

Water Quality Analysis
Tater Hill Groundwater Monitoring and Research Station

Sample ID	Sampling Date	Sampling Depth (feet*)	Dissolved Oxygen (mg/l)	pH WH, Field (standard unit)	pH-Alkalinity Lab (mg/l asCaCO3)	Specific Cond., Field (uS/cm)	Specific Cond., Lab (uS/cm @ 25C)	Water Temp. (deg C)	Fecal Coliform (colonies/100 ml)	Total OrganicCarbon (mg/l)	Turbidity (NTU)
40004000001	10/2/2007	38	10.23	7.50	8.00	565	650	9.98	<1	12.0	500.0
	4/2/2008	38			7.80		350				
	7/9/2008	41					50			8.5	23.0
	1/12/2009	41			7.80		540			5.4	600.0
40004000002	10/2/2007	210	9.05	6.80	7.00	65	74	12.17	<1	<2	2.5
	4/1/2008	250	12.17	6.35	6.70	41	43	11.37		<2	1.6
	7/8/2008	250	9.52	6.68	6.87	48	50	12.63		<2	<1
	1/12/2009	242	7.70	6.61	6.80	48	50	11.57		<2	<1
	7/7/2009	245	8.69	6.56	6.70	52	50	13.15			
40004000003	10/2/2007	245	1.88	7.69	7.80	86	94	11.75	<1	<2	<1
	4/2/2008	245	2.26	8.33	7.20	96	94	11.06		<2	<1
	7/9/2008	285	1.54	8.44	8.28	30	99	11.21		<2	<1
	1/13/2009	245	1.85	8.45	8.00	90	92	10.98		<2	<1
	1/13/2009**		1.85	8.45	8.10	90	92	10.98		<2	<1
	7/7/2009	145	2.04	8.14	8.20	99	91	10.92			
	7/7/2009**		2.04	8.14		99		10.92			
40004000004	10/2/2007	NA/SW	8.71	7.14	7.40	29	33	13.05	19	2.8	16.0
	4/2/2008	NA/SW	12.69	6.74	7.10	25	25	9.02		2.0	8.2
	7/9/2008	NA/SW	8.19	7.33	7.35	30	30	16.01		3.0	20.0
	1/12/2009	NA/SW	10.69	7.06	6.80	21	19	3.53		2.2	3.3
	7/7/2009	NA/SW	8.71	7.44	7.20	29	27	14.90			
NC Groundwater Standards				6.5 - 8.5					1		

Notes: Bold data = exceed NC Groundwater Standards; blank fields = not sampled; NA/SW = not applicable/surface water

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Sample ID	Sampling Date	Sampling Depth (feet*)	Suspended Residue (mg/l)	Total Dissolved Solids (mg/l)	PT Color (c.u.)	Carbonate (mg/l)	Bicarbonate (mg/l)	Chloride (mg/l)	Sulfate (mg/l)	Fluoride as F (mg/l)	Silica as SiO ₂ (mg/l)
40004000001	10/2/2007	38	350	510	38	<1	310	9.3	45	<0.4	14
	4/2/2008	38	480	457	55	<1	310	5.3	64	<0.4	15
	7/9/2008	41	8.5	324	13	<1	230	<1	28	<0.4	17
	1/12/2009	41	428	350	6.7	<1	270	1.7	48	<0.4	20
40004000002	10/2/2007	210	<6.2	54	<5	<1	30	1.3	3.9	<0.4	10
	4/1/2008	250	<6.2	37	<5	<1	13	1.4	2.9	<0.4	7.8
	7/8/2008	250	<12	32	<5	<1	16	1.2	4	<0.4	9.5
	1/12/2009	242	<6.2	26	<5	<1	17	<1	3.8	<0.4	9.5
	7/7/2009	245		32			20	<1	5	<0.4	9.5
40004000003	10/2/2007	245	<6.2	69	<5	<1	35	1.2	9.2	<0.4	16
	4/2/2008	245	12	74	<5	<1	8.2	1.3	9.4	<0.4	16
	7/9/2008	285	<6.2	64	<5	<1	34	1.2	8.2	<0.4	16
	1/13/2009	245	<6.2	58	<5	<1	36	<1	8.9	<0.4	17
	1/13/2009**		<6.2	58	<5	<1	37	<1	9.0	<0.4	17
	7/7/2009	145		66		<1	40	<1	9.5	<0.4	16
	7/7/2009**										
40004000004	10/2/2007	NA/SW	18	33	37	<1	13	1.4	<2	<0.4	11
	4/2/2008	NA/SW	7	30	19	<1	8	1.2	<2	<0.4	8.4
	7/9/2008	NA/SW	9.3	32	38	<1	11	1.2	<2	<0.4	10
	1/12/2009	NA/SW	<6.2	<12	14	<1	6.4	<1	<2	<0.4	8
	7/7/2009	NA/SW		29		<1	11	<1	<2	<0.4	10
NC Groundwater Standards				500	15			250	250	2	

