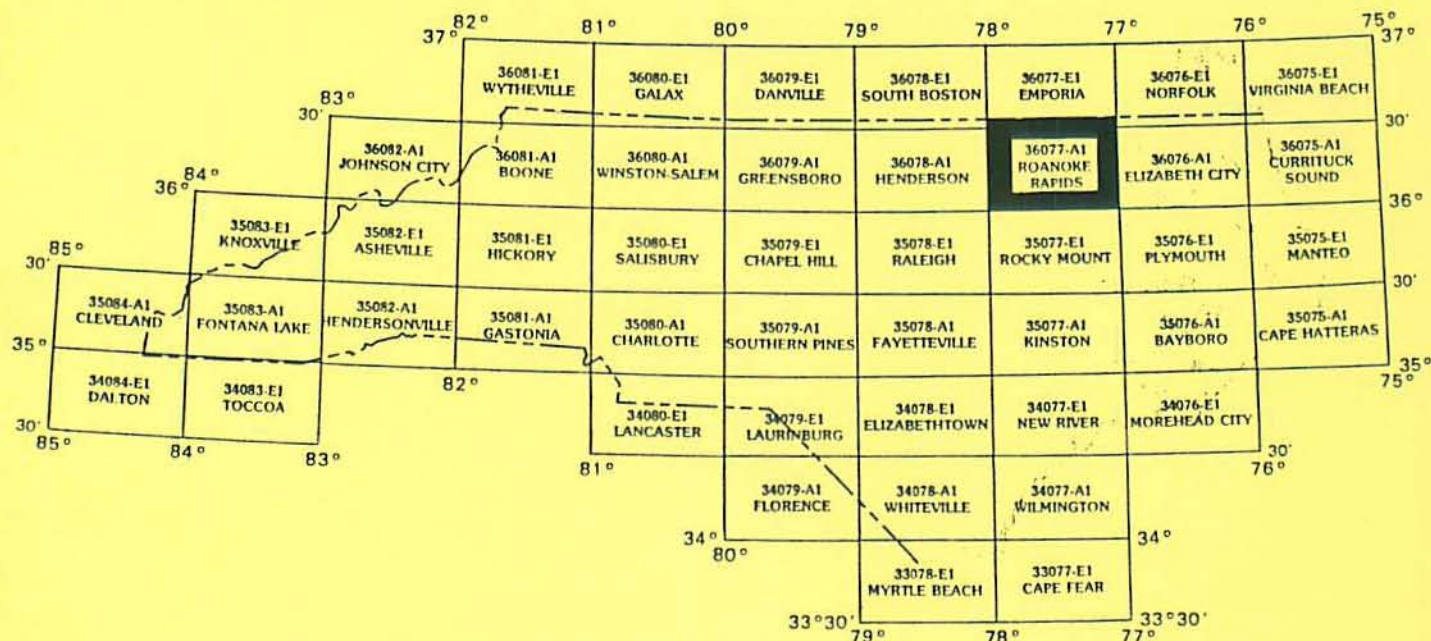


Listing of Concentrations of Variables of Stream Sediment, Stream Water, and Groundwater for the Emporia and Roanoke Rapids 30 x 60 - Minute Quadrangles -NURE Database

by
Robert H. Carpenter and Jeffrey C. Reid



NORTH CAROLINA GEOLOGICAL SURVEY OPEN-FILE REPORT 93-25

State of North Carolina
James B. Hunt, Jr., Governor

Department of Environment,
Health and Natural Resources
Jonathan B. Howes, Secretary
Division of Land Resources
Charles H. Gardner,
Director and State Geologist

July, 1993

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Jeffrey C. Reid
Chief Geologist

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INTRODUCTION

This report is a compilation of geochemical data for stream sediment and groundwater for the Emporia and Roanoke Rapids 30 x 60 - minute quadrangles (Figure 1). Maps and tables were prepared from statewide data obtained by the Savannah River Laboratory under sponsorship of the U.S. Dept. of Energy in its National Uranium Resources Evaluation (NURE) program (Sargent and others, 1982). Sampling and analysis were performed during the period 1976 - 1980.

Because of the large size of the database, the North Carolina Geological Survey is presenting the database in both statewide and 30 x 60 - minute quadrangle formats. Statewide formats currently available include atlases of stream sediment and hydrogeochemical data which contain maps showing quartile distribution of concentrations of variables (Reid, 1991; Reid, 1993). Reid and Carpenter (1993a, 1993b) present listings of concentrations of variables which equal or exceed the 90th percentile (and pH and conductivity below the 10th percentile) for stream sediment and groundwater-stream water.

This open-file report is part of a series of reports that present sample-location maps and listings of analyses of all variables in all of the 30 x 60 - minute quadrangles that comprise the state of North Carolina. Subsequent reports will review the NURE data for individual 30 x 60 - minute quadrangles. These reviews will contain the following: 1) maps showing concentrations of all the variables in up to eight class intervals; 2) geologic review of the quadrangle and discussion of relationship of geochemical variables to rock units and structural features; 3) review of mineral resources and discussion of relationship of geochemical variables to mineral occurrences; and 4) discussion of outliers that may relate to anthropogenic contamination.

In this report, site-location maps use state boundaries, county boundaries and 7-1/2 - minute quadrangle boundaries as references to site-locations. The North Carolina Index to Topographic and Other Map Coverage, prepared by the U.S. Geological Survey, is a useful reference document. The List of Publications of the North Carolina Geological Survey indicates areas within the state for which some geologic and geophysical maps, and reports, are available.

Listings in this report are in the same basic format as those presented in microfiche by Sargent

and others (1982). Column 1 lists the laboratory numbers applied to each analyzed sample. Column 2 lists site identification codes. The first two characters are the codes for the county name. The next three digits are sample numbers. They are listed sequentially for each county in the order they were collected. The next two columns list the latitude and longitude of the sampling sites in decimal degree format. The remaining columns are data columns and analyses are given in parts per million (stream sediment) and parts per billion (groundwater). In these columns, a minus (-) sign indicates that a value is below the detection limit. If background is high, and an accurate estimate of minimum detection limit could not be made, a period (.) indicates that the element was not detected and that the detection limit is unusually high. Missing data are denoted by the letter "M". For gold, analyses are listed only for those samples in which gold was detected. For arsenic, a value of 0 is assigned for samples in which arsenic was analyzed, but not detected.

For stream sediment, two listings are presented. The first listing is for elements analyzed by neutron activation as well as field measurements for pH and conductivity of stream water. Variables included in this listing are pH, conductivity, uranium (U), thorium (Th), hafnium (Hf), cerium (Ce), iron (Fe), manganese (Mn), sodium (Na), scandium (Sc), titanium (Ti), vanadium (V), aluminum (Al), dysprosium (Dy), europium (Eu), lanthanum (La), samarium (Sm), ytterbium (Yb), and lutetium (Lu). The second listing is for supplemental elements analyzed by a variety of techniques. These include extractable uranium (Ux), silver (Ag), arsenic (As), barium (Ba), beryllium (Be), calcium (Ca), cobalt (Co), chromium (Cr), copper (Cu), potassium (K), lithium (Li), magnesium (Mg), molybdenum (Mo), niobium (Nb), nickel (Ni), phosphorous (P), lead (Pb), selenium (Se), tin (Sn), strontium (Sr), tungsten (W), yttrium (Y), and zinc (Zn). Stream sediment analyses are for the minus 100 mesh fraction (< 149 microns) unless otherwise noted.

Groundwater, normally samples of water from wells, was also analyzed by neutron activation. Field measurements were made of pH and conductivity. Variables included in listings of groundwater analyses include pH, conductivity, uranium (U), bromine (Br), chlorine (Cl), fluorine (F), magnesium (Mg), manganese (Mn), sodium (Na), vanadium (V), uranium/conductivity, aluminum (Al), and dysprosium (Dy). Stream water was also analyzed for these variables at 295 sites in North Carolina. Listings for stream water are included for areas in which these sites are located.

Although the data was acquired with considerable attention to quality control, some errors exist. These include uncertainties of sample locations due to the use of county road maps as base maps for field use and digitizing sampling sites. Malfunction of field equipment used in measurement of pH and conductivity has also been recognized in some areas. Some of the analyses are also in error. Some of these errors are apparent when concentrations show systematic "breaks" at county boundaries. This suggests that conditions of analysis for different batches of samples were not uniform. In general, analyses of stream sediment by neutron activation are more reliable than analyses of sediment by other supplemental methods.

For a number of counties, supplemental analyses were not made. Thus elements of interest for mineral exploration and environmental geochemistry are lacking for large areas.

REFERENCES

Reid, Jeffrey C., 1991 (revised 1993), A geochemical atlas of North Carolina: North Carolina Geological Survey, Bulletin 93, text plus 45 plates.

Reid, Jeffrey C., 1993, A hydrogeochemical atlas of North Carolina: North Carolina Geological Survey, Bulletin 94, text plus 26 plates.

Reid, Jeffrey C., and Carpenter, Robert H., 1993a, Listings of concentrations (stream sediments) of variables which equal or exceed the 90th percentile, and pH and conductivity below the 10th percentile in the North Carolina portion of the NURE database: North Carolina Geological Survey, Open-File Report 93-1, introductory text plus 178 pages of data.

Reid, Jeffrey C., and Carpenter, Robert H., 1993b, Listing of concentrations (groundwater and stream water) of variables which equal or exceed the 90th percentile, and pH and conductivity below the 10th percentile in the North Carolina portion of the NURE data base: North Carolina Geological Survey, Open-File Report 93-2, introductory text plus 162 pages of data.

Sargent, K.A., Cook, J.R., and Fay, W.M., 1982, Data report: North and South Carolina, National Uranium Resource Evaluation Program, Hydrochemical and stream sediment reconnaissance: E.I. du Pont de Nemours & Co., Savannah River Laboratory, Aiken, S.C., under contract to the U.S. Dept of Energy, contract DE-AC09-76SR000001 (DPST-81-146-22; GBJX-102), 45 p. plus microfiche.

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COUNTY CODES

<u>Code</u>	<u>County</u>
BR	Bertie
ED	Edgecombe
HA	Halifax
HT	Hertford
MR	Martin
NA	Nash
NO	Northampton
WR	Warren

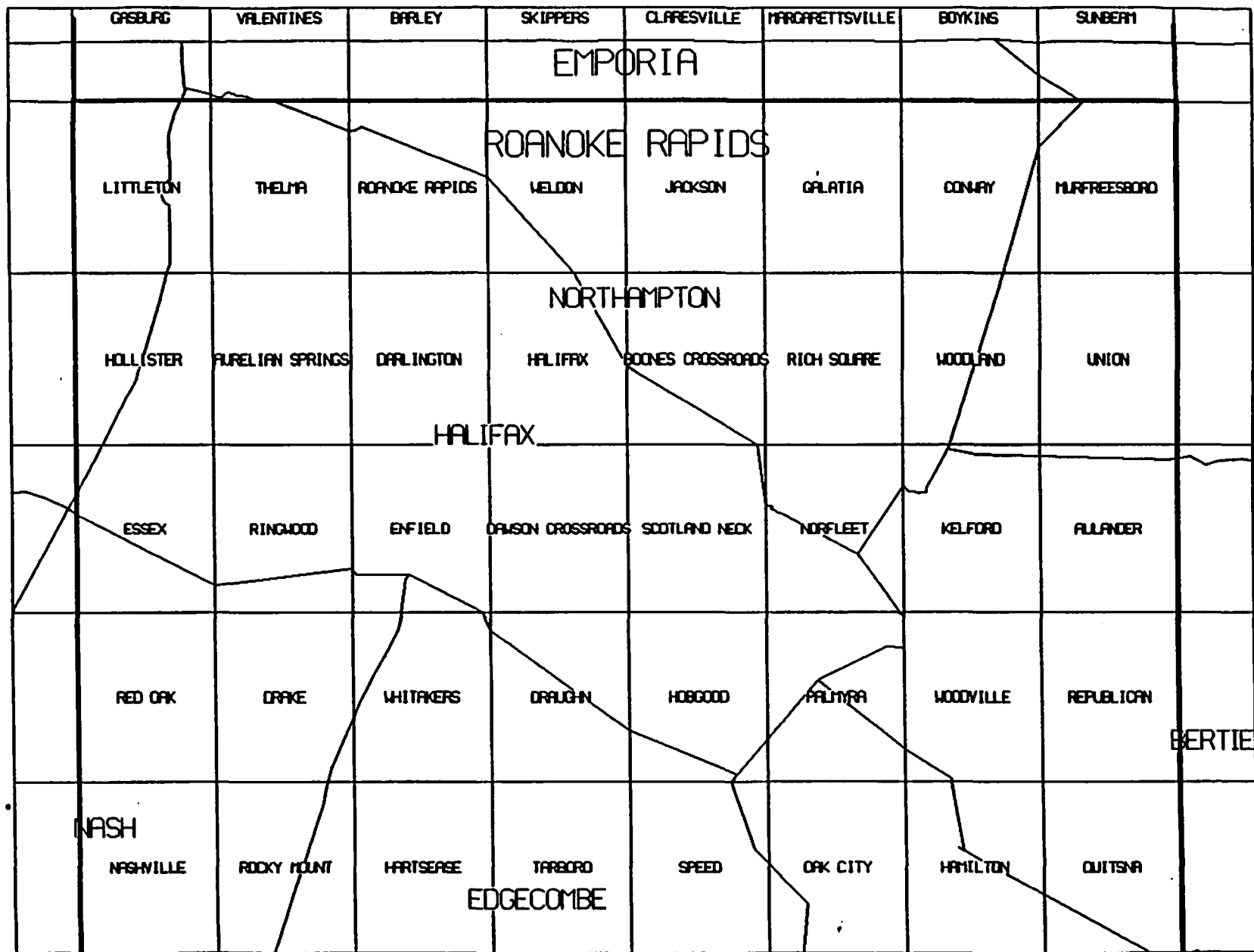


Figure 1. Map Showing Outlines of Emporia and Roanoke Rapids 30 x 60 Minute - Quadrangles and Contained 7 - 1/2 Minute Quadrangles.

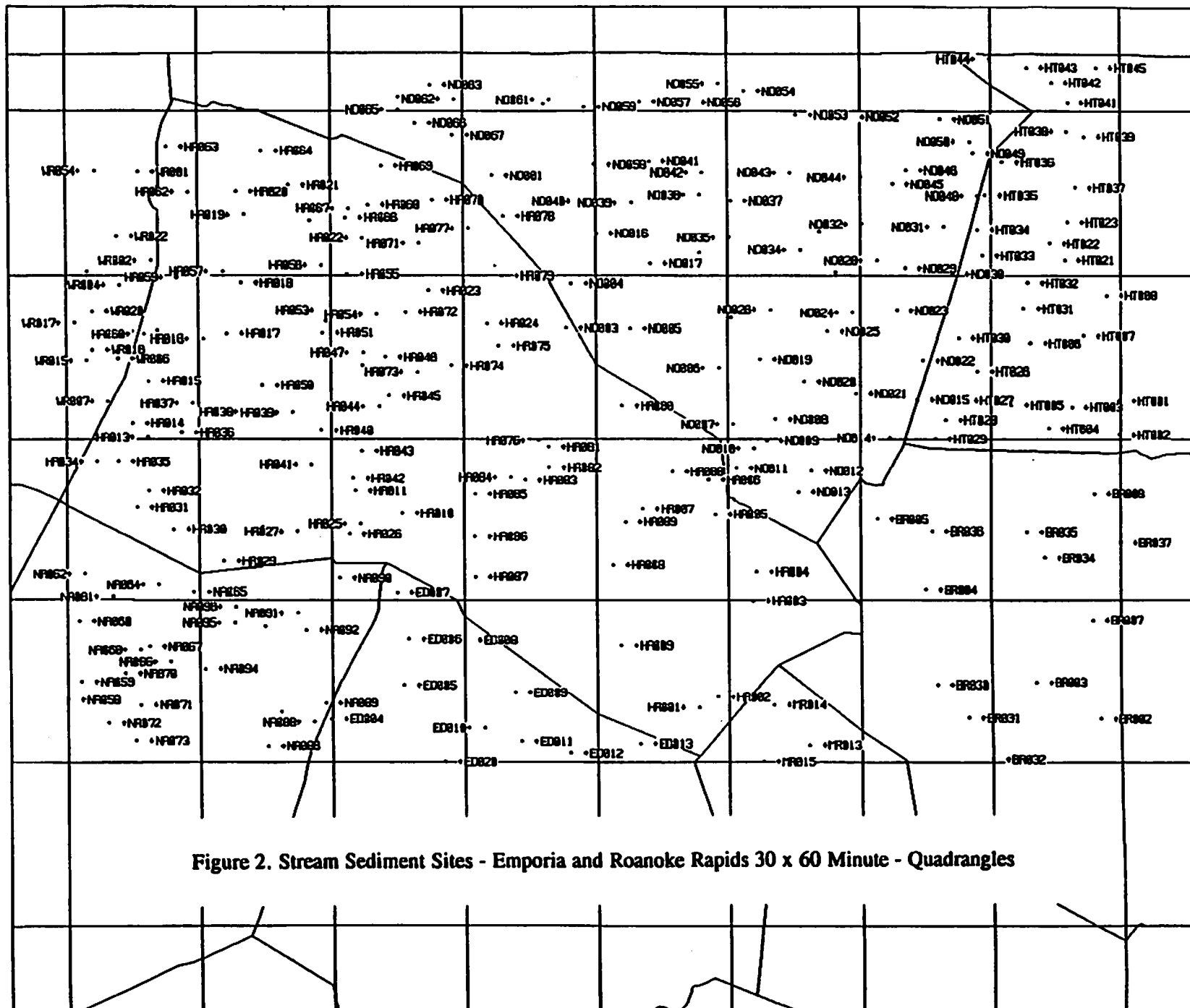


Figure 2. Stream Sediment Sites - Emporia and Roanoke Rapids 30 x 60 Minute - Quadrangles

