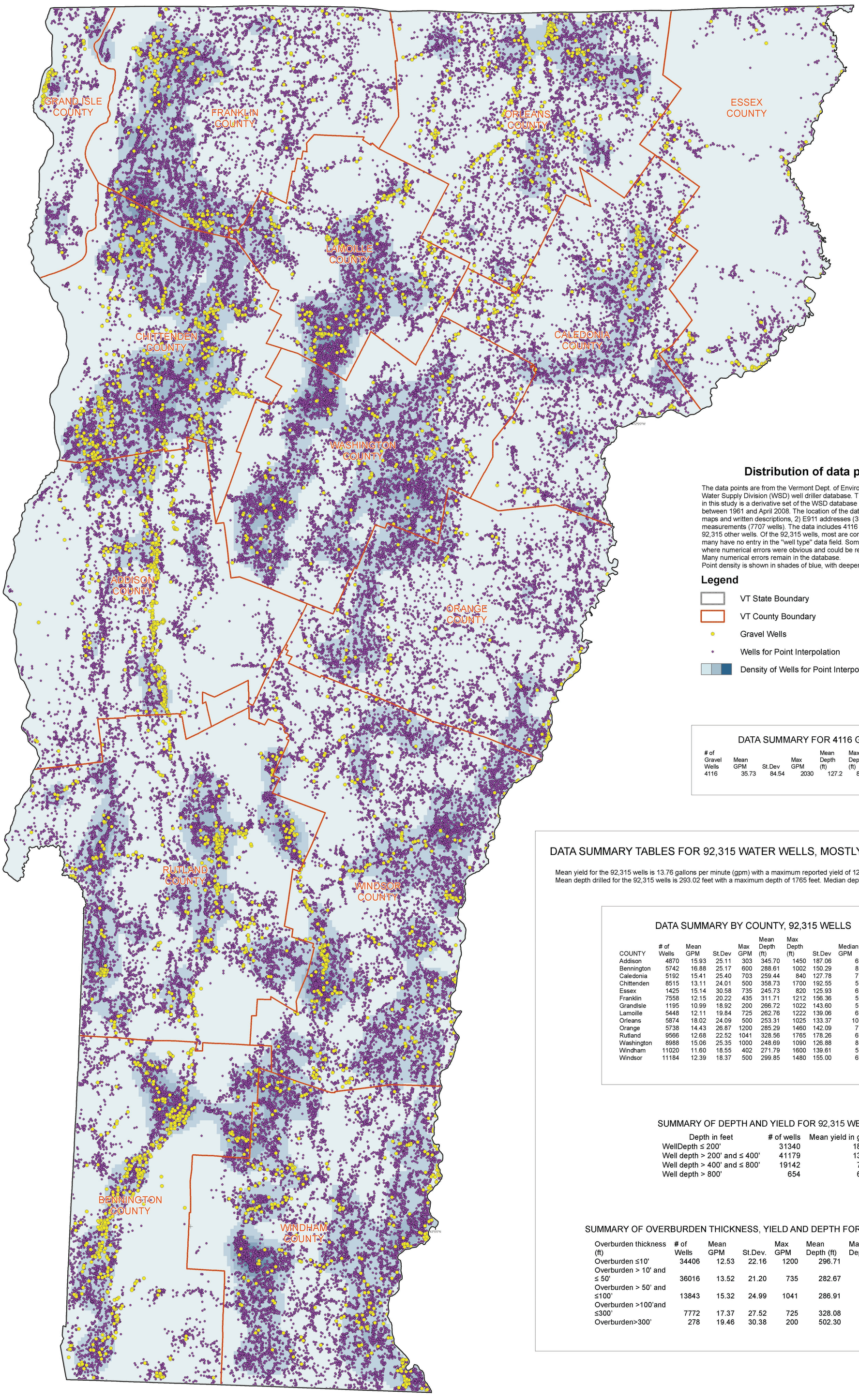
Published by:
VT Geological Survey. L. Becker, State Geologist
VT Dept. of Environmental Conservation
Vermont Agency of Natural Resources
103 South Main ST., Logue Cottage
Waterbury, VT 05671-2420
http://www.anr.state.vt.us/dec/geo.vgs.htm



