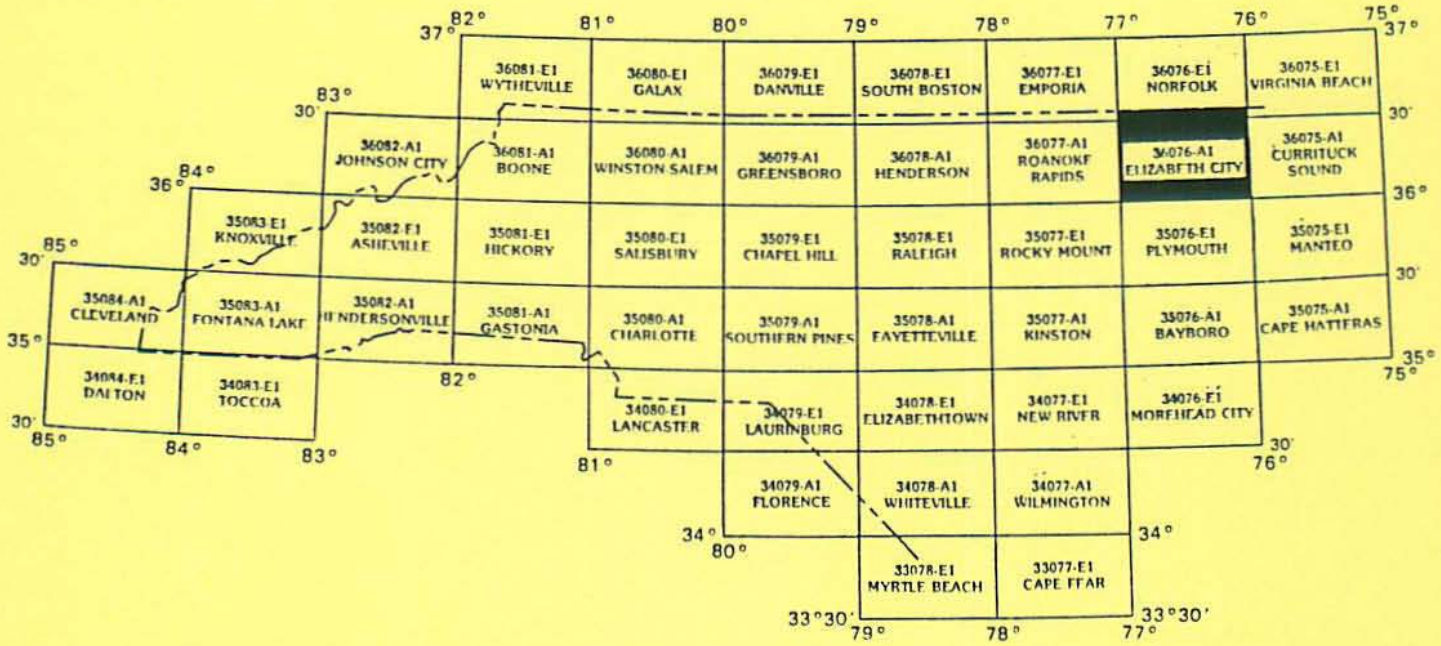
Listing of Concentrations of Variables of Stream Sediment, Stream Water, and Groundwater for the Norfolk and Elizabeth City 30 x 60 - Minute Quadrangles -NURE Database

by
Robert H. Carpenter and Jeffrey C. Reid



NORTH CAROLINA GEOLOGICAL SURVEY
OPEN-FILE REPORT 93-30

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

GEOLOGICAL SURVEY SECTION

The Geological Survey Section examines, surveys and maps the geology, mineral resources, and topography of the State to encourage the wise conservation and use of these resources by industry, commerce, agriculture and government agencies for the general welfare of the citizens of North Carolina.

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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 Norfolk and Elizabeth City 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.

CONTENTS

COUNTY CODES

Code	County
BR	Bertie
CI	Currituck
CM	Camden
GT	Gates
HT	Hertford

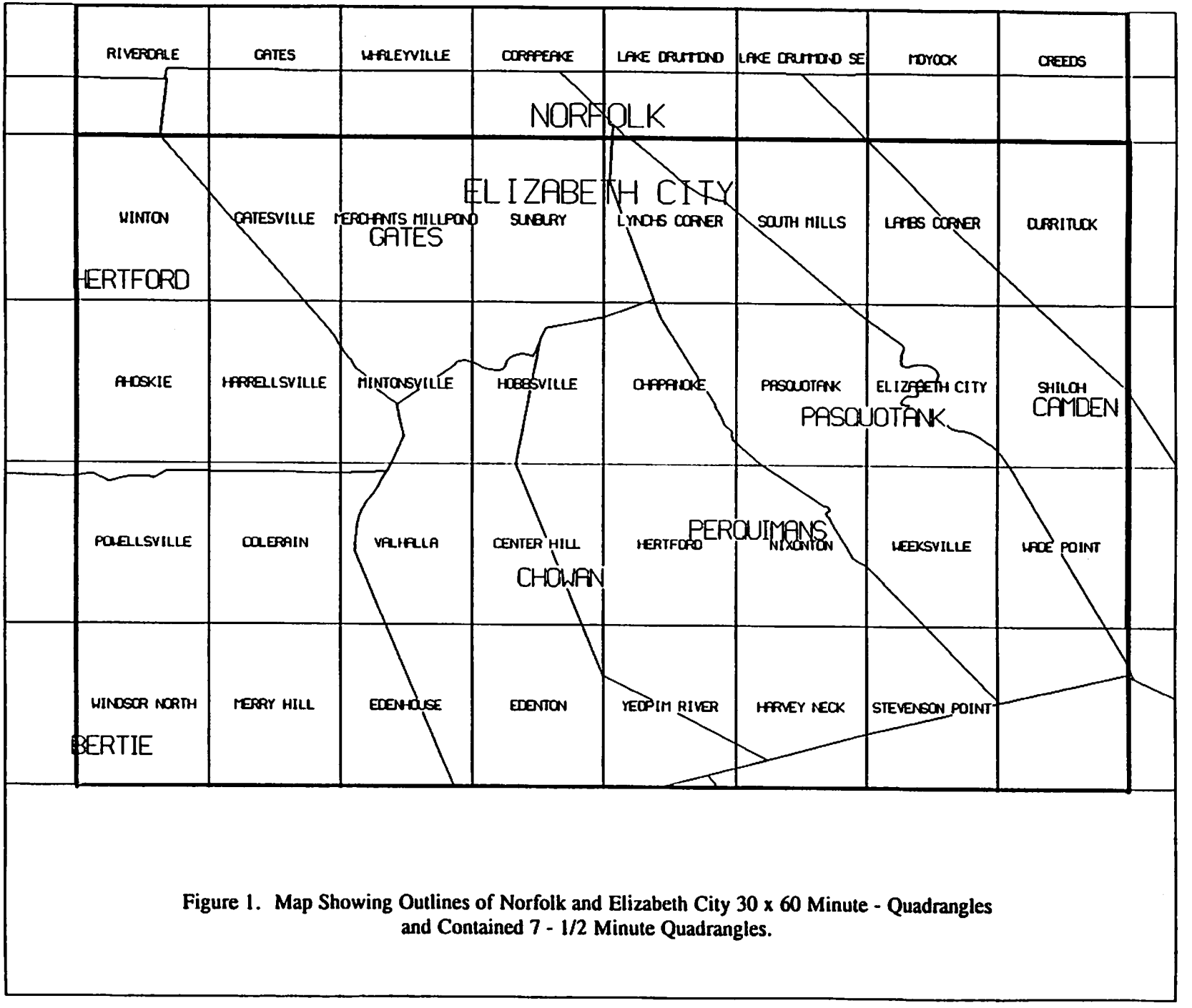

Figure 1. Map Showing Outlines of Norfolk and Elizabeth City 30 x 60 Minute - Quadrangles and Contained 7 - 1/2 Minute Quadrangles.

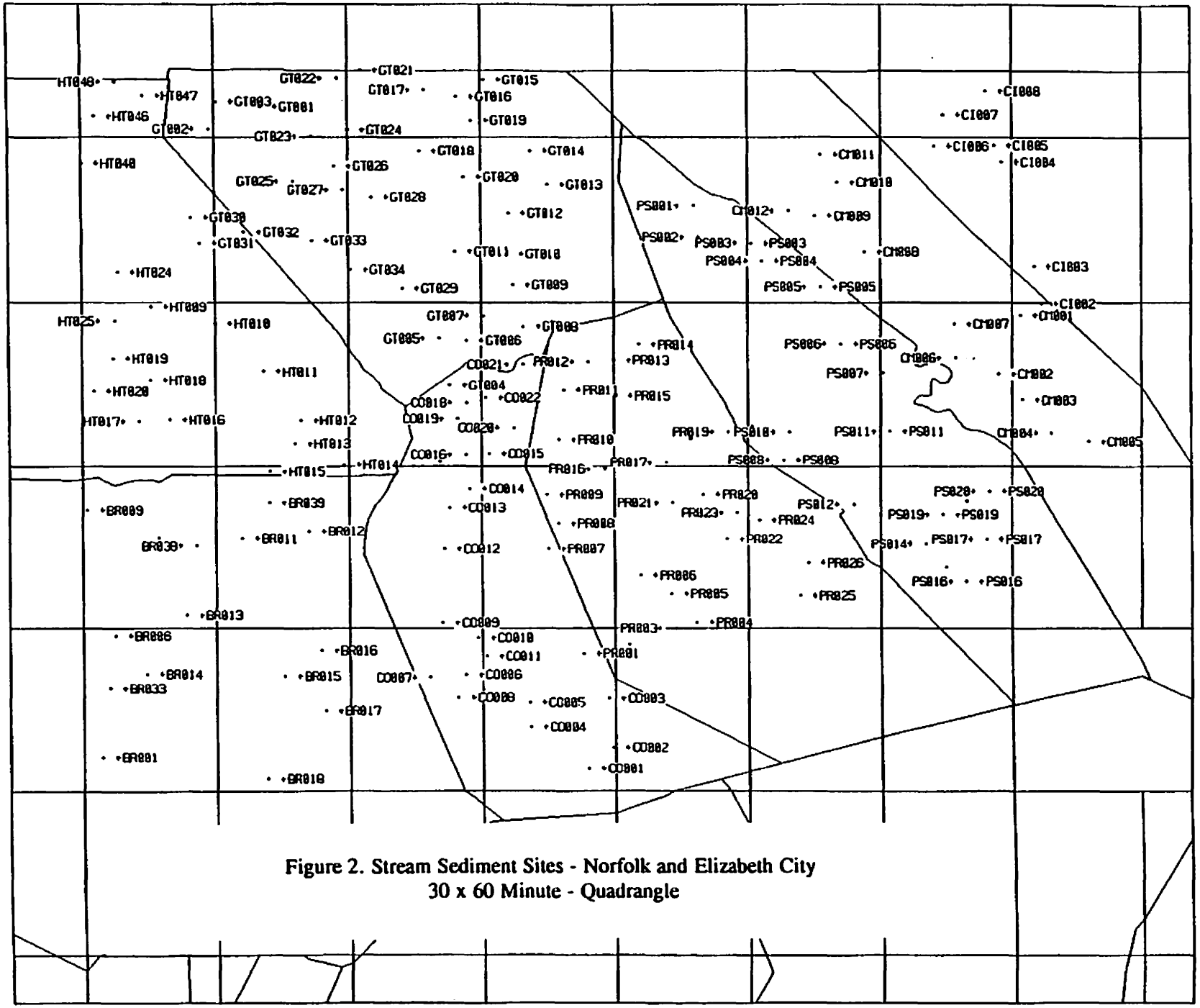

Figure 2. Stream Sediment Sites - Norfolk and Elizabeth City
30 x 60 Minute - Quadrangle

