CLINCH RIVER WATERSHED

Chattanooga, Tennessee

CLINCH RIVER WATERSHED

DEMOGRAPHIC AND ECONOMIC DATA[1]

Population Growth	1965[2]	1960	1950	1940	1930
Population (1,000)	330	328	365	320	281

Population Distribution	Urban	Rural Nonfarm	Rural Farm
Percent of Population, 1950	16.7	48.2	35.1
Percent of Population, 1960	20.6	59.0	20.4

Labor Force Distribution	Percent of Labor Force 1950	1960
Agriculture, Fishing, Forestry	23.5	13.5
Mining	20.9	11.9
Construction	6.7	5.9
Manufacturing	13.4	19.8
Other (Retail, Services, Government, Etc.)	32.0	41.2
Unemployed	4.5	7.7
Total Labor Force	100.0	100.0

Manufacturing Employment Distribution, 1965[3]	Percent of Manufacturing Employment
Textile Mill Products	11.5
Apparel	7.2
*Chemicals and Allied Products	58.1
Electrical Machinery	5.6
Others, Not Listed Above	17.6
Total Manufacturing Employment	100.0

*Indicates principal water users.

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1. U. S. Census of Population data for seven Tennessee counties (Anderson, Campbell, Claiborne, Cumberland, Union, Hancock, and Morgan) and five Virginia counties (Lee, Russell, Scott, Tazewell, and Wise).
2. Data for 1965 based on TVA, Regional Studies Staff, estimates.
3. Source: Unpublished data from state employment security agencies, 1965.

CLINCH RIVER WATERSHED

Urban and Suburban Water Use

SURFACE WATER SUPPLIES

State	County	Water Company or Municipality	1960 Population	Population Served	Number of Connections	Water Source	Intake Location	Average Daily Use
							R. M.	Gallons
Tenn.	Anderson	Clinton[1]	4,943	6,592	1,543	Clinch River	66.3	608,000
		North Anderson County Utility District[2]		6,870	1,655	Clinch River Spring	75.1	432,000
		Oak Ridge	27,169	31,594	8,425	Atomic Energy Commission		2,500,000
	Campbell	Jacksboro Utility District		2,827	754	Cove Creek	16.6	155,000
		La Follette	6,204	10,372	2,766	Ollis Creek	0.8	450,000
	Claiborne	Arthur-Shawanee Utility District[3]		2,400	641	Powell River	64.4	145,000
	Cumberland	Crossville	4,668	7,500	2,000	Meadow Park Lake	8.6	800,000
	Knox	Hallsdale-Powell Utility District		19,706	5,255	Beaver Creek Bull Run Creek, embayment Fowler Spring Granny Bright Spring	32.0 3.8	1,740,000[4]
		West Knox Utility District		9,143	2,438	Clinch River Ingle Spring	46.9	659,000
	Roane	Harriman[5]	5,931	12,044	2,998	Emory River	12.9	1,160,000
Va.	Lee	Keokee	500	398	106	Lake in Kentucky		12,000
		Pennington Gap	1,799	3,098	826	Powell River and Spring	156.8	225,000
	Tazewell	Richlands[6]	4,963	6,936	1,583	Clinch River	319.7	300,000
		Tazewell	3,000	4,688	1,250	Clinch River Damon Coxs' Branch	351.1	556,000
	Wise	Big Stone Gap	4,688	7,012	1,870	South Fork Powell River	8.4	900,000
		Blackwood	100	30	11	Unnamed Tributary to Powell River	0.3	2,000
		Clear Creek Water Company[7]		4,500	1,200	Bens Branch	1.0	361,000
		Coeburn	2,471	2,666	711	Toms Creek	5.6	365,000
		Norton	4,996	5,250	1,400	Benges Branch	2.8	700,000
		St. Paul	1,156	1,162	310	Clinch River	254.8	120,000
		Wise	2,614	3,375	900	Unnamed Tributary to Bear Creek	0.8	300,000

GROUND WATER SUPPLIES

Tenn.	Anderson	Dutch Valley Elementary School		141	1	Well		3,500
		Fairview Elementary School		206	1	Well		5,100
		First Utility District of Anderson County		5,400	1,440	Springs		356,000
		Lake City	1,914	2,531	675	Spring		100,000
		Norris[8]	1,389	1,679	448	Spring		240,000
	Campbell	Coolidge Elementary School		111	1	Well		2,800
		Davis Chapel Elementary School		45	1	Well		1,100
		Demory Elementary School		66	1	Well		1,600

1. Includes Andersonville Utility District.
2. Includes Marlow Utility District.
3. Includes Harrogate.
4. Includes 856,275 gpd from ground supply.
5. Includes Swan Pond Utility District.
6. Includes Cedar Bluff.
7. Serves Appalachia, Derby, Arno, Osaka, Roda, Stonega, Andover.
8. Also serves TVA Engineering Laboratory, TVA Forestry, TVA Norris Dam, and Norris Dam State Park.

CLINCH RIVER WATERSHED

Urban and Suburban Water Use

(Continued)

GROUND WATER SUPPLIES

State	County	Water Company or Municipality	1960 Population	Population Served	Number of Connections	Water Source	Intake Location R. M.	Average Daily Use Gallons
Tenn.	Campbell	Duff Elementary School		50	1	Well		1,200
		Grantsboro Elementary School		42	1	Well		1,000
		Pinecrest Elementary School		55	1	Well		1,400
		Pleasant Ridge Elementary School		65	1	Well		1,600
		Valley View Elementary School		261	1	Well		6,500
	Claiborne	Big Spring Union Elementary School		28	1	Spring		420
		Bolinger Elementary School		54	1	Well		1,400
		Cedar Fork Elementary School		61	1	Well		1,500
		Claiborne County Utility District		3,450	920	Spring		210,000
		Eagan Elementary School		44	1	Spring		1,100
		Flat Hollow Elementary School		14	1	Well		210
		Forge Ridge Elementary School		250	1	Well		6,200
		Highland View Elementary School		79	1	Well		2,000
		Howards Quarter Elementary School		137	1	Well		3,400
		Lakeview Elementary School		48	1	Well		720
		Lincoln Memorial University[1]		1,100	81	Spring		350,000
		Little Creek Elementary School		52	1	Spring		1,300
		Lone Mountain Elementary School		145	1	Well		2,200
		Mason Bethel Elementary School		51	1	Well		760
		Midway Elementary School		185	1	Well		4,600
		Powell Valley School		656	1	Well		16,000
		Ritchie Elementary School		20	1	Spring		300
		Speedwell Academy		55	1	Well		1,400
		Sycamore Hall Elementary School		31	1	Spring		460
	Cumberland	Bakers Elementary School		107	1	Well		2,700
		Big Lick Elementary School		53	1	Well		1,300
		Crab Orchard Elementary School		264	1	Well		6,600
		Lantana Elementary School		87	1	Well		2,200
		Pomona Elementary School		143	1	Well		3,600
		Rinnie Elementary School		74	1	Well		1,800
		Tabor Elementary School		132	1	Well		3,300
		Woody Elementary School		215	1	Well for Drinking; Lake for Sanitary		5,400
	Hancock	Alanthus Elementary School		52	1	Well		780
		Big Springs Elementary School		18	1	Well		270
		East Hancock Elementary School		111	1	Well		2,800
		Flat Gap Elementary School		122	1	Well		3,000
		Lawson Elementary School		41	1	Well		600
		Midway Elementary School		26	1	Well		390
		Mulberry Gap Elementary School		77	1	Well		1,900
		Prospect Elementary School		21	1	Well		320
		Ramseys Elementary School		26	1	Well		390
		Sandy Flats Elementary School		11	1	Well		160