SCALE 1:250,000

PRELIMINARY MAP

Distribution of data points, Vermont

The data points are from the Vermont Dept. of Environmental Conservation Water Supply Division (WSD) well driller database. The well data used in this study is a derivative set of the WSD database and includes wells completed between 1961 and April 2008. The location of the data points is from 1) well driller maps and written descriptions, 2) E911 addresses (3100 wells), and 3) GPS measurements (7707 wells). The data includes 4116 wells identified as "gravel" wells and 92,315 other wells. Of the 92,315 wells, most are completed in bedrock, although many have no entry in the "well type" data field. Some corrections were made to the database where numerical errors were obvious and could be reconciled with a driller report. Many numerical errors remain in the database.
Point density is shown in shades of blue, with deeper shades reflecting higher point density.

Legend

- VT State Boundary
- VT County Boundary
- Gravel Wells
- Wells for Point Interpolation
- Density of Wells for Point Interpolation

DATA SUMMARY FOR 4116 GRAVEL WELLS

# of Gravel Wells	Mean GPM	St.Dev	Max GPM	Mean Depth (ft)	Max Depth (ft)	St.Dev	Median GPM	Median Depth (ft)
4116	35.73	84.54	2030	127.2	87.78	810	20	104

DATA SUMMARY TABLES FOR 92,315 WATER WELLS, MOSTLY BEDROCK WELLS

Mean yield for the 92,315 wells is 13.76 gallons per minute (gpm) with a maximum reported yield of 1200 gpm. Median yield is 6 gpm. Mean depth drilled for the 92,315 wells is 293.02 feet with a maximum depth of 1765 feet. Median depth is 260 feet.

DATA SUMMARY BY COUNTY, 92,315 WELLS

COUNTY	# of Wells	Mean GPM	St.Dev	Max GPM	Mean Depth (ft)	Max Depth (ft)	St.Dev	Median GPM	Median Depth (ft)
Addison	4870	15.93	25.11	303	345.70	1450	187.06	6	301
Bennington	5742	16.88	25.17	600	288.61	1002	150.29	8	260
Caledonia	5192	15.41	25.40	703	259.44	840	127.78	7	235
Chittenden	8515	13.11	24.01	500	358.73	1700	192.55	5	321
Essex	1425	15.14	30.58	735	245.73	820	125.93	6	220
Franklin	7558	12.15	20.22	435	311.71	1212	156.36	5	300
Grandlsle	1195	10.99	18.92	200	266.72	1022	143.60	5	242
Lamoille	5448	12.11	19.84	725	262.76	1222	139.06	6	224
Orleans	5874	18.02	24.09	500	253.31	1025	133.37	10	225
Orange	5738	14.43	26.87	1200	285.29	1460	142.09	7	250
Rutland	9566	12.68	22.52	1041	328.56	1765	178.26	6	285
Washington	8988	15.06	25.35	1000	248.69	1090	126.88	8	220
Windham	11020	11.60	18.55	402	271.79	1600	139.61	5	250
Windsor	11184	12.39	18.37	500	299.85	1480	155.00	6	271

SUMMARY OF DEPTH AND YIELD FOR 92,315 WELLS

Depth in feet	# of wells	Mean yield in gpm
WellDepth ≤ 200'	31340	18.43
Well depth > 200' and ≤ 400'	41179	13.15
Well depth > 400' and ≤ 800'	19142	7.64
Well depth > 800'	654	6.90

SUMMARY OF OVERBURDEN THICKNESS, YIELD AND DEPTH FOR 92,315 WELLS

Overburden thickness (ft)	# of Wells	Mean GPM	St.Dev.	Max GPM	Mean Depth (ft)	Max Depth (ft)	St.Dev.
Overburden ≤10'	34406	12.53	22.16	1200	296.71	1765	165.03
Overburden > 10' and ≤ 50'	36016	13.52	21.20	735	282.67	1485	154.37
Overburden > 50' and ≤100'	13843	15.32	24.99	1041	286.91	1465	148.86
Overburden >100'and ≤300'	7772	17.37	27.52	725	328.08	1205	147.96
Overburden>300'	278	19.46	30.38	200	502.30	1000	139.66

DATA SUMMARY, VERMONT WATER WELLS

by
Marjorie Gale, Ryan Knox, George Springston, and Laurence Becker
2009

N W E S