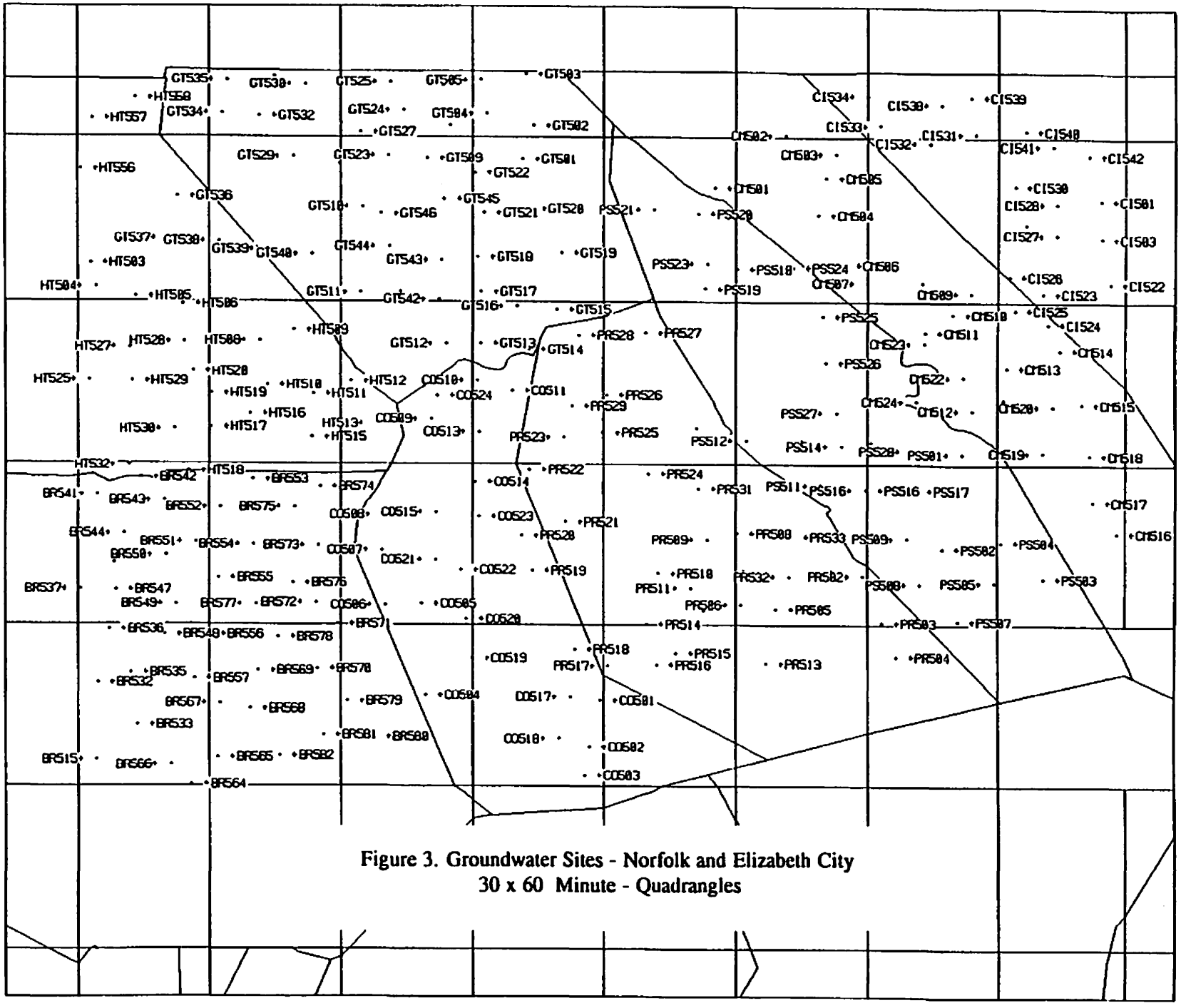

Figure 3. Groundwater Sites - Norfolk and Elizabeth City
30 x 60 Minute - Quadrangles

NORFOLK 100K QUADRANGLE - STREAM SEDIMENT

Lab	#County ID	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
1167	CI007	36.5175	76.1896	6.7	210	1.1	4	9	42100	42	9200	270	12700	4.6	3300	10	M	-1.0	9	1	M	M	0.049
1168	CI008	36.5350	76.1493	6.3	115	2.3	4	2	55800	63	17200	90	5000	6.0	2800	50	2.5	-1.0	27	4	M	0.3	
2492	GT001	36.5233	76.8320	4.4	40	3.6	5	15	33100	63	17200	140	1000	4.7	6600	60	3.7	2.5	71	3	M	0.6	
2493	GT002	36.5066	76.8800	5.7	50	2.6	7	24	22500	48	8100	180	3200	2.0	4800	20	3.5	M	M	4	M	M	
2494	GT003	36.5270	76.8726	5.8	40	3.0	8	13	39500	62	16900	310	1800	5.7	5500	50	4.5	-1.0	M	4	M	M	
2506	GT015	36.5437	76.6218	5.1	40	3.4	12	14	45900	55	19400	110	1000	8.1	6300	70	5.7	0.6	M	5	M	0.2	
2507	GT016	36.5308	76.6469	5.5	40	3.2	8	26	38100	51	13600	200	1500	5.4	10700	80	M	-1.0	M	5	M	M	
2508	GT017	36.5356	76.6770	5.2	40	2.9	9	23	29200	46	12700	180	800	5.1	7100	40	1.9	0.5	M	3	M	0.2	
2510	GT019	36.5132	76.6335	4.8	70	3.6	18	60	11300	89	25100	470	1100	6.2	12700	30	2.5	1.3	M	5	M	1.3	
2512	GT021	36.5511	76.7375	5.5	50	3.4	7	16	34600	51	23400	100	800	3.9	7500	60	2.5	-1.0	M	3	6.8	M	
2513	GT022	36.5447	76.7600	6.3	90	3.5	14	66	6900	65	14300	370	800	1.8	10700	30	2.8	0.6	M	4	M	0.4	
2514	GT023	36.5007	76.7844	5.5	50	3.5	13	73	9900	52	18900	600	700	5.6	18300	50	0.2	-1.0	25	4	2.4	0.6	
2515	GT024	36.5057	76.7502	5.7	80	4.0	14	31	33200	32	19600	240	800	4.7	10900	60	M	2.8	35	5	2.3	0.3	
2967	HT046	36.5159	76.9873	5.4	54	6.2	28	109	5600	111	13000	400	200	1.1	11100	30	3.1	-1.0	54	8	4.3	0.6	
2968	HT047	36.5315	76.9416	5.3	67	M	9	32	9400	-20	8800	220	800	1.4	8500	30	3.0	-1.0	18	3	2.9	0.3	
2969	HT048	36.5418	76.9674	4.4	60	3.3	16	56	7400	64	15200	460	800	2.6	14000	40	2.2	-1.0	29	5	2.5	0.6	