1. Includes Cumberland Gap.

CLINCH RIVER WATERSHED

Urban and Suburban Water Use

(Continued)

GROUND WATER SUPPLIES

ate	County	Water Company or Municipality	1960 Population	Population Served	Number of Connections	Water Source	Intake Location R. M.	Average Daily Use Gallons
m.	Hancock	Seal Mathis Elementary School		110	1	Well		1,600
		Sneedville	799	1,129	301	Fall Branch Spring		75,000
		Sunny Side Elementary School		46	1	Well		690
		Vardy Elementary School		49	1	Well		730
	Knox	Midway Elementary School		115	1	Well		2,900
	Morgan	Lancing Elementary School		95	1	Well		2,400
		Plateau Elementary School		96	1	Well		2,400
		Plateau Utility District		1,643	438	Well		108,000
		Brushy Mountain State Honor Farm		195		Well		60,000 1/
	Roane	Cumberland Utility District of Roane and Morgan Counties		2,940	784	Springs		147,000
		Edgewood Elementary School		196	1	Well		4,900
		Kingston	2,010	5,258	1,402	Spring and Tennessee River (Aux.)		487,000
		Oliver Springs	1,163	3,566	951	Spring		168,000
	Union	Big Ridge Elementary School		178	1	Well		4,400
		Big Ridge State Park		3,872	26	Spring		35,000
		Bradens Elementary School		23	1	Spring		340
		Bull Run Elementary School		37	1	Well		560
		Burkharts Elementary School		60	1	Well		900
		Chestnut Grove Elementary School		20	1	Well		300
		Hickory Star Dock and Resort		286	28	Spring		12,000
		Maynardville	620	1,069	285	Spring		30,000
		Sharps Chapel Elementary School		165	1	Well		4,100
.	Lee	Blackwater High School		127	1	Spring		3,200
		Bonny Blue	504	112	30	Well		10,000
		Dryden	500	251	67	Springs		15,000
		Elydale Elementary School		157	1	Spring		3,900
		Ewing	500	469	125	Spring		31,000
		Ewing Elementary School		156	1	Spring		3,900
		Flatwoods School		442	1	Spring		11,000
		Jasper Elementary School		92	1	Well		2,300
		Jonesville	711	1,425	380	Spring		96,000
		Robbins Chapel Elementary School		75	1	Well		1,900
		Rose Hill	600	712	190	Spring		43,000
		Stickleyville Elementary School		79	1	Spring		2,000
		Thomas Walker High School		297	1	Spring		7,400
		Wilderness Road Campground		640	23	Well		21,000
		Woodway	400	375	100	Spring and Well		30,000

Includes 6,700 gpd for stock and poultry.

CLINCH RIVER WATERSHED

Urban and Suburban Water Use

(Continued)

GROUND WATER SUPPLIES

State	County	Water Company or Municipality	1960 Population	Population Served	Number of Connections	Water Source	Intake Location R. M.	Average Daily Use Gallons
Va.	Russell	Belfast Elementary School		121	1	Spring		3,000
		Castlewood	530	487	130	Springs		35,000
		Cleveland	415	395	105	Springs and Well		24,000
		Cleveland Elementary School		348	1	Well		8,700
		Cleveland High School		209	1	Well		5,200
		Clinch River Elementary School		187	1	Well		4,700
		Copper Creek Elementary School		195	1	Well		4,900
		Crystal Water Company		1,406	375	Springs		50,000
		Dante	2,500	800	220	Well		120,000
		Elk Garden Elementary School		116	1	Well		2,900
		Givens Elementary School		270	1	Well		6,700
		Grassy Creek Elementary School		75	1	Well		1,900
		Honaker	851	1,406	375	Spring		60,000
		Honaker Elementary School		1,027	1	Well		26,000
		Juvenile Vocational Unit Number 25		69	2	Well		14,000
		Lebanon	2,085	3,233	862	Springs		140,000
		South Clinchfield	200	158	42	Spring		10,000
		Southwest Virginia Community College		500	1	Well		12,000
		Swords Creek Elementary School		277	1	Well		6,900
	Scott	Clinchport	302	350	85	Springs		10,000
		Clinchport Elementary School		275	1	Well		6,900
		Duffield-Pattonsville Elementary School		250	1	Spring		6,200
		Dungannon	444	480	128	Spring		30,000
		Fairview Elementary School		150	1	Well		3,700
		Fort Blackmore Elementary School		200	1	Well		5,000
		Manville Elementary School		125	1	Well		3,100
		Midway Elementary School		120	1	Well		3,000
		Nickelsville	281	394	105	Three Wells		26,000
		Rye Cove School		700	2	Spring		18,000
		Twin Springs High School		450	1	Spring		11,000
	Tazewell	Bandy Elementary School		74	1	Well		1,800
		Cliffield Elementary School		50	1	Well		1,200
		Cove Elementary School		25	1	Well		600
		Jewell Ridge	500	412	110	Well and Unnamed Tributary of Big Creek		27,000
		Pounding Mill Elementary School		45	1	Well		1,100
		Raven	900	200	35	Well		10,000
		Raven Elementary School		530	1	Well		13,000
		Richlands Elementary School		1,087	1	Well		27,000
		Richlands High School		1,098	1	Well		27,000
		Rivermont Elementary School		180	1	Well		4,500
		Thompson Valley Elementary School		102	1	Well		2,500

CLINCH RIVER WATERSHED

Urban and Suburban Water Use

(Continued)

GROUND WATER SUPPLIES

te	County	Water Company or Municipality	1960 Population	Population Served	Number of Connections	Water Source	Intake Location R. M.	Average Daily Use Gallons
	Wise	Banner Elementary School		68	1	Well		1,700
		Cranesnest	400	68	18	Mine and Well		4,500
		Dewey Elementary School		42	1	Well		630
		Dunbar	200	169	45	Well		25,000
		Dwina Elementary School		82	1	Well		2,000
		Exeter and Imboden	525	667	178	Abandoned Mine		72,000
		Fairview Elementary School		45	1	Well		680
		Inman	650	262	70	Springs and Wells		17,000
		Pardee	200	200	25	Well		20,000
		Riverview Elementary School		103	1	Well		2,600
		Taccoma Elementary School		86	1	Well		2,200
		Toms Creek Elementary School		69	1	Well		1,700
		West Norton Elementary School		187	1	Well		4,700

CLINCH RIVER WATERSHED

Industrial Water Use By Self-Supplying Industries

SURFACE WATER SUPPLIES

State	County	City	Industry	Principal Product	Number of Employees	Water Source	Intake Location R. M.	Average Daily Use Gallons	Type Use
Va.	Scott	Duffield	Foote Mineral Company	Crushed Stone, Industrial Inorganic Chemicals	77	Stock Creek		500,000	Cooling, Process, and Potable
	Wise	Big Stone Gap	Westmoreland Coal Company, Stonega Division	Coal and Coke	500	Roaring Fork and Wells		135,000	Cooling
		Coeburn	Virginia Iron, Coal, and Coke Company	Coal	35	Banner Branch		20,000	Process
		Dorchester	Wise Coal and Coke Company	Coal	35	Powell River		50,000	Cooling
		Norton	Coal Processing Company	Coal	167	Guest River and Wells		200,000	Process
			Hawthorne Coke and Mining Company	Coke	18			1,000	Cooling
			Norton Coal Company	Coal and Coke	50	Guest River and Springs		40,000	Cooling
		Virginia City	Virginia Iron, Coal, and Coke Company	Coal	18	Russell Creek		35,000	Process
Tenn.	Campbell	Caryville	White Silica Sand Company	Sand	10	Cove Creek		200,000	Process
		Henderson	City Ice Company	Ice	2	Big Creek		1,400	
		LaFollette	Lobby Concrete Products Co., Inc.	Building Blocks	10	Big Creek		2,000	
	Anderson	Clinton	Magnet Mills, Inc.	Ladies Hosiery	1,000	Clinch River		2,000	
			Modine Manufacturing	Refrigeration Condensers and Evaporators		Clinch River	65.0	672,000	
		Oak Ridge	Atomic Energy Commission	Nuclear Products		Clinch River (Watts Bar Lake)	14.4	65,000,000	Cooling and Process
						Clinch River (Melton Hill Lake)	41.5	17,000,000	Cooling, Process, and Potable
			TVA Bull Run Steam Plant	Electric Power	316	Clinch River	47.6	572,000,000	Cooling
	Roane	Harriman	A. B. Long Quarries, Inc.	Crushed Stone	17	Emory River		40,000	Process
			The Mead Corporation	Corrugating Board	134	Emory River	12.6	2,900,000	Process
		Kingston	TVA Kingston Steam Plant	Electric Power	462	Clinch River		1,400,000,000	Cooling
	Morgan	Oakdale	C., N. O., and T. Railway Company			Emory River	18.8	27,000	Potable