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Sample ID	Sampling Date	Sampling Depth (feet*)	Calcium as Ca		Magnesium as Mg		Potassium as K		Sodium as Na		Ammonia NH3 as N (mg/l)
			Total (mg/l)	Filtered (mg/l)	Total (mg/l)	Dissolved (mg/l)	Total (mg/l)	Dissolve (mg/l)	Total (mg/l)	Dissolved (mg/l)	
40004000001	10/2/2007	38	46.0		12.0		3.20		120.00		<0.02
	4/2/2008	38	67.0	51.0	20.0	16.0	3.40	2.90	97.00	89.00	<0.02
	7/9/2008	41	87.0		30.0		3.30		33.00		<0.02
	1/12/2009	41	99.0	94.0	27.0	24.0	3.20	2.70	17.00	16.00	0.46
40004000002	10/2/2007	210	11.0	11.0	1.6	1.5	1.40	1.40	1.70	1.60	<0.02
	4/1/2008	250	5.8	5.9	1.2	1.2	0.43	0.45	1.00	1.10	<0.02
	7/8/2008	250	7.3	7.5	1.4	1.4	0.47	0.52	1.30	1.40	<0.02
	1/12/2009	242	6.7	6.8	1.5	1.5	0.39	0.36	1.40	1.30	<0.02
	7/7/2009	245	7.0	7.0	1.4	1.4	0.43	0.41	1.40	1.30	<0.02
40004000003	10/2/2007	245	13.0	13.0	1.8	1.8	1.20	1.20	4.30	4.30	<0.02
	4/2/2008	245	13.0	14.0	1.8	1.9	1.10	1.20	4.40	4.50	<0.02
	7/9/2008	285	14.0	14.0	1.9	1.9	1.10	1.20	4.60	4.60	<0.02
	1/13/2009	245	14.0	14.0	1.9	1.9	1.20	1.20	4.40	4.40	<0.02
	1/13/2009**		14.0		1.8	1.7	1.20		4.40		<0.02
	7/7/2009	145	13.0	13.0	1.7	1.7	1.10	1.10	4.40	4.30	<0.02
	7/7/2009**			13.0				1.10		4.30	
40004000004	10/2/2007	NA/SW	3.2	3.1	1.7	1.6	0.38	0.33	1.30	1.20	0.05
	4/2/2008	NA/SW	2.5	2.5	1.3	1.3	0.38	0.39	1.10	1.50	0.02
	7/9/2008	NA/SW	3.3	3.3	1.7	1.7	0.34	0.37	1.20	1.20	<0.02
	1/12/2009	NA/SW	1.9	2.1	1.1	1.1	0.25	0.21	0.91	0.92	<0.02
	7/7/2009	NA/SW	2.9	2.8	1.5	1.4	0.38	0.32	1.10	1.00	0.02
NC Groundwater Standards											