ELIZABETH CITY 100K QUADRANGLE - STREAM SEDIMENT

Lab #	County ID	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
720	BR001	36.0263	76.9828	5.8	89	2.3	4	27	21700	36	18400	490	4900	4.5	8900	30	M	-1.0	22	4	M	0.5	
725	BR006	36.1192	76.9701	4.4	42	1.6	8	16	13400	46	15200	130	3500	2.6	4100	20	1.4	M	16	3	M	0.4	
728	BR009	36.2161	76.9961	4.6	46	1.8	4	14	18600	19	9000	80	1500	1.9	3800	20	1.5	M	12	2	M	0.2	
729	BR010	36.1945	76.9290	4.6	50	1.8	10	19	19100	30	10300	130	2300	2.8	4600	20	0.2	-1.0	11	2	5.6	M	
730	BR011	36.1939	76.8505	5.5	70	3.1	7	14	37000	34	14400	160	1000	5.1	5000	30	2.1	-1.0	13	3	M	M	
731	BR012	36.1997	76.7879	5.7	75	2.8	9	23	25200	61	14600	180	1700	2.6	7700	40	3.4	0.6	31	5	M	0.3	
732	BR013	36.1349	76.9029	4.3	50	1.9	11	29	10400	24	8400	110	1200	2.0	5500	20	1.8	-1.0	15	2	M	0.2	
733	BR014	36.0897	76.9408	4.6	61	2.4	8	34	16800	48	14800	320	2500	3.9	8800	30	1.9	0.6	20	5	2.9	0.3	
734	BR015	36.0882	76.8115	4.4	50	2.3	M	27	15800	M	M	210	1500	M	7900	30	M	M	M	M	M	M	
735	BR016	36.1079	76.7768	5.1	69	1.7	6	28	9400	-48	14700	210	1300	0.9	6600	20	M	-1.0	25	1	M	M	
736	BR017	36.0614	76.7734	5.4	61	1.7	9	22	15600	-20	13800	250	3600	2.0	6200	20	2.4	-1.0	18	2	3.5	M	0.044
737	BR018	36.0096	76.8283	3.9	44	1.8	6	22	16600	33	13300	340	2300	3.2	9900	30	2.8	-1.0	18	2	M	0.3	
752	BR033	36.0786	76.9757	5.0	40	2.6	7	17	24700	49	15200	120	2300	2.9	6300	30	M	-1.0	24	3	6.0	0.5	
757	BR038	36.1883	76.8931	5.2	50	1.4	3	15	7000	21	6100	80	600	1.4	3400	10	1.3	M	13	2	M	0.2	
758	BR039	36.2216	76.8255	5.8	70	3.4	12	47	15400	72	17400	400	800	2.6	13500	40	M	0.8	28	4	M	M	
1162	CI002	36.3745	76.0963	6.9	310	2.0	7	6	59700	57	27700	300	13200	7.2	3800	50	M	2.0	M	3	M	0.5	
1163	CI003	36.4024	76.1033	7.0	310	2.3	10	7	35600	23	11700	90	6700	3.5	3900	40	2.5	M	18	M	M	M	
1164	CI004	36.4816	76.1340	5.9	130	1.3	3	10	46600	27	9400	120	16100	4.1	3900	30	3.9	-1.0	14	2	M	M	
1165	CI005	36.4942	76.1418	6.7	150	1.6	2	8	47000	22	10000	100	8200	1.7	3300	40	M	-1.0	16	3	M	0.2	
1166	CI006	36.4938	76.1981	4.0	120	1.4	4	13	44000	38	16800	200	14400	5.0	2500	30	M	M	15	2	M	M	
1253	CM001	36.3654	76.1170	5.5	110	1.4	5	8	30600	25	9500	100	9300	3.5	2600	20	3.2	-1.0	12	2	M	0.2	
1254	CM002	36.3212	76.1372	6.4	105	1.3	3	18	36200	19	13700	250	14700	2.1	5000	20	M	M	9	M	M	M	
1255	CM003	36.3013	76.1150	6.5	140	1.6	7	12	44800	31	12900	180	11700	3.0	4500	30	0.3	-1.0	20	5	3.6	0.6	
1256	CM004	36.2762	76.0865	5.7	80	2.7	11	3	68600	52	18900	140	6100	5.3	6200	60	M	2.3	27	3	M	M	
1257	CM005	36.2696	76.0511	6.1	110	3.0	9	5	72300	90	29700	190	10100	6.6	8000	100	M	1.9	36	6	3.4	M	
1258	CM006	36.3333	76.1782	6.6	190	4.1	17	101	34500	93	45500	1070	10600	7.4	26000	80	0.2	3.4	42	6	5.4	0.5	
1259	CM007	36.3588	76.1798	6.0	140	3.7	8	7	60200	57	20800	160	5000	4.8	5800	70	3.9	M	34	M	1.7	0.2	
1260	CM008	36.4132	76.2649	5.6	100	7.1	24	136	42700	125	68600	1710	12800	11.6	36800	120	9.3	-1.0	59	11	7.3	1.4	
1261	CM009	36.4408	76.3113	6.3	100	1.7	4	14	44500	34	16600	210	9600	2.9	4300	30	1.3	0.6	13	3	M	0.2	
1262	CM010	36.4662	76.2900	6.7	110	1.5	3	16	42600	28	10800	250	15100	2.8	5800	20	M	-1.0	17	2	M	0.2	
1263	CM011	36.4875	76.3059	5.8	130	2.7	5	8	57900	47	17200	250	6200	7.3	4500	60	M	M	26	3	2.1	0.2	
1264	CM012	36.4446	76.3363	6.8	150	2.5	7	19	50500	48	26100	340	8300	7.2	5700	60	3.7	1.6	19	3	M	0.3	0.061
1315	CO001	36.0176	76.5255	6.5	110	2.6	7	7	69500	61	20900	240	4200	7.2	4600	70	3.7	0.9	M	5	M	M	
1316	CO002	36.0337	76.5025	6.4	190	2.6	7	10	47600	50	16200	150	8200	8.3	6900	60	M	-1.0	M	4	M	M	
1317	CO003	36.0711	76.5064	6.6	100	2.3	6	12	44900	41	15900	180	8200	5.1	5000	40	3.3	0.6	M	3	M	0.4	
1318	CO004	36.0493	76.5796	6.7	140	3.0	10	6	64000	134	44500	310	3500	7.9	5300	100	7.8	1.3	74	9	M	0.6	
1319	CO005	36.0682	76.5806	7.0	190	2.5	5	37	29700	65	17700	420	8300	2.7	10400	40	4.6	-1.0	M	5	M	0.5	
1320	CO006	36.0894	76.6408	6.3	110	2.8	9	38	26700	46	16400	510	3800	3.6	11300	50	M	-1.0	M	3	M	M	

ELIZABETH CITY 100K QUADRANGLE - STREAM SEDIMENT

Lab #	County ID	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
1321	C0007	36.0874	76.6738	6.0	110	3.0	8	49	15400	39	23600	580	1500	6.5	16000	50	M	M	M	4	M	0.4	
1322	C0008	36.0720	76.6477	6.1	105	3.2	16	50	16500	74	24900	550	2800	4.5	13400	40	2.5	-1.0	M	4	M	0.4	
1323	C0009	36.1290	76.6622	6.4	120	2.2	10	43	9900	48	19100	550	1500	2.8	16100	40	M	M	M	3	M	M	
1324	C0010	36.1176	76.6290	6.0	110	2.2	9	49	20800	57	19200	500	4000	3.2	12100	30	M	-1.0	M	M	M	M	
1325	C0011	36.1035	76.6215	6.3	100	2.6	8	8	52100	57	20900	170	5300	7.5	4800	60	M	-1.0	M	M	M	0.4	
1326	C0012	36.1859	76.6602	4.9	170	3.3	9	11	37800	60	21000	110	1600	4.0	5800	60	5.8	1.5	M	4	M	M	
1327	C0013	36.2182	76.6551	4.4	120	2.8	11	29	17800	45	12400	200	2300	3.9	6900	30	4.3	-1.0	52	3	M	M	
1328	C0014	36.2327	76.6365	5.6	120	5.1	13	129	15700	59	40000	1510	1200	6.2	38000	100	2.2	0.9	M	M	M	0.8	
1329	C0015	36.2600	76.6180	5.3	155	1.8	7	35	10100	36	11300	290	1200	2.1	8600	30	M	M	M	2	M	0.3	
1330	C0016	36.2592	76.6392	6.1	140	2.6	12	54	M	59	18800	360	1800	3.1	10200	30	4.2	M	M	4	M	0.3	
1331	C0017	36.2534	76.6640	6.1	140	3.7	17	69	15800	105	21500	700	2100	3.8	19200	50	3.1	-1.0	M	M	M	1.6	
1332	C0018	36.2991	76.6388	6.1	120	2.7	10	40	17700	46	11300	320	3400	2.0	9000	30	8.6	M	M	3	M	M	
1333	C0019	36.2867	76.6469	6.1	100	3.3	14	64	14700	52	17600	530	2500	3.2	12900	30	M	-1.0	M	5	M	M	
1334	C0020	36.2801	76.5944	5.8	105	2.1	12	37	11900	51	14100	330	2200	1.8	9000	30	1.5	M	M	4	5.8	M	
1335	C0021	36.3282	76.5856	5.0	95	2.9	12	19	33400	63	26500	140	1800	5.9	6700	70	M	1.1	113	M	11.3	0.4	
1336	C0022	36.3028	76.6210	5.1	130	3.8	5	8	35200	45	27100	110	1300	6.3	5500	60	4.0	-1.0	M	3	M	0.4	
2495	GT004	36.3123	76.6544	6.2	90	3.1	13	46	20400	56	20300	730	2300	5.7	16200	50	0.2	M	M	6	M	M	
2496	GT005	36.3479	76.6639	6.0	150	2.9	9	21	29000	65	15200	190	1700	5.2	6600	40	1.6	M	126	3	M	0.3	
2497	GT006	36.3465	76.6388	6.5	120	3.1	9	11	46900	62	28300	350	1300	5.4	6400	80	3.6	M	M	4	M	M	
2498	GT007	36.3649	76.6227	6.0	100	3.3	8	7	49500	75	19800	160	1700	6.6	8200	90	4.8	1.5	M	5	M	0.3	
2499	GT008	36.3568	76.5851	5.3	140	3.1	14	16	39400	54	26400	150	2800	5.9	5600	60	2.5	-1.0	57	5	M	M	
2500	GT009	36.3883	76.5950	5.7	70	3.2	5	13	38500	57	30500	100	2600	5.7	6300	60	5.3	-1.0	M	4	M	-0.2	
2501	GT010	36.4117	76.6007	5.1	60	3.1	19	13	43200	89	27500	140	2500	5.1	6700	60	3.7	-1.0	M	5	M	M	
2502	GT011	36.4136	76.6492	5.0	50	3.0	12	14	38700	65	17000	120	1500	6.0	5300	60	4.6	2.0	80	3	M	M	
2503	GT012	36.4428	76.5991	4.8	55	3.6	9	13	47500	66	14900	110	1500	7.5	6700	60	2.8	M	M	3	M	0.5	
2504	GT013	36.4646	76.5617	4.7	50	3.8	15	17	46200	75	18800	110	1400	6.7	6400	80	3.5	-1.7	89	5	M	M	
2505	GT014	36.4900	76.5783	5.6	70	3.3	10	14	35000	72	21200	150	2400	4.3	7900	70	1.7	3.2	M	4	M	M	
2509	GT018	36.4897	76.6823	4.7	40	3.8	7	14	39500	47	15700	100	2400	7.6	6100	50	M	0.7	M	5	M	0.5	
2511	GT020	36.4704	76.6406	5.3	75	3.5	12	15	43000	-20	25700	140	1500	8.5	4600	60	4.9	1.4	M	4	M	M	
2516	GT025	36.4668	76.8017	5.7	50	3.6	10	11	42700	92	17500	M	M	4.3	M	M	0.7	-1.0	38	7	2.9	0.5	
2517	GT026	36.4784	76.7631	5.6	60	2.6	8	26	28800	43	22300	290	1500	4.2	9300	60	2.7	1.4	23	4	2.3	0.3	
2518	GT027	36.4605	76.7547	5.1	40	3.0	8	24	22200	56	10800	220	2900	4.4	7700	40	5.6	-1.0	27	5	3.5	0.4	
2519	GT028	36.4551	76.7278	5.2	40	3.1	11	19	35300	53	18100	220	2700	4.0	6200	50	1.9	-1.0	30	4	2.2	0.4	
2520	GT029	36.3857	76.6988	5.2	45	3.2	9	7	42000	63	24300	100	1700	6.5	7400	70	4.4	-1.0	40	8	M	0.3	
2521	GT030	36.4398	76.8972	5.8	90	4.5	14	46	20900	69	18000	410	4000	4.1	10200	30	M	-1.0	33	10	7.3	0.5	
2522	GT031	36.4199	76.8893	5.5	70	2.6	10	19	24900	54	12600	130	1800	5.0	6700	40	2.0	M	24	5	1.7	0.3	
2523	GT032	36.4277	76.8479	6.2	70	3.5	13	44	19700	72	10300	410	4800	2.0	10700	30	M	-1.0	37	5	2.8	0.4	
2524	GT033	36.4219	76.7845	6.0	70	2.5	8	12	40600	67	17400	180	2400	4.4	5800	60	8.4	1.1	22	4	2.9	0.4	