GROUND WATER SUPPLIES

State	County	City	Industry	Principal Product	Number of Employees	Water Source	Intake Location R. M.	Average Daily Use Gallons	Type Use
Va.	Wise	Norton	Christie Coal and Coke Company	Coke	60	Wells		500	Potable
		St. Paul	St. Paul Coca Cola Bottling Company	Carbonated Beverages	10	Wells		18,000	Process
Tenn.	Anderson	Oak Ridge	Ralph Rogers Company, Inc.	Crushed Stone and Mixed Concrete	70	Wells		45,000	
	Knox	Knoxville	Avondale Farms Creamery, Inc.	Dairy	125	Well		75,000	
		Powell	Purity Packing Company	Meat Packing Company	135	Well		65,000	Process

CLINCH RIVER WATERSHED

Urban and Suburban Waste Treatment

State	County	Owner or Municipality	1960 Population	Sewered Population	Industrial Waste[1] P. E.	Total Waste P. E.	Type Treatment	Disinfection	Percent Reduction	Treated Waste P. E.	Receiving Stream	Outfall Location R. M.
Tenn.	Anderson	Blowing Springs School		132	0	44	Secondary	Yes	90	4	Unnamed Trib. to Blowing Springs Fork	0.2
		Briceville Elementary School		430	0	143	Secondary	Yes	90	14	Unnamed Tributary to Coal Creek	0.1
		Claxton Elementary School		694	0	230	Secondary	Yes	90	23	Nelson Branch	0.5
		Clinton	4,943	5,403	7,831	13,234	Primary	Yes	55	5,955	Clinch River	56.8
		Lake City	1,914	2,513	-	2,513	Secondary	Yes	90	250	Coal Creek	3.1
		Norris	1,389	1,320	-	1,320	Primary	Yes	30	924	Buffalo Creek	4.1
		Norwood Elementary School		603	0	201	Secondary	Yes	90	20	Trib. to Unnamed Trib. to Poplar Creek	0.3
		Oak Ridge	27,169									
		East		10,000	-	10,020	Secondary	Yes	98	240	Unnamed Tributary to Clinch River	0.6
		West		20,000	-	14,105	Primary	Yes	34	9,309	East Fork Poplar Creek	8.2
		Oak Ridge Mobile Home Court		150	0	150	Secondary	Yes	90	15	Unnamed Tributary to Blaze Branch	0.3
	Campbell	Caryville Elementary School		393	0	131	Secondary	Yes	90	13	Unnamed Tributary to Cove Lake	0.1
		Holiday Inn		339	0	339	Secondary	Yes	90	34	Unnamed Tributary to Cove Lake	0.3
		Jacksboro	800	650	-	650	None	No	0	650	Unnamed Tributary to Dog Creek	0.1
		La Follette	6,204	6,592	400	6,992	Secondary	Yes	90	699	Big Creek	17.8
		Ridge Wood Elementary School		138	0	46	Secondary	Yes	90	5	Right Fork Coal Creek	3.2
	Claiborne	Claiborne County Utility District		2,096	1,080	3,176	Secondary	Yes	82	572	Russell Creek	6.1
		Cumberland Gap	291	204	-	204	None	No	0	204	Gap Creek	8.9
		Cumberland Gap Historical Association		230	0	160	Secondary	Yes	90	16	Gap Creek	9.5
		Lincoln Memorial University		606	0	606	Secondary	Yes	90	61	None	
	Cumberland	Crossville	4,668	2,700	3,300	6,000	Secondary	Yes	48	3,120	Obed River	38.6
		Clyde M. York 4-H Training Center		300	-	300	Tertiary	Yes	95	15	Unnamed Trib. to Obed River	1.0
	Hancock	Sneedville	799	656	-	656	Primary	Yes	30	459	Clinch River	177.5
	Knox	Ball Camp Elementary School		484	0	161	Tertiary	Yes	95	8	Unnamed Tributary to Plum Creek	0.0
		Hallsdale-Powell Utility District										
		Plant Number 1		4,192	-	4,192	Secondary	Yes	94	243	Beaver Creek	31.8
		Plant Number 2		1,380	66	1,446	Secondary	Yes	97	45	Beaver Creek	26.4
		Plant Number 3		1,594	3,512	5,106	Secondary	Yes	99	46	Beaver Creek	23.4
		Karns School		1,519	0	506	Secondary	Yes	90	51	Beaver Creek	17.9
	Loudon	Johnson Nursing Home		58	0	58	Secondary	Yes	90	6	Unnamed Tributary to Wallace Creek	0.9
	Morgan	Brushy Mountain State Prison		707	-	1,156	Primary	Yes	43	659	Stockstill Creek	0.5

1. Dash indicates that industrial waste data are unavailable.

CLINCH RIVER WATERSHED

Urban and Suburban Waste Treatment

(Continued)

State	County	Owner or Municipality	1960 Population	Sewered Population	Industrial Waste[1] P. E.	Total Waste P. E.	Type Treatment	Disinfection	Percent Reduction	Treated Waste P. E.	Receiving Stream	Outfall Location R. M.
Tenn.	Morgan	Central Elementary School		598	0	199	Secondary	Yes	90	20	Unnamed Tributary to Crooked Fork Creek	0.8
		Central High School		496	0	165	Tertiary	Yes	95	8	Unnamed Tributary to Crooked Fork Creek	0.1
		Coalfield Elementary School		420	0	140	Secondary	Yes	90	14	Davis Branch	0.5
		Oakdale School		495	0	165	Secondary	Yes	90	17	Unnamed Tributary to Emory River	0.9
	Roane	Kingston Plant Number 1	2,010	2,350	-	2,350	Primary	Yes	43	1,340	Clinch River	0.8
		Oliver Springs Elementary and High School		970	0	323	Secondary	Yes	90	32	Indian Creek	3.3
	Union	Big Ridge State Park										
		Campground and Cabin Area		200	0	200	Secondary	Yes	90	20	Unnamed Tributary to Mill Creek	2.5
		Group Camp Area		110	0	110	Secondary	Yes	90	11	Poor Land Valley Creek	1.9
Va.	Lee	Elk Knob Elementary School		162	0	54	Secondary	No	90	5	None	
		Jonesville	711	352	-	352	Secondary	Yes	90	35	Town Branch	3.1
		Jonesville High School		356	0	119	Secondary	No	90	12	Town Branch	2.6
		Pennington Gap	1,799	2,625	-	2,625	Primary	Yes	30	1,837	North Fork Powell River	2.0
		St. Charles	368	80	-	80	None	No	0	80	Straight Creek	2.6
	Russell	Cleveland	415	300	-	300	None	No	0	300	Clinch River	271.7
		Cleveland High School		209	0	70	Secondary	No	90	7	Unnamed Tributary to Clinch River	1.2
		Clinch River Elementary School		187	0	62	Secondary	No	90	6	Gravel Lick Creek	1.2
		Dante Elementary School		320	0	107	Secondary	No	90	11	Left Fork Lick Creek	0.7
		Grassy Creek Elementary School		75	0	25	Secondary	No	90	3	None	
		Honaker	851	1,312	-	1,312	Primary	Yes	30	918	Lewis Creek	1.4
		Juvenile Vocational Unit		69	0	69	Secondary	Yes	90	7	Casey Branch	0.1
		Lebanon	2,085	2,595	-	2,595	Secondary	Yes	90	260	Little Cedar Creek	1.4
	Scott	Dungannon Elementary School		250	0	83	Secondary	No	90	8	Clinch River	237.4
		Twin Springs High School		450	0	150	Secondary	No	90	15	Unnamed Tributary to Culbertson Branch	0.0
	Tazewell	Richlands	4,963	6,000	-	6,000	Primary	Yes	30	4,200	Clinch River	316.5
		Southwest Virginia Community College		500	0	167	Secondary	Yes	90	17	Laurel Branch	2.0
		Tazewell	3,000	3,750	-	3,750	Secondary	Yes	90	375	Clinch River	345.7