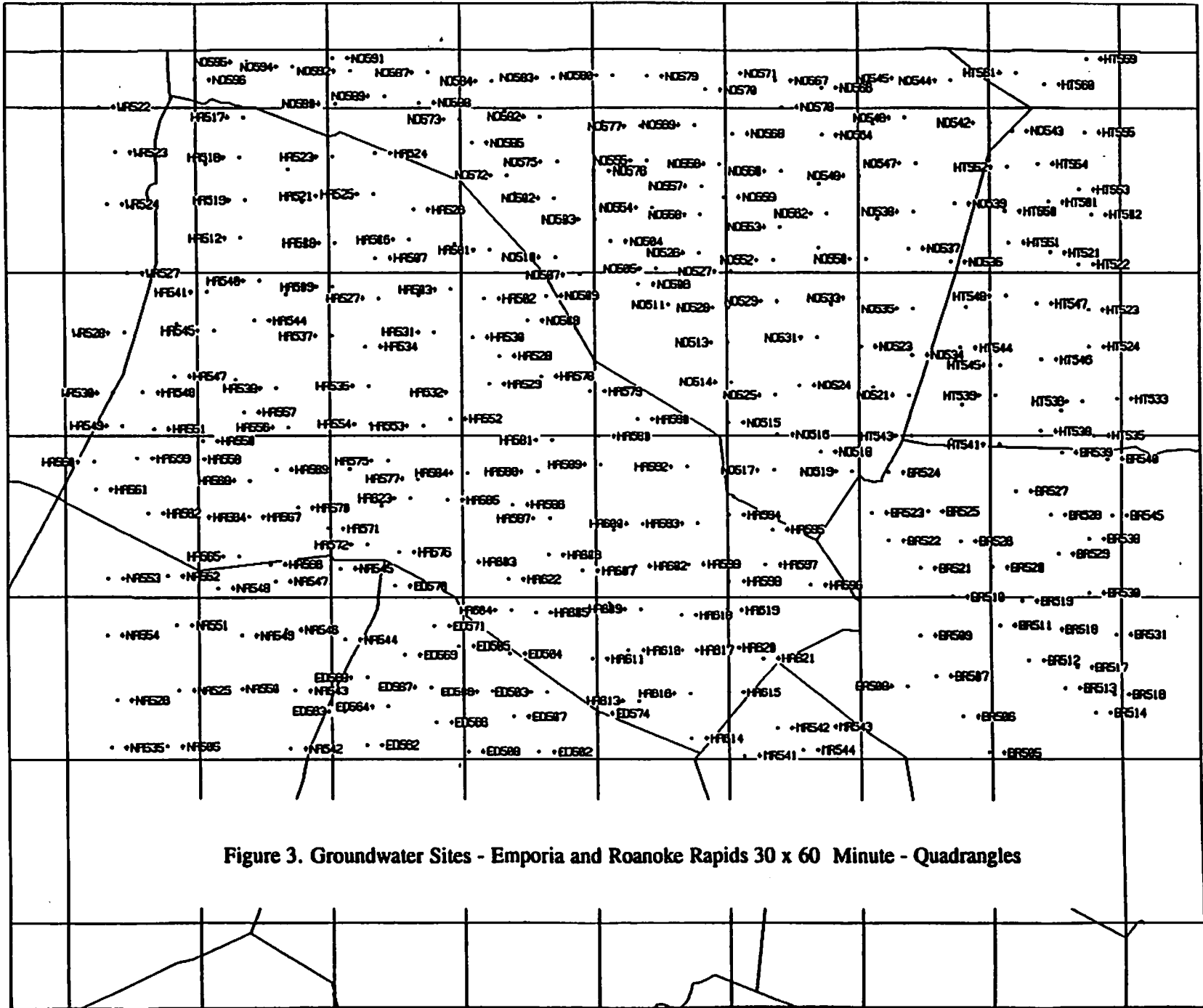


Figure 3. Groundwater Sites - Emporia and Roanoke Rapids 30 x 60 Minute - Quadrangles

EMPORIA 100K QUADRANGLE - STREAM SEDIMENT

Lab #	County	Lat	Long	pH	Cond um/cm	U ppm	Th ppm	Hf ppm	Al ppm	Ce ppm	Fe ppm	Mn ppm	Na ppm	Sc ppm	Ti ppm	V ppm	Dy ppm	Eu ppm	La ppm	Sm ppm	Yb ppm	Lu ppm	Au ppm
2962	HT041	36.5067	77.0520	5.8	79	4.8	25	78	10100	110	23100	590	1100	3.7	17900	40	3.7	-1.0	56	8	3.5	1.0	
2963	HT042	36.5223	77.0679	5.5	122	2.1	6	26	12400	35	11600	200	1100	1.5	6800	20	2.6	-1.0	22	4	1.0	0.3	
2964	HT043	36.5339	77.0912	5.9	99	4.8	17	43	16300	94	16800	320	2100	3.3	7500	20	4.7	M	42	7	2.3	0.6	
2965	HT044	36.5408	77.1262	5.2	57	5.2	34	62	11800	159	16700	450	1600	4.5	8700	30	5.8	-1.5	72	13	4.7	0.6	
2966	HT045	36.5338	77.0235	4.9	47	2.9	10	16	42600	42	27600	90	600	3.9	4500	50	2.6	-1.0	22	3	M	0.2	
4378	NO054	36.5155	77.3592	6.2	50	1.9	9	27	7700	31	8300	300	800	2.0	6800	20	2.2	-1.0	17	4	M	0.3	
4379	NO055	36.5212	77.3830	6.3	49	3.3	13	61	7200	52	7400	260	600	2.0	7700	20	3.0	-1.2	27	5	1.4	0.4	
4380	NO056	36.5067	77.4107	6.2	81	2.0	6	34	5700	38	8100	260	300	1.8	9100	20	M	-1.0	15	3	2.3	0.3	
4381	NO057	36.5071	77.4586	6.2	49	3.5	13	55	8500	66	12400	310	500	2.6	8400	20	4.4	M	30	6	M	0.4	
4383	NO059	36.5034	77.5105	6.0	30	3.6	13	69	9500	40	12800	310	1000	2.1	9200	20	3.9	M	24	5	3.2	0.3	
4384	NO060	36.5057	77.5488	5.9	32	3.3	11	42	12000	31	7000	360	2300	1.5	10400	30	3.3	-1.1	24	4	1.9	0.4	
4385	NO061	36.5091	77.5434	5.5	48	4.1	M	54	8800	M	M	400	700	M	10900	30	5.8	M	M	36	M	M	
4386	NO062	36.5094	77.6326	6.1	50	2.5	6	31	21200	24	12200	570	2300	5.2	8000	40	4.2	-1.0	15	3	3.2	0.4	
4387	NO063	36.5203	77.6555	6.4	50	3.0	7	59	14600	18	10700	360	2200	4.2	10000	30	2.2	-1.0	11	2	1.3	0.5	
4388	NO064	36.5113	77.6858	5.4	51	3.8	6	108	9000	41	9100	190	300	1.9	9500	30	3.3	M	14	1	2.6	0.4	
4389	NO065	36.5014	77.6857	5.7	30	7.2	M	238	8600	M	M	480	200	3.4	18900	40	3.0	M	M	7	M	M	

ROANOKE RAPIDS 100K QUADRANGLE - STREAM SEDIMENT

Lab #	County	Lat	Long	pH	Cond um/cm	U ppm	Th ppm	Hf ppm	Al ppm	Ce ppm	Fe ppm	Mn ppm	Na ppm	Sc ppm	Ti ppm	V ppm	Dy ppm	Eu ppm	La ppm	Sm ppm	Yb ppm	Lu ppm	Au ppm
721	BR002	36.0334	77.0204	5.1	128	M	123	342	14100	505	44800	1430	1300	4.5	35300	70	6.4	2.0	264	28	16.1	2.6	
722	BR003	36.0615	77.0833	5.2	70	M	10	45	15700	50	11600	400	1900	3.5	12000	30	0.4	-1.0	26	4	2.6	0.4	
723	BR004	36.1329	77.1876	3.9	50	2.7	8	40	8000	27	12100	240	200	1.9	9300	30	2.3	-1.0	18	4	M	0.3	
724	BR005	36.1877	77.2343	5.2	62	4.9	17	102	11000	96	45400	1410	400	4.6	36300	70	4.5	-1.0	39	5	M	0.7	
726	BR007	36.1095	77.0279	4.4	60	1.3	4	16	6000	27	-5000	80	300	1.0	3700	10	1.3	1.3	11	1	1.8	0.2	
727	BR008	36.2077	77.0263	4.4	41	1.2	3	12	12700	14	9000	120	1900	2.0	3800	10	1.4	M	10	2	M	0.3	0.083
749	BR030	36.0595	77.1776	5.4	38	6.6	25	94	30000	145	33700	1290	7000	7.1	29600	90	0.4	-1.0	62	7	7.3	1.0	
750	BR031	36.0341	77.1481	5.5	40	5.2	17	68	25900	84	27400	760	4900	8.7	15000	60	M	-1.0	39	M	5.1	0.7	
751	BR032	36.0025	77.1254	5.7	92	2.4	8	22	38400	58	24800	360	4800	8.4	6900	50	M	-1.0	22	4	M	M	
753	BR034	36.1575	77.0748	5.2	38	5.0	27	74	15500	87	23300	590	2300	3.4	14600	40	0.3	1.6	59	4	M	0.6	
754	BR035	36.1777	77.0919	4.9	39	3.2	8	13	33000	37	15000	120	1300	4.8	10400	80	5.1	-1.0	20	2	M	0.5	
755	BR036	36.1784	77.1817	5.7	51	2.3	6	33	12900	17	15500	290	800	1.3	8200	30	2.1	-1.0	M	2	M	0.3	
756	BR037	36.1696	77.0004	5.4	34	3.3	9	13	35600	56	15200	170	900	10.2	8200	60	0.2	0.8	29	6	M	0.4	
2045	ED004	36.0332	77.7514	6.6	110	5.4	12	13	37600	56	21200	160	600	6.9	6700	50	3.9	-1.0	30	5	5.7	0.6	
2046	ED005	36.0593	77.6822	7.2	70	5.5	15	7	77000	119	31500	460	3400	11.5	6900	80	7.4	5.3	41	7	3.1	0.7	
2047	ED006	36.0949	77.6774	6.8	90	7.0	31	60	7400	98	9800	370	400	1.9	8000	20	7.2	-1.0	58	8	9.6	0.9	
2048	ED007	36.1307	77.6886	6.8	75	1.8	6	19	9000	11	8800	190	500	1.5	4700	20	2.6	M	13	2	M	0.3	
2049	ED008	36.0939	77.6248	5.7	120	2.3	13	30	8900	39	9000	140	600	1.2	4800	20	2.9	-1.0	20	3	1.7	0.4	
2050	ED009	36.0536	77.5779	5.5	40	2.3	11	35	6700	45	9200	230	400	2.1	7100	20	1.4	-1.0	24	3	2.2	0.4	
2051	ED010	36.0265	77.6063	5.7	45	2.2	8	19	16200	26	15100	200	200	2.3	6000	30	4.9	-1.0	14	2	M	0.4	
2052	ED011	36.0159	77.5723	5.7	45	5.4	29	93	5300	116	18700	500	200	5.1	15500	40	5.9	1.3	51	8	10.5	0.9	
2053	ED012	36.0071	77.5259	6.7	50	2.7	8	25	19600	18	14000	370	2500	3.7	8000	30	3.6	-1.1	18	3	2.2	0.4	
2054	ED013	36.0143	77.4599	5.9	50	2.4	6	28	9600	35	14100	160	400	3.0	5900	20	2.3	M	17	3	2.6	0.3	
2061	ED020	36.0005	77.6444	6.8	60	4.1	15	14	47100	88	20900	540	4700	6.4	8000	50	M	-1.0	34	5	3.0	0.9	
2613	HA001	36.0423	77.4033	7.7	290	6.1	15	110	10500	108	25000	860	400	5.6	25400	60	4.1	M	34	8	4.7	0.7	
2614	HA002	36.0503	77.3855	M	M	3.1	6	42	8200	-20	9400	240	400	1.8	7900	20	2.5	M	16	3	M	0.5	
2615	HA003	36.1242	77.3517	7.0	90	7.5	26	112	13100	158	25000	910	1000	4.6	23800	60	5.1	-1.0	61	8	M	1.1	
2616	HA004	36.1467	77.3485	7.1	75	4.2	15	46	20000	48	14900	390	1000	3.6	11700	40	7.3	2.0	26	4	M	0.7	
2617	HA005	36.1915	77.3872	6.9	40	2.4	4	28	M	49	9700	M	M	2.4	M	M	M	-1.0	16	2	3.0	0.3	
2618	HA006	36.2184	77.3938	6.7	98	3.1	8	5	M	70	53900	M	M	10.5	M	M	M	M	34	4	2.5	0.4	
2619	HA007	36.1956	77.4567	6.2	68	2.3	4	35	6000	M	5800	220	200	2.0	8000	20	4.6	M	8	3	M	-0.7	
2620	HA008	36.1521	77.4850	M	M	4.3	13	84	M	55	8200	M	M	2.1	M	M	M	-1.0	24	4	M	-0.2	
2621	HA009	36.0899	77.4774	M	M	1.9	4	36	8700	11	12800	680	600	2.6	18900	40	M	M	11	4	M	0.3	
2622	HA010	36.1925	77.6833	M	M	4.3	9	50	M	55	5900	M	M	2.7	M	M	M	-1.1	26	2	4.6	0.3	
2623	HA011	36.2098	77.7275	M	M	25.9	55	602	12200	167	24700	1210	400	7.9	54000	110	16.6	-1.9	76	9	18.9	4.1	
2624	HA012	36.2279	77.8070	7.3	70	33.1	80	829	M	165	65300	M	M	14.0	M	M	M	4.9	M	8	20.7	4.4	
2625	HA013	36.2517	77.9226	7.4	85	3.3	5	46	M	20	20200	M	M	7.8	M	M	M	-1.0	11	3	2.4	0.5	
2626	HA014	36.2624	77.9374	7.4	92	2.2	7	7	43300	33	32500	840	9200	10.7	6200	80	M	1.0	14	2	3.9	M	

ROANOKE RAPIDS 100K QUADRANGLE - STREAM SEDIMENT

Lab #	County	Lat	Long	pH	Cond um/cm	U ppm	Th ppm	Hf ppm	Al ppm	Ce ppm	Fe ppm	Mn ppm	Na ppm	Sc ppm	Ti ppm	V ppm	Dy ppm	Eu ppm	La ppm	Sm ppm	Yb ppm	Lu ppm	Au ppm
2627	HA015	36.2948	77.9217	7.5	83	1.9	19	10	M	51	-5000	M	M	1.6	M	M	M	34	3	M	0.3		
2628	HA016	36.3270	77.8703	7.5	80	33.6	64	824	36600	174	27500	1350	5500	11.7	11900	60	15.6	M	91	9	25.0	5.0	
2629	HA017	36.3311	77.8481	7.4	55	18.4	69	290	M	59	14400	M	M	4.9	M	M	M	1.2	M	3	9.6	2.1	
2630	HA018	36.3694	77.8349	7.6	71	16.0	46	297	12600	39	23200	630	500	3.9	12900	60	7.6	-1.0	25	5	10.2	1.5	
2631	HA019	36.4209	77.8314	7.7	57	17.1	100	111	M	285	9700	M	M	4.0	M	M	M	M	154	M	14.1	1.8	
2632	HA020	36.4387	77.8390	7.3	56	25.8	147	49	29500	578	21200	1520	2700	7.9	13200	40	41.1	3.9	298	31	19.8	2.1	
2633	HA021	36.4436	77.7897	7.5	61	23.2	92	299	20100	307	29500	1840	1700	7.3	37100	70	7.9	5.2	160	18	12.4	3.0	
2634	HA022	36.4033	77.7200	7.4	81	24.7	56	621	16700	208	45800	2690	600	11.2	56100	150	9.8	2.5	98	12	20.5	3.5	
2635	HA023	36.3635	77.6578	7.4	70	14.1	37	318	M	122	27800	M	M	9.7	M	M	M	M	63	9	12.2	1.9	
2636	HA024	36.3387	77.6029	7.5	80	19.8	M	385	19000	M	M	3760	1100	7.9	M	220	8.8	M	M	41	M	M	
2637	HA025	36.1842	77.7224	6.3	70	6.9	20	132	11000	59	8000	360	600	4.0	15000	50	3.3	4.0	36	11	4.3	0.7	
2638	HA026	36.1762	77.7333	M	M	13.2	37	276	14100	154	27900	1420	400	4.5	46900	110	8.8	1.7	71	9	10.8	1.9	
2639	HA027	36.1780	77.7828	7.3	75	13.5	27	385	21700	128	32100	1520	2300	12.2	39500	110	6.0	M	55	8	8.0	2.2	
2640	HA028	36.1816	77.8152	7.4	89	17.2	36	397	21800	176	52500	4010	1100	13.5	M	260	4.4	1.2	61	6	11.4	2.5	
2641	HA029	36.1551	77.8523	7.5	111	8.2	M	159	24900	M	M	2090	2200	9.4	32700	120	2.4	M	M	M	M	M	
2642	HA030	36.1799	77.8987	7.3	108	2.8	8	40	29300	25	17700	300	6900	6.5	11900	60	M	-1.1	17	2	3.0	0.4	
2643	HA031	36.1969	77.9333	7.2	70	3.4	9	62	34900	23	34400	M	M	13.3	M	M	M	-1.1	15	3	4.5	0.7	
2644	HA032	36.2097	77.9222	7.3	135	3.5	10	76	30300	-24	13200	500	9100	8.4	13000	120	3.6	-2.0	11	2	4.2	0.6	
2646	HA034	36.2324	77.9708	7.2	155	1.6	3	11	M	-20	10600	M	M	2.1	M	M	M	-1.0	4	1	M	0.1	
2647	HA035	36.2326	77.9510	7.4	100	2.0	M	17	23300	M	M	450	3300	5.7	7500	50	3.2	M	M	M	M	M	
2648	HA036	36.2552	77.8911	7.5	67	8.1	70	30	M	240	15400	M	M	5.2	M	M	M	-1.0	123	M	7.2	1.5	
2649	HA037	36.2778	77.8802	7.7	60	11.7	17	245	36600	88	21000	1030	3000	6.7	8300	40	5.3	-1.8	46	5	9.8	1.6	
2650	HA038	36.2711	77.8250	7.5	60	40.2	83	953	M	172	49600	M	M	11.2	M	M	M	M	M	M	32.6	4.9	
2651	HA039	36.2704	77.7867	7.1	121	12.7	38	277	16800	136	42500	1680	1700	11.8	68300	170	13.5	1.1	64	9	11.1	1.7	
2652	HA040	36.2569	77.7593	7.2	110	8.1	15	202	M	49	30000	M	M	10.3	M	M	M	M	24	3	6.8	1.5	
2653	HA041	36.2303	77.7688	7.3	118	29.3	M	828	M	M	M	M	M	M	M	M	M	M	M	M	M	M	
2654	HA042	36.2194	77.7298	M	M	32.4	51	893	12900	181	44200	3060	500	12.6	92900	130	8.7	M	83	11	25.6	5.3	
2655	HA043	36.2410	77.7213	6.9	141	8.0	14	190	18700	34	28600	M	M	8.4	M	M	M	-1.1	24	3	M	1.1	
2656	HA044	36.2753	77.7046	7.6	71	31.0	94	769	16400	328	67700	3050	1300	16.0	91400	200	11.6	M	156	17	26.3	3.7	
2657	HA045	36.2834	77.6954	M	M	31.0	60	743	20700	187	77000	6040	500	14.0	M	340	4.3	M	101	17	16.8	3.4	
2658	HA046	36.3131	77.6987	M	M	5.5	21	109	17300	46	33900	1650	2000	10.0	61200	140	6.6	3.0	28	3	M	0.8	
2659	HA047	36.3166	77.7196	7.4	71	21.7	74	546	12300	306	51400	2230	400	8.8	62200	130	3.1	-1.0	139	19	17.4	3.2	
2660	HA048	36.3066	77.7201	7.4	59	26.0	60	626	M	269	44300	M	M	9.1	M	M	5.4	M	130	19	18.1	3.1	
2661	HA049	36.2784	77.7446	7.4	71	12.1	28	291	M	95	63800	M	M	12.1	M	M	M	1.4	M	7	10.6	2.0	
2662	HA050	36.2915	77.8152	7.6	60	10.1	26	180	M	63	24500	M	M	7.4	M	M	M	-1.0	29	M	6.9	1.1	
2663	HA051	36.3316	77.7577	7.6	80	19.2	48	512	11600	165	38800	1680	400	6.8	59400	130	15.0	M	96	10	12.5	2.8	
2664	HA052	36.3404	77.7543	7.8	80	17.4	45	409	M	198	38000	M	M	10.2	M	M	M	M	78	M	13.1	2.3	
2665	HA053	36.3484	77.7527	7.3	79	11.4	M	266	11700	M	M	1340	500	6.0	37900	90	5.5	M	349	13	M	M	