ELIZABETH CITY 100K QUADRANGLE - STREAM SEDIMENT

Lab	#County ID	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
2525	GT034	36.3998	76.7478	6.3	70	2.3	8	22	36200	66	17300	270	2800	3.9	8200	50	M	-1.0	21	3	0.9	0.4	
2930	HT009	36.3719	76.9351	5.8	90	4.2	8	35	34900	55	13300	500	M	8.3	1500	M	0.4	0.8	26	2	M	0.3	
2931	HT010	36.3593	76.8754	5.1	42	2.7	6	11	38200	37	15600	100	2200	7.7	3500	40	0.5	1.4	18	3	M	0.3	
2932	HT011	36.3230	76.8303	5.6	50	2.1	9	27	19900	59	11800	300	M	3.6	7600	40	4.3	-1.0	M	7	M	0.4	
2933	HT012	36.2855	76.7952	5.5	71	3.0	10	21	34000	77	14900	200	1500	7.2	6200	50	3.0	M	33	5	5.2	0.5	
2934	HT013	36.2676	76.8007	5.6	74	1.7	5	19	12600	23	14600	130	600	2.3	5100	20	3.2	-1.0	54	2	M	0.2	
2935	HT014	36.2512	76.7548	5.8	99	3.3	13	10	26000	57	13000	100	1200	6.6	5700	40	2.8	-1.0	M	10	M	0.4	
2936	HT015	36.2459	76.8247	5.9	67	2.6	8	21	20200	46	-5000	90	1000	3.7	4600	30	4.1	-1.0	16	2	M	M	
2937	HT016	36.2860	76.9183	6.5	74	3.6	7	21	46900	45	15500	620	1600	10.9	5500	50	M	-1.0	22	7	M	0.3	
2938	HT017	36.2848	76.9471	6.6	102	3.0	11	14	51300	47	21300	200	2400	5.8	6200	70	2.5	M	M	8	M	M	
2939	HT018	36.3164	76.9358	5.9	53	3.1	7	28	19700	44	9600	200	2300	6.8	4800	30	0.2	-1.7	17	5	M	M	
2940	HT019	36.3329	76.9713	5.7	51	M	14	81	21900	74	15800	590	3000	6.3	13000	40	1.3	-1.0	31	7	2.8	0.7	
2941	HT020	36.3080	76.9894	5.8	57	3.5	11	47	33900	-20	28500	570	5800	6.3	11600	60	M	-1.0	36	10	M	M	0.156
2945	HT024	36.3982	76.9665	5.7	38	3.6	6	22	47600	24	13900	160	2100	9.4	4700	40	M	1.6	17	3	M	0.3	
2946	HT025	36.3612	76.9697	4.6	32	3.2	6	28	18500	24	8100	180	1600	5.5	4800	30	0.7	-1.0	18	5	1.7	0.3	
2961	HT040	36.4806	76.9996	5.6	50	2.9	12	27	18800	49	10400	260	2500	3.6	5600	30	3.3	0.9	28	4	1.5	0.4	
4772	PR001	36.1056	76.5291	5.4	40	0.6	6	8	34500	-46	12000	170	14300	4.5	4600	20	M	-1.0	8	M	M	M	
4773	PR002	36.1129	76.4862	6.2	45	2.6	9	44	30700	30	11300	360	7200	3.0	8900	30	2.6	-1.0	21	3	M	0.2	
4774	PR003	36.1250	76.4422	6.0	40	1.2	6	15	35600	21	12000	180	12000	3.2	5200	20	2.3	M	14	2	M	0.2	
4775	PR004	36.1294	76.4230	5.6	30	2.2	8	8	50800	33	14800	220	9700	9.1	4500	40	M	-1.0	21	2	M	M	
4776	PR005	36.1517	76.4468	5.7	65	2.3	6	19	33100	62	17600	210	11400	4.1	5900	40	M	0.9	M	4	11.2	0.4	
4777	PR006	36.1659	76.4756	6.1	55	1.5	5	23	33500	26	13200	270	11700	3.6	7400	20	M	-1.0	M	2	M	M	
4778	PR007	36.1859	76.5617	6.1	100	5.5	14	136	17700	62	30900	1120	3600	6.9	25900	70	0.2	-1.0	M	4	M	0.5	
4779	PR008	36.2057	76.5520	4.4	40	9.0	32	227	11800	129	78500	2370	1200	10.4	66000	160	M	1.9	M	M	M	1.5	
4780	PR009	36.2280	76.5633	5.9	80	4.5	13	115	13000	86	35700	1060	1700	5.7	27400	70	3.7	-1.0	M	M	M	-0.2	0.737
4781	PR010	36.2708	76.5517	6.3	110	3.1	12	50	17200	45	16500	400	2800	1.9	12200	30	M	M	M	3	M	0.3	
4782	PR011	36.3088	76.5468	6.3	80	4.3	18	91	17800	64	29100	750	2000	3.5	21200	70	5.0	M	M	5	M	0.3	
4783	PR012	36.3306	76.5234	5.9	85	3.3	14	68	16000	78	27300	880	1900	4.3	24800	70	M	-1.0	M	M	M	M	
4784	PR013	36.3313	76.4998	4.4	85	4.2	14	93	12700	79	25700	810	2000	4.4	20800	60	M	M	M	4	M	1.0	
4785	PR014	36.3434	76.4765	5.0	110	2.3	6	41	28100	32	17800	570	9100	3.3	13300	40	M	M	M	4	M	0.5	
4786	PR015	36.3042	76.4987	5.9	110	3.3	8	15	55200	60	25200	260	6600	6.6	7100	70	M	1.7	M	M	M	0.5	
4787	PR016	36.2478	76.5089	6.7	180	2.1	6	27	22500	45	13400	280	6200	2.1	7200	20	1.7	0.8	M	6	8.4	M	
4788	PR017	36.2530	76.4511	6.4	90	1.6	6	19	35100	13	17600	260	10300	2.7	6800	30	M	-1.0	M	M	10.1	M	
4789	PR018	36.2719	76.4280	5.4	80	1.8	8	27	38400	41	15500	380	13500	4.4	8600	40	M	0.5	M	M	M	0.3	
4790	PR019	36.2769	76.3928	6.1	90	2.3	7	36	35200	40	12700	270	8400	3.5	6300	30	3.3	1.0	M	M	M	M	
4791	PR020	36.2283	76.4171	6.1	60	2.1	6	32	28800	41	13400	420	10300	1.8	9600	30	4.5	M	M	M	M	M	
4792	PR021	36.2216	76.4452	6.1	60	4.0	17	79	34400	83	25000	610	8700	4.0	16900	60	5.6	1.0	M	9	10.4	0.7	
4793	PR022	36.1935	76.3946	6.4	80	2.1	5	7	58300	33	15500	330	9100	6.4	4800	60	M	-1.0	M	M	M	M	