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Sample ID	Sampling Date	Sampling Depth (feet*)	Nitrate&nitrite NO2+NO3 as N (mg/l)	Phosphorous Total as P (mg/l)	Cyanide (mg/l)	Silver as Ag (ug/l)		Aluminum as Al (ug/l)		Arsenic as As (ug/l)	
						Total	Dissolved	Total	Dissolved	Total	Dissolved
40004000001	10/2/2007	38	<0.02	0.80		<5		18000		<5	
	4/2/2008	38	0.30	0.13	<0.02	<5	<5	11000	<50	<5	<5
	7/9/2008	41	0.26	1.20		<5		44000		<5	
	1/12/2009	41	0.20	0.63		<5	<5	18000	<50	<5	<5
40004000002	10/2/2007	210	0.05	<0.02	<0.02	<5	<5	150	<50	<5	<5
	4/1/2008	250	0.02	<0.02		<5	<5	<50	<50	<5	<5
	7/8/2008	250	0.05	<0.02		<5	<5	62	<50	<5	<5
	1/12/2009	242	0.02	0.02		<5	<5	<50	<50	<5	<5
	7/7/2009	245	0.03	<0.02		<5	<5	<50	<50	<5	<5
40004000003	10/2/2007	245	0.02	<0.02	<0.02	<5	<5	100	<50	<5	<5
	4/2/2008	245	0.02	0.66		<5	<5	<50	<50	<5	<5
	7/9/2008	285	0.02	0.02		<5	<5	<50	<50	<5	<5
	1/13/2009	245	0.02	0.15		<5	<5	<50	<50	<5	<5
	1/13/2009**		<0.02	0.02		<5		<50		<5	
	7/7/2009	145	0.02	<0.02		<5	<5	<50	<50	<5	<5
	7/7/2009**						<5		<50		<5
40004000004	10/2/2007	NA/SW	0.13	0.06	<0.02	<5	<5	370	77	<5	<5
	4/2/2008	NA/SW	0.24	<0.02		<5	<5	380	<50	<5	<5
	7/9/2008	NA/SW	0.13	0.03		<5	<5	500	96	<5	<5
	1/12/2009	NA/SW	0.24	0.02		<5	<5	100	<50	<5	<5
	7/7/2009	NA/SW	0.13	0.07		<5	<5	540	51	<5	<5
NC Groundwater Standards			11***		0.07	17.5				50	

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Sample ID	Sampling Date	Sampling Depth (feet*)	Barium as Ba		Cadmium as Cd		Chromium as Cr		Copper as Cu		Iron as Fe total (ug/l)
			Total (ug/l)	Dissolved (ug/l)	Total (ug/l)	Dissolved (ug/l)	Total (ug/l)	Dissolved (ug/l)	Total (ug/l)	Dissolved (ug/l)	
40004000001	10/2/2007	38	82		<1		20		410		12000
	4/2/2008	38	36	12	<1	<1	17	<10	150	32.0	9000
	7/9/2008	41	150		<1		43		750		33000
	1/12/2009	41	61	<10	<1	<1	27	<10	250	7.1	13000
40004000002	10/2/2007	210	<10	<10	<1	<1	<10	<10	5.0	2.0	130
	4/1/2008	250	<10	<10	<1	<1	<10	<10	4.1	6.6	77
	7/8/2008	250	<10	<10	<1	<1	<10	<10	3.4	2.1	85
	1/12/2009	242	<10	<10	<1	<1	<10	<10	4.1	3.4	<50
	7/7/2009	245	<10	<10	<1	<1	<10	<10	3.9	2.7	<50
40004000003	10/2/2007	245	<10	<10	<1	<1	<10	<10	<2	<2	160
	4/2/2008	245	<10	<10	<1	<1	<10	<10	<2	<2	<50
	7/9/2008	285	<10	<10	<1	<1	<10	<10	<2	<2	<50
	1/13/2009	245	<10	<10	<1	<1	<10	<10	<2	<2	<50
	1/13/2009**		<10		<1		<10		<2		<50
	7/7/2009	145	<10	<10	<1	<1	<10	<10	<2	<2	<50
	7/7/2009**			<10		<1		<10		<2	
40004000004	10/2/2007	NA/SW	<10	<10	<1	<1	<10	<10	<2	<2	2400
	4/2/2008	NA/SW	<10	<10	<1	<1	<10	<10	<2	<2	840
	7/9/2008	NA/SW	<10	<10	<1	<1	<10	<10	<2	<2	1800
	1/12/2009	NA/SW	<10	<10	<1	<1	<10	<10	<2	<2	270
	7/7/2009	NA/SW	<10	<10	<1	<1	<10	<10	<2	<2	1400
NC Groundwater Standards			2000		1.75		50		1000		300