ROANOKE RAPIDS 100K QUADRANGLE - STREAM SEDIMENT

Lab #	County	Lat	Long	pH	Cond um/cm	U ppm	Th ppm	Hf ppm	Al ppm	Ce ppm	Fe ppm	Mn ppm	Na ppm	Sc ppm	Ti ppm	V ppm	Dy ppm	Eu ppm	La ppm	Sm ppm	Yb ppm	Lu ppm	Au ppm
2666	HA054	36.3454	77.7065	7.1	83	29.1	68	698	M	258	57100	M	M	10.1	M	M	M	146	M	21.8	3.4		
2667	HA055	36.3761	77.7344	7.2	78	8.6	17	240	15200	60	24300	1550	1900	8.4	39000	100	2.7	M	29	3	11.7	1.3	
2668	HA056	36.3827	77.7588	7.3	99	13.1	16	365	M	67	34200	M	M	8.4	M	M	M	24	3	10.6	2.0		
2669	HA057	36.3780	77.8518	7.7	50	2.7	15	19	26000	73	8700	350	3400	3.4	4100	20	M	4.1	24	6	M	-0.4	
2670	HA058	36.3794	77.8717	7.4	41	11.8	67	143	M	187	16400	M	M	5.2	M	M	1.7	92	9	6.4	1.3		
2671	HA059	36.3737	77.8945	7.2	110	5.2	23	69	28500	86	8800	550	4000	4.6	5400	20	3.9	-1.6	46	6	3.2	0.8	
2672	HA060	36.3305	77.9259	7.6	63	9.8	58	55	M	215	23400	M	M	6.6	M	M	-1.1	100	M	M	0.9		
2673	HA061	36.3331	77.9133	7.8	51	7.3	132	16	45000	440	8100	1450	13000	3.6	10600	20	19.7	M	243	17	5.7	0.6	
2674	HA062	36.4383	77.8834	7.2	68	3.5	21	22	25200	31	7500	290	3600	2.0	2900	10	3.8	-1.3	27	3	M	0.4	
2675	HA063	36.4727	77.9037	7.3	45	9.1	M	116	27800	M	M	350	3700	5.2	3400	40	1.5	M	M	M	M	M	
2676	HA064	36.4698	77.8152	7.3	80	4.7	M	30	28800	M	M	600	4700	5.6	4800	50	5.1	M	M	6	M	M	
2677	HA065	36.4164	77.7695	7.2	60	10.3	12	244	16200	52	22500	730	300	4.4	29900	60	3.2	-1.0	15	4	5.5	1.3	
2678	HA066	36.4189	77.7360	7.3	60	7.6	13	177	15200	57	20000	500	300	5.0	25600	60	M	M	28	5	5.5	0.8	
2679	HA067	36.4259	77.7329	7.2	84	4.3	7	94	M	18	14100	M	M	5.0	M	M	M	9	1	M	0.4		
2680	HA068	36.4286	77.7146	6.8	61	11.0	36	224	17300	115	36000	2270	M	8.1	81400	190	6.4	-1.3	66	7	7.7	1.2	
2681	HA069	36.4580	77.7022	6.9	60	13.6	33	326	16700	90	20700	1020	M	7.4	39800	90	5.5	1.3	60	5	9.0	1.1	
2682	HA070	36.4323	77.6541	7.4	100	10.0	26	195	16900	101	31100	1550	1200	5.5	50000	110	7.8	-1.3	57	12	6.1	1.2	0.042
2683	HA071	36.3992	77.6662	M	M	18.0	40	371	15000	178	26600	940	200	8.3	35900	80	11.6	-1.9	98	18	13.4	2.2	
2684	HA072	36.3471	77.6793	6.9	65	8.3	17	166	M	84	23400	M	M	7.1	M	M	M	34	5	7.1	0.9		
2685	HA073	36.3020	77.6684	6.5	45	8.6	26	171	M	50	13100	M	M	2.0	M	M	M	44	M	M	1.4		
2686	HA074	36.3066	77.6360	M	M	23.3	56	469	11200	219	36800	1590	200	5.8	49100	90	11.1	M	124	11	16.3	2.7	
2687	HA075	36.3217	77.5920	6.8	80	22.9	67	467	M	270	76400	M	M	13.4	M	M	2.4	133	M	14.6	2.6		
2688	HA076	36.2492	77.5543	6.6	71	4.3	9	32	40000	47	16500	410	800	5.3	10100	60	3.6	M	42	7	M	0.4	
2689	HA077	36.4106	77.6199	6.7	90	7.7	23	120	M	122	23700	M	M	3.4	M	M	-1.3	56	7	7.6	0.9		
2690	HA078	36.4200	77.5876	7.0	121	3.8	9	33	48800	74	28000	800	7000	8.9	10500	90	M	-1.9	27	3	2.2	0.3	
2691	HA079	36.3748	77.5887	7.1	71	6.5	18	116	M	96	30000	M	M	3.8	M	M	M	M	M	M	1.0		
2692	HA080	36.2758	77.4759	6.5	71	3.6	6	3	75600	-28	59100	2270	900	9.6	5300	110	5.6	M	43	17	M	-0.2	
2693	HA081	36.2440	77.5449	6.8	71	4.6	13	60	M	61	17200	M	M	3.2	M	M	-1.0	31	4	2.4	0.2		
2694	HA082	36.2278	77.5447	6.7	78	3.6	5	49	10400	43	9900	370	600	2.4	10100	30	M	-1.0	18	4	M	0.2	
2695	HA083	36.2181	77.5676	6.6	83	4.3	8	14	M	69	12700	M	M	5.4	M	M	-1.0	28	M	2.0	0.7		
2696	HA084	36.2204	77.5807	6.1	59	4.3	6	67	8300	26	15100	530	400	2.6	14400	30	5.8	M	25	5	3.4	0.6	
2697	HA085	36.2073	77.6148	6.5	89	12.1	27	220	M	150	27900	M	M	4.1	M	M	-1.6	72	10	5.4	1.1		
2698	HA086	36.1743	77.6151	6.3	98	11.8	49	155	7000	155	17100	510	300	3.6	13500	30	9.7	M	99	19	9.3	2.0	
2699	HA087	36.1431	77.6148	6.2	71	8.4	34	94	29700	228	9400	1060	2500	9.4	14600	70	13.6	-1.2	64	9	7.3	1.3	
2700	HA088	36.2248	77.4282	6.6	106	12.7	49	182	22000	205	49700	2070	3900	9.2	42300	100	7.0	4.1	103	9	13.4	1.0	
2701	HA089	36.1856	77.4731	6.0	129	2.9	6	37	7100	-20	7600	150	200	1.8	M	20	M	0.9	14	2	M	0.3	
2922	HT001	36.2797	77.0018	5.8	48	8.7	40	149	21400	201	43100	1410	3500	8.1	29100	80	0.2	-1.0	164	18	M	-1.0	
2923	HT002	36.2536	77.0018	6.1	99	3.8	6	11	31700	26	11500	50	300	6.6	3600	40	0.9	M	13	6	M	0.2	

ROANOKE RAPIDS 100K QUADRANGLE - STREAM SEDIMENT

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2924	HT003	36.2748	77.0480	4.1	41	3.0	9	17	25200	38	10800	100	1300	5.4	4400	40	1.5	-1.0	13	5	M	0.3		
2925	HT004	36.2583	77.0710	4.5	35	2.9	7	22	17900	26	9200	120	1400	5.4	4300	30	2.2	2.1	18	6	M	0.3		
2926	HT005	36.2765	77.1059	5.7	43	2.3	10	28	16900	47	17100	260	2800	4.8	6500	30	M	-1.0	M	5	M	0.4		
2927	HT006	36.3236	77.0885	6.1	52	5.1	9	60	21800	44	11300	440	2700	6.1	8900	30	3.2	-1.0	20	8	M	0.3		
2928	HT007	36.3294	77.0362	5.2	34	1.9	4	23	13900	19	-5000	130	1200	2.3	2700	10	0.3	-1.0	M	5	M	0.2		
2929	HT008	36.3600	77.0140	5.5	33	3.7	14	17	57500	62	23900	190	2400	7.6	8300	100	0.3	-1.0	M	8	M	M		
2942	HT021	36.3866	77.0552	5.8	77	3.2	7	57	6500	17	14500	410	300	4.1	10500	30	3.2	-1.0	14	5	M	0.3		
2943	HT022	36.3990	77.0701	4.8	110	1.1	3	20	2800	-20	-5200	180	100	1.0	4900	10	0.9	-1.0	5	1	M	M		
2944	HT023	36.4155	77.0521	5.6	69	3.7	12	59	8600	56	13000	410	600	2.7	10600	30	2.0	-1.0	M	10	4.5	0.5		
2947	HT026	36.3024	77.1382	6.0	32	0.1	M	1	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	
2948	HT027	36.2800	77.1534	5.2	39	3.0	8	19	53400	60	19500	350	2900	7.1	8800	80	6.0	1.0	27	1	1.5	0.5		
2949	HT028	36.2650	77.1685	5.0	40	8.9	33	154	19600	147	40500	1090	1700	7.1	27000	60	5.5	-1.0	78	12	8.2	1.5		
2950	HT029	36.2504	77.1785	4.7	36	4.2	10	44	32300	48	18200	250	1400	5.8	8900	50	2.1	-1.0	28	4	2.2	0.4		
2951	HT030	36.3278	77.1561	6.0	59	5.6	21	59	42700	111	21700	630	5500	7.4	11200	60	7.4	-1.0	53	8	5.7	0.9		
2952	HT031	36.3501	77.0946	5.6	43	21.5	82	336	20200	450	65500	2600	3400	10.9	55200	130	1.0	3.7	227	28	18.6	3.3		
2953	HT032	36.3693	77.0910	5.4	38	2.4	10	26	20200	56	18900	220	2000	2.4	5900	30	2.1	0.7	26	4	2.1	0.5		
2954	HT033	36.3900	77.1335	5.5	53	4.0	13	12	101300	41	28400	140	700	10.7	8800	130	3.6	-1.0	35	5	1.8	0.4		
2955	HT034	36.4098	77.1382	5.5	53	5.1	21	95	10000	111	22600	540	400	2.1	16900	40	2.8	-1.0	50	9	4.7	0.8		
2956	HT035	36.4359	77.1308	6.0	67	10.7	47	174	13700	198	31500	960	800	4.2	26800	60	7.5	-1.4	116	17	7.0	1.1		
2957	HT036	36.4611	77.1147	5.9	68	2.5	10	40	11700	52	13300	380	1100	2.1	11600	30	3.8	-1.0	23	3	2.9	0.4		
2958	HT037	36.4417	77.0444	5.7	52	3.2	10	13	35500	75	26600	140	900	4.6	7100	60	3.7	-1.7	32	5	2.2	0.4		
2959	HT038	36.4848	77.0529	5.9	91	3.5	8	9	46300	49	21300	200	2700	5.2	5300	50	4.4	-1.0	24	3	M	0.3	0.013	
2960	HT039	36.4809	77.0355	5.7	63	4.2	28	54	17400	141	15600	590	2700	3.9	13800	40	10.2	-1.1	55	9	4.0	0.7	0.028	
4140	MR013	36.0132	77.2999	5.6	58	2.6	8	19	38900	36	12800	170	1000	3.5	9100	60	M	-1.0	23	2	2.0	0.2		
4141	MR014	36.0441	77.3326	4.9	50	1.7	M	19	10900	-20	10700	140	400	1.7	5900	20	1.9	-1.0	11	2	M	0.2		
4142	MR015	36.0006	77.3433	5.7	63	3.1	10	33	18400	55	17900	230	1000	3.1	9200	40	8.5	-1.0	23	M	3.8	0.5		
4268	NA058	36.0482	77.9994	7.0	70	11.8	15	333	18000	41	22100	1080	2700	9.3	32800	70	6.3	-1.1	21	3	8.6	1.7		
4269	NA059	36.0619	77.9865	7.2	75	27.2	44	840	15400	99	63800	2390	700	14.9	73700	140	12.6	-1.1	48	7	17.4	3.9		
4270	NA060	36.1085	77.9886	7.4	60	6.2	37	63	12600	87	7300	250	2400	2.5	5600	20	4.2	-1.4	51	6	4.8	1.2		
4271	NA061	36.1277	77.9566	7.4	60	2.7	13	37	10800	25	13600	930	900	2.4	6900	30	M	-1.0	17	3	4.9	0.5		
4272	NA062	36.1452	77.9827	6.8	61	7.5	8	184	13300	-20	10600	280	800	8.2	M	40	M	-1.2	9	1	4.0	0.9		
4274	NA064	36.1369	77.9129	7.2	83	3.1	13	66	M	33	13700	320	900	3.4	11300	30	M	M	14	2	5.9	0.3		
4275	NA065	36.1312	77.8800	7.6	90	6.2	14	145	13200	53	21600	M	700	4.6	19600	60	M	M	25	5	5.5	0.6		
4276	NA066	36.0773	77.9020	7.8	100	1.7	7	29	40000	-24	21400	950	2500	10.9	11300	120	2.0	M	10	2	M	0.6		
4277	NA067	36.0890	77.9222	7.1	72	4.8	14	105	14800	22	16900	610	1300	7.0	18200	50	M	-1.0	24	4	3.9	0.6		
4278	NA068	36.0865	77.9306	7.3	73	4.2	15	72	12100	-20	-5000	870	1000	5.6	16500	50	M	-1.0	22	M	3.5	-0.2		
4279	NA069	36.0713	77.9279	M	M	2.1	6	19	19200	23	12300	500	1000	5.4	14600	70	4.3	-1.0	12	3	M	0.3		
4280	NA070	36.0683	77.9455	7.4	65	11.7	32	383	17400	59	36700	1260	600	11.6	48800	110	6.0	-2.0	26	4	10.9	1.9		

ROANOKE RAPIDS 100K QUADRANGLE - STREAM SEDIMENT

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4281	NA071	36.0441	77.9306	6.5	98	30.9	63	837	18100	210	47100	1920	22800	10.8	70800	180	5.3	M	115	12	17.3	3.8	
4282	NA072	36.0301	77.9612	M	M	1.9	5	31	17100	-23	10800	500	3700	3.5	21300	70	3.3	-1.1	7	6	M	0.3	
4283	NA073	36.0165	77.9353	8.0	95	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	
4296	NA086	36.0124	77.8116	7.4	110	5.0	21	61	7500	67	15300	760	300	3.0	26600	50	4.7	-1.0	41	4	M	0.3	
4297	NA087	36.0386	77.7985	6.8	91	7.6	54	60	10100	194	8300	240	300	3.8	7000	20	6.5	M	99	11	7.2	1.0	
4298	NA088	36.0308	77.7674	6.5	118	8.8	43	100	8500	153	11600	880	400	3.9	26300	60	17.9	M	75	12	12.8	1.4	
4299	NA089	36.0454	77.7566	7.0	92	4.6	33	50	8000	67	9400	320	600	2.1	8300	20	4.7	-1.1	46	8	M	0.5	
4300	NA090	36.1419	77.7427	6.7	125	7.7	34	83	8500	143	10700	600	500	2.3	12900	30	10.9	-1.4	67	12	10.6	1.4	
4301	NA091	36.1149	77.7831	7.1	74	12.4	50	209	11500	165	26100	1000	500	6.6	30400	70	6.8	-1.7	71	9	10.6	1.6	
4302	NA092	36.1017	77.7743	M	M	17.0	99	101	11700	336	15100	610	400	3.6	12700	30	31.2	3.7	197	22	14.6	2.2	
4304	NA094	36.0720	77.8699	7.5	70	7.6	46	54	26800	164	20200	890	5000	6.9	12000	60	M	-2.0	76	8	5.1	0.9	
4305	NA095	36.1073	77.8417	7.5	71	19.3	38	407	15900	-20	-5000	2030	700	7.8	60300	130	4.6	M	57	13	M	-0.2	
4306	NA096	36.1198	77.8409	7.4	85	9.9	20	211	13000	82	36300	M	400	7.6	35700	80	M	2.1	36	6	6.1	1.2	
4307	NA097	36.1049	77.8143	7.3	71	16.0	44	301	13300	156	32900	1380	600	6.1	38800	90	7.0	M	85	15	10.2	1.9	
4325	NO001	36.4508	77.5979	8.5	36	5.2	9	76	27200	122	16100	M	M	4.0	M	M	M	M	37	3	12.2	0.5	
4326	NO002	36.4329	77.5455	6.6	41	2.8	7	31	23400	32	14800	M	2200	3.3	12000	30	M	-1.6	18	2	2.0	-0.2	
4327	NO003	36.3351	77.5283	5.7	101	3.9	M	M	85800	M	M	790	2200	10.5	7000	120	15.7	M	M	16	M	M	
4328	NO004	36.3690	77.5232	5.1	40	2.8	7	25	37700	58	17400	650	8400	5.1	9400	60	5.4	M	24	4	M	0.8	
4329	NO005	36.3347	77.4681	5.6	108	2.6	11	19	44500	47	26600	550	9400	9.9	8300	80	4.6	1.5	27	4	5.9	0.4	
4330	NO006	36.3049	77.3834	5.6	105	3.6	11	14	53300	74	35800	360	1300	5.5	7200	100	2.6	-1.8	26	3	M	0.5	
4331	NO007	36.2616	77.3701	6.2	65	4.5	9	48	22800	60	20400	780	5000	5.0	14000	50	9.1	-1.2	32	6	3.7	0.5	
4332	NO008	36.2654	77.3302	6.8	110	5.7	21	72	11800	45	13400	530	1100	1.8	11400	30	6.1	1.0	35	3	2.4	0.6	
4333	NO009	36.2489	77.3387	6.2	182	3.2	6	23	29200	61	17200	M	M	5.7	M	60	M	M	27	4	M	0.4	
4334	NO010	36.2429	77.3501	5.9	150	4.3	7	6	77700	94	42300	920	3400	11.1	7100	120	3.9	5.3	49	7	4.9	0.5	
4335	NO011	36.2274	77.3672	6.2	61	4.6	10	12	53700	84	37100	1980	8000	6.8	5800	120	M	M	40	8	4.0	0.4	
4336	NO012	36.2253	77.2967	5.8	102	5.2	12	67	16300	66	17600	660	2500	4.3	13000	40	3.5	-1.2	35	6	7.0	0.7	
4337	NO013	36.2089	77.3089	6.5	101	8.7	35	99	M	192	37300	M	M	8.2	M	M	M	4.0	83	M	13.7	1.1	
4338	NO014	36.2512	77.2225	6.1	60	4.1	16	55	M	65	16200	M	M	5.0	M	M	M	M	35	5	3.6	0.4	
4339	NO015	36.2806	77.1955	M	M	2.9	6	31	15600	27	11000	290	1200	2.0	6500	30	1.7	M	18	3	3.0	0.3	
4340	NO016	36.4066	77.4995	5.5	45	4.1	8	19	M	79	19500	M	M	7.5	M	M	M	-1.4	34	5	4.1	0.4	
4341	NO017	36.3840	77.4485	6.4	29	6.7	22	81	31700	101	15100	740	1200	4.8	17300	60	3.1	M	51	8	M	0.3	
4342	NO018	36.3433	77.3718	6.3	100	2.6	6	19	24700	-20	6000	170	2100	2.8	5900	40	2.2	M	16	3	M	M	
4343	NO019	36.3114	77.3449	5.4	69	2.3	5	24	18300	14	9000	340	2400	2.9	8000	40	4.7	-1.0	13	2	1.6	0.2	
4344	NO020	36.2945	77.3033	6.3	90	4.9	13	58	15200	74	19200	550	1300	3.0	12000	40	3.4	M	26	3	3.8	0.8	
4345	NO021	36.2851	77.2545	6.2	52	4.2	M	25	57200	M	M	420	3100	7.4	11200	90	3.0	M	M	5	M	M	
4346	NO022	36.3107	77.1900	6.5	95	3.5	7	36	28400	44	15500	660	4900	5.3	11800	60	6.7	-1.0	26	4	3.9	0.5	
4347	NO023	36.3487	77.2153	5.5	89	4.4	15	46	19700	77	17600	500	M	3.8	10300	40	6.0	1.0	34	5	M	0.6	
4348	NO024	36.3469	77.2571	5.2	125	2.4	5	26	11800	-22	-5000	280	2200	1.8	7000	30	2.7	-1.0	12	4	M	0.2	