ELIZABETH CITY 100K QUADRANGLE - STREAM SEDIMENT

Lab #	County ID	Lat	Long	pH	Cond	U	Th	Hf	Al	Ce	Fe	Mn	Na	Sc	Ti	V	Dy	Eu	La	Sm	Yb	Lu	Au
					um/cm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
4794	PR023	36.2139	76.3849	6.4	100	2.8	7	9	66900	54	23000	750	4600	12.2	6300	90	M	0.9	M	M	M	M	
4795	PR024	36.2083	76.3640	6.7	130	2.2	9	8	50100	39	23700	260	11900	5.7	4000	50	M	-1.0	M	2	M	M	
4796	PR025	36.1503	76.3262	6.4	70	2.1	4	23	47800	37	16900	290	12500	4.3	6800	40	1.9	-1.0	M	2	M	0.4	
4797	PR026	36.1752	76.3183	6.2	80	1.5	7	21	33900	28	13000	260	10800	5.6	7300	30	M	0.8	M	2	M	M	
4798	PS001	36.4484	76.4250	5.6	100	1.8	8	8	42200	29	18800	110	9400	6.1	3200	50	2.3	M	124	3	M	0.3	
4799	PS001	36.4484	76.4250	5.6	100	1.8	6	9	41700	36	13700	120	12200	5.2	3400	40	M	-1.0	19	3	M	0.2	
4800	PS002	36.4240	76.4207	4.5	60	1.6	4	17	36500	34	9200	280	11400	4.2	5800	20	M	-1.0	15	4	M	0.3	
4801	PS002	36.4240	76.4207	4.5	60	1.9	5	27	38400	71	14500	370	14700	6.9	6400	30	M	-1.0	16	3	M	0.5	
4803	PS003	36.4197	76.3716	6.1	90	2.0	6	12	49200	35	13600	240	10800	7.3	4100	40	1.5	-1.0	17	4	M	0.2	
4802	PS003	36.4197	76.3716	6.1	90	M	6	13	48800	35	14800	250	11200	6.6	3600	30	0.4	-1.0	20	3	2.2	0.2	
4804	PS004	36.4064	76.3612	6.3	80	1.3	M	12	39200	-20	25400	260	9700	7.8	5500	50	M	-1.0	13	3	M	M	
4805	PS004	36.4064	76.3612	6.3	80	1.6	6	11	49000	24	19500	240	7800	7.7	3100	40	3.4	-1.0	14	2	M	0.2	
4807	PS005	36.3870	76.3062	4.8	60	2.1	7	8	55900	39	16700	170	6600	5.7	3700	70	3.8	-1.0	25	5	M	0.2	
4806	PS005	36.3870	76.3062	4.8	60	2.3	9	6	56200	-25	22400	140	5200	7.6	3900	60	M	-1.0	23	13	M	M	
4809	PS006	36.3440	76.2871	5.6	50	2.2	8	6	54600	40	19200	110	9500	6.6	3100	60	1.5	-1.0	17	3	M	0.2	
4808	PS006	36.3440	76.2871	5.6	50	2.1	7	8	53600	31	20600	110	10300	5.3	3200	50	M	-1.0	17	3	M	0.3	
4811	PS007	36.3219	76.2478	5.7	60	1.9	7	30	22100	18	11200	310	8500	3.6	6100	30	M	-1.0	12	4	M	0.2	
4810	PS007	36.3219	76.2478	5.7	60	2.3	5	34	28700	35	18700	400	8900	4.2	8800	40	9.3	-1.0	42	M	M	M	
4812	PS008	36.2553	76.3412	6.2	220	2.1	8	7	63400	41	14700	240	8100	6.7	4000	70	M	1.0	20	3	2.5	0.2	
4813	PS008	36.2553	76.3412	6.2	220	2.0	5	6	55200	79	17800	200	7200	5.0	3100	50	1.6	4.1	22	3	M	M	
4814	PS009	36.2811	76.3708	4.2	80	1.7	8	23	34700	59	17400	330	12600	2.6	7800	40	M	-1.0	17	2	M	M	
4815	PS009	36.2811	76.3708	4.2	80	1.6	6	23	29200	19	11300	230	9900	3.3	5500	20	M	-1.0	14	3	M	M	
4816	PS010	36.2767	76.3356	5.1	250	2.0	M	10	50600	M	M	250	12300	4.5	3900	40	3.8	M	M	3	M	M	
4817	PS010	36.2767	76.3356	5.1	250	2.1	5	13	52500	34	11500	300	13300	8.6	5600	70	6.0	-1.0	20	4	1.5	0.3	
4818	PS011	36.2771	76.2408	6.1	180	2.9	M	10	64000	M	M	170	8700	M	3300	60	M	M	M	3	M	M	
4819	PS011	36.2771	76.2408	6.1	180	2.4	5	4	60400	42	9200	140	7000	5.5	3100	60	M	-1.0	24	6	M	0.2	
4820	PS012	36.2206	76.2756	6.6	120	2.6	12	30	53300	61	26400	470	10800	8.3	9500	60	M	-1.0	26	5	M	0.2	
4821	PS012	36.2206	76.2756	6.6	120	2.5	9	26	40400	27	16400	430	9900	8.3	7100	50	M	-1.0	21	5	1.7	0.2	
4822	PS013	36.1932	76.2331	6.4	150	2.8	9	14	54300	38	16900	310	7100	9.0	4300	60	0.7	-1.0	25	4	M	M	
4823	PS013	36.1932	76.2331	6.4	150	2.9	7	11	54500	45	18000	330	7800	10.0	4100	40	0.4	M	28	4	2.4	0.3	
4824	PS014	36.1899	76.2065	6.4	120	1.8	M	7	43900	30	16700	150	14100	4.7	2900	40	0.7	-1.0	19	2	M	M	
4825	PS014	36.1899	76.2065	6.4	120	1.4	5	5	54000	30	9900	130	12600	4.5	2600	40	M	M	17	2	M	0.1	
4826	PS015	36.1717	76.1876	6.5	170	1.8	6	24	44600	44	22000	500	19600	4.8	8300	50	M	-1.0	21	4	1.9	0.3	
4827	PS015	36.1717	76.1876	6.5	170	2.0	7	26	51600	23	18600	530	21200	9.5	8800	50	3.3	-1.0	19	3	1.9	0.1	
4829	PS016	36.1610	76.1681	6.6	160	1.0	4	8	39700	15	8000	120	12200	2.7	1800	20	M	-1.0	11	2	1.8	M	
4828	PS016	36.1610	76.1681	6.6	160	0.9	M	6	38600	-20	9400	140	14400	5.0	2300	20	M	-1.0	M	8	M	M	
4831	PS017	36.1937	76.1488	6.4	250	2.1	4	6	49100	39	9900	180	8500	3.8	3100	50	M	0.9	19	6	1.5	0.3	
4830	PS017	36.1937	76.1488	6.4	250	2.1	5	6	64900	43	13500	220	11000	6.9	3700	60	M	-1.0	18	7	M	0.2	

ELIZABETH CITY 100K QUADRANGLE - STREAM SEDIMENT

Lab #	County ID	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
4833	PS018	36.2230	76.1674	6.5	320	3.0	7	5	59000	43	13900	170	9100	7.9	5100	60	0.4	-1.0	24	3	2.7	0.3	
4832	PS018	36.2230	76.1674	6.5	320	2.7	6	5	61100	55	9400	170	9200	5.5	4200	60	M	-1.0	26	2	2.6	0.2	
4835	PS019	36.2126	76.1904	6.4	120	2.2	9	39	35000	50	12700	450	9500	4.6	9000	40	M	-1.0	20	5	M	0.3	
4834	PS019	36.2126	76.1904	6.4	120	2.6	6	44	37600	30	17400	530	11900	3.7	10300	50	M	-1.0	18	3	2.1	0.3	
4836	PS020	36.2310	76.1461	6.7	180	2.4	11	3	60400	69	20200	160	7000	5.7	3300	50	0.6	1.4	33	5	2.6	0.3	
4837	PS020	36.2310	76.1461	6.7	180	2.9	8	5	64200	53	15700	190	8200	8.1	3600	70	1.2	-1.0	31	5	M	0.3	

NORFOLK 100K QUADRANGLE - GROUNDWATER

Lab #	County ID	Lat	Long	pH	Cond um/cm	U ppb	Br ppb	Cl ppb	F ppb	Mg ppb	Mn ppb	Na ppb	V ppb	U/cond x 1000	Al ppb	Dy ppb
1082	CI531	36.5031	76.1467	6.8	997	-0.002	.	67600	120	.	466	34380	-0.1	0.0	57	-0.001
1084	CI533	36.5094	76.2377	6.0	501	0.010	66	91300	.	.	59	77940	-0.1	0.0	93	0.050
1085	CI534	36.5322	76.2500	7.0	360	-0.002	.	12400	56	3550	100	9430	-0.1	0.0	38	-0.001
1089	CI538	36.5258	76.1792	6.3	440	0.022	231	31800	.	5290	121	16550	0.7	0.0	39	-0.001
1090	CI539	36.5314	76.1506	6.5	470	0.090	.	48500	.	8320	162	28600	0.9	0.1	83	-0.001
1091	CI540	36.5056	76.0979	6.3	800	0.023	46	80200	.	10430	266	40660	-0.1	0.0	67	-0.001
1142	CM502	36.5018	76.3275	7.4	410	0.112	.	35600	143	11010	316	24540	-0.1	0.2	64	0.010
2231	GT502	36.5089	76.5671	5.7	140	0.043	49	23000	.	.	61	17490	-0.1	0.3	52	-0.001
2232	GT503	36.5486	76.5746	5.6	140	0.111	34	8900	56	1930	77	10700	-0.1	0.7	272	-0.001
2233	GT504	36.5178	76.6112	6.5	850	0.234	163	58000	1506	.	49	212400	-0.1	0.2	300	-0.001
2234	GT505	36.5439	76.6169	6.9	185	0.190	36	10700	55	2400	66	7560	-0.1	1.0	129	0.020
2236	GT507	36.5397	76.6526	6.9	165	0.044	.	16900	.	.	116	18780	-0.1	0.2	43	-0.001
2237	GT508	36.5091	76.6464	7.0	890	0.077	.	13600	1378	.	110	147020	2.8	0.0	98	-0.001
2253	GT524	36.5203	76.6899	6.4	130	0.021	.	9300	27	.	82	14430	-0.1	0.1	42	-0.001
2254	GT525	36.5423	76.7023	4.7	270	-0.002	.	31400	147	8300	140	17960	-0.1	0.0	1398	0.150
2255	GT526	36.5451	76.7369	5.4	260	0.358	25	12300	68	1990	117	7030	-0.1	1.3	107	0.010
2256	GT527	36.5038	76.7310	5.7	80	0.040	29	5200	20	.	76	7370	-0.1	0.5	34	-0.001
2259	GT530	36.5405	76.7845	7.0	90	0.020	44	7400	.	1800	75	7610	-0.1	0.2	33	-0.001
2260	GT531	36.5470	76.8134	5.8	210	0.185	136	18800	71	4800	116	11240	-0.1	0.8	606	0.050
2261	GT532	36.5162	76.8275	6.5	50	0.045	.	4500	.	.	72	6160	-0.1	0.9	48	-0.001
2263	GT534	36.5181	76.8625	6.7	460	0.051	56	6700	95	10520	289	21640	-0.1	0.1	47	-0.001
2264	GT535	36.5435	76.8578	5.5	290	0.067	.	33600	.	.	223	20770	-0.1	0.2	54	-0.001
2717	HT557	36.5137	76.9859	7.3	325	0.239	.	7700	448	.	193	43020	1.8	0.7	54	-0.001
2718	HT558	36.5293	76.9448	5.6	175	0.454	37	20600	.	.	212	16540	-0.1	2.5	292	0.050

