	16.42	5.00	41.00	11.80	11.58
Englishtown aquifer system	6	29.28	10.30	41.90	31.40	11.52
Potomac-Raritan-Magothy aquifer system	1	13.00	13.00	13.00		
upper Potomac-Raritan-Magothy aquifer	18	79.52	0.00	314.00	59.40	81.95
middle Potomac-Raritan-Magothy aquifer	6	103.78	71.60	134.90	105.00	27.15
lower Potomac-Raritan-Magothy aquifer	7	119.44	24.00	288.00	94.60	90.06
Brunswick aquifer	15	5.01	0.54	21.50	2.51	5.76
Martinsburg Formation and Jutland klippe sequence	2	0.65	0.62	0.67	0.65	0.04
Jacksonburg limestone, Kittatinny Supergroup and Hardyston quartzite	8	29.49	1.11	180.00	8.40	61.21
igneous and metamorphic rocks	4	0.29	0.03	0.58	0.28	0.29
Hydrogeologic zone						
Rio Grande water-bearing zone	3	187.33	80.00	365.00	117.00	154.97
Brunswick aquifer conglomerate	2	5.57	3.67	7.46	5.57	2.68