ROANOKE RAPIDS 100K QUADRANGLE - STREAM SEDIMENT

Lab #	County	Lat	Long	pH	Cond um/cm	U ppm	Th ppm	Hf ppm	Al ppm	Ce ppm	Fe ppm	Mn ppm	Na ppm	Sc ppm	Ti ppm	V ppm	Dy ppm	Eu ppm	La ppm	Sm ppm	Yb ppm	Lu ppm	Au ppm
4349	NO025	36.3326	77.2813	5.3	60	3.5	6	36	15300	40	12000	M	2400	4.4	5700	30	2.7	M	19	4	M	0.4	
4350	NO026	36.3491	77.3345	4.5	50	2.4	6	24	16000	44	6600	M	1800	2.8	6500	20	3.2	-1.0	17	2	5.2	0.4	
4351	NO027	36.3774	77.2736	5.5	67	2.1	5	27	11400	29	16500	330	1500	2.0	8400	20	M	-1.0	13	1	2.9	0.2	
4352	NO028	36.3862	77.2345	5.9	75	2.9	8	40	M	52	5200	M	M	1.5	M	M	M	1.9	19	3	M	0.5	
4353	NO029	36.3804	77.2073	6.2	88	3.4	13	30	14900	38	12400	500	2600	4.0	11800	50	5.4	-1.0	32	9	M	-0.7	
4354	NO030	36.3762	77.1618	5.6	85	3.0	9	39	M	57	12100	M	M	3.3	M	M	M	-1.0	23	4	3.4	0.5	
4355	NO031	36.4122	77.1704	5.2	81	3.7	13	53	13100	56	13700	660	600	3.4	20500	40	4.1	-1.0	26	3	M	0.6	
4356	NO032	36.4138	77.2487	6.5	90	3.4	10	41	M	54	16000	M	M	3.9	M	M	M	M	27	3	2.2	0.5	
4357	NO033	36.4086	77.2887	6.3	52	5.9	17	97	8000	85	11600	600	300	2.8	15000	30	5.1	-1.1	42	9	4.0	0.9	
4358	NO034	36.3942	77.3062	5.6	70	3.3	12	37	M	56	13400	M	M	3.2	M	M	M	-1.0	24	3	M	0.5	
4359	NO035	36.4037	77.3732	6.3	50	5.4	19	65	16200	88	18800	380	400	4.1	10700	40	4.9	-1.0	45	7	4.5	1.2	
4360	NO036	36.3920	77.4016	6.1	45	2.3	M	26	10800	M	M	210	1000	1.6	5600	20	2.2	M	M	3	M	M	
4361	NO037	36.4316	77.3723	6.0	55	2.6	6	35	9000	46	6700	270	300	2.0	8700	30	3.7	M	14	4	1.6	0.6	
4362	NO038	36.4361	77.4016	5.5	60	2.6	7	30	7700	17	7200	240	500	0.9	6600	20	1.8	-1.0	12	2	3.3	0.4	
4363	NO039	36.4301	77.4668	6.1	51	5.9	19	82	13900	74	19900	860	600	2.5	18700	50	10.4	2.2	41	7	5.9	1.0	0.043
4364	NO040	36.4312	77.5101	5.6	40	3.5	9	14	45500	34	11000	260	1000	5.6	10800	70	5.7	-1.0	22	3	2.6	0.3	
4365	NO041	36.4615	77.4499	6.2	72	3.5	9	44	7300	44	7200	M	M	2.1	M	M	M	-1.0	20	2	3.3	0.4	
4366	NO042	36.4529	77.3988	5.9	40	2.7	3	43	8100	-26	7500	280	600	2.1	8800	30	5.4	4.6	12	4	M	0.4	
4367	NO043	36.4530	77.3156	5.8	39	7.4	21	130	M	74	10800	M	M	4.0	M	M	M	2.8	61	7	4.7	1.2	0.052
4368	NO044	36.4495	77.2498	6.2	50	1.7	4	27	5000	21	6500	140	100	1.5	5000	20	1.3	-1.0	6	1	M	0.2	
4369	NO045	36.4444	77.2193	6.4	119	2.3	5	23	14100	-20	13700	220	400	1.1	7400	30	3.0	M	14	3	2.8	0.2	
4370	NO046	36.4549	77.2062	5.8	50	2.1	M	30	M	M	M	M	M	2.6	M	M	M	M	M	M	M	M	
4371	NO047	36.4418	77.1738	6.4	90	3.4	7	44	12000	52	14000	310	600	2.5	9300	30	4.4	M	30	7	2.1	0.3	
4372	NO048	36.4355	77.1378	6.1	50	4.8	13	57	M	97	21800	M	M	5.2	M	M	M	2.5	36	4	2.3	0.9	
4373	NO049	36.4681	77.1422	6.3	65	4.3	20	50	12600	93	17600	390	1700	4.5	10300	30	4.6	-1.0	48	7	3.8	0.9	
4374	NO050	36.4771	77.1457	6.5	115	8.2	21	142	16200	163	28000	670	1700	4.9	19100	60	4.2	-1.0	240	10	M	M	
4375	NO051	36.4941	77.1735	6.8	131	3.8	16	53	10700	38	13100	330	600	3.3	9200	30	3.8	M	35	6	2.9	0.4	0.030
4376	NO052	36.4958	77.2616	6.5	105	6.9	30	87	6100	149	-5000	250	500	3.5	6600	10	5.3	2.7	73	10	4.4	0.7	
4377	NO053	36.4975	77.3102	6.4	48	2.4	M	39	6900	M	M	200	200	1.9	5700	10	2.1	M	13	3	M	M	
4382	NO058	36.4591	77.5015	5.7	60	2.0	4	18	13900	-20	8100	160	800	2.7	5800	30	3.1	-1.2	10	2	2.2	0.5	
4390	NO066	36.4911	77.6700	5.9	38	7.0	20	134	29300	49	32900	780	400	6.7	23700	80	4.5	-1.0	33	3	5.5	1.1	
4391	NO067	36.4819	77.6346	6.1	98	5.4	17	77	9700	65	25700	720	400	2.9	17800	40	5.7	1.7	35	5	4.5	1.1	
6392	WR001	36.4535	77.9308	8.0	101	4.1	9	93	16000	29	-5000	160	7900	3.6	2500	10	4.8	-1.0	M	M	11.0	0.8	
6393	WR002	36.3861	77.9190	7.6	42	3.8	14	23	66500	82	34000	380	16200	8.6	6000	60	5.0	3.1	58	5	M	M	
6394	WR003	36.3883	77.9362	7.7	41	1.9	4	11	24900	83	9800	280	9900	8.7	1500	20	3.3	3.9	22	15	M	-0.3	
6395	WR004	36.3679	77.9491	7.8	50	4.7	19	13	29800	78	22500	620	10900	8.8	5100	60	13.0	-1.0	42	10	4.6	0.5	
6396	WR005	36.3330	77.9374	7.6	51	11.5	101	32	22000	461	15900	740	9100	14.9	7100	50	27.7	4.2	217	98	17.1	2.6	
6397	WR006	36.3121	77.9512	7.7	59	1.2	-2	8	19500	-20	14400	600	8900	8.3	7300	50	1.1	2.8	M	M	2.5	0.3	

ROANOKE RAPIDS 100K QUADRANGLE - STREAM SEDIMENT

Lab #	County	Lat	Long	pH	Cond µm/cm	U ppm	Th ppm	Hf ppm	Al ppm	Ce ppm	Fe ppm	Mn ppm	Na ppm	Sc ppm	Ti ppm	V ppm	Dy ppm	Eu ppm	La ppm	Sm ppm	Yb ppm	Lu ppm	Au ppm
6398	WR007	36.2794	77.9601	7.4	52	1.6	-3	8	32700	54	29100	610	9600	8.0	6200	80	3.1	-1.0	M	4	M	0.4	
6406	WR015	36.3105	77.9802	7.5	81	1.6	7	12	23600	-20	40700	870	8600	14.2	10600	130	3.1	4.6	M	M	M	-0.3	
6407	WR016	36.3188	77.9745	7.6	49	1.5	8	6	22700	20	34400	260	7400	5.9	5000	70	2.7	2.4	15	9	M	M	
6408	WR017	36.3389	77.9918	7.4	60	1.5	8	6	50000	40	59200	1790	12400	18.7	10500	230	4.7	-1.0	24	M	M	-0.3	
6411	WR020	36.3479	77.9750	7.6	46	13.1	98	35	30400	408	16800	800	10600	11.9	8500	60	41.0	-1.2	118	38	17.9	2.4	
6412	WR021	36.3783	77.9793	6.1	41	25.8	8	13	28700	30	18800	170	3900	4.0	1600	40	2.2	-1.0	17	4	M	0.6	
6413	WR022	36.4044	77.9516	6.8	49	1.6	-3	7	19100	-20	5900	300	3400	3.4	1800	20	1.8	-1.0	9	M	2.8	-0.2	
6445	WR054	36.4542	77.9720	7.7	59	2.3	15	5	42000	74	17700	640	4800	28.2	1900	110	6.7	-1.0	23	5	4.2	-0.2	

EMPORIA 100K QUADRANGLE - SUPPLEMENTAL STREAM SEDIMENT

Lab #	County	Lat	Long	Ux	Ag	As	Ba	Be	Ca	Co	Cr	Cu	K	Li	Mg	Mo	Nb	Ni	P	Pb	Se	Sn	Sr	W	Y	Zn
ID				ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
2915	NO054	36.5155	77.3592	-0.1	0.1	1	5	-0.5	-100	-5	5	-2	3000	8	300	-2	-5	-5	700	-10	-1	-5	.	-2	-5	7
2916	NO055	36.5212	77.3830	-0.1	0.2		12	-0.5	-100	5	7	-2	2000	8	350	-2	-5	-5	700	-10	3	10	.	-2	-5	5
2917	NO056	36.5067	77.4107	-0.1	-0.1		5	-0.5	-100	-5	8	-2	2000	7	350	-2	-5	-5	700	-10	-1	5	.	-2	-5	5
2918	NO057	36.5071	77.4586	-0.1	-0.1	0	.	0.5	-100	-5	16	2	1000	8	400	5	-5	-5	700	-10	2	-5	.	-2	5	5
2920	NO059	36.5034	77.5105	-0.1	0.1	1	15	-0.5	-100	-5	10	-2	3000	7	300	-2	5	-5	500	-10	-1	-5	.	-2	-5	-5
2921	NO060	36.5057	77.5488	-0.1	0.1	1	17	1	-100	-5	10	-2	4000	6	350	-2	5	-5	500	-10	2	-5	.	-2	-5	-5
2922	NO061	36.5091	77.5434	-0.1	-0.1	3	7	-0.5	-100	-5	6	2	4000	6	300	-2	5	-5	600	-10	1	-5	.	-2	10	7
2923	NO062	36.5094	77.6326	-0.1	0.1	2	10	0.5	100	-5	7	4	3000	12	1050	3	5	-5	600	12	-1	-5	.	-2	5	22
2924	NO063	36.5203	77.6555	-0.1	-0.1	2	.	0.5	100	-5	20	2	2000	7	900	-2	5	-5	600	-10	1	-5	.	-2	5	15
2925	NO064	36.5113	77.6858	.	.		5	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2926	NO065	36.5014	77.6857	-0.1	0.1	0	10	-0.5	-100	-5	13	2	2000	5	350	5	5	-5	600	20	-1	10	.	-2	-5	12

ROANOKE RAPIDS 100K QUADRANGLE - SUPPLEMENTAL STREAM SEDIMENT

Lab #	County	Lat	Long	Ux	Ag	As	Ba	Be	Ca	Co	Cr	Cu	K	Li	Mg	Mo	Nb	Ni	P	Pb	Se	Sn	Sr	W	Y	Zn
ID				ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
1810	HA001	36.0423	77.4033	-0.1	0.1	1	7	-0.5	100	-5	23	2	2000	9	650	-2	-5	-5	600	12	1	-5	.	-2	-5	7
1811	HA002	36.0503	77.3855	-0.1	0.1	1	10	-0.5	-100	-5	11	2	2000	7	650	-2	60	-5	700	-10	3	-5	.	-2	-5	7
1812	HA003	36.1242	77.3517	-0.1	-0.1		12	0.5	100	-5	15	5	5000	10	650	-2	60	-5	800	-10	-1	-5	.	-2	5	20
1813	HA004	36.1467	77.3485	0.7	0.1	5	10	0.5	100	5	16	7	5000	13	850	-2	-5	-5	700	15	2	-5	.	-2	5	30
1814	HA005	36.1915	77.3872	-0.1	0.1	1	.	-0.5	100	-5	6	2	5000	6	600	-2	-5	-5	700	-10	-1	-5	.	-2	-5	7
1815	HA006	36.2184	77.3938	-0.1	0.2	1	12	1	200	-5	16	6	6000	40	3000	11	-5	-5	900	-10	-1	-5	.	-2	10	25
1816	HA007	36.1956	77.4567	-0.1	0.4	0	15	0.5	100	8	5	5	1000	7	300	-2	-5	6	900	-10	2	-5	.	-2	5	25
1817	HA008	36.1521	77.4850	-0.1	-0.1	0	7	-0.5	-100	-5	7	2	1000	6	300	-2	-5	-5	900	-10	-1	-5	.	-2	-5	7
1818	HA009	36.0899	77.4774	-0.1	0.3	4	12	0.5	-100	-5	7	2	1000	6	300	-2	5	-5	500	-10	2	-5	.	-2	-5	7
1819	HA010	36.1925	77.6833	-0.1	0.2	2	12	0.5	100	5	9	4	3000	13	650	-2	10	-5	800	15	-1	-5	.	-2	5	17
1820	HA011	36.2098	77.7275	-0.1	0.1		12	-0.5	-100	-5	10	2	2000	6	300	-2	5	-5	700	35	1	-5	.	-2	-5	7
1821	HA012	36.2279	77.8070	-0.1	-0.1		7	0.5	200	5	20	-2	2000	6	500	-2	5	-5	500	20	-1	-5	.	-2	-5	12
1822	HA013	36.2517	77.9226	-0.1	0.1	2	10	0.5	100	5	36	5	3000	11	2300	-2	5	7	700	-10	-1	15	.	-2	5	32
1823	HA014	36.2624	77.9374	-0.1	0.2		85	1	300	12	30	8	8000	14	3750	-2	-5	10	800	-10	1	-5	.	-2	-5	47

ROANOKE RAPIDS 100K QUADRANGLE - SUPPLEMENTAL STREAM SEDIMENT

Lab #	County	Lat	Long	Ux	Ag	As	Ba	Be	Ca	Co	Cr	Cu	K	Li	Mg	Mo	Nb	Ni	P	Pb	Se	Sn	Sr	W	Y	Zn	
ID				ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
1824	HA015	36.2948	77.9217	0.1	-0.1	0	7	-0.5	-100	7	7	3	11000	7	550	-2	-5	-5	500	-10	-1	-5	.	-2	-5	10	
1825	HA016	36.3270	77.8703	0.1	-0.1	0	347	1	200	-5	7	3	25000	8	2400	-2	-5	-5	1000	-10	1	10	.	-2	10	15	
1826	HA017	36.3311	77.8481	0.1	0.2		57	1	100	7	8	2	27000	8	1700	-2	5	-5	800	-10	2	20	.	-2	-5	10	
1827	HA018	36.3694	77.8349	0.1	0.1	1	15	0.5	100	-5	13	2	11000	8	400	3	15	-5	700	-10	2	-5	.	-2	-5	7	
1828	HA019	36.4209	77.8314	0.2	-0.1	0	97	1	100	-5	7	3	21000	9	1800	-2	60	-5	500	-10	-1	20	.	2	15	7	
1829	HA020	36.4387	77.8390	0.3	-0.1	0	37	0.5	100	-5	5	2	22000	11	850	2	75	-5	1100	-10	-1	-5	.	-2	495	10	
1830	HA021	36.4436	77.7897	0.2	-0.1	0	12	0.5	100	-5	23	2	10000	9	2000	-2	20	-5	700	10	1	-5	.	-2	5	10	
1831	HA022	36.4033	77.7200	0.1	-0.1	0	17	1	100	-5	23	2	1000	9	450	-2	20	-5	700	25	-1	10	.	-2	-5	10	
1832	HA023	36.3635	77.6578	-0.1	-0.1	0	12	0.5	100	-5	18	2	2000	6	1450	-2	10	-5	700	22	-1	-5	.	-2	-5	10	
1833	HA024	36.3387	77.6029	0.1	0.1	1	7	0.5	100	5	40	2	3000	7	650	-2	5	-5	800	20	4	-5	.	-2	5	15	
1834	HA025	36.1842	77.7224	0.1	0.1	1	10	0.5	100	-5	8	3	2000	10	600	2	-5	-5	600	15	1	-5	.	-2	10	10	
1835	HA026	36.1762	77.7333	-0.1	-0.1	1	10	-0.5	100	-5	10	3	2000	9	500	-2	55	-5	600	32	-1	-5	.	-2	-5	10	
1836	HA027	36.1780	77.7828	0.1	0.1	0	17	0.5	100	-5	12	3	6000	7	2350	-2	20	-5	600	15	2	-5	.	-2	5	15	
1837	HA028	36.1816	77.8152	0.1	0.1	1	.	0.5	100	-5	27	2	2000	9	1000	2	55	-5	600	27	3	-5	.	2	15	10	
1838	HA029	36.1551	77.8523	0.1	-0.1	1	20	0.5	200	-5	12	3	3000	7	1950	-2	10	-5	700	10	2	-5	.	-2	-5	7	
1839	HA030	36.1799	77.8987	-0.1	0.2	1	22	0.5	200	7	8	3	4000	14	1950	-2	10	5	700	10	2	15	.	-2	-5	22	
1840	HA031	36.1969	77.9333	-0.1	0.2	4	50	1	200	12	11	7	7000	10	2050	-2	20	7	900	10	2	-5	.	-2	-5	30	
1841	HA032	36.2097	77.9222	-0.1	0.2	1	35	0.5	200	7	45	3	2000	6	-200	-2	15	5	1100	10	4	-5	.	-2	-5	20	
1843	HA034	36.2324	77.9708	-0.1	0.1	2	10	-0.5	100	-5	13	3	1000	7	800	-2	-5	-5	500	-10	1	-5	.	-2	-5	7	
1844	HA035	36.2326	77.9510
1845	HA036	36.2552	77.8911	0.1	-0.1	1	17	-0.5	100	5	14	2	7000	7	2150	-2	-5	-5	800	-10	1	-5	.	-2	15	10	
1846	HA037	36.2778	77.8802	0.1	0.1	2	100	1.5	100	7	8	4	24000	12	1000	-2	15	10	800	-10	2	-5	.	7	-5	15	
1847	HA038	36.2711	77.8250	0.1	0.1	0	85	1	100	10	18	3	20000	9	1500	-2	5	-5	900	12	4	-5	.	-2	10	10	
1848	HA039	36.2704	77.7867	-0.1	-0.1	5	15	0.5	100	-5	11	2	1000	6	800	-2	40	-5	900	35	3	-5	.	2	-5	10	
1849	HA040	36.2569	77.7593	-0.1	-0.1	5	12	0.5	100	-5	13	2	1000	6	2450	-2	30	-5	700	22	-1	5	.	2	-5	7	
1850	HA041	36.2303	77.7688	0.1	0.2	2	12	0.5	200	5	18	3	1000	8	750	-2	40	-5	700	35	-1	-5	.	-2	5	10	
1851	HA042	36.2194	77.7298	0.1	-0.1	16	10	-0.5	100	-5	15	2	1000	7	450	-2	40	-5	700	32	-1	5	.	-2	-5	5	
1852	HA043	36.2410	77.7213	0.1	-0.1	7	15	1	200	-5	9	2	1000	7	2100	-2	40	-5	700	27	-1	15	.	-2	-5	10	
1853	HA044	36.2753	77.7046	0.7	0.1	2	22	0.5	100	-5	25	3	1000	7	650	-2	25	-5	800	32	-1	10	.	-2	-5	10	
1854	HA045	36.2834	77.6954	-0.1	0.1	1	30	0.5	100	-5	39	2	1000	7	2250	-2	10	-5	900	50	3	-5	.	-2	15	15	
1855	HA046	36.3131	77.6987	-0.1	0.1		12	0.5	100	-5	14	2	2000	6	550	3	5	-5	800	42	-1	-5	.	-2	-5	7	
1856	HA047	36.3166	77.7196	0.1	0.1	0	15	0.5	100	-5	16	2	1000	6	650	3	30	-5	700	20	2	-5	.	-2	15	7	
1857	HA048	36.3066	77.7201	0.1	-0.1	0	17	0.5	100	-5	15	2	1000	7	550	-2	15	-5	1000	37	5	-5	.	-2	15	7	
1858	HA049	36.2784	77.7446	0.1	-0.1	0	10	0.5	200	-5	25	3	1000	9	500	-2	10	-5	1000	32	1	-5	.	-2	15	15	
1859	HA050	36.2915	77.8152	0.1	-0.1	0	15	0.5	100	-5	15	2	15000	7	550	3	30	-5	800	17	-1	-5	.	-2	10	7	
1860	HA051	36.3316	77.7577	0.2	-0.1	6	7	0.5	100	-5	15	2	2000	7	1450	2	25	-5	700	27	-1	20	.	-2	-5	7	
1861	HA052	36.3404	77.7543	0.1	0.1	10	12	-0.5	100	5	20	3	1000	10	750	-2	-5	-5	700	25	2	-5	.	-2	5	10	
1862	HA053	36.3484	77.7527	-0.1	0.1	1	27	0.5	100	-5	15	3	2000	6	500	-2	-5	5	700	12	1	-5	.	-2	10	7	