ELIZABETH CITY 100K QUADRANGLE - GROUNDWATER

Lab #	County ID	Lat	Long	pH	Cond um/cm	U ppb	Br ppb	Cl ppb	F ppb	Mg ppb	Mn ppb	Na ppb	V ppb	U/cond x 1000	Al ppb	Dy ppb
601	BR515	36.0207	76.9824	7.8	220	0.004	.	2800	259	8190	34	20570	-0.1	0.0	145	-0.001
618	BR532	36.0800	76.9813	6.2	195	0.022	.	9300	95	2040	247	17970	-0.1	0.1	106	-0.001
619	BR533	36.0474	76.9431	7.2	650	0.029	58	13900	352	20280	47	44680	-0.1	0.0	313	-0.001
621	BR535	36.0879	76.9494	7.7	470	0.031	.	4100	577	11850	.	57070	-0.1	0.0	28	-0.001
622	BR536	36.1211	76.9703	7.5	300	0.010	.	3600	191	4560	20	22670	-0.1	0.0	42	-0.001
623	BR537	36.1522	76.9979	7.4	400	-0.002	.	3700	267	7770	35	39310	-0.1	0.0	26	-0.001
627	BR541	36.2255	76.9817	5.5	80	0.046	.	6900	.	.	14	15270	-0.1	0.5	218	0.030
628	BR542	36.2389	76.9399	5.1	95	0.040	.	9500	.	1380	25	18770	-0.1	0.4	158	0.020
629	BR543	36.2209	76.9179	7.5	625	-0.002	.	12100	864	.	.	102180	-0.1	0.0	130	-0.001
630	BR544	36.1956	76.9561	7.7	700	0.011	.	7500	920	.	69	106380	-0.1	0.0	91	-0.001
632	BR546	36.1725	76.9653	5.8	120	0.035	.	4900	21	850	29	13770	-0.1	0.2	181	0.010
633	BR547	36.1518	76.9636	5.3	700	0.182	.	82100	285	27300	321	51560	-0.1	0.2	723	0.400
634	BR548	36.1169	76.9177	7.1	420	0.028	.	5200	487	13220	44	16430	-0.1	0.0	57	-0.001
635	BR549	36.1408	76.9065	7.5	320	-0.002	.	3700	239	5580	76	16440	-0.1	0.0	76	-0.001
636	BR550	36.1782	76.9163	7.7	330	0.010	.	4100	374	4640	107	16350	-0.1	0.0	51	-0.001
637	BR551	36.1887	76.8879	7.9	240	0.013	.	3300	401	8250	28	14590	0.3	0.0	51	-0.001
638	BR552	36.2160	76.8647	6.5	110	0.018	.	3500	293	900	97	14570	-0.1	0.1	47	-0.001
639	BR553	36.2376	76.8338	7.7	260	0.007	.	4300	549	8890	23	26020	-0.1	0.0	38	-0.001
640	BR554	36.1870	76.8329	6.3	330	0.053	73	25700	56	3490	55	24610	-0.1	0.1	627	-0.001
641	BR555	36.1614	76.8666	7.4	330	-0.002	.	5300	160	1290	67	15370	-0.1	0.0	92	-0.001
642	BR556	36.1172	76.8759	7.6	340	0.009	20	4400	494	4610	17	14440	0.3	0.0	68	-0.001
643	BR557	36.0833	76.8897	7.3	400	0.020	19	3400	515	6800	16	30470	0.7	0.0	120	-0.001
650	BR564	36.0018	76.8922	7.9	900	-0.002	.	43700	451	14510	.	143060	-0.1	0.0	237	-0.001
651	BR565	36.0229	76.8670	8.1	600	0.021	337	8500	823	6170	.	122480	-0.1	0.0	128	0.020
652	BR566	36.0166	76.9115	8.4	1150	0.047	.	54500	3485	.	39	264350	-0.1	0.0	314	-0.001
653	BR567	36.0644	76.8647	5.9	90	0.009	21	13000	.	.	24	19330	-0.1	0.1	73	-0.001
654	BR568	36.0600	76.8365	7.3	380	0.022	21	4900	116	5850	13	18270	-0.1	0.0	62	-0.001
655	BR569	36.0895	76.8289	7.1	310	-0.002	.	4600	98	5600	121	17850	-0.1	0.0	90	-0.001
656	BR570	36.0912	76.7727	4.9	80	0.113	42	10600	.	1290	28	17120	-0.1	1.4	295	0.040
657	BR571	36.1254	76.7534	7.2	320	0.011	.	4000	121	9210	13	17290	-0.1	0.0	42	-0.001
658	BR572	36.1422	76.7741	7.5	300	0.016	.	4100	116	1950	62	15190	-0.1	0.0	99	-0.001
659	BR573	36.1861	76.7718	6.8	125	-0.002	.	16600	.	.	75	16390	-0.1	0.0	68	-0.001
660	BR574	36.2322	76.7702	5.4	55	0.017	.	6000	.	1020	40	14120	-0.1	0.3	119	-0.001
661	BR575	36.2161	76.7946	5.3	190	0.033	39	15600	.	.	31	26940	-0.1	0.1	181	-0.001
662	BR576	36.1572	76.7964	4.8	80	0.026	.	9400	.	2470	30	13840	-0.1	0.3	428	0.100
663	BR577	36.1408	76.8311	5.0	100	0.024	.	14700	.	.	33	19450	-0.1	0.2	225	0.050
664	BR578	36.1153	76.8100	7.3	300	0.024	.	4000	132	4810	29	16700	-0.1	0.0	56	-0.001
665	BR579	36.0660	76.7436	6.7	330	0.031	.	51500	.	4560	50	37490	-0.1	0.0	246	0.010

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Lab #	County ID	Lat	Long	pH	Cond um/cm	U ppb	Br ppb	Cl ppb	F ppb	Mg ppb	Mn ppb	Na ppb	V ppb	U/cond x 1000	Al ppb	Dy ppb
666	BR580	36.0385	76.7184	6.2	280	0.082	47	14600	44	.	.	17190	-0.1	0.2	56	-0.001
667	BR581	36.0398	76.7668	8.2	800	0.012	.	15000	1349	.	.	72870	-0.1	0.0	45	-0.001
668	BR582	36.0239	76.8088	6.0	120	0.043	.	7300	.	.	64	17140	-0.1	0.3	53	-0.001
1052	C1501	36.4531	76.0236	7.1	420	-0.002	.	23600	27	4230	102	20710	-0.1	0.0	173	-0.001
1054	C1503	36.4239	76.0230	7.8	210	-0.002	82	16200	21	1420	62	13660	0.3	0.0	89	-0.001
1073	C1522	36.3895	76.0143	5.7	90	0.003	44	15900	.	1410	53	9280	1.1	0.0	146	0.010
1074	C1523	36.3820	76.0804	7.1	242	0.011	.	11100	24	4480	108	8250	-0.1	0.0	85	-0.001
1075	C1524	36.3587	76.0761	6.7	240	0.047	169	12600	.	4930	61	6060	-0.1	0.2	67	0.010
1076	C1525	36.3694	76.1086	6.1	189	0.013	104	18400	.	4760	228	14290	-0.1	0.0	51	-0.001
1077	C1526	36.3949	76.1138	6.9	610	0.006	219	31600	129	7240	307	21500	0.9	0.0	89	-0.001
1078	C1527	36.4266	76.0672	6.6	470	-0.002	.	35200	.	2110	247	26800	-0.1	0.0	37	-0.001
1079	C1528	36.4503	76.0668	6.4	478	0.033	230	49900	.	.	124	25360	1.0	0.0	39	-0.001
1080	C1529	36.4346	76.0968	7.2	340	0.006	70	17800	.	2250	97	8120	-0.1	0.0	64	-0.001
1081	C1530	36.4636	76.1086	6.9	458	0.014	114	25300	105	3960	199	18850	0.7	0.0	57	-0.001
1083	C1532	36.4966	76.1908	6.5	330	0.031	110	41400	.	6880	95	12460	-0.1	0.0	52	-0.001
1092	C1541	36.4941	76.0713	6.6	130	-0.002	105	13700	.	3410	113	7390	-0.1	0.0	39	-0.001
1093	C1542	36.4872	76.0352	5.9	370	-0.002	67	23600	42	2850	122	28080	-0.1	0.0	31	-0.001
1141	CM501	36.4618	76.3949	6.8	1340	0.226	842	162900	.	13270	1041	113900	-0.1	0.1	287	-0.001
1143	CM503	36.4880	76.2798	7.1	215	0.048	35	13500	22	2810	211	12390	-0.1	0.2	52	-0.001
1144	CM504	36.4412	76.2968	6.9	230	0.023	.	29300	.	4770	279	20310	-0.1	0.1	48	-0.001
1145	CM505	36.4693	76.2891	6.5	1720	0.080	.	237100	.	10000	306	197700	-0.1	0.0	548	-0.001
1146	CM506	36.4033	76.2728	7.3	190	0.012	82	23500	.	9030	114	21800	0.4	0.0	140	-0.001
1147	CM507	36.3897	76.2502	7.4	200	0.004	.	16500	22	3500	145	20450	-0.1	0.0	144	-0.001
1148	CM508	36.3896	76.1974	7.1	280	0.014	35	27000	.	7420	169	12610	-0.1	0.0	132	0.030
1149	CM509	36.3822	76.1506	6.8	800	0.015	437	96900	.	38600	677	73480	-0.1	0.0	205	0.030
1150	CM510	36.3660	76.1683	7.1	1490	-0.002	2549	556500	.	.	263	118700	-0.1	0.0	605	-0.001
1151	CM511	36.3523	76.1946	7.7	700	0.045	258	55500	202	13860	82	84540	-0.1	0.0	286	-0.001
1152	CM512	36.2920	76.1497	8.3	80	0.006	70	8600	.	.	31	14680	-0.1	0.0	152	-0.001
1153	CM513	36.3252	76.1159	7.3	230	0.002	125	20400	.	4740	108	24690	-0.1	0.0	137	-0.001
1154	CM514	36.3388	76.0637	7.1	250	0.162	85	12400	.	1880	50	14080	-0.1	0.6	154	-0.001
1155	CM515	36.2970	76.0428	7.1	700	0.031	106	34200	135	5230	153	68200	-0.1	0.0	267	-0.001
1156	CM516	36.1969	76.0076	7.4	325	-0.002	169	24900	.	6080	99	22370	-0.1	0.0	130	-0.001
1157	CM517	36.2211	76.0314	7.3	620	0.027	35	23000	.	8030	191	39440	-0.1	0.0	245	-0.001
1158	CM518	36.2575	76.0350	5.6	220	0.003	67	10700	48	3080	72	17880	-0.1	0.0	75	-0.001
1159	CM519	36.2592	76.0805	6.2	280	-0.002	.	19800	.	.	107	28770	0.4	0.0	58	0.030
1160	CM520	36.2952	76.0714	6.2	480	-0.002	75	17900	.	5700	155	31600	0.5	0.0	41	-0.001
1161	CM521	36.3006	76.1193	7.0	220	0.014	19	21500	.	6240	77	22480	-0.1	0.0	56	-0.001
1162	CM522	36.3179	76.1579	6.6	800	0.012	.	61300	80	14370	305	49680	-0.1	0.0	68	-0.001