1. Dash indicates that industrial waste data are unavailable.

CLINCH RIVER WATERSHED

Urban and Suburban Waste Treatment

(Continued)

State	County	Owner or Municipality	1960 Population	Sewered Population	Industrial Waste[1] P. E.	Total Waste P. E.	Type Treatment	Disinfection	Percent Reduction	Treated Waste P. E.	Receiving Stream	Outfall Location R. M.
Va.	Wise	Appalachia	2,456	1,800	-	1,800	Secondary	Yes	90	180	Powell River	181.8
		Appalachia High School		501	0	167	Secondary	No	90	17	Powell River	183.5
		Big Stone Gap	4,688	3,907	-	3,907	Secondary	Yes	90	391	Powell River	177.4
		Coeburn	2,471	1,129	-	1,129	Secondary	Yes	90	113	Guest River	8.8
		Correctional Field Unit Number 18		70	0	70	Secondary	No	90	7	Bad Branch	0.3
		Flatwoods Job Corps Conservation Center										
		Plant Number 1		217	0	217	Secondary	Yes	90	22	Star Branch	0.9
		Plant Number 2		109	0	109	Secondary	Yes	90	11	Unnamed Tributary to Little Stoney Creek	0.9
		Norton	4,996									
		Plant Number 1		3,937	-	3,937	Primary	Yes	30	2,756	Guest River	19.9
		Plant Number 2		562	-	562	Primary	Yes	30	393	Powell River	192.0
		Powell Valley High School		687	0	229	Secondary	No	90	23	South Fork Powell River	6.2
		St. Paul	1,156	1,156	-	1,156	None	No	0	1,156	Clinch River	252.0
		Wise	2,614	2,614	-	2,614	Secondary	Yes	90	261	Bear Creek	1.4

1. Dash indicates that industrial waste data are unavailable.

CLINCH RIVER WATERSHED

Industrial Waste Treatment

State	County	City	Name of Industry	Principal Product	Waste Characteristics P. E.	Volume - MGD	Other	Type Treatment	Percent Reduction	Treated Waste P. E.	Receiving Stream	Outfall Location R. M.
Va.	Tazewell	Richlands	New Garden Coal Corporation	Coal				Sedimentation			Coal Creek	4.0
			Raven Smokeless Coal Company	Coal				Sedimentation			Coal Creek	3.0
	Russell	Carbo	Appalachian Power Company	Electric Power				Sedimentation			Dumps Creek	0.1
		Dante	Clinchfield Coal Company, Moss No. 2	Coal				Sedimentation			Hurricane Fork	2.0
			Clinchfield Coal Company, Moss No. 3	Coal				Sedimentation			Dumps Creek	2.5
	Scott	Duffield	Foote Mineral Company	Crushed Stone, Industrial Inorganic Chemicals				Filtration, Impoundment			Stock Creek	0.5
	Wise	Big Stone Gap	Clinch Haven Farms, Inc.	Dairy Products							Powell River	
			Pet Milk Company, Dairy Division	Dairy Products				None			Powell River	
		Coeburn	Virginia Iron, Coal, and Coke Co.	Coal				Sedimentation			Toms Creek	2.5
		Dorchester	Wise Coal and Coke Company, Inc.	Coke				Sedimentation			Powell River	194.0
		Dunbar	Westmoreland Coal Co.-Stonega Division, Wentz Plant	Coal				Sedimentation			Callahan Creek	
		Norton	Christie Coal and Coke Co., Inc.	Coke							Guest River	21.8
			Coal Processing Company	Coal				Sedimentation			Guest River	
			Norton Coal Company	Coke and Coal							Guest River	21.0
		Pardee	Westmoreland Coal Co.-Stonega Division, Pine Branch Plant	Coal				Flotation, Thickening Filtration, Sedimentation			Roaring Fork Creek	
		Virginia City	Virginia Iron, Coal, and Coke Co.	Coal				Sedimentation			Right Fork Russell Creek	1.0
	Lee	Pennington Gap	Lee Packing Company	Meat Products							North Fork Powell River	
Tenn.	Anderson	Briceville	La-Lite Aggregate Company	Expanded Shale Lightweight Aggregate				Sedimentation			Coal Creek	
		Clinton	Modine Manufacturing Company	Refrigeration Condensers and Evaporators		14.0 0.2	Chlorides and Fluorides	Neutralization and Sedimentation			Clinch River	65.0
		Oak Ridge	Atomic Energy Commission	Nuclear Products	60	0.01	Sanitary	Secondary	90	6	Clinch River	65.0
					0	64	Cooling Water	None			Poplar Creek	2.0
						0.8	Sanitary	Secondary			Poplar Creek	2.0
						2.3	Cooling Water	None			Clinch River (Watts Bar Lake)	20.8
						0.4	Process	Chemical			Clinch River (Watts Bar Lake)	20.8
						0.13	Sanitary	Secondary			Clinch River (Watts Bar Lake)	20.8
						10.1	Cooling Water	None			East Fork Poplar Creek	
			TVA, Bull Run Steam Plant	Electric Power	0	572	Cooling Water	None			Clinch River	46.8
					197		Sanitary	Secondary	90	18	Clinch River	47.0
	Roane	Kingston	TVA, Kingston Steam Plant	Electric Power	0	1,400	Cooling Water	None			Clinch River	2.6
					485		Sanitary	Primary	30	350	Clinch River	
	Knox	Powell	Purity Packing Company	Meat Products	1,150	0.150	Packinghouse	Secondary	90	115	[illegible] Creek	[illegible]

OBSERVED DISSOLVED OXYGEN AND TEMPERATURE CONDITIONS OF WATER DISCHARGED FROM RESERVOIRS DURING CRITICAL PERIODS

CLINCH RIVER WATERSHED

Norris Reservoir

Location of Dam: Clinch River Mile 79.8
Location of Sampling Point: Scroll Case
Minimum Acceptable DO Downstream of Turbine Discharge: 5 mg/l