ROANOKE RAPIDS 100K QUADRANGLE - SUPPLEMENTAL STREAM SEDIMENT

Lab #	County	Lat	Long	Ux	Ag	As	Ba	Be	Ca	Co	Cr	Cu	K	Li	Mg	Mo	Nb	Ni	P	Pb	Se	Sn	Sr	W	Y	Zn
ID				ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
1863	HA054	36.3454	77.7065	-0.1	-0.1	1	17	0.5	100	-5	31	2	1000	6	1500	-2	-5	-5	1100	22	1	10	.	-2	-5	7
1864	HA055	36.3761	77.7344	-0.1	-0.1	1	-5	-0.5	100	7	17	3	1000	5	650	-2	10	-5	500	12	-1	-5	.	-2	15	12
1865	HA056	36.3827	77.7588	-0.1	-0.1	0	20	0.5	100	7	22	3	2000	7	2200	-2	5	5	500	12	1	-5	.	-2	10	7
1866	HA057	36.3780	77.8518	0.1	-0.1	0	17	0.5	-100	7	-5	2	24000	6	1650	-2	5	-5	500	-10	-1	5	.	-2	15	5
1867	HA058	36.3794	77.8717	0.1	-0.1	0	215	1	100	5	7	3	27000	9	1550	-2	10	5	500	-10	-1	-5	.	-2	20	10
1868	HA059	36.3737	77.8945	0.1	-0.1	0	32	0.5	100	-5	5	3	21000	6	450	-2	60	-5	500	-10	-1	-5	.	-2	15	10
1869	HA060	36.3305	77.9259	0.1	-0.1	0	130	0.5	100	12	8	6	19000	6	550	-2	5	-5	700	-10	-1	-5	.	-2	10	10
1870	HA061	36.3331	77.9133	0.1	0.1	0	102	1.2	100	12	10	5	42000	-5	1900	-2	40	7	700	-10	-1	-5	.	-2	10	10
1871	HA062	36.4383	77.8834	-0.1	0.1	3	20	1	-100	-5	-5	3	27000	7	1550	-2	30	-5	-20	-10	-1	-5	.	-2	-5	10
1872	HA063	36.4727	77.9037	0.1	-0.1	0	90	1	100	7	-5	3	23000	9	2000	-2	15	-5	500	-10	-1	-5	.	-2	15	10
1873	HA064	36.4698	77.8152	0.1	-0.1	0	22	0.5	100	7	5	5	19000	11	2850	-2	10	5	700	-10	-1	-5	.	-2	10	15
1874	HA065	36.4164	77.7695	0.1	0.1	1	22	-0.5	-100	-5	12	2	2000	5	1250	4	25	-5	600	12	-1	10	.	-2	5	5
1875	HA066	36.4189	77.7360	0.1	0.1	8	10	-0.5	-100	-5	11	2	1000	5	900	2	25	-5	600	15	-1	5	.	-2	15	7
1876	HA067	36.4259	77.7329	-0.1	-0.1	4	12	-0.5	100	5	6	4	2000	6	1000	-2	25	5	700	15	2	5	.	-2	20	10
1877	HA068	36.4286	77.7146	0.1	-0.1	2	22	-0.5	-100	-5	22	2	1000	5	1850	-2	5	-5	600	32	-1	-5	.	-2	15	7
1878	HA069	36.4580	77.7022	0.1	-0.1	10	15	0.5	100	-5	14	3	3000	10	1550	-2	-5	-5	900	40	-1	30	.	-2	5	12
1879	HA070	36.4323	77.6541	-0.1	-0.1	2	20	0.5	100	5	-5	5	2000	7	1300	2	15	5	600	40	-1	-5	.	-2	-5	27
1880	HA071	36.3992	77.6662	-0.1	0.1	0	7	0.5	-100	-5	15	3	2000	6	450	3	15	5	900	30	-1	15	.	-2	-5	10
1881	HA072	36.3471	77.6793	-0.1	0.2	2	7	1	-100	5	12	4	3000	10	950	2	5	-5	800	20	1	5	.	-2	10	25
1882	HA073	36.3020	77.6684	-0.1	0.1	4	5	-0.5	-100	-5	10	2	1000	-5	650	3	-5	-5	500	-10	2	15	.	-2	5	5
1883	HA074	36.3066	77.6360	0.1	-0.1	0	10	0.5	100	5	29	3	2000	6	1200	2	5	-5	700	17	-1	-5	.	-2	-5	5
1884	HA075	36.3217	77.5920	0.1	-0.1	0	7	0.5	100	-5	12	3	4000	7	2600	2	40	5	700	20	-1	-5	.	-2	25	17
1885	HA076	36.2492	77.5543	0.1	0.3	4	27	1.5	300	15	6	6	7000	21	3050	-2	5	5	800	15	-1	-5	.	-2	-5	40
1886	HA077	36.4106	77.6199	0.1	0.1	3	10	0.5	100	-5	10	4	6000	8	1150	-2	40	-5	700	12	-1	-5	.	-2	-5	15
1887	HA078	36.4200	77.5876	-0.1	-0.1	3	5	1	200	10	12	8	17000	5	1650	-2	20	7	1000	-10	-1	-5	.	-2	-5	32
1888	HA079	36.3748	77.5887	0.1	-0.1	1	5	0.5	100	5	-5	3	5000	7	1850	-2	15	-5	700	-10	-1	-5	.	-2	10	7
1889	HA080	36.2758	77.4759	0.1	0.2	5	15	1	200	72	50	23	8000	30	6000	17	13	31	1000	31	-1	117	.	-2	17	92
1890	HA081	36.2440	77.5449	0.1	-0.1	2	172	0.5	100	7	5	3	5000	7	1750	-2	75	5	800	-10	-1	-5	.	-2	-5	10
1891	HA082	36.2278	77.5447	-0.1	-0.1	4	5	-0.5	100	-5	20	2	3000	6	1150	-2	15	-5	700	-10	1	-5	.	-2	-5	10
1892	HA083	36.2181	77.5676	0.1	0.1	5	55	1	100	7	5	7	5000	23	2700	-2	15	10	900	15	1	10	.	-2	-5	27
1893	HA084	36.2204	77.5807	-0.1	-0.1	3	7	-0.5	-100	7	50	2	3000	-5	1250	-2	-5	-5	500	-10	-1	-5	.	-2	5	5
1894	HA085	36.2073	77.6148	0.1	0.1		12	-0.5	100	5	14	4	2000	7	450	-2	5	5	700	10	-1	-5	.	-2	20	7
1895	HA086	36.1743	77.6151	0.1	-0.1	3	20	0.5	100	7	9	3	4000	5	1250	-2	5	-5	800	10	-1	-5	.	-2	25	7
1896	HA087	36.1431	77.6148	0.1	0.1	4	5	1	100	5	-5	4	14000	10	2400	-2	5	5	700	15	1	-5	.	-2	-5	12
1897	HA088	36.2248	77.4282	0.1	0.1	1	22	0.5	100	-5	19	3	6000	6	1400	2	10	-5	700	-10	3	-5	.	-2	-5	7
1898	HA089	36.1856	77.4731	-0.1	-0.1	0	22	-0.5	100	5	6	2	2000	6	450	-2	10	-5	500	-10	-1	-5	.	-2	-5	5

ROANOKE RAPIDS 100K QUADRANGLE - SUPPLEMENTAL STREAM SEDIMENT

Lab #	County	Lat	Long	Ux	Ag	As	Ba	Be	Ca	Co	Cr	Cu	K	Li	Mg	Mo	Nb	Ni	P	Pb	Se	Sn	Sr	W	Y	Zn
ID				ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
2819	NA058	36.0482	77.9994	0.3	-0.1	1	10	0.5	100	-5	-5	3	-1000	6	1200	3	20	-5	700	22	-1	-5	.	2	-5	7
2820	NA059	36.0619	77.9865	0.7	0.1	2	7	0.5	100	-5	-5	6	-1000	7	1500	-2	-5	5	700	27	1	5	.	2	15	5
2821	NA060	36.1085	77.9886	0.6	-0.1	1	12	1	100	-5	-5	7	1000	6	1500	-2	-5	5	700	10	-1	-5	.	-2	10	10
2822	NA061	36.1277	77.9566	0.6	0.1		10	1.5	100	-5	15	4	1000	10	1200	3	-5	-5	600	-10	-1	10	.	-2	-5	7
2823	NA062	36.1452	77.9827	0.3	0.1	1	7	0.5	200	-5	5	4	-1000	6	700	2	-5	-5	600	10	-1	-5	.	2	5	7
2825	NA064	36.1369	77.9129	0.3	-0.1		5	1	100	-5	7	4	-1000	11	850	2	5	-5	700	-10	-1	-5	.	2	-5	7
2826	NA065	36.1312	77.8800	0.3	-0.1	1	10	0.5	200	-5	10	4	-1000	7	1400	3	5	-5	600	12	-1	-5	.	2	-5	5
2827	NA066	36.0773	77.9020	0.3	0.1	1	12	0.5	600	-5	-5	4	-1000	5	1900	-2	150	5	500	-10	-1	5	.	-2	-5	7
2828	NA067	36.0890	77.9222	0.7	0.1	1	12	1	100	-5	7	3	1000	8	1450	2	40	-5	700	10	-1	-5	.	2	-5	7
2829	NA068	36.0865	77.9306	0.3	-0.1	1	10	1	200	-5	9	7	1000	10	1800	3	15	-5	700	12	-1	-5	.	2	10	10
2830	NA069	36.0713	77.9279	0.7	-0.1		10	1	100	-5	9	6	1000	10	1350	2	-5	5	700	12	-1	10	.	-2	-5	10
2831	NA070	36.0683	77.9455	0.3	-0.1	4	12	1	100	-5	10	7	-1000	10	600	7	-5	-5	700	40	1	-5	.	2	5	7

ROANOKE RAPIDS 100K QUADRANGLE - SUPPLEMENTAL STREAM SEDIMENT

Lab #	County	Lat	Long	Ux	Ag	As	Ba	Be	Ca	Co	Cr	Cu	K	Li	Mg	Mo	Nb	Ni	P	Pb	Se	Sn	Sr	W	Y	Zn
ID				ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
2832	NA071	36.0441	77.9306	0.6	-0.1		12	1	100	-5	28	4	-1000	6	550	5	30	-5	900	55	-1	-5	.	2	-5	10
2833	NA072	36.0301	77.9612	0.5	-0.1	1	10	0.5	200	-5	-5	4	-1000	6	600	7	25	-5	600	17	-1	-5	.	-2	-5	5
2834	NA073	36.0165	77.9353	0.7	-0.1	1	7	0.5	-100	-5	11	4	-1000	10	550	7	100	7	700	22	-1	-5	.	2	-5	7
2847	NA086	36.0124	77.8116	1.2	-0.1	1	-5	-0.5	-100	-5	15	2	1000	6	300	3	80	-5	900	17	-1	-5	.	-2	5	10
2848	NA087	36.0386	77.7985	1.2	0.1	0	-5	-0.5	100	-5	5	3	1000	6	650	-2	80	-5	900	-10	-1	-5	.	-2	35	12
2849	NA088	36.0308	77.7674	1.4	-0.1	0	-5	-0.5	-100	-5	17	2	-1000	6	600	-2	-5	-5	900	-10	-1	-5	.	-2	10	10
2850	NA089	36.0454	77.7566	1.2	0.1		-5	-0.5	-100	-5	14	2	2000	8	800	-2	50	-5	800	-10	-1	-5	.	-2	10	20
2851	NA090	36.1419	77.7427	1.1	0.2		-5	-0.5	-100	-5	10	-2	2000	6	700	-2	30	-5	700	-10	-1	5	.	-2	20	17
2852	NA091	36.1149	77.7831	1.3	0.3		-5	-0.5	100	-5	14	3	1000	7	1100	2	50	-5	700	32	-1	-5	.	2	5	10
2853	NA092	36.1017	77.7743	1.1	0.2		-5	-0.5	-100	-5	9	-2	1000	5	800	-2	-5	-5	1100	12	-1	-5	.	-2	15	17
2855	NA094	36.0720	77.8699	1.2	0.3	0	7	1	200	-5	10	4	6000	7	1950	-2	100	-5	700	12	-1	-5	.	-2	10	20
2856	NA095	36.1073	77.8417	1.2	0.2	0	-5	0.5	100	-5	18	2	1000	7	1250	3	-5	-5	900	30	-1	-5	.	2	-5	12
2857	NA096	36.1198	77.8409	1.4	0.3	1	-5	-0.5	-100	5	14	2	1000	6	1050	-2	5	-5	700	20	-1	-5	.	-2	-5	7
2858	NA097	36.1049	77.8143	2.9	0.1		-5	0.5	100	-5	11	-2	2000	6	950	4	-5	-5	700	22	-1	-5	.	2	-5	7
2862	NO001	36.4508	77.5979	0.4	0.1	4	17	0.5	-100	-5	10	3	8000	6	900	2	5	-5	400	-10	-1	-5	.	-2	-5	15
2863	NO002	36.4329	77.5455	-0.1	-0.1	1	-5	0.5	100	5	15	4	6000	6	800	-2	15	-5	900	12	3	5	.	-2	-5	15
2864	NO003	36.3351	77.5283	10.0	0.4	1	255	3	200	12	8	21	9000	30	5000	-2	10	17	1100	27	2	5	.	-2	10	105
2865	NO004	36.3690	77.5232	1.4	0.3	1	45	0.5	100	-5	8	4	11000	7	1050	-2	15	-5	500	-10	4	10	.	-2	-5	15
2866	NO005	36.3347	77.4681	0.7	0.1	3	60	1	200	5	8	8	10000	9	3250	-2	10	-5	800	10	2	-5	.	-2	5	30
2867	NO006	36.3049	77.3834	0.7	0.2	2	35	1	100	-5	6	8	7000	20	1000	-2	15	5	900	12	2	25	.	-2	10	20
2868	NO007	36.2616	77.3701	0.7	0.1	1	10	0.5	100	-5	13	4	8000	7	1250	-2	10	5	700	207	2	5	.	-2	5	20
2869	NO008	36.2654	77.3302	-0.1	-0.1	2	5	-0.5	100	5	10	3	4000	5	600	-2	15	-5	500	20	3	-5	.	-2	15	12
2870	NO009	36.2489	77.3387	0.7	-0.1	1	-5	0.5	200	-5	8	5	11000	5	1750	-2	10	-5	500	342	2	-5	.	-2	10	32
2871	NO010	36.2429	77.3501	0.7	0.5	2	187	2	200	22	8	84	9000	25	1250	-2	5	15	1100	472	2	-5	.	-2	-5	122
2872	NO011	36.2274	77.3672	1.6	0.1	1	107	1.5	200	15	8	18	10000	15	1500	-2	5	10	900	547	4	-5	.	-2	15	87
2873	NO012	36.2253	77.2967	0.7	0.2	2	5	0.5	100	-5	13	3	6000	5	850	-2	15	-5	300	20	3	10	.	-2	15	7
2874	NO013	36.2089	77.3089	0.7	-0.1		30	1	100	-5	20	7	12000	7	1500	-2	5	-5	800	15	2	5	.	-2	10	20
2875	NO014	36.2512	77.2225	-0.1	-0.1	1	-5	0.5	100	-5	16	3	7000	5	550	-2	15	-5	500	-10	2	15	.	-2	-5	12
2876	NO015	36.2806	77.1955	-0.1	-0.1	1	-5	0.5	-100	-5	9	6	3000	6	1150	-2	15	-5	700	22	1	-5	.	-2	-5	17
2877	NO016	36.4066	77.4995	0.7	0.1	1	20	1	100	-5	10	9	8000	15	1500	-2	15	5	900	35	1	10	.	-2	-5	27
2878	NO017	36.3840	77.4485	-0.1	-0.1	2	-5	0.5	-100	-5	15	4	6000	8	650	-2	15	-5	700	10	2	-5	.	-2	5	7
2879	NO018	36.3433	77.3718	-0.1	0.2	3	-5	0.5	-100	-5	13	4	5000	9	850	-2	15	-5	900	12	3	-5	.	-2	-5	10
2880	NO019	36.3114	77.3449	-0.1	-0.1	3	-5	0.5	100	-5	10	4	5000	7	650	-2	5	-5	700	-10	2	5	.	-2	10	10
2881	NO020	36.2945	77.3033	-0.1	0.1	1	10	-0.5	-100	-5	10	6	4000	6	550	2	15	-5	500	10	2	20	.	-2	20	10
2882	NO021	36.2851	77.2545	0.7	0.1	1	42	1	100	-5	12	7	7000	15	1050	-2	10	-5	800	12	2	5	.	-2	-5	55
2883	NO022	36.3107	77.1900	0.7	-0.1	1	-5	0.5	100	7	13	5	6000	7	900	-2	15	5	700	-10	3	-5	.	-2	5	17
2884	NO023	36.3487	77.2153	-0.1	0.1	1	5	-0.5	100	-5	11	4	7000	7	600	-2	20	-5	700	10	2	5	.	-2	-5	12
2885	NO024	36.3469	77.2571	-0.1	-0.1		7	-0.5	-100	-5	9	2	3000	-5	500	-2	10	-5	500	-10	3	-5	.	-2	-5	5