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Lab #	County ID	Lat	Long	pH	Cond um/cm	U ppb	Br ppb	Cl ppb	F ppb	Mg ppb	Mn ppb	Na ppb	V ppb	U/cond x 1000	Al ppb	Dy ppb
1163	CN523	36.3435	76.1955	7.1	1150	0.024	1161	155700	.	.	170	190950	-0.1	0.0	272	-0.001
1164	CN524	36.2989	76.2031	6.9	1500	0.059	346	154900	.	16290	226	149500	-0.1	0.0	222	-0.001
1259	CO501	36.0666	76.5029	7.1	800	0.001	.	23300	118	3870	203	47640	-0.1	0.0	279	-0.001
1260	CO502	36.0307	76.5137	6.9	700	-0.002	78	12100	79	6640	162	35800	-0.1	0.0	322	-0.001
1261	CO503	36.0088	76.5180	7.2	470	-0.002	59	20000	.	.	133	23520	-0.1	0.0	179	-0.001
1262	CO504	36.0704	76.6697	7.4	385	0.011	.	31500	.	4680	138	16280	-0.1	0.0	177	-0.001
1263	CO505	36.1414	76.6736	7.4	210	0.005	32	6500	19	.	72	15420	-0.1	0.0	126	-0.001
1264	CO506	36.1403	76.7075	7.3	250	-0.002	.	6500	29	1370	57	15890	-0.1	0.0	106	-0.001
1265	CO507	36.1825	76.7108	7.4	375	0.011	.	15000	.	8990	123	14880	-0.1	0.0	75	-0.001
1266	CO508	36.2101	76.7087	7.1	110	0.005	78	7800	.	.	71	15210	-0.1	0.0	757	0.030
1267	CO509	36.2849	76.6638	6.4	330	0.002	31	12700	30	4950	177	13520	-0.1	0.0	292	0.050
1268	CO510	36.3150	76.6203	6.6	300	0.036	.	16800	142	4290	166	18690	-0.1	0.1	89	-0.001
1269	CO511	36.3070	76.5870	6.4	240	0.021	47	11200	28	7340	112	14160	0.8	0.0	1125	-0.001
1270	CO512	36.2731	76.5733	6.6	255	-0.002	.	13800	.	2770	104	17400	0.4	0.0	150	-0.001
1271	CO513	36.2751	76.6189	6.7	240	0.021	.	5000	107	2750	101	22480	-0.1	0.0	184	-0.001
1272	CO514	36.2360	76.6227	6.9	850	0.023	87	7000	.	9910	144	29780	-0.1	0.0	258	-0.001
1273	CO515	36.2124	76.6592	6.9	140	0.015	51	16300	.	.	88	22660	-0.1	0.1	180	-0.001
1274	CO516	36.0376	76.5815	6.9	450	0.007	36	22000	.	.	137	21820	-0.1	0.0	107	-0.001
1275	CO517	36.0690	76.5320	6.7	1300	-0.002	420	85800	.	54200	673	183500	-0.1	0.0	737	-0.001
1276	CO518	36.0370	76.5430	6.9	850	0.016	82	12200	105	7750	146	37040	-0.1	0.0	280	-0.001
1277	CO519	36.0992	76.6257	7.1	400	0.003	85	16500	80	.	160	22680	-0.1	0.0	170	-0.001
1278	CO520	36.1293	76.6310	7.1	430	0.014	.	44500	.	6710	104	40200	-0.1	0.0	151	-0.001
1279	CO521	36.1753	76.6597	6.8	145	0.017	.	5900	33	1670	237	17460	-0.1	0.1	167	-0.001
1280	CO522	36.1673	76.6360	6.4	80	0.142	42	4200	.	.	68	16630	0.7	1.7	289	0.020
1281	CO523	36.2091	76.6189	6.4	230	0.077	22	21100	.	.	56	38670	6.7	0.3	933	0.050
1282	CO524	36.3030	76.6580	6.9	650	0.093	.	13200	133	.	90	66360	-0.1	0.1	150	-0.001
2230	GT501	36.4833	76.5773	5.5	155	0.038	47	18300	.	.	95	14780	-0.1	0.2	42	-0.001
2238	GT509	36.4840	76.6677	7.6	1050	0.164	.	26900	2945	.	285	186200	-0.1	0.1	194	-0.001
2239	GT510	36.4472	76.7289	6.9	130	0.011	21	6800	70	.	142	12610	-0.1	0.0	38	-0.001
2240	GT511	36.3819	76.7310	6.4	160	0.040	.	10900	.	.	114	13760	-0.1	0.2	49	-0.001
2241	GT512	36.3429	76.6496	6.0	850	0.100	.	97000	.	6770	347	65820	-0.1	0.1	87	-0.001
2242	GT513	36.3433	76.6171	5.7	215	0.023	47	12100	140	3720	337	12460	-0.1	0.1	45	-0.001
2243	GT514	36.3388	76.5714	5.7	65	0.016	.	7300	25	.	74	7030	-0.1	0.2	213	-0.001
2244	GT515	36.3694	76.5448	5.8	200	0.010	.	9500	.	.	99	5100	-0.1	0.0	45	-0.001
2245	GT516	36.3718	76.5832	5.8	140	0.013	156	7200	59	1640	174	8090	-0.1	0.0	41	-0.001
2246	GT517	36.3826	76.6168	5.8	250	0.012	46	35400	.	2080	94	20980	-0.1	0.0	43	-0.001
2247	GT518	36.4086	76.6200	5.7	115	0.061	22	7400	.	.	65	9650	-0.1	0.5	93	-0.001
2248	GT519	36.4121	76.5404	5.7	130	0.032	.	11500	22	.	113	9180	0.5	0.2	36	-0.001

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Lab #	County ID	Lat	Long	pH	Cond um/cm	U ppb	Br ppb	Cl ppb	F ppb	Mg ppb	Mn ppb	Na ppb	V ppb	U/cond x 1000	Al ppb	Dy ppb
2249	GT520	36.4457	76.5712	6.2	195	0.019	34	11800	.	.	54	32460	-0.1	0.1	27	-0.001
2250	GT521	36.4424	76.6141	5.7	275	0.097	94	16000	.	5040	207	14030	-0.1	0.3	19	0.010
2251	GT522	36.4730	76.6229	6.7	1210	0.167	.	42300	3303	.	250	245750	-0.1	0.1	213	-0.001
2252	GT523	36.4862	76.7041	7.7	1050	0.277	.	27200	3184	.	311	212900	-0.1	0.2	151	-0.001
2257	GT528	36.4798	76.7509	6.8	430	0.059	53	3100	460	6020	97	42780	-0.1	0.1	49	-0.001
2258	GT529	36.4852	76.7954	7.3	430	0.050	25	3000	471	9730	99	42770	-0.1	0.1	66	0.010
2262	GT533	36.4849	76.8254	7.5	1400	0.080	496	78200	678	.	334	188550	-0.1	0.0	198	-0.001
2265	GT536	36.4547	76.9052	6.1	100	0.021	.	7600	.	.	99	5850	-0.1	0.2	29	-0.001
2266	GT537	36.4224	76.9124	7.3	950	0.063	259	65300	1563	.	129	122740	-0.1	0.0	71	-0.001
2267	GT538	36.4205	76.8659	7.4	1100	0.099	.	25800	1550	.	327	248800	-0.1	0.0	103	-0.001
2268	GT539	36.4143	76.8198	6.8	160	0.032	50	6800	38	1260	98	7790	-0.1	0.2	16	-0.001
2269	GT540	36.4106	76.7782	7.7	1250	0.159	120	68900	2141	14370	307	218650	-0.1	0.1	128	-0.001
2270	GT541	36.3824	76.6930	7.7	3150	0.423	923	332000	1789	.	1149	414800	-0.1	0.1	327	-0.001
2271	GT542	36.3767	76.6566	6.6	140	0.010	.	13800	.	.	118	10240	-0.1	0.0	39	-0.001
2272	GT543	36.4063	76.6541	7.8	1800	0.029	229	115200	1686	13850	278	283000	-0.1	0.0	115	-0.001
2273	GT544	36.4166	76.7038	6.7	260	0.126	.	18900	59	.	117	17790	-0.1	0.4	28	-0.001
2274	GT545	36.4531	76.6516	6.2	120	0.007	.	8000	61	2840	108	9240	-0.1	0.0	30	-0.001
2275	GT546	36.4418	76.7113	7.7	1200	0.183	.	28600	3599	.	275	166950	-0.1	0.1	142	-0.001
2276	GT547	36.4134	76.7481	6.7	180	0.007	23	13500	.	2300	70	8980	-0.1	0.0	30	-0.001
2663	HT503	36.4039	76.9877	5.4	41	0.013	20	9000	.	.	54	13210	0.3	0.3	179	-0.001
2664	HT504	36.3858	76.9831	6.0	95	0.034	37	9100	57	2040	124	9680	-0.1	0.3	78	-0.001
2665	HT505	36.3789	76.9445	5.6	133	0.020	88	12800	68	.	137	12570	-0.1	0.1	91	-0.001
2666	HT506	36.3732	76.9001	8.0	550	0.027	.	19200	1108	.	246	92320	-0.1	0.0	112	-0.001
2667	HT507	36.3445	76.8749	5.6	81	0.017	21	9700	40	.	172	10790	-0.1	0.2	84	-0.001
2668	HT508	36.3452	76.8269	8.2	1100	0.176	409	73800	2917	.	612	213150	2.4	0.1	235	-0.001
2669	HT509	36.3530	76.7950	7.6	1500	0.059	333	178800	406	20230	640	267100	-0.1	0.0	357	-0.001
2670	HT510	36.3112	76.8199	7.7	1500	0.151	.	221400	944	.	668	324750	-0.1	0.1	348	-0.001
2671	HT511	36.3042	76.7761	7.6	280	0.023	24	7000	372	12240	185	11680	-0.1	0.0	43	-0.001
2672	HT512	36.3141	76.7396	6.7	60	0.062	19	8700	21	1340	122	7430	-0.1	1.0	120	-0.001
2673	HT513	36.2813	76.7153	6.8	310	0.111	.	M	.	M	.	M	-0.1	0.3	.	-0.001
2674	HT514	36.2827	76.7484	5.3	355	0.338	.	49000	.	6690	163	32560	-0.1	0.9	1144	0.200
2675	HT515	36.2709	76.7775	7.4	325	0.072	.	6300	427	10630	179	8980	-0.1	0.2	91	-0.001
2676	HT516	36.2891	76.8362	5.7	250	0.115	.	35100	.	7410	229	25560	-0.1	0.4	111	-0.001
2677	HT517	36.2786	76.8732	5.5	119	0.099	104	19100	21	1320	137	13380	0.6	0.8	83	-0.001
2678	HT518	36.2440	76.8948	5.9	305	0.169	42	47200	.	.	165	34750	-0.1	0.5	680	0.800
2679	HT519	36.3045	76.8730	6.5	85	0.056	54	12200	.	.	160	9210	-0.1	0.6	93	-0.001
2680	HT520	36.3217	76.8903	7.0	250	0.063	197	14100	43	12150	262	11570	-0.1	0.2	314	0.100
2685	HT525	36.3150	76.9890	7.7	360	0.051	.	7300	413	4960	167	56400	0.6	0.1	60	-0.001