Date	Dissolved Oxygen mg/l	Temperature ° C.
1965		
7- 5	7.6	10
7-12	7.6	13
7-19	6.8	10
7-26	6.8	11
8- 2	5.6	11
8- 9	5.8	12
8-16	4.6	13
8-23	4.2	13
8-30	2.4	13
9- 6	1.8	14
9-13	0.8	14
9-20	1.6	16
9-27	0.6	16
10- 4	0.6	18
10-11	0.8	19
10-18	3.0	20
10-25	6.0	20
11- 1	5.8	19
11- 8	6.2	18
11-15	7.0	18
11-22	6.8	17
11-29	6.8	16
12-13	8.0	14
1966		
7- 5	8.4	10
7-11	7.8	10
7-18	7.6	12
7-25	6.0	11

Norris Reservoir (Continued)

Date	Dissolved Oxygen mg/l	Temperature ° C.
1966		
8- 1	5.6	11
8- 9	4.0	12
8-15	4.2	14
8-22	4.4	15
8-29	4.2	16
9- 6	4.2	19
9-12	2.4	20
9-19	1.8	22
9-26	1.4	22
10- 3	1.0	22
10-11	3.2	21
10-18	5.8	19
10-25	6.0	13
10-31	5.8	18
11- 7	6.2	16
11-21	6.8	
11-28	8.6	13
12- 5	9.0	13
12-12	8.6	
1967		
7- 3	7.4	11
7-16	6.4	10
7-24	6.8	17
8- 2	5.0	12
8- 7	4.6	13
8-14	3.2	14
8-16	3.2	14
8-21	4.2	16
8-30	4.2	13
9- 5	2.8	15
9-11	2.6	16
9-18	1.0	16
9-25	1.2	18
10- 2	4.0	18
10- 9	3.8	18
10-16	1.0	19
10-23	5.6	20
10-30	6.2	19
11-13	7.8	16
11-20	8.2	17
11-27	7.6	14

Norris Reservoir (Continued)

Date	Dissolved Oxygen	Temperature
	mg/l	° C.
1968		
7-29	6.1	10
8- 5	4.8	12
8-12	3.5	-
8-19	3.4	13
8-26	6.3	15
9- 3	3.2	15
9- 9	3.0	17
9-16	1.9	15
9-25	6.0	16
9-30	1.0	16
10- 7	2.2	16
10-14	1.3	17
10-14	0.7	19
10-21	2.1	19
10-28	5.7	20
11- 4	7.8	19
11-12	5.8	18
11-18	6.0	16

CLINCH RIVER MILE 317.9

Date	Time ED 24-hr. Clock	Location in Stream[1]	Depth	Stream Disch.	Coliforms Fecal	Coliforms Total	Water Temp.	DO	5-Day 20°C. BOD	Color	Turb.	Threshold Odor	Nitrogen[2] Org.	Nitrogen[2] NH_3	Nitrogen[2] NO_2	Nitrogen[2] NO_3	Phosphate Sol.	Phosphate Tot.	pH	Alkalinity ($CaCO_3$) Phen.	Alkalinity ($CaCO_3$) Tot.	Total Hardness ($CaCO_3$)	Ca	Mg	Cl	Na	K	Iron Fe^{++}	Iron Tot.	Mn, Total	SO_4	SiO_2	Specific Conductance at 25°C.	Solids Sus.	Solids Dis.	Solids Tot.
			ft.	cfs	No./100 ml		°C.	mg/l	mg/l	PCU	JCU	No.	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l		mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	µmhos/cm	mg/l	mg/l	mg/l
6- 7-67	0930	50	0.5	232	360	3,000	16.0	8.8	-	-			-	-	-	-	-	-	8.1	-	-												-	-	-
7- 6-67	0915	50	0.5	85	8,000	8,000	18.4	7.6	2.9	10			1.36	0.00	0.02	0.31	0.05	1.16	10.5	-	-												832	383	1,215
7-31-67	1005	50	0.5	52	3,800	4,700	21.7	7.4	0.6	10			0.42	0.00	0.02	0.75	0.14	0.47	8.2	0	126												53	148	201
8-29-67	1140	50	0.2	43	2,700	-	19.8	8.3	2.6	10			0.25	0.00	0.02	2.44	0.32	0.48	8.2	-	-												40	172	212

CLINCH RIVER MILE 315.3

Date	Time ED 24-hr. Clock	Location in Stream[1]	Depth	Stream Disch.	Coliforms Fecal	Coliforms Total	Water Temp.	DO	5-Day 20°C. BOD	Color	Turb.	Threshold Odor	Nitrogen[2] Org.	Nitrogen[2] NH_3	Nitrogen[2] NO_2	Nitrogen[2] NO_3	Phosphate Sol.	Phosphate Tot.	pH	Alkalinity ($CaCO_3$) Phen.	Alkalinity ($CaCO_3$) Tot.	Total Hardness ($CaCO_3$)	Ca	Mg	Cl	Na	K	Iron Fe^{++}	Iron Tot.	Mn, Total	SO_4	SiO_2	Specific Conductance at 25°C.	Solids Sus.	Solids Dis.	Solids Tot.
6- 7-67	1015	50	0.5	256	70	350	16.0	8.6	-	-									8.0	-	-												-	-	-
7- 6-67	1150	50	0.5	95	5,100	35,000	16.8	7.4	2.4	10									10.8	-	-												518	101	619
7-31-67	1035	50	0.5	58	26,000	40,000	22.2	6.8	0.6	20									8.1	0	120												22	171	193
8-29-67	1200	50	0.3	48	2,500	-	20.0	7.3	2.8	10									8.1	-	-												72	163	235

CLINCH RIVER MILE 313.9

Date	Time ED 24-hr. Clock	Location in Stream[1]	Depth	Stream Disch.	Coliforms Fecal	Coliforms Total	Water Temp.	DO	5-Day 20°C. BOD	Color	Turb.	Threshold Odor	Nitrogen[2] Org.	Nitrogen[2] NH_3	Nitrogen[2] NO_2	Nitrogen[2] NO_3	Phosphate Sol.	Phosphate Tot.	pH	Alkalinity ($CaCO_3$) Phen.	Alkalinity ($CaCO_3$) Tot.	Total Hardness ($CaCO_3$)	Ca	Mg	Cl	Na	K	Iron Fe^{++}	Iron Tot.	Mn, Total	SO_4	SiO_2	Specific Conductance at 25°C.	Solids Sus.	Solids Dis.	Solids Tot.
6- 7-67	1050	50	0.5	275	300	700	16.7	8.7	-	-			-	-	-	-	-	-	-	-	-												-	-	-
7- 6-67	1405	50	0.5	102	18,000	41,000	17.2	7.6	2.5	10			0.94	0.00	0.03	0.34	0.13	1.12	10.9	-	-												513	155	668
7-31-67	1105	50	0.5	62	60,000	60,000	22.2	6.9	0.7	15			0.55	0.00	0.06	0.80	0.29	0.67	8.0	0	119												94	144	238
8-29-67	1220	50	0.5	52	54,000	-	20.7	7.5	2.5	5			0.32	0.00	0.05	2.59	0.75	1.20	8.1	-	-												41	180	221

1. Location in Stream: Percent distance from left bank looking downstream.
2. Nitrogen: Values shown are mg/l nitrogen in the forms listed.