ROANOKE RAPIDS 100K QUADRANGLE - SUPPLEMENTAL STREAM SEDIMENT

Lab #	County	Lat	Long	Ux	Ag	As	Ba	Be	Ca	Co	Cr	Cu	K	Li	Mg	Mo	Nb	Ni	P	Pb	Se	Sn	Sr	W	Y	Zn
ID				ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
2886	N0025	36.3326	77.2813	-0.1	-0.1	2	7	0.5	-100	-5	10	2	5000	5	650	-2	10	-5	300	-10	2	5	.	-2	5	5
2887	N0026	36.3491	77.3345	-0.1	0.1	1	12	0.5	-100	-5	9	4	2000	5	500	-2	5	-5	600	-10	2	-5	.	-2	-5	7
2888	N0027	36.3774	77.2736	-0.1	0.2	11	10	-0.5	100	-5	8	2	3000	-5	500	-2	10	-5	500	-10	3	5	.	2	10	5
2889	N0028	36.3862	77.2345	-0.1	-0.1	1	10	-0.5	-100	-5	10	9	2000	-5	450	-2	10	-5	600	12	3	-5	.	-2	5	17
2890	N0029	36.3804	77.2073	-0.1	0.1	1	7	0.5	100	-5	10	4	6000	6	800	-2	5	-5	600	-10	3	-5	.	-2	5	7
2891	N0030	36.3762	77.1618	-0.1	0.1	3	10	0.5	-100	-5	11	3	5000	-5	550	-2	10	-5	500	40	6	5	.	-2	-5	10
2892	N0031	36.4122	77.1704	-0.1	-0.1		7	0.5	-100	-5	13	2	3000	5	400	-2	20	-5	500	15	4	25	.	-2	10	7
2893	N0032	36.4138	77.2487	-0.1	-0.1		10	0.5	200	-5	13	26	3000	7	700	-2	10	-5	900	22	4	15	.	-2	-5	37
2894	N0033	36.4086	77.2887	0.8	-0.1	2	12	-0.5	-100	-5	11	3	2000	5	1250	-2	10	-5	700	-10	2	-5	.	-2	10	5
2895	N0034	36.3942	77.3062	-0.1	0.1	1	5	0.5	-100	-5	13	5	7000	6	650	-2	15	-5	700	-10	2	-5	.	-2	-5	15
2896	N0035	36.4037	77.3732	-0.1	0.1		-5	0.5	-100	-5	9	5	2000	8	600	-2	15	-5	900	-10	3	-5	.	-2	-5	12
2897	N0036	36.3920	77.4016	-0.1	-0.1	2	-5	0.5	-100	-5	9	3	4000	7	450	-2	10	-5	200	-10	3	15	.	-2	-5	7
2898	N0037	36.4316	77.3723	-0.1	-0.1		-5	-0.5	-100	-5	7	2	1000	5	600	3	5	-5	200	-10	1	10	.	-2	-5	5
2899	N0038	36.4361	77.4016	-0.1	0.1	1	-5	-0.5	-100	-5	8	3	2000	5	400	-2	5	-5	400	-10	5	-5	.	-2	-5	5
2900	N0039	36.4301	77.4668	-0.1	0.1	3	-5	0.5	-100	-5	10	4	1000	6	550	-2	10	-5	700	10	1	5	.	-2	5	10
2901	N0040	36.4312	77.5101	0.8	0.1	1	-5	1	-100	-5	10	8	3000	18	1250	-2	5	-5	1000	20	3	-5	.	-2	15	27
2902	N0041	36.4615	77.4499	-0.1	0.1	1	7	-0.5	-100	-5	8	3	1000	-5	450	-2	10	-5	700	-10	-1	5	.	-2	10	5
2903	N0042	36.4529	77.3988	-0.1	-0.1	1	10	-0.5	-100	-5	7	2	2000	6	500	-2	-5	-5	400	-10	-1	-5	.	-2	5	5
2904	N0043	36.4530	77.3156	0.7	-0.1	2	.	-0.5	-100	-5	19	2	2000	7	500	-2	30	-5	400	-10	-1	-5	.	-2	-5	5
2905	N0044	36.4495	77.2498	0.9	-0.1		12	-0.5	-100	-5	6	-2	1000	7	200	-2	-5	-5	400	-10	1	-5	.	-2	15	10
2906	N0045	36.4444	77.2193	1.0	0.1		10	0.5	-100	-5	8	3	2000	10	600	-2	5	-5	700	-10	-1	20	.	-2	5	20
2907	N0046	36.4549	77.2062	-0.1	-0.1	1	15	0.5	-100	-5	12	-2	3000	8	400	-2	15	-5	500	-10	2	-5	.	-2	10	-5
2908	N0047	36.4418	77.1738	-0.1	-0.1		10	0.5	-100	5	8	2	4000	9	550	-2	15	-5	700	-10	-1	-5	.	-2	10	7
2909	N0048	36.4355	77.1378	-0.1	0.3	1	10	0.5	-100	-5	13	4	3000	14	750	-2	35	-5	800	15	-1	-5	.	-2	-5	25
2910	N0049	36.4681	77.1422	-0.1	0.1	1	15	0.2	400	-5	20	-2	5000	11	1400	-2	30	-5	700	-10	-1	5	.	-2	10	10
2911	N0050	36.4771	77.1457	0.8	0.1	1	5	0.5	-100	5	6	-2	3000	10	800	-2	-5	-5	700	-10	-1	-5	.	-2	20	7
2912	N0051	36.4941	77.1735	-0.1	-0.1	1	27	0.5	100	5	11	2	2000	10	450	-2	-5	-5	700	-10	-1	-5	.	-2	-5	12
2913	N0052	36.4958	77.2616	0.7	0.2	0	5	0.5	-100	-5	11	2	2000	8	650	-2	-5	-5	700	-10	-1	5	.	-2	10	5
2914	N0053	36.4975	77.3102	-0.1	0.1	0	7	0.5	-100	-5	5	-2	2000	5	350	-2	-5	-5	700	-10	1	5	.	-2	-5	5
2919	N0058	36.4591	77.5015	-0.1	0.1	0	10	-0.5	-100	-5	5	3	3000	5	500	-2	-5	-5	700	-10	-1	5	.	-2	5	10
2927	N0066	36.4911	77.6700	-0.1	0.2	1	5	0.5	-100	5	10	5	2000	13	1100	2	10	-5	600	22	-1	30	.	-2	-5	17
2928	N0067	36.4819	77.6346	-0.1	-0.1	0	7	-0.5	-100	5	14	2	1000	5	600	-2	35	-5	500	-10	-1	-5	.	-2	10	10
4342	WR001	36.4535	77.9308	0.8	-0.1	1	10	0.5	-100	-5	8	-2	10000	8	500	-2	-5	-5	500	-10	-1	-5	.	2	5	12
4343	WR002	36.3861	77.9190	2.4	0.2	0	137	1.5	100	7	5	7	18000	7	1150	-2	15	7	800	10	-1	-5	.	-2	-5	32
4344	WR003	36.3883	77.9362	0.8	-0.1		7	0.5	100	-5	7	-2	9000	10	750	-2	5	-5	400	-10	-1	20	.	2	-5	5
4345	WR004	36.3679	77.9491	0.9	-0.1		7	0.5	100	-5	18	2	4000	10	2000	-2	5	-5	700	-10	-1	-5	.	-2	10	5
4346	WR005	36.3330	77.9374	1.1	-0.1	0	5	0.5	100	-5	11	2	6000	9	2650	-2	15	-5	900	-10	-1	-5	.	-2	385	5
4347	WR006	36.3121	77.9512	0.9	-0.1	0	5	0.5	100	-5	29	2	5000	11	2400	-2	5	-5	700	-10	-1	-5	.	2	-5	7

ROANOKE RAPIDS 100K QUADRANGLE - SUPPLEMENTAL STREAM SEDIMENT

Lab #	County	Lat	Long	Ux	Ag	As	Ba	Be	Ca	Co	Cr	Cu	K	Li	Mg	Mo	Nb	Ni	P	Pb	Se	Sn	Sr	W	Y	Zn
ID				ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
4348	WR007	36.2794	77.9601	0.6	0.3	0	17	1	200	5	38	10	9000	14	2150	-2	5	7	600	-10	-1	10	.	2	-5	25
4356	WR015	36.3105	77.9802	0.3	-0.1	0	7	0.5	300	5	33	3	3000	9	3250	2	10	5	600	-10	-1	-5	.	-2	-5	12
4357	WR016	36.3188	77.9745	0.3	-0.1	0	10	0.5	-100	-5	18	4	2000	10	600	-2	-5	-5	700	-10	-1	-5	.	-2	-5	5
4358	WR017	36.3389	77.9918	0.4	-0.1	2	20	1	200	17	27	8	2000	9	4350	2	5	12	600	-10	-1	-5	.	-2	-5	22
4361	WR020	36.3479	77.9750	2.1	-0.1		10	1	100	5	13	3	6000	10	1150	-2	-5	-5	800	-10	-1	-5	.	-2	295	10
4362	WR021	36.3783	77.9793	18.7	-0.1	1	-5	0.5	100	-5	14	4	4000	8	850	-2	-5	-5	700	-10	-1	-5	.	-2	-5	5
4363	WR022	36.4044	77.9516	2.3	-0.1	0	-5	0.5	-100	-5	12	2	7000	14	550	-2	-5	-5	600	-10	-1	15	.	-2	-5	5
4395	WR054	36.4542	77.9720	2.4	-0.1	0	12	0.5	400	-5	10	2	2000	7	900	-2	5	-5	700	-10	-1	-5	.	-2	5	-5

EMPORIA 100K QUADRANGLE - GROUNDWATER

Lab #	County	Lat	Long	pH	Cond um/cm	U ppb	Br ppb	Cl ppb	F ppb	Mg ppb	Mn ppb	Na ppb	V U/cond ppb x 1000	Al ppb	Dy ppb
2719	HT559	36.5384	77.0319	6.0	152	0.095	.	14500	.	.	196	12430	-0.1 0.6	229	0.070
2720	HT560	36.5182	77.0732	5.6	111	0.131	.	14700	.	.	196	12080	-0.1 1.1	119	-0.001
2721	HT561	36.5273	77.0998	5.9	240	0.100	73	13000	45	5270	284	6920	-0.1 0.4	152	0.070
3662	NO544	36.5211	77.1610	6.7	100	0.125	.	1800	14	1090	53	6000	0.7 1.2	61	-0.001
3663	NO545	36.5231	77.2018	7.0	295	0.172	.	17900	147	.	63	26130	0.7 0.5	86	-0.001
3683	NO565	36.5164	77.2374	5.3	179	0.036	91	7300	.	.	51	13730	-0.1 0.2	193	0.010
3684	NO566	36.5156	77.2850	6.0	110	0.060	41	M	16	1670	70	9990	-0.1 0.5	113	0.010
3685	NO567	36.5212	77.3275	5.7	105	0.053	115	5400	.	.	105	9500	0.6 0.5	367	0.020
3688	NO570	36.5140	77.3942	5.2	39	0.029	.	2200	.	.	45	5630	-0.1 0.7	74	-0.001
3689	NO571	36.5272	77.3747	6.8	280	-0.002	14	2100	.	.	69	6270	0.7 0.0	52	-0.001
3696	NO578	36.5009	77.3223	4.8	240	0.227	.	18500	55	3610	64	26280	-0.1 0.9	873	0.180
3697	NO579	36.5243	77.4498	7.5	290	0.018	18	10800	103	8140	126	17690	-0.1 0.0	46	-0.001
3698	NO580	36.5252	77.4814	6.6	117	0.044	99	11900	.	2800	68	8670	-0.1 0.3	124	-0.001
3701	NO583	36.5236	77.5370	5.4	99	0.126	67	7900	.	.	55	12230	-0.1 1.2	129	-0.001
3702	NO584	36.5208	77.5946	5.9	44	0.015	40	3300	.	.	38	7890	-0.1 0.3	147	-0.001
3704	NO586	36.5192	77.6236	5.9	71	0.050	39	5900	15	1340	41	14210	-0.1 0.7	124	-0.001
3705	NO587	36.5276	77.6552	5.8	50	0.005	26	1900	.	.	40	15960	-0.1 0.1	71	-0.001
3706	NO588	36.5041	77.6638	5.9	130	0.312	37	2400	.	3600	122	20360	0.4 2.4	337	0.060
3707	NO589	36.5093	77.6963	6.4	110	0.037	132	5700	.	2520	39	23770	0.3 0.3	137	-0.001
3708	NO590	36.5035	77.7429	6.1	91	0.043	.	11300	.	.	42	20140	0.5 0.4	536	-0.001
3709	NO591	36.5388	77.7447	5.8	79	0.006	36	7400	16	.	30	16390	-0.1 0.0	257	0.030
3710	NO592	36.5289	77.7286	6.8	115	0.066	17	3800	17	.	32	14370	2.1 0.5	279	-0.001
3711	NO593	36.5068	77.7738	6.6	60	0.065	14	4800	.	.	25	15080	0.6 1.0	95	-0.001
3712	NO594	36.5323	77.7826	7.2	78	0.046	.	3100	78	2350	37	16050	2.5 0.5	124	-0.001
3713	NO595	36.5359	77.8260	6.5	75	0.031	32	4100	73	.	46	16440	1.2 0.4	108	-0.001
3714	NO596	36.5218	77.8755	7.0	40	0.099	34	4100	.	.	37	13980	-0.1 2.4	152	-0.001
5505	WR522	36.5009	77.9655	6.1	40	0.051	46	5700	.	470	16	1350	-0.1 1.2	16	-0.001

ROANOKE RAPIDS 100K QUADRANGLE - GROUNDWATER

Lab #	County	Lat	Long	pH	Cond um/cm	U ppb	Br ppb	Cl ppb	F ppb	Mg ppb	Mn ppb	Na ppb	V U/cond ppb x 1000	Al ppb	Dy ppb
591	BR505	36.0050	77.1285	6.3	140	-0.002	.	6100	.	2230	47	16300	-0.1 0.0	124	-0.001
592	BR506	36.0328	77.1525	6.4	130	0.010	71	14300	.	2170	49	20880	-0.1 0.0	99	-0.001
593	BR507	36.0641	77.1778	5.5	100	0.003	.	13800	.	2440	31	21140	-0.1 0.0	83	-0.001
594	BR508	36.0565	77.2055	6.1	115	-0.002	.	11100	83	1600	261	20490	-0.1 0.0	122	-0.001
595	BR509	36.0953	77.1925	6.1	130	-0.002	.	13400	24	1580	69	20230	-0.1 0.0	127	-0.001
596	BR510	36.1251	77.1612	4.8	220	0.080	120	13500	.	.	58	20990	-0.1 0.3	755	-0.001
597	BR511	36.1029	77.1166	5.7	80	0.050	.	8100	21	2960	41	17290	-0.1 0.6	176	-0.001
598	BR512	36.0763	77.0898	4.6	100	0.136	.	9600	42	1290	39	19690	-0.1 1.3	388	0.100
599	BR513	36.0550	77.0546	7.5	410	0.008	38	3300	884	.	35	86040	-0.1 0.0	156	-0.001
600	BR514	36.0356	77.0251	6.3	160	-0.002	42	8000	47	.	118	18600	-0.1 0.0	129	-0.001
602	BR516	36.0499	77.0070	5.4	110	0.030	.	20100	.	.	44	24420	-0.1 0.2	372	-0.001
603	BR517	36.0708	77.0428	5.5	270	0.018	.	44800	.	.	41	37690	-0.1 0.0	399	0.020
604	BR518	36.1000	77.0717	6.0	110	0.128	17	9600	62	.	33	20020	-0.1 1.1	196	-0.001
605	BR519	36.1220	77.0958	5.8	310	0.079	88	47600	75	2810	78	34880	1.9 0.2	191	-0.001
606	BR520	36.1477	77.1237	5.5	90	0.014	48	10200	18	.	36	20630	-0.1 0.1	164	-0.001
607	BR521	36.1471	77.1921	5.0	50	0.023	46	6500	.	.	24	16850	-0.1 0.4	275	-0.001
608	BR522	36.1684	77.2218	8.6	800	0.077	.	30800	1707	.	50	136800	-0.1 0.1	412	-0.001
609	BR523	36.1902	77.2379	4.9	110	0.008	30	12100	95	2450	54	23490	-0.1 0.0	316	-0.001
610	BR524	36.2213	77.2220	7.8	420	-0.002	18	7100	1183	.	21	75490	0.6 0.0	215	-0.001
611	BR525	36.1913	77.1848	6.3	110	-0.002	.	7000	18	.	64	19220	-0.1 0.0	98	-0.001
612	BR526	36.1680	77.1535	4.9	110	0.033	.	11400	47	1940	44	22170	-0.1 0.3	377	0.030
613	BR527	36.2069	77.1010	6.3	1100	0.110	79	142300	.	.	.	174900	4.1 0.1	282	-0.001
614	BR528	36.1886	77.0683	6.0	80	-0.002	.	6200	98	1500	37	16270	-0.1 0.0	154	-0.001
615	BR529	36.1582	77.0606	5.9	100	0.089	.	6100	34	1130	24	15560	-0.1 0.8	165	0.030
616	BR530	36.1281	77.0305	7.3	360	0.002	.	3700	502	3390	29	58080	-0.1 0.0	55	-0.001
617	BR531	36.0959	77.0047	4.8	60	0.036	21	8100	41	.	17	15980	-0.1 0.6	139	0.020
624	BR538	36.1700	77.0308	6.0	160	0.039	.	27000	.	11800	19	29180	0.5 0.2	371	-0.001
625	BR539	36.2374	77.0573	7.2	800	0.062	33	17300	117	32560	128	35040	-0.1 0.0	77	-0.001
626	BR540	36.2322	77.0129	7.7	485	-0.002	.	3500	374	.	.	86090	-0.1 0.0	38	-0.001
631	BR545	36.1880	77.0087	5.8	105	0.004	.	12600	.	.	59	16990	-0.1 0.0	47	-0.001
1904	ED502	36.0056	77.5543	7.1	91	0.005	.	9900	.	4490	126	11410	0.3 0.0	133	0.060
1905	ED503	36.0517	77.5465	5.8	205	0.044	.	24000	113	6980	89	22210	-0.1 0.2	140	0.030
1906	ED504	36.0814	77.5811	7.1	283	-0.002	.	3800	240	4880	117	38210	-0.1 0.0	49	-0.001
1907	ED505	36.0873	77.6297	6.1	115	0.057	45	6500	.	.	58	12900	-0.1 0.5	67	-0.001
1908	ED506	36.0521	77.5975	5.5	105	0.006	64	9400	.	.	72	14960	-0.1 0.0	59	-0.001
1909	ED507	36.0327	77.5779	5.0	51	0.022	56	9100	24	.	72	13890	-0.1 0.4	104	0.030
1910	ED508	36.0060	77.6211	5.0	148	0.061	91	14600	81	3930	91	12190	-0.1 0.4	656	0.030
1964	ED562	36.0111	77.7171	7.2	320	0.450	.	3800	122	6770	184	24370	0.3 1.4	190	-0.001