ELIZABETH CITY 100K QUADRANGLE - GROUNDWATER

Lab #	County ID	Lat	Long	pH	Cond um/cm	U ppb	Br ppb	Cl ppb	F ppb	Mg ppb	Mn ppb	Na ppb	V ppb	U/cond x 1000	Al ppb	Dy ppb
2686	HT526	36.3404	76.9806	7.5	420	0.009	152	20100	159	5970	204	61070	-0.1	0.0	54	-0.001
2687	HT527	36.3400	76.9504	8.5	400	0.030	192	24400	344	.	143	92300	-0.1	0.0	67	-0.001
2688	HT528	36.3443	76.8985	6.1	90	0.030	56	12000	.	3980	179	9840	-0.1	0.3	59	-0.001
2689	HT529	36.3141	76.9477	8.0	470	0.033	35	12700	1269	.	141	87090	-0.1	0.0	60	-0.001
2690	HT530	36.2770	76.9082	6.7	153	-0.002	57	7800	.	3940	218	10240	-0.1	0.0	44	-0.001
2691	HT531	36.2732	76.9450	7.4	380	0.016	.	6800	284	3550	175	80120	0.5	0.0	32	-0.001
2692	HT532	36.2484	76.9514	7.9	440	0.017	.	3900	680	.	204	84180	-0.1	0.0	136	-0.001
2694	HT534	36.2456	76.9845	7.4	490	0.017	.	5600	303	7500	216	61240	-0.1	0.0	49	-0.001
2716	HT556	36.4750	76.9969	5.1	330	0.033	72	11100	50	5840	256	6940	0.4	0.1	294	0.070
4174	PR501	36.1669	76.2851	7.3	1580	0.137	1618	214900	517	.	518	210750	-0.1	0.0	229	-0.001
4175	PR502	36.1631	76.2543	7.1	160	-0.002	115	16600	50	.	52	30570	0.5	0.0	139	-0.001
4176	PR503	36.1266	76.2363	6.9	910	0.052	111	46400	118	14740	263	34340	-0.1	0.0	58	-0.001
4177	PR504	36.1006	76.2229	7.3	170	0.050	68	13600	27	.	94	15520	-0.1	0.2	23	-0.001
4178	PR505	36.1377	76.3366	6.8	1280	0.787	.	127400	.	28750	700	88250	-0.1	0.6	130	-0.001
4179	PR506	36.1408	76.3701	6.8	700	0.012	136	33300	100	.	387	26520	1.0	0.0	71	-0.001
4180	PR507	36.1667	76.3678	7.1	990	0.060	377	95200	.	15720	185	67660	-0.1	0.0	43	-0.001
4181	PR508	36.1965	76.3735	6.9	1300	0.266	.	106900	1667	24010	434	135350	-0.1	0.2	127	-0.001
4182	PR509	36.1913	76.4020	7.5	230	0.036	25	15300	.	4870	92	17750	-0.1	0.1	34	0.010
4183	PR510	36.1648	76.4483	7.0	370	0.028	80	7700	89	4560	92	12420	-0.1	0.0	38	-0.001
4184	PR511	36.1538	76.4175	7.1	420	0.043	.	8200	134	6450	87	12240	-0.1	0.1	27	-0.001
4185	PR512	36.1360	76.4057	7.0	900	0.063	.	105400	.	6830	491	59220	-0.1	0.0	64	-0.001
4186	PR513	36.0953	76.3464	7.1	250	0.023	.	33600	.	.	89	26660	-0.1	0.0	28	-0.001
4187	PR514	36.1257	76.4599	7.0	1000	0.026	.	54000	.	.	147	116020	-0.1	0.0	44	-0.001
4188	PR515	36.1031	76.4319	7.4	210	0.029	26	12700	.	3660	72	15260	-0.1	0.1	29	-0.001
4189	PR516	36.0943	76.4504	6.8	1100	0.162	.	78600	100	19000	590	52600	-0.1	0.1	195	-0.001
4190	PR517	36.0934	76.4957	7.1	800	0.021	.	10300	328	.	149	82940	-0.1	0.0	50	-0.001
4191	PR518	36.1062	76.5279	6.8	750	0.039	125	10500	103	5730	223	22180	-0.1	0.0	57	-0.001
4192	PR519	36.1671	76.5684	6.9	480	0.043	112	8400	86	8270	211	12950	-0.1	0.0	11	-0.001
4193	PR520	36.1942	76.5787	6.8	750	0.069	.	13300	229	9250	185	17680	-0.1	0.0	44	-0.001
4194	PR521	36.2049	76.5361	7.2	700	0.075	222	44000	.	.	155	37220	-0.1	0.1	30	-0.001
4195	PR522	36.2456	76.5709	7.4	210	0.014	.	13400	.	4290	95	6260	-0.1	0.0	36	-0.001
4196	PR523	36.2707	76.5376	7.2	270	0.027	.	17100	.	2610	98	13120	-0.1	0.1	34	-0.001
4197	PR524	36.2425	76.4579	6.9	1200	0.023	208	63700	.	22970	522	93600	-0.1	0.0	199	-0.001
4198	PR525	36.2747	76.5007	7.7	720	0.134	89	42900	.	9890	171	47660	-0.1	0.1	55	-0.001
4199	PR526	36.3038	76.4969	6.6	700	0.059	67	57300	.	11510	250	40160	-0.1	0.0	56	-0.001
4200	PR527	36.3512	76.4602	6.7	1800	0.038	155	166400	.	27650	824	168250	-0.1	0.0	595	0.180
4201	PR528	36.3496	76.5237	7.4	160	0.013	26	7900	.	.	66	18480	-0.1	0.0	116	-0.001
4202	PR529	36.2954	76.5302	6.9	280	0.003	116	16500	110	1520	135	25150	-0.1	0.0	149	-0.001

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Lab #	County ID	Lat	Long	pH	Cond um/cm	U ppb	Br ppb	Cl ppb	F ppb	Mg ppb	Mn ppb	Na ppb	V ppb	U/cond x 1000	Al ppb	Dy ppb
4203	PR530	36.2779	76.4123	5.8	650	0.008	.	17900	262	8200	150	38800	-0.1	0.0	67	-0.001
4204	PR531	36.2308	76.4103	6.5	1000	0.029	82	31700	80	18510	428	63220	-0.1	0.0	33	-0.001
4205	PR532	36.1626	76.3245	6.9	850	-0.002	285	39000	.	.	269	54080	-0.1	0.0	218	-0.001
4206	PR533	36.1938	76.3222	7.8	950	0.142	130	70300	571	12950	222	108800	-0.1	0.1	124	-0.001
4207	PS501	36.2583	76.1591	7.0	440	0.018	36	18900	.	3120	108	18170	-0.1	0.0	32	-0.001
4208	PS502	36.1843	76.1779	7.1	2050	0.025	275	210100	.	.	316	136800	-0.1	0.0	159	-0.001
4209	PS503	36.1614	76.0797	5.7	2800	0.062	.	327900	.	37120	524	136600	-0.1	0.0	153	-0.001
4210	PS504	36.1894	76.1210	6.4	1150	0.078	.	87300	.	41940	878	54600	-0.1	0.0	189	-0.001
4211	PS505	36.1578	76.1278	6.5	1350	0.050	.	177600	.	11070	416	110350	-0.1	0.0	100	-0.001
4212	PS506	36.1557	76.1707	7.1	460	0.041	89	26800	51	8670	241	21970	0.7	0.0	35	-0.001
4213	PS507	36.1278	76.1637	7.3	1050	-0.002	.	113900	.	44060	374	63550	-0.1	0.0	165	-0.001
4214	PS508	36.1569	76.1998	7.3	1800	0.168	1548	272400	.	49910	405	160400	-0.1	0.0	151	-0.001
4215	PS509	36.1924	76.2120	7.5	2600	0.111	1677	373000	.	45790	407	286650	-0.1	0.0	234	-0.001
4216	PS510	36.1961	76.2450	6.4	2000	0.132	.	332300	.	48270	308	211050	-0.1	0.0	86	-0.001
4217	PS511	36.2336	76.2940	6.7	470	0.033	.	23800	285	5680	540	22550	-0.1	0.0	33	-0.001
4218	PS512	36.2687	76.3649	7.1	210	0.003	.	12100	.	2400	118	22290	0.4	0.0	36	-0.001
4219	PS513	36.2685	76.3125	6.8	720	0.085	.	37700	527	27140	673	40200	-0.1	0.1	56	-0.001
4220	PS514	36.2643	76.2748	6.8	380	0.028	36	15600	230	10860	194	22600	-0.1	0.0	41	-0.001
4221	PS515	36.2668	76.2464	6.9	950	0.013	526	77900	.	32920	380	53040	-0.1	0.0	46	-0.001
4222	PS516	36.2302	76.2518	7.3	430	0.025	157	33700	144	11880	218	28800	0.6	0.0	4	-0.001
4223	PS517	36.2298	76.2043	7.0	250	0.003	.	11600	132	4680	180	15080	-0.1	0.0	29	-0.001
4224	PS518	36.4000	76.3735	6.7	410	0.018	96	14800	178	10420	197	20120	-0.1	0.0	23	-0.001
4225	PS519	36.3849	76.4042	6.8	1100	0.056	.	142600	.	.	316	118100	-0.1	0.0	156	-0.001
4226	PS520	36.4421	76.4108	7.3	360	0.014	.	28300	191	6870	202	37300	-0.1	0.0	39	-0.001
4227	PS521	36.4453	76.4523	6.8	1400	0.160	.	88400	.	28380	697	127850	-0.1	0.1	188	-0.001
4228	PS522	36.4043	76.4350	7.4	1300	0.006	.	146500	.	18250	461	149750	-0.1	0.0	239	-0.001
4229	PS523	36.4040	76.4020	7.6	210	0.027	.	10000	137	6290	301	10880	-0.1	0.1	40	-0.001
4230	PS524	36.4012	76.3204	7.3	110	0.023	98	7700	20	2590	81	8450	-0.1	0.2	36	-0.001
4231	PS525	36.3641	76.2927	6.6	1100	0.004	269	64800	.	25570	338	118200	-0.1	0.0	645	-0.001
4232	PS526	36.3289	76.2892	7.1	900	0.091	114	56300	107	13460	483	67760	-0.1	0.1	276	-0.001
4233	PS527	36.2902	76.2795	7.4	900	0.006	.	33500	50	9490	185	51900	-0.1	0.0	207	-0.001
4234	PS528	36.2609	76.2059	7.0	390	-0.002	51	16400	95	4700	140	26730	-0.1	0.0	95	-0.001