CLINCH RIVER MILE 304.6

Date	Time CS 24-hr. Clock	Location in Stream	Depth ft.	Stream Disch. cfs	Coliforms Fecal MPN/100 ml	Coliforms Total MPN/100 ml	Temp. °C.	DO mg/l	5-day 20° C BOD mg/l	Color PCU	Turb. JCU	Threshold Odor No.	Nitrogens Org.N mg/l	Nitrogens NH_3-N mg/l	Nitrogens NO_2-N mg/l	Nitrogens NO_3-N mg/l	Phosphates Sol. mg/l	Phosphates Tot. mg/l	pH	Alkalinity $CaCO_3$ Phen. mg/l	Alkalinity $CaCO_3$ Tot. mg/l	Total Hardness $CaCO_3$ mg/l	Ca mg/l	Mg mg/l	Cl mg/l	Na mg/l	K mg/l	Iron Fe^{++} mg/l	Iron Tot. mg/l	Mn, Total mg/l	SO_4 mg/l	SiO_2 mg/l	Specific Conductance at 25° C. Micromho/cm	Solids Sus. mg/l	Solids Dis. mg/l	Solids Tot. mg/l
5-11-64	1610	Middle	Surf.	90	210	940	20.7	9.87	2.10	15	4.3	0	0.32	0.00	0.00	0.00	0.10	0.18	7.6	0.00	98.0	117	32.9	10.7	6.60	4.50	1.76	0.00	0.25	0.00	21.8	1.36	244	24	142	166
6-14-64	1235	Middle	Surf.	50	1,600	16,000	25.0	5.89	3.05	10	17	0	0.30	0.02	0.00	0.00	0.27	0.49	7.8	0.00	113	131	32.0	15.3	5.22	4.35	2.00	0.00	0.35	0.00	27.1	3.60	286	7	171	178
7-14-64	1630	Middle	Surf.	50	2,300	6,200	23.0	7.53	2.80	10	14	0	0.24	0.01	0.00	0.15	0.26	0.44	8.0	0.00	109	135	36.4	10.7	5.96	5.51	2.20	0.01	0.92	0.00	27.1	4.08	286	103	176	279
8- 4-64	1520	Middle	Surf.	80	940	3,600	25.3	6.19	1.28	10	29	0	0.18	0.00	0.00	0.10	0.32	0.56	7.9	0.00	111	135	39.3	8.98	7.05	6.62	2.30	0.00	1.32	0.00	21.8	5.06	286	46	174	220
8-25-64	1530	Middle	Surf.	20	550	5,500	24.6	7.09	1.77	5	19	1	0.28	0.00	0.00	0.00	0.27	0.45	8.2	0.00	123	149	25.1	21.0	4.00	5.40	2.00	0.01	0.36	0.26	18.1	2.21	303	10	200	210
10- 7-64	1700	Middle	Surf.	40	930	3,600	12.9	10.34	3.84	5	17	0	0.05	0.05	0.00	0.00	0.21	0.46	7.8	0.00	118	160	18.1	28.0	5.29	6.47	2.40	0.02	0.22	0.14	23.0	4.51	303	38	175	213
12- 2-64	1630	Middle	Surf.	120	1,100	6,200	3.0	12.55	1.35	5	10	0	0.00	0.00	0.00	0.08	0.15	0.26	8.1	0.00	100	157	21.0	25.5	4.09	2.87	1.00	0.00	0.63	0.00	11.0	2.72	278	2	168	170
2-16-65	1400	Middle	Surf.	230	360	550	5.8	12.18	2.15	5	11	0	0.01	0.03	0.00	0.01	0.09	0.37	7.9	0.00	87.5	138	32.7	13.7	4.76	3.53	0.70	0.00	0.75	0.09	3.7	2.25	270	3	152	155
Maximum				230	2,300	16,000	25.3	12.55	3.84	15	29	1	0.32	0.05	0.00	0.15	0.32	0.56	8.2	0.00	123	160	39.3	28.0	7.05	6.62	2.40	0.02	1.32	0.26	27.1	5.06	303	103	200	279
Minimum				20	210	550	3.0	5.89	1.28	5	4.3	0	0.00	0.00	0.00	0.00	0.09	0.18	7.6	0.00	87.5	117	18.1	8.98	4.00	2.87	0.70	0.00	0.22	0.00	3.7	1.36	244	2	142	155
Median				65	935	4,500	21.9	8.70	2.13	8	16	0	0.21	0.01	0.00	0.01	0.24	0.45	7.9	0.00	110	137	32.4	14.5	5.26	4.95	2.00	0.00	0.50	0.00	21.8	3.16	286	17	173	194

CLINCH RIVER MILE 271.5

Date	Time CS 24-hr. Clock	Location in Stream	Depth ft.	Stream Disch. cfs	Coliforms Fecal MPN/100 ml	Coliforms Total MPN/100 ml	Temp. °C.	DO mg/l	5-day 20° C BOD mg/l	Color PCU	Turb. JCU	Threshold Odor No.	Nitrogens Org.N mg/l	Nitrogens NH_3-N mg/l	Nitrogens NO_2-N mg/l	Nitrogens NO_3-N mg/l	Phosphates Sol. mg/l	Phosphates Tot. mg/l	pH	Alkalinity $CaCO_3$ Phen. mg/l	Alkalinity $CaCO_3$ Tot. mg/l	Total Hardness $CaCO_3$ mg/l	Ca mg/l	Mg mg/l	Cl mg/l	Na mg/l	K mg/l	Iron Fe^{++} mg/l	Iron Tot. mg/l	Mn, Total mg/l	SO_4 mg/l	SiO_2 mg/l	Specific Conductance at 25° C. Micromho/cm	Solids Sus. mg/l	Solids Dis. mg/l	Solids Tot. mg/l
5-11-64	1400	Middle	Surf.	208	1,100	1,600	22.0	9.25	1.66	10	3.5	0	0.19	0.00	0.00	0.00	0.04	0.05	8.0	0.00	99.8	116			5.06						25.3			11	134	145
6-14-64	1135	Middle	Surf.	113	2,800	24,000	26.0	6.97	1.89	15	5.0	0	0.34	0.00	0.00	0.00	0.13	0.17	8.0	0.00	115	127			5.02						21.8			3	162	165
7-14-64	1500	Middle	Surf.	102	3,600	6,200	25.0	9.13	2.67	10	8.5	0	0.26	0.00	0.00	0.10	0.13	0.79	8.2	0.00	120	138	32.8	13.6	4.70						16.4			12	164	176
8- 4-64	1415	Middle	Surf.	161	1,300	3,600	27.2	6.74	0.90	10	30	0	0.13	0.00	0.00	0.08	0.15	0.33	7.9	0.00	105	130	35.0	10.4	5.46						18.2			39	160	199
8-25-64	1415	Middle	Surf.	65	1,600	11,000	24.5	8.53	1.51	5	8.5	0	0.36	0.00	0.00	0.06	0.13	0.18	8.4	1.50	119	135	25.4	17.4	6.54						15.8			23	159	182
10- 7-64	1550	Middle	Surf.	134	620	6,200	14.1	10.14	3.51	5	17	1	0.16	0.02	0.00	0.00	0.11	0.23	8.0	0.00	133	160	15.7	29.5	7.01						24.2			16	200	216
12- 2-64	1530	Middle	Surf.	366	1,100	3,600	3.1	13.25	1.43	5	5.0	0	0.07	0.00	0.00	0.00	0.08	0.09	8.2	0.00	111	131	25.4	16.5	5.92						12.2			9	152	161
2-16-65	1230	Middle	Surf.	600	160	940	5.2	13.17	1.80	5	8.0	0	0.14	0.02	0.00	0.08	0.07	0.07	8.1	0.00	102	121	32.7	9.56	5.19						10.0			9	152	161
Maximum				600	3,600	24,000	27.2	13.25	3.51	15	30	1	0.36	0.02	0.00	0.10	0.15	0.79	8.4	1.50	133	160	35.0	29.5	7.01						25.3			39	200	216
Minimum				65	160	940	3.1	6.74	0.90	5	3.5	0	0.07	0.00	0.00	0.00	0.04	0.05	7.9	0.00	99.8	116	15.7	9.56	4.70						10.0			3	134	145
Median				148	1,200	4,900	23.3	9.19	1.73	8	8.3	0	0.18	0.00	0.00	0.03	0.12	0.18	8.0	0.00	113	131	29.1	15.1	5.33						17.3			12	160	171