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Sample ID	Sampling Date	Sampling Depth (feet*)	Iron as Fe	Manganese as Mn		Nickel as Ni		Lead as Pb		Selenium as Se	
			Dissolved (ug/l)	Total	Dissolved (ug/l)	Total	Dissolved (ug/l)	Total	Dissolved (ug/l)	Total	Dissolved (ug/l)
40004000001	10/2/2007	38		570		12		<10		<5	
	4/2/2008	38	<50	310	150	<10	<10	<10	<10	<5	<5
	7/9/2008	41		940		27		<10		<5	
	1/12/2009	41	<50	490	18	14	<10	<10	<10	<5	<5
40004000002	10/2/2007	210	<50	32	30	<10	<10	<10	<10	<5	<5
	4/1/2008	250	<50	<10	<10	<10	<10	<10	<10	<5	<5
	7/8/2008	250	<50	<10	<10	<10	<10	<10	<10	<5	<5
	1/12/2009	242	<50	<10	<10	<10	<10	<10	<10	<5	<5
	7/7/2009	245	<50	<10	<10	<10	<10	<10	<10	<5	<5
40004000003	10/2/2007	245	<50	<10	<10	<10	<10	<10	<10	<5	<5
	4/2/2008	245	<50	<10	<10	<10	<10	<10	<10	<5	<5
	7/9/2008	285	<50	<10	<10	<10	<10	<10	<10	<5	<5
	1/13/2009	245	<50	<10	<10	<10	<10	<10	<10	<5	<5
	1/13/2009**			<10		<10		<10		<5	
	7/7/2009	145	<50	<10	<10	<10	<10	<10	<10	<5	<5
	7/7/2009**		<50		<10		<10		<10		<5
40004000004	10/2/2007	NA/SW	980.00	110	72	<10	<10	<10	<10	<5	<5
	4/2/2008	NA/SW	230.00	42	30	<10	<10	<10	<10	<5	<5
	7/9/2008	NA/SW	620	79	58	<10	<10	<10	<10	<5	<5
	1/12/2009	NA/SW	140	16	17	<10	<10	<10	<10	<5	<5
	7/7/2009	NA/SW	310	62	38	<10	<10	<10	<10	<5	<5
NC Groundwater Standards				50		100		15		50	

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Sample ID	Sampling Date	Sampling Depth (feet*)	Zinc as Zn		Organochlorine Pesticides	Organophosphate Pesticides	Nitrogen Pesticides	Acid Herbicide	Semivolatile Organics	Volatile Organics	Radon 222 (pCi/l)
			Total	Dissolved (ug/l)							
40004000001	10/2/2007	38		73					4	1	
	4/2/2008	38		39	<10						
	7/9/2008	41		140							
	1/12/2009	41		84	<10						
40004000002	10/2/2007	210	<10	<10	2	0	1	0	1	0	
	4/1/2008	250		20	17						
	7/8/2008	250		23	19						
	1/12/2009	242		16	19						
	7/7/2009	245		13	<10						
40004000003	10/2/2007	245	<10	<10	1	0	1	0	3	0	
	4/2/2008	245	<10	<10							
	7/9/2008	285	<10	<10							
	1/13/2009	245	<10	<10							
	1/13/2009**		<10								
	7/7/2009	145	<10	<10							
	7/7/2009**			<10							
40004000004	10/2/2007	NA/SW	<10	<10	1	0	0	0	0	0	
	4/2/2008	NA/SW	<10	<10							
	7/9/2008	NA/SW	<10	<10							
	1/12/2009	NA/SW	<10	<10							
	7/7/2009	NA/SW	<10	<10							
NC Groundwater Standards			1050								

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