ROANOKE RAPIDS 100K QUADRANGLE - GROUNDWATER

Lab #	County	Lat	Long	pH	Cond	U	Br	Cl	F	Hg	Mn	Na	V U/cond	Al	Dy
ID					um/cm	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb x 1000	ppb	ppb
1965	ED563	36.0369	77.7375	6.1	360	0.039	36	38900	.	2420	102	36900	-0.1 0.1	179	0.030
1966	ED564	36.0406	77.6968	6.3	112	0.042	.	12200	29	.	116	17260	-0.1 0.3	169	-0.001
1968	ED566	36.0285	77.6512	5.9	100	0.035	.	9700	.	1460	122	15160	-0.1 0.3	199	0.030
1969	ED567	36.0558	77.6563	6.1	242	0.047	30	18300	23	5490	115	27110	1.2 0.1	122	-0.001
1970	ED568	36.0631	77.7164	5.8	190	0.064	17	15100	.	1740	108	18650	0.6 0.3	242	0.020
1971	ED569	36.0806	77.6807	5.1	150	0.039	.	26200	.	2210	91	27570	-0.1 0.2	245	-0.001
1972	ED570	36.1336	77.6896	5.5	185	0.064	37	17200	.	.	92	19180	-0.1 0.3	174	0.050
1973	ED571	36.1027	77.6526	6.2	148	0.156	27	5100	35	.	109	16790	0.5 1.0	122	-0.001
1976	ED574	36.0351	77.4999	8.0	134	0.015	.	3800	87	.	109	15860	-0.1 0.1	79	-0.001
2342	HA501	36.3920	77.5978	6.2	69	0.066	.	7400	33	1340	63	12760	-0.1 0.9	438	0.120
2343	HA502	36.3554	77.6032	6.7	60	0.029	.	4500	.	.	65	12260	-0.1 0.4	94	-0.001
2344	HA503	36.3622	77.6351	6.6	89	0.050	53	6100	33	1340	62	11280	2.2 0.5	1156	0.040
2345	HA504	36.3578	77.6656	6.2	130	0.029	.	14700	.	2140	80	16600	0.8 0.2	406	0.040
2346	HA505	36.3969	77.6312	6.7	88	0.022	.	7300	32	1780	48	15100	-0.1 0.2	84	-0.001
2347	HA506	36.3999	77.6742	5.8	70	0.202	.	7300	29	2150	63	13890	-0.1 2.8	342	0.030
2348	HA507	36.3859	77.7065	6.2	50	0.039	.	6500	.	.	50	13640	0.5 0.7	134	-0.001
2349	HA508	36.3974	77.7441	6.5	49	0.032	.	4900	.	.	45	14230	-0.1 0.6	97	-0.001
2350	HA509	36.3643	77.7464	6.8	75	0.005	.	7500	.	1620	58	12690	0.5 0.0	123	-0.001
2351	HA510	36.3584	77.7905	6.6	41	0.046	12	5000	17	.	48	12530	0.4 1.1	72	-0.001
2352	HA511	36.3987	77.7887	6.2	30	0.011	.	4000	.	.	53	10900	0.4 0.3	57	-0.001
2353	HA512	36.4009	77.8328	6.3	30	0.117	.	3500	.	.	53	5210	-0.1 3.9	34	-0.001
2354	HA513	36.4011	77.8602	6.5	89	0.068	.	15100	.	.	82	10200	-0.1 0.7	67	-0.001
2355	HA514	36.4277	77.8694	7.0	40	0.157	.	3500	20	.	54	5740	0.4 3.9	37	-0.001
2356	HA515	36.4577	77.8652	7.3	54	0.174	27	4300	.	.	63	6530	-0.1 3.2	59	-0.001
2357	HA516	36.4998	77.8629	6.1	78	0.184	.	2700	95	2200	63	8640	3.2 2.3	61	-0.001
2358	HA517	36.4932	77.8292	7.0	91	-0.002	15	2800	121	.	65	8090	0.5 0.0	63	-0.001
2359	HA518	36.4625	77.8331	5.9	70	0.086	.	5300	42	.	42	5870	0.6 1.2	38	0.010
2360	HA519	36.4302	77.8283	6.1	42	0.037	.	4600	20	.	32	6470	0.3 0.8	33	-0.001
2361	HA520	36.4291	77.7744	5.1	42	0.028	.	6000	25	1220	39	5630	0.3 0.6	265	-0.001
2362	HA521	36.4335	77.7462	5.0	69	0.121	62	8200	.	.	30	7960	-0.1 1.7	199	0.040
2363	HA522	36.4536	77.7876	6.7	85	0.007	.	8400	.	.	35	7220	0.4 0.0	55	-0.001
2364	HA523	36.4630	77.7459	6.8	220	0.035	.	22300	.	.	119	23520	-0.1 0.1	73	-0.001
2365	HA524	36.4658	77.7054	7.2	159	0.064	.	11000	39	.	46	7940	-0.1 0.4	54	-0.001
2366	HA525	36.4348	77.7075	7.1	49	0.031	.	3700	31	.	30	5450	0.4 0.6	64	-0.001
2367	HA526	36.4229	77.6701	6.9	80	0.038	.	6000	49	2580	33	6660	-0.1 0.4	174	-0.001
2368	HA527	36.3555	77.7030	5.7	130	0.024	.	24000	48	.	38	18570	-0.1 0.1	75	-0.001
2369	HA528	36.3117	77.5889	6.4	230	0.048	.	17000	.	.	48	28280	0.6 0.2	93	-0.001
2370	HA529	36.2899	77.5987	6.6	320	0.032	.	38000	.	5150	139	25100	-0.1 0.1	165	0.060

ROANOKE RAPIDS 100K QUADRANGLE - GROUNDWATER

Lab #	County	Lat	Long	pH	Cond	U	Br	Cl	F	Mg	Mn	Na	V U/cond	Al	Dy
ID					um/cm	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb x 1000	ppb	ppb
2371	HA530	36.3259	77.6145	5.1	153	0.088	38	14000	98	.	72	7630	-0.1 0.5	882	0.160
2372	HA531	36.3296	77.6511	4.8	95	0.024	.	6700	23	2230	55	8290	-0.1 0.2	373	0.040
2373	HA532	36.2835	77.6249	6.6	125	0.031	13	3100	148	.	41	4940	0.3 0.2	32	-0.001
2374	HA533	36.2863	77.6642	5.7	70	0.034	.	8600	53	.	38	7580	-0.1 0.4	395	0.040
2375	HA534	36.3187	77.7159	4.8	155	0.229	26	14300	101	.	60	7510	-0.1 1.4	638	0.020
2376	HA535	36.2883	77.7131	6.0	200	0.005	.	30900	.	.	118	24280	-0.1 0.0	80	-0.001
2377	HA536	36.2908	77.7457	6.6	80	0.013	31	5600	.	.	53	8260	-0.1 0.1	42	-0.001
2378	HA537	36.3269	77.7478	6.1	58	0.017	.	7100	.	.	48	8120	-0.1 0.2	47	-0.001
2379	HA538	36.2866	77.8004	6.8	199	0.032	46	16200	27	.	43	20030	-0.1 0.1	204	-0.001
2380	HA539	36.3241	77.7844	6.8	164	0.127	104	17400	.	3520	72	10830	-0.1 0.7	53	-0.001
2381	HA540	36.3689	77.8156	6.2	35	0.048	36	4400	.	.	53	6540	-0.1 1.3	118	-0.001
2382	HA541	36.3603	77.8651	6.5	49	0.033	18	3300	.	1830	50	4310	-0.1 0.6	36	-0.001
2383	HA542	36.3712	77.9025	5.8	240	0.026	.	49500	.	.	70	33460	-0.1 0.1	56	-0.001
2384	HA543	36.3359	77.8943	6.1	78	0.102	45	7900	.	.	52	8670	-0.1 1.3	49	-0.001
2385	HA544	36.3385	77.8204	6.7	68	0.052	16	3900	.	.	51	4790	-0.1 0.7	58	-0.001
2386	HA545	36.3308	77.8590	6.6	51	0.060	.	3400	.	.	46	5360	-0.1 1.1	67	-0.001
2387	HA546	36.2930	77.8387	6.6	42	0.041	.	3800	38	1210	63	6850	-0.1 0.9	39	-0.001
2388	HA547	36.2962	77.8964	6.8	45	0.194	16	2900	34	1040	63	3840	-0.1 4.3	30	-0.001
2389	HA548	36.2835	77.9260	6.5	200	0.123	40	7200	54	.	83	10010	1.0 0.6	63	-0.001
2390	HA549	36.2579	77.9453	7.7	102	0.501	.	2300	139	.	64	4330	1.1 4.9	168	-0.001
2391	HA550	36.2463	77.8701	6.4	34	0.043	36	3600	40	.	82	5010	0.2 1.2	105	-0.001
2392	HA551	36.2554	77.9159	6.7	65	0.191	46	3000	65	.	64	5130	-0.1 2.9	73	-0.001
2393	HA552	36.2632	77.6358	6.5	100	0.049	.	5500	31	1380	69	6280	-0.1 0.4	81	-0.001
2394	HA553	36.2578	77.6620	6.7	81	0.051	30	7500	17	.	71	8010	0.5 0.6	115	-0.001
2395	HA554	36.2592	77.7115	5.7	112	0.083	17	12300	.	2060	85	7650	-0.1 0.7	220	-0.001
2396	HA555	36.2613	77.7437	6.8	42	0.042	.	3700	24	.	68	5520	-0.1 1.0	374	0.010
2397	HA556	36.2567	77.7889	6.9	100	0.021	.	4100	.	3700	77	6180	2.4 0.2	88	-0.001
2398	HA557	36.2684	77.8308	6.7	72	0.044	.	3100	18	.	77	4380	-0.1 0.6	36	-0.001
2399	HA558	36.2320	77.8830	6.6	70	0.040	27	4400	31	.	69	4960	0.8 0.5	135	-0.001
2400	HA559	36.2326	77.9312	7.2	150	0.102	.	4000	47	6760	100	7310	4.0 0.6	58	-0.001
2401	HA560	36.2298	77.9726	7.5	89	0.267	.	2900	27	3930	70	6000	0.8 3.0	63	-0.001
2402	HA561	36.2085	77.9704	6.6	27	0.050	14	2300	.	.	60	4850	-0.1 1.8	44	-0.001
2403	HA562	36.1900	77.9213	6.9	64	0.224	38	2800	25	.	69	5750	0.7 3.5	60	-0.001
2404	HA563	36.1555	77.8763	7.2	78	0.027	23	3300	37	2590	69	5470	0.9 0.3	111	-0.001
2405	HA564	36.1871	77.8783	6.6	135	0.011	44	11500	.	3410	79	10360	-0.1 0.0	78	-0.001
2406	HA565	36.1564	77.8362	7.2	42	0.032	.	3200	57	.	80	6860	1.6 0.7	63	-0.001
2407	HA566	36.1501	77.8068	6.0	171	0.007	235	15600	.	5120	87	10690	0.7 0.0	72	0.020
2408	HA567	36.1872	77.8270	7.0	80	0.044	.	2800	53	3110	66	6890	1.2 0.5	48	-0.001

ROANOKE RAPIDS 100K QUADRANGLE - GROUNDWATER

Lab #	County	Lat	Long	pH	Cond um/cm	U ppb	Br ppb	Cl ppb	F ppb	Mg ppb	Mn ppb	Na ppb	V U/cond ppb x 1000	Al ppb	Dy ppb
2409	HAS68	36.2153	77.8256	7.2	140	0.035	.	5700	.	1510	72	7080	0.8 0.2	182	-0.001
2410	HAS69	36.2237	77.8005	7.2	136	0.063	.	4000	23	1630	66	7220	3.9 0.4	302	-0.001
2411	HAS70	36.1943	77.7806	7.0	298	0.056	.	17500	25	5090	101	8900	-0.1 0.1	359	-0.001
2412	HAS71	36.1782	77.7521	6.0	98	0.009	.	15000	.	1390	78	10700	-0.1 0.0	87	-0.001
2413	HAS72	36.1654	77.7155	6.1	60	0.076	18	6100	.	.	81	6960	-0.1 1.2	167	-0.001
2414	HAS73	36.1959	77.7016	7.5	255	0.243	.	2700	165	5060	189	10670	-0.1 0.9	65	-0.001
2415	HAS74	36.2240	77.7317	8.0	155	0.110	.	3000	77	5420	121	6760	2.2 0.7	73	-0.001
2416	HAS75	36.2306	77.6956	6.5	111	0.063	.	11200	.	.	77	11410	0.8 0.5	197	0.020
2417	HAS76	36.1596	77.6856	6.4	130	0.094	98	13000	.	.	103	9700	-0.1 0.7	332	0.170
2418	HAS77	36.2167	77.6670	6.2	120	0.083	.	11600	.	.	81	8230	-0.1 0.6	69	-0.001
2419	HAS78	36.2962	77.5497	6.4	450	0.022	715	97000	.	11170	141	28750	1.0 0.0	47	-0.001
2420	HAS79	36.2842	77.5049	6.7	185	0.020	32	17000	26	7580	160	9340	-0.1 0.1	40	-0.001
2421	HAS80	36.2499	77.4968	6.8	200	0.037	44	11900	184	4640	227	11960	-0.1 0.1	34	0.030
2422	HAS81	36.2469	77.5399	6.2	109	-0.002	53	14600	.	.	79	13530	-0.1 0.0	31	-0.001
2423	HAS82	36.2483	77.5786	5.7	52	0.082	.	4300	16	.	80	5110	-0.1 1.5	135	-0.001
2424	HAS83	36.2210	77.5918	5.0	143	0.043	30	19100	.	.	93	12440	-0.1 0.3	190	-0.001
2425	HAS84	36.2211	77.6205	6.7	350	0.242	.	54100	.	.	86	30880	-0.1 0.6	51	-0.001
2426	HAS85	36.2001	77.6390	7.2	150	0.216	.	7400	.	.	.	3510	-0.1 1.4	53	-0.001
2427	HAS86	36.1967	77.5777	4.6	185	0.139	.	31400	.	2650	141	15450	-0.1 0.7	794	0.050
2428	HAS87	36.1860	77.5427	5.6	212	0.088	.	21300	.	2370	76	19470	-0.1 0.4	194	-0.001
2429	HAS88	36.2221	77.5540	7.0	171	0.041	22	3200	306	3010	213	5790	1.1 0.2	95	-0.001
2430	HAS89	36.2276	77.4949	6.7	81	0.027	.	5600	108	1180	99	6460	0.5 0.3	136	0.020
2431	HAS90	36.2630	77.4603	6.3	150	0.034	27	6400	24	4710	108	7510	0.3 0.2	70	0.020
2432	HAS91	36.2288	77.4554	6.6	65	0.063	.	4800	.	2140	81	7880	-0.1 0.9	46	-0.001
2433	HAS92	36.2260	77.4138	6.7	370	0.053	125	31700	.	4020	86	28470	-0.1 0.1	88	-0.001
2434	HAS93	36.1820	77.4036	7.8	1390	0.166	470	175400	1304	9510	404	248000	-0.1 0.1	332	-0.001
2435	HAS94	36.1887	77.3737	6.5	250	0.054	.	28700	.	10400	142	18560	-0.1 0.2	59	-0.001
2436	HAS95	36.1773	77.3328	7.0	179	0.015	19	5000	.	3400	94	5970	0.5 0.0	40	-0.001
2437	HAS96	36.1342	77.2971	6.5	160	0.038	.	10100	.	4140	109	8690	-0.1 0.2	52	-0.001
2438	HAS97	36.1498	77.3398	6.3	171	0.018	56	10800	.	1700	119	13430	-0.1 0.1	47	-0.001
2439	HAS98	36.1370	77.3742	6.7	180	0.035	.	22400	.	.	89	19370	-0.1 0.1	52	-0.001
2440	HAS99	36.1501	77.4126	6.5	70	0.028	84	6100	15	.	80	6230	-0.1 0.4	56	-0.001
2441	HA600	36.1817	77.4561	5.2	78	0.099	.	11400	.	.	81	6610	-0.1 1.2	315	0.080
2442	HA601	36.1773	77.4830	4.9	121	0.067	.	22100	.	3800	71	16020	0.7 0.5	621	-0.001
2443	HA602	36.1488	77.4635	5.5	72	0.033	117	7000	18	.	80	6370	-0.1 0.4	133	-0.001
2444	HA603	36.1521	77.6239	6.7	89	0.023	.	3600	57	.	74	6590	-0.1 0.2	58	-0.001
2445	HA604	36.1150	77.5793	6.2	90	0.028	61	10900	.	7400	114	7760	-0.1 0.3	63	-0.001
2446	HA605	36.1132	77.5565	5.7	90	0.024	.	8200	.	2410	122	4670	-0.1 0.2	148	0.090