CLINCH RIVER MILE 227.3

Date	Time CS 24-hr. Clock	Location in Stream	Depth ft.	Stream Disch. cfs	Coliforms Fecal MPN/100 ml	Coliforms Total MPN/100 ml	Temp. °C.	DO mg/l	5-day 20° C BOD mg/l	Color PCU	Turb. JCU	Threshold Odor No.	Nitrogens Org.N mg/l	Nitrogens NH_3-N mg/l	Nitrogens NO_2-N mg/l	Nitrogens NO_3-N mg/l	Phosphates Sol. mg/l	Phosphates Tot. mg/l	pH	Alkalinity $CaCO_3$ Phen. mg/l	Alkalinity $CaCO_3$ Tot. mg/l	Total Hardness $CaCO_3$ mg/l	Ca mg/l	Mg mg/l	Cl mg/l	Na mg/l	K mg/l	Iron Fe^{++} mg/l	Iron Tot. mg/l	Mn, Total mg/l	SO_4 mg/l	SiO_2 mg/l	Specific Conductance at 25° C. Micromho/cm	Solids Sus. mg/l	Solids Dis. mg/l	Solids Tot. mg/l
5-12-64	800	Middle	Surf.	390	550	940	20.3	8.33	1.96	10	8.5	0	0.16	0.00	0.00	0.00	0.03	0.08	8.1	0.00	80.8	103	26.9	11.0	5.68	5.96	1.53	0.00	0.35	0.00	32.1	1.44	238	39	132	171
6-14-64	1455	Middle	Surf.	240	360	1,100	26.7	7.78	2.48	15	14	0	0.05	0.01	0.00	0.00	0.07	0.14	8.0	0.00	87.6	112	30.0	11.2	5.89	6.10	2.25	0.00	0.25	0.01	33.8	3.26	256	16	156	172
7-14-64	1230	Middle	Surf.	140	110	940	24.1	7.38	2.35	10	12	0	0.20	0.00	0.00	0.02	0.03	0.32	8.0	0.00	104	142	33.5	14.2	6.51	8.23	2.35	0.02	0.61	0.01	41.3	1.92	312	28	195	223
8- 4-64	1140	Middle	Surf.	160	52	620	27.0	7.63	1.39	10	14	0	0.04	0.03	0.00	0.08	0.08	0.13	8.2	0.00	114	130	34.6	10.6	6.15	5.51	2.40	0.00	0.28	0.00	30.4	4.00	278	23	165	188
8-25-64	1150	Middle	Surf.	100	91	1,600	26.0	8.87	1.87	5	10	0	0.26	0.02	0.00	0.24	0.02	0.19	8.6	5.00	110	139	25.5	18.3	8.56	3.70	1.50	0.00	0.24	0.07	28.9	1.65	294	19	192	211
10- 7-64	1250	Middle	Surf.	500	23,000	62,000	14.1	9.36	2.92	5	25	0	0.15	0.05	0.00	0.02	0.06	0.16	7.6	0.00	66.2	96.8	24.3	8.78	6.22	7.35	2.40	0.00	0.36	0.04	24.2	2.04	213	22	144	166
12- 2-64	1315	Middle	Surf.	880	230	1,100	3.5	12.25	1.02	5	9.4	0	0.03	0.00	0.00	0.00	0.03	0.06	8.0	0.00	82.0	106	22.9	11.9	5.21	3.38	1.00	0.00	0.88	0.00	18.2	1.13	213	7	142	149
2-16-65	1545	Middle	Surf.	1,100	60	1,100	5.8	12.49	1.46	5	8.0	0	0.00	0.02	0.00	0.18	0.03	0.03	8.0	0.00	85.4	109	32.4	6.83	5.03	3.88	1.00	0.01	0.46	0.10	19.4	4.70	222	13	136	149
Maximum				1,100	23,000	62,000	27.0	12.49	2.92	15	25	0	0.26	0.05	0.00	0.24	0.08	0.32	8.6	5.00	114	142	34.6	18.3	8.56	8.23	2.40	0.02	0.88	0.10	41.3	4.70	312	39	195	223
Minimum				100	52	620	3.5	7.38	1.02	5	8	0	0.00	0.00	0.00	0.00	0.02	0.03	7.6	0.00	66.2	96.8	22.9	6.83	5.03	3.38	1.00	0.00	0.24	0.00	18.2	1.13	213	7	132	149
Median				315	170	1,100	22.2	8.60	1.92	8	11	0	0.10	0.02	0.00	0.02	0.03	0.14	8.0	0.00	88.5	111	28.5	11.1	6.02	5.79	1.89	0.00	0.36	0.01	29.7	1.98	247	21	150	172

CLINCH RIVER MILE 177.4

Date	Time ET 24-hr. Clock	Location in Stream[1]	Depth	Stream Disch.	Coliforms Fecal	Coliforms Total	Water Temp.	DO	5-Day 20°C. BOD	Color	Turb.	Threshold Odor	Nitrogen[2] Org.	Nitrogen[2] NH_3	Nitrogen[2] NO_2	Nitrogen[2] NO_3	Phosphate Sol.	Phosphate Tot.	pH	Alkalinity ($CaCO_3$) Phen.	Alkalinity ($CaCO_3$) Tot.	Total Hardness ($CaCO_3$)	Ca	Mg	Cl	Na	K	Iron Fe^{++}	Iron Tot.	Mn, Total	SO_4	SiO_2	Specific Conductance at 25°C.	Solids Sus.	Solids Dis.	Solids Tot.
			ft.		MPN/100 ml		°C.	mg/l	mg/l	PCU	JCU	No.	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l		mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	µmhos/cm	mg/l	mg/l	mg/l
6-22-67	0730	50	0.5	700	34	1,600	25.7	6.8	0.7	20	2		0.33	0.02	0.01	0.05	0.01	0.05	8.2	0	107	121	27.5	12.7	2	3.50	3.40	0.03	0.05	0.10	15	2.0	284	35	116	151
7-26-67	1210	50	0.5	690	2,400	3,600	23.6	7.9	0.9	10	31		0.16	0.00	0.02	0.40	0.03	0.17	8.2	0	124	121	38.5	15.0	3	3.80	2.10	0.01	0.48	0.07	12	19.0	354	21	174	195
8-14-67	1535	50	0.5	360	36	620	24.5	8.9	1.5	10	30		0.07	0.00	0.01	0.03	0.04	0.17	8.0	0	112	154	37.8	14.4	4	2.20	2.20	0.01	0.19	0.07	25	2.9	316	32	140	172
9-25-67	1005	50	0.5	190	26	6,200	17.8	7.9	0.5	0	3		0.34	0.07	0.02	0.02	0.07	0.16	7.9	0	135	166	38.0	17.3	6	7.50	2.50	0.01	0.27	0.03	22	2.5	384	12	168	180
10-18-67	1050	50	0.5	230	940	240,000	15.5	8.1	0.6	20	40		0.32	0.00	<0.01	0.09	0.09	0.16	8.2	0	128	171	44.0	14.5	6	6.30	3.30	0.03	1.00	0.03	25	2.1	356	1	196	197
11- 6-67	0900	50	0.5	760	220	1,600	7.5	11.0	0.9	30	18		0.20	0.01	0.01	0.46	0.06	0.11	8.0	0	110	139	37.3	11.3	6	6.30	2.80	0.06	0.24	0.09	35	4.0	320	20	150	170
2-13-68	1000	50	1.0	940	23	94	0.5		2.0	5	15		0.12	<0.01	0.02	0.41		0.29	8.2	0	135				10	10.2	7.7	<0.05			13	1.7	280	10	160	170
4-25-68	0920	50	1.0	4,300	2,300	11,000	13.0	9.1	1.6	25	35		0.30	0.07	0.01	0.41	0.12	0.24	7.9	0	85	93	22	9.0	3	2.3	4.0	<0.05	0.18	0.10	12	2.3	240	40	130	170