ROANOKE RAPIDS 100K QUADRANGLE - GROUNDWATER

Lab #	County	Lat	Long	pH	Cond um/cm	U ppb	Br ppb	Cl ppb	F ppb	Mg ppb	Mn ppb	Na ppb	V U/cond ppb x 1000	Al ppb	Dy ppb	
2447	HA606	36.1574	77.5445	6.9	145	0.030	.	16500	33	.	78	12750	-0.1	0.2	50	-0.001
2448	HA607	36.1452	77.5126	4.5	590	0.175	562	98700	352	8520	244	54200	-0.1	0.3	4910	0.390
2449	HA608	36.1201	77.4879	5.1	109	0.059	60	18500	.	.	67	20820	-0.1	0.5	207	-0.001
2450	HA609	36.1158	77.4583	6.7	110	0.023	51	5300	67	1190	103	16150	-0.1	0.2	97	-0.001
2451	HA610	36.0839	77.4703	5.3	141	0.021	104	24100	.	.	89	19890	-0.1	0.1	253	0.020
2452	HA611	36.0774	77.5042	7.1	221	0.023	.	5000	158	.	117	28590	-0.1	0.1	37	-0.001
2453	HA612	36.0458	77.4956	7.5	151	0.006	18	3500	153	3690	106	23050	-0.1	0.0	35	-0.001
2454	HA613	36.0448	77.4608	5.7	79	0.045	17	8800	.	.	61	15500	-0.1	0.5	152	-0.001
2455	HA614	36.0161	77.4108	5.8	106	0.027	14	14100	.	.	71	18910	-0.1	0.2	122	0.010
2456	HA615	36.0516	77.3753	6.0	790	0.087	96	104600	.	16260	217	102540	-0.1	0.1	89	-0.001
2457	HA616	36.0507	77.4120	6.4	171	-0.002	.	26600	.	1770	95	25810	0.5	0.0	39	-0.001
2458	HA617	36.0841	77.4196	6.9	118	0.038	28	15900	.	.	60	18500	-0.1	0.3	57	-0.001
2459	HA618	36.1111	77.4201	5.2	73	0.020	49	7800	19	.	63	16270	0.3	0.2	154	0.040
2460	HA619	36.1150	77.3766	5.9	70	0.033	176	8000	.	2140	72	13940	0.6	0.4	83	0.050
2461	HA620	36.0860	77.3794	6.2	211	0.063	53	28200	.	.	72	25250	0.5	0.3	134	0.040
2462	HA621	36.0777	77.3425	5.8	110	0.016	.	12800	38	1490	99	15050	-0.1	0.1	100	0.020
2463	HA622	36.1388	77.5818	6.4	120	-0.002	32	13700	.	1350	100	11390	0.4	0.0	493	0.060
2464	HA623	36.2016	77.6745	5.9	600	0.204	152	127600	.	12660	211	112720	-0.1	0.3	247	0.140
2661	HT501	36.4289	77.0700	5.4	91	0.156	68	14500	.	.	76	15730	-0.1	1.7	684	1.220
2662	HT502	36.4194	77.0280	6.3	145	0.015	82	14400	21	.	60	18660	0.5	0.1	128	-0.001
2681	HT521	36.3899	77.0682	7.1	180	0.036	26	17100	.	.	122	17250	0.8	0.2	301	0.040
2682	HT522	36.3813	77.0401	7.7	208	0.040	.	3400	126	5270	157	16920	-0.1	0.1	102	-0.001
2683	HT523	36.3467	77.0312	6.7	113	0.012	33	8500	.	1370	198	9760	-0.1	0.1	91	-0.001
2684	HT524	36.3186	77.0306	5.4	128	0.017	67	20200	83	4520	232	13120	0.5	0.1	191	0.130
2693	HT533	36.2785	77.0040	5.7	130	0.032	97	13400	.	2270	198	14780	-0.1	0.2	109	-0.001
2695	HT535	36.2503	77.0262	6.2	121	0.110	66	7700	21	.	188	10840	-0.1	0.9	148	-0.001
2696	HT536	36.2766	77.0372	6.6	450	0.077	79	38400	.	2660	177	46250	2.0	0.1	427	0.060
2697	HT537	36.2696	77.0583	5.2	245	0.073	.	43400	81	7730	210	28140	-0.1	0.3	842	0.510
2698	HT538	36.2536	77.0777	7.3	330	0.012	38	6200	45	7250	217	16230	-0.1	0.0	32	-0.001
2699	HT539	36.2810	77.1204	6.1	355	0.047	.	49800	.	5410	167	20470	0.8	0.1	39	-0.001
2700	HT540	36.2739	77.1516	6.7	910	0.129	1144	205200	.	20760	994	86040	-0.1	0.1	93	-0.001
2701	HT541	36.2433	77.1164	7.2	345	0.017	42	7500	24	4290	239	11920	-0.1	0.0	62	-0.001
2702	HT542	36.2471	77.1624	6.3	49	0.022	.	5700	17	.	164	6700	0.6	0.4	72	-0.001
2703	HT543	36.2500	77.1997	5.7	65	0.022	35	11100	.	.	172	8060	-0.1	0.3	52	-0.001
2704	HT544	36.3177	77.1531	6.2	72	0.028	25	8300	16	.	163	7710	0.4	0.3	58	0.010
2705	HT545	36.3045	77.1161	7.4	259	0.017	.	3400	122	4200	190	19980	-0.1	0.0	49	-0.001
2706	HT546	36.3088	77.0771	6.4	141	0.035	.	18100	.	.	189	12070	-0.1	0.2	47	-0.001
2707	HT547	36.3515	77.0816	7.6	270	0.005	17	3700	385	1460	182	28900	-0.1	0.0	81	-0.001

ROANOKE RAPIDS 100K QUADRANGLE - GROUNDWATER

Lab #	County	Lat	Long	pH	Cond	U	Br	Cl	F	Mg	Mn	Na	V	U/cond	Al	Dy
ID					um/cm	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	x 1000	ppb	ppb
2708	HT548	36.3570	77.1105	5.8	225	0.020	44	33000	.	2320	171	19030	-0.1	0.0	78	-0.001
2709	HT549	36.3487	77.1481	6.3	147	0.012	.	18300	.	.	152	9890	0.7	0.0	66	-0.001
2710	HT550	36.4217	77.1111	6.9	160	0.060	30	12900	34	2990	163	11250	-0.1	0.3	565	0.090
2711	HT551	36.3976	77.1077	6.3	99	0.037	.	10600	18	1550	168	8170	-0.1	0.3	138	-0.001
2712	HT552	36.4552	77.1089	7.0	290	0.025	28	26100	.	.	192	26160	0.7	0.0	132	-0.001
2713	HT553	36.4385	77.0396	7.0	210	0.032	49	6800	137	4190	258	22130	-0.1	0.1	79	-0.001
2714	HT554	36.4576	77.0798	8.0	260	0.027	.	7900	260	1250	217	42920	-0.1	0.1	46	-0.001
2715	HT555	36.4822	77.0340	5.4	255	0.068	.	19300	50	11350	310	8690	-0.1	0.2	414	0.160
3493	MR541	36.0029	77.3603	6.0	190	0.048	.	16700	.	.	30	23640	0.6	0.2	312	0.050
3494	MR542	36.0240	77.3298	6.4	220	0.108	.	10400	124	3650	62	20300	-0.1	0.4	184	0.020
3495	MR543	36.0251	77.2889	6.3	200	0.025	.	13800	111	2890	80	22410	-0.1	0.1	173	0.070
3496	MR544	36.0072	77.3056	6.1	130	0.031	13	10400	80	2030	51	17060	-0.1	0.2	221	0.030
3538	NA505	36.0102	77.9050	7.0	61	-0.002	.	4600	14	.	66	3360	0.5	0.0	56	-0.001
3558	NA525	36.0532	77.8940	5.6	60	-0.002	.	9200	.	.	77	7640	-0.1	0.0	48	-0.001
3559	NA526	36.0456	77.9519	7.4	118	-0.002	.	4500	.	.	76	6160	1.1	0.0	37	-0.001
3568	NA535	36.0095	77.9575	6.1	100	-0.002	.	7700	.	.	62	6090	0.3	0.0	54	-0.001
3575	NA542	36.0083	77.7891	7.0	110	-0.002	.	7600	.	.	30	4010	-0.1	0.0	81	-0.001
3576	NA543	36.0528	77.7841	7.6	270	0.051	.	3500	28	.	70	5540	-0.1	0.1	25	-0.001
3577	NA544	36.0921	77.7367	7.1	110	-0.002	.	21300	.	.	16	12040	-0.1	0.0	55	-0.001
3578	NA545	36.1470	77.7407	5.6	110	-0.002	.	14600	.	.	28	7170	-0.1	0.0	53	-0.001
3579	NA546	36.0997	77.7925	6.4	150	-0.002	16	19700	.	.	30	9250	-0.1	0.0	66	-0.001
3580	NA547	36.1371	77.8020	4.9	410	0.154	.	53500	.	7280	.	29120	-0.1	0.3	320	-0.001
3581	NA548	36.1321	77.8563	6.1	70	-0.002	.	4500	.	.	26	4630	-0.1	0.0	42	0.090
3582	NA549	36.0955	77.8343	7.4	330	0.321	272	8900	458	.	98	16820	-0.1	0.9	21	-0.001
3583	NA550	36.0544	77.8483	6.1	290	-0.002	.	35900	.	.	10	26890	0.3	0.0	38	-0.001
3584	NA551	36.1034	77.8954	5.9	60	-0.002	.	5800	.	.	34	4260	-0.1	0.0	27	-0.001
3585	NA552	36.1412	77.9039	5.4	80	-0.002	.	12200	.	.	27	8490	-0.1	0.0	30	-0.001
3586	NA553	36.1397	77.9596	5.7	190	-0.002	.	38300	.	.	28	22390	-0.1	0.0	26	-0.001
3587	NA554	36.0959	77.9607	7.0	121	0.061	.	6600	12	.	31	6610	-0.1	0.5	35	-0.001
3619	NO501	36.4356	77.5734	6.5	110	0.021	30	14100	.	.	164	9770	-0.1	0.1	53	-0.001
3620	NO502	36.4318	77.5366	7.1	450	0.026	.	10000	99	7980	288	22720	-0.1	0.0	34	-0.001
3621	NO503	36.4154	77.4992	6.7	2190	0.574	1099	583200	.	38860	3758	250200	-0.1	0.2	591	-0.001
3622	NO504	36.3985	77.4846	6.8	180	0.035	78	17100	60	5730	226	14840	-0.1	0.1	33	-0.001
3623	NO505	36.3778	77.4423	5.8	109	0.005	.	13500	.	.	171	14830	-0.1	0.0	102	-0.001
3624	NO506	36.3661	77.4590	6.2	95	0.035	35	10500	.	1270	153	13470	-0.1	0.3	70	-0.001
3625	NO507	36.3732	77.5140	6.5	450	0.055	481	77900	.	.	227	52890	-0.1	0.1	83	-0.001
3626	NO508	36.3384	77.5627	6.9	121	0.016	55	9000	69	4540	270	8790	-0.1	0.1	63	-0.001
3627	NO509	36.3575	77.5451	6.6	460	0.031	.	48200	.	8760	247	21510	-0.1	0.0	58	-0.001

ROANOKE RAPIDS 100K QUADRANGLE - GROUNDWATER

Lab #	County	Lat	Long	pH	Cond	U	Br	Cl	F	Mg	Mn	Na	V	U/cond	Al	Dy
ID					um/cm	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	x 1000	ppb	ppb
3628	NO510	36.3866	77.5363	6.3	105	0.036	79	13000	.	3600	146	13620	-0.1	0.3	51	0.010
3629	NO511	36.3508	77.4154	5.5	105	0.028	.	14600	.	2710	192	11570	-0.1	0.2	333	0.190
3630	NO512	36.3242	77.4073	6.2	190	0.020	107	27300	.	4870	251	20630	-0.1	0.1	119	-0.001
3631	NO513	36.3218	77.3747	6.1	120	0.029	.	13000	22	5020	158	13840	0.4	0.2	109	-0.001
3632	NO514	36.2916	77.3711	6.4	80	0.014	116	16500	40	.	157	14460	1.5	0.1	102	-0.001
3633	NO515	36.2603	77.3738	6.7	400	0.023	.	38600	.	9300	178	43550	-0.1	0.0	73	-0.001
3634	NO516	36.2512	77.3279	6.2	112	0.026	31	18800	43	3070	133	14730	-0.1	0.2	57	-0.001
3635	NO517	36.2234	77.3314	6.4	139	0.022	247	10900	.	3050	169	9210	0.3	0.1	69	-0.001
3636	NO518	36.2378	77.2871	6.0	95	0.029	57	9800	38	4240	161	10620	-0.1	0.3	53	-0.001
3637	NO519	36.2222	77.2575	6.7	139	0.038	117	16400	.	1570	143	11980	1.1	0.2	56	-0.001
3638	NO520	36.2519	77.2362	6.5	168	0.026	29	16400	70	2340	408	18340	-0.1	0.1	60	-0.001
3639	NO521	36.2813	77.2026	6.6	110	0.072	.	13500	44	2360	192	12020	-0.1	0.6	95	-0.001
3640	NO522	36.2877	77.2364	6.9	60	0.008	.	7200	17	1140	148	9030	0.7	0.1	84	-0.001
3641	NO523	36.3188	77.2482	6.9	161	0.027	64	24700	.	8270	332	16340	-0.1	0.1	72	-0.001
3642	NO524	36.2891	77.3072	5.8	150	0.034	.	22800	42	.	118	15710	-0.1	0.2	131	-0.001
3643	NO525	36.2814	77.3293	6.1	127	0.030	17	16700	.	.	97	14270	-0.1	0.2	37	-0.001
3644	NO526	36.3898	77.4016	6.6	490	0.076	182	66300	.	7320	240	39000	-0.1	0.1	54	-0.001
3645	NO527	36.3758	77.3714	5.7	61	0.027	16	11900	.	.	81	10650	-0.1	0.4	94	0.010
3646	NO528	36.3483	77.3732	5.8	182	0.038	40	12900	21	.	87	11930	-0.1	0.2	32	-0.001
3647	NO529	36.3535	77.3275	5.6	101	0.070	.	13500	.	.	73	10780	-0.1	0.6	168	0.020
3648	NO530	36.3265	77.3214	6.2	71	0.056	13	5300	20	.	75	8500	-0.1	0.7	174	0.010
3649	NO531	36.3255	77.2902	5.9	240	0.031	31	36500	.	.	82	29210	-0.1	0.1	73	-0.001
3650	NO532	36.3505	77.2766	5.1	80	0.012	134	14300	.	.	115	11520	-0.1	0.1	146	0.090
3651	NO533	36.3557	77.2500	6.3	41	-0.002	.	5700	26	.	50	6130	-0.1	0.0	18	-0.001
3652	NO534	36.3122	77.1989	6.6	161	0.025	56	18800	82	.	198	17070	-0.1	0.1	55	-0.001
3653	NO535	36.3476	77.1980	5.9	70	0.058	.	13400	.	.	56	9460	0.8	0.8	180	-0.001
3654	NO536	36.3829	77.1625	6.2	70	0.025	.	6100	15	.	49	6080	-0.1	0.3	126	-0.001
3655	NO537	36.3931	77.2025	4.9	171	0.097	.	16400	74	.	83	9080	0.6	0.5	1313	0.460
3656	NO538	36.4215	77.1976	4.8	94	0.038	29	11000	.	2630	65	6640	-0.1	0.4	557	0.030
3657	NO539	36.4276	77.1585	5.6	105	0.043	14	11200	.	2520	59	9790	-0.1	0.4	132	0.020
3658	NO540	36.4535	77.1481	4.6	290	0.263	.	20100	43	1990	122	14210	-0.1	0.9	1244	0.310
3659	NO541	36.4876	77.1540	7.4	285	0.133	41	2700	148	9290	99	10810	0.3	0.4	53	-0.001
3660	NO542	36.4891	77.1248	4.6	191	0.337	.	9900	38	11500	106	14960	-0.1	1.7	1682	0.350
3661	NO543	36.4827	77.1040	6.5	72	0.030	30	M	29	1660	109	8550	-0.1	0.4	44	-0.001
3664	NO546	36.4927	77.2050	4.8	168	0.063	.	13000	26	4090	102	7390	-0.1	0.3	1249	0.540
3665	NO547	36.4580	77.1953	5.1	90	0.045	.	2600	27	3840	102	6670	-0.1	0.5	811	0.150
3666	NO548	36.4485	77.2491	4.9	93	0.093	42	1200	.	3410	366	8630	-0.1	1.0	427	0.170
3667	NO549	36.4162	77.2317	6.2	190	0.165	120	11300	32	4400	120	9280	-0.1	0.8	1010	0.120

ROANOKE RAPIDS 100K QUADRANGLE - GROUNDWATER

Lab #	County	Lat	Long	pH	Cond um/cm	U ppb	Br ppb	Cl ppb	F ppb	Mg ppb	Mn ppb	Na ppb	V U/cond ppb x 1000	Al ppb	Dy ppb	
3668	NO550	36.3851	77.2432	7.6	189	0.031	.	3900	66	4750	106	9270	-0.1	0.1	54	-0.001
3669	NO551	36.3935	77.2886	5.6	68	0.021	.	10100	.	1540	56	8990	-0.1	0.3	173	-0.001
3670	NO552	36.3845	77.3314	4.6	151	0.032	.	18100	.	1580	72	21300	-0.1	0.2	607	0.220
3671	NO553	36.4098	77.3243	4.9	68	0.025	33	3300	18	1460	82	5970	0.5	0.3	173	-0.001
3672	NO554	36.4245	77.4452	6.5	162	0.019	.	21100	.	1390	73	23270	-0.1	0.1	53	0.040
3673	NO555	36.4600	77.4505	6.6	24	0.031	.	4000	.	.	58	5070	-0.1	1.2	56	-0.001
3674	NO556	36.4577	77.3813	5.1	31	0.015	36	7000	21	.	63	6740	-0.1	0.4	97	0.020
3675	NO557	36.4409	77.3985	6.1	41	0.017	75	5100	.	.	54	8020	-0.1	0.4	29	-0.001
3676	NO558	36.4191	77.3996	6.0	71	0.026	.	9100	.	1350	52	9540	-0.1	0.3	127	-0.001
3677	NO559	36.4325	77.3773	5.8	29	0.034	.	4300	.	.	60	5650	-0.1	1.1	42	-0.001
3678	NO560	36.4523	77.3234	4.6	132	0.137	174	13600	.	5150	80	9560	-0.1	1.0	1076	0.360
3679	NO561	36.4423	77.2875	5.7	128	0.040	73	14700	.	8540	148	11040	-0.1	0.3	192	-0.001
3680	NO562	36.4200	77.2803	6.2	50	0.031	28	5200	19	.	57	7900	0.3	0.6	83	-0.001
3681	NO563	36.4881	77.2355	5.2	92	0.070	.	7000	21	1700	58	4710	0.5	0.7	255	-0.001
3682	NO564	36.4799	77.2850	5.4	130	0.057	.	13500	.	2150	74	7060	-0.1	0.4	446	0.060
3686	NO568	36.4809	77.3687	5.6	220	0.066	.	24100	.	.	56	17090	-0.1	0.3	100	0.020
3687	NO569	36.4873	77.4050	6.6	235	0.028	.	30900	.	.	53	21510	-0.1	0.1	113	-0.001
3690	NO572	36.4491	77.5809	5.9	37	0.041	22	3200	.	.	44	5190	-0.1	1.1	41	-0.001
3691	NO573	36.4917	77.6256	5.9	100	0.004	30	9700	.	.	40	9680	-0.1	0.0	70	-0.001
3692	NO574	36.4988	77.5826	6.0	38	0.022	.	4500	.	.	39	5190	-0.1	0.5	123	-0.001
3693	NO575	36.4593	77.5340	7.0	63	0.027	42	5600	.	1590	95	8250	-0.1	0.4	267	0.170
3694	NO576	36.4523	77.4997	6.0	150	0.031	.	23500	.	.	87	22900	-0.1	0.2	174	0.140
3695	NO577	36.4863	77.4559	6.7	70	0.019	.	2300	28	.	42	15430	-0.1	0.2	42	-0.001
3699	NO581	36.4895	77.4911	5.2	150	0.034	.	17900	.	.	62	16270	-0.1	0.2	228	-0.001
3700	NO582	36.4937	77.5496	6.2	39	0.055	36	1400	.	.	43	5790	-0.1	1.4	57	-0.001
3703	NO585	36.4740	77.6138	6.6	140	0.063	.	16900	.	.	43	20110	2.2	0.4	1181	-0.001
5506	WR523	36.4662	77.9500	5.9	30	0.039	42	6600	.	.	15	2880	-0.1	1.3	24	-0.001
5507	WR524	36.4271	77.9580	5.9	140	0.040	48	5900	.	640	13	1720	0.1	0.2	60	-0.001
5510	WR527	36.3746	77.9399	6.1	50	0.045	67	8400	.	2280	.	6900	0.5	0.9	28	-0.001
5511	WR528	36.3292	77.9430	7.5	110	0.066	49	6800	.	.	17	4890	-0.1	0.6	22	-0.001
5513	WR530	36.2833	77.9540	5.6	30	0.267	83	M	.	M	39	.	-0.1	8.9	19	0.060