CLINCH RIVER MILE 151.9

Date	Time ET 24-hr. Clock	Location in Stream[1]	Depth	Stream Disch.	Coliforms Fecal	Coliforms Total	Water Temp.	DO	5-Day 20°C. BOD	Color	Turb.	Threshold Odor	Nitrogen[2] Org.	Nitrogen[2] NH_3	Nitrogen[2] NO_2	Nitrogen[2] NO_3	Phosphate Sol.	Phosphate Tot.	pH	Alkalinity ($CaCO_3$) Phen.	Alkalinity ($CaCO_3$) Tot.	Total Hardness ($CaCO_3$)	Ca	Mg	Cl	Na	K	Iron Fe^{++}	Iron Tot.	Mn, Total	SO_4	SiO_2	Specific Conductance at 25°C.	Solids Sus.	Solids Dis.	Solids Tot.
			ft.		MPN/100 ml		°C.	mg/l	mg/l	PCU	JCU	No.	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l		mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	µmhos/cm	mg/l	mg/l	mg/l
6-20-67	1630	50	0.5	790	2	360	21.2	6.2	0.6	20	8		0.54	0.00	0.01	0.01	0.01	0.06	8.2	0	99	100	20.0	12.2	3	3.20	3.50		0.16	0.04	13	2.7	262	15	84	99
7-26-67	1100	50	0.5	650	620	2,200	23.9	8.2	0.9	20	34		0.16	0.00	0.01	0.47	0.07	0.21	8.0	0	121	162	40.5	14.7	4	3.20	2.30	0.01	0.43	0.09	14	4.1	354	49	150	199
8-14-67	1430	50	0.5	520	11	220	24.9	10.0	1.5	10	30		0.24	0.01	0.01	0.01	0.13	0.13	8.2	0	112	157	40.0	13.8	4	4.00	2.20	0.01	0.35	0.05	19	2.6	281	31	138	169
9-25-67	0840	50	0.5	215	11	230	16.6	8.4	0.2	5	28		0.42	0.13	0.02	0.00	0.12	0.16	8.2	0	136	156	38.0	15.0	17	5.50	2.30	0.01	0.14	0.05	19	4.8	443	4	190	194
10-18-67	0925	50	0.5	250	110	16,000	16.0	8.7	1.9	25	57		0.03	0.00	0.01	<0.01	0.11	0.15	8.3	0	137	175	43.2	16.3	6	4.50	3.00	0.02	0.30	0.02	25	1.7	356	9	180	189
11- 6-67	0745	50	0.5	920	110	1,300	7.0	11.1	0.9	25	23		0.14	0.11	<0.01	0.44	0.08	0.14	8.1	0	128	148	40.8	11.3	4	3.80	2.50	0.03	0.30	0.13	29	3.5	320	16	173	189
2-13-68	0900	50	1.0	1,000	<2	81	0.5	14.3	1.8	<5	15		0.15	<0.01	0.02	0.38		0.26	8.1	0	111				4	3.3	1.1				9	1.5	250	10	150	160
4-25-68	1030	50	1.0	4,800	2,300	6,200	15.0	8.7	1.2	35	150		0.89	0.06	0.01	0.46	0.08	0.42	7.9	0	90	97	24	9.0	3	3.5	4.6	0.05	1.8	0.22	12	1.9	240	130	130	260

CLINCH RIVER MILE 79.8

Date	Time ET 24-hr. Clock	Location in Stream[1]	Depth	Stream Disch.	Coliforms Fecal	Coliforms Total	Water Temp.	DO	5-Day 20°C. BOD	Color	Turb.	Threshold Odor	Nitrogen[2] Org.	Nitrogen[2] NH_3	Nitrogen[2] NO_2	Nitrogen[2] NO_3	Phosphate Sol.	Phosphate Tot.	pH	Alkalinity ($CaCO_3$) Phen.	Alkalinity ($CaCO_3$) Tot.	Total Hardness ($CaCO_3$)	Ca	Mg	Cl	Na	K	Iron Fe^{++}	Iron Tot.	Mn, Total	SO_4	SiO_2	Specific Conductance at 25°C.	Solids Sus.	Solids Dis.	Solids Tot.
			ft.		MPN/100 ml		°C.	mg/l	mg/l	PCU	JCU	No.	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l		mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	µmhos/cm	mg/l	mg/l	mg/l
6-22-67	1055	Tailrace[3]	0.5	6,400	2	62	10.1	7.8	0.5	5	<5		0.37	0.00	0.01	0.43	0.01	0.01	7.8	0	89	115	27.8	11.0	11	3.00	1.30	0.10	0.10	0.06	10	4.8	240	0	112	112
7-27-67	0905	Tailrace	0.5	6,670	130	220	11.1	5.1	0.7	10	28		0.11	0.00	0.01	0.60	0.03	0.03	7.8	0	88	119	28.8	11.4	3	2.50	1.40	0.01	0.12	0.06	12	3.9	241	13	131	144
8-15-67	1050	Tailrace	0.5	8,500	6	130	14.0	2.9	1.2	15	6		0.08	0.13	0.01	0.48	0.01	0.01	7.6	0	10	129	32.8	11.4	3	4.20	1.40	0.01	0.07	0.04	8	3.8	235	26	102	128
9-26-67	1120	Tailrace	0.5	8,220	2	6	17.0	0.9	0.2	50	36		0.50	1.18	0.02	0.42	0.07	0.12	7.5	0	105	116	31.0	9.4	7	2.50	1.30	0.01	0.10	0.21	18	3.4	284	4	130	134
10-18-67	1820	Tailrace	0.5	7,220	11	11,000	18.0	2.3	0.3	30	43		0.27	0.09	0.01	0.23	0.06	0.11	7.7	0	105	128	35.0	9.3	2	2.20	1.40	0.02	0.80	0.43	16	4.2	249	1	143	144
11- 8-67	1515	Tailrace	0.5	2,220	6	23	16.0	6.7	0.3	10	15		0.14	0.18	<0.01	0.19	0.05	0.09	7.6	0	85	101	26.0	8.8	3	2.40	1.50	0.02	0.73	0.09	14		222	0	129	129
2-15-68	0920	Tailrace	1.0	6,390	3	23	1.0	11.2	1.2	10	15		0.25	0.06	0.02	0.54	0.04	0.18	8.2	0	103				2	2.7	1.2	<0.05			12	3.0	210	10	130	140
4-24-68	1700	Tailrace	1.0	0	160	620	6.0	10.5	<1.0	10	2		0.04	0.05	<0.01	0.80	0.05	0.05	7.8	0	92	96	23	9.5	3	1.7	3.8	<0.05	0.06	0.02	10	2.7	240			

CLINCH RIVER MILE 41.5[4]

CLINCH RIVER MILE 23.1

Date	Time ET 24-hr. Clock	Location in Stream[1]	Depth	Stream Disch.	Coliforms Fecal	Coliforms Total	Water Temp.	DO	5-Day 20°C. BOD	Color	Turb.	Threshold Odor	Nitrogen[2] Org.	Nitrogen[2] NH_3	Nitrogen[2] NO_2	Nitrogen[2] NO_3	Phosphate Sol.	Phosphate Tot.	pH	Alkalinity ($CaCO_3$) Phen.	Alkalinity ($CaCO_3$) Tot.	Total Hardness ($CaCO_3$)	Ca	Mg	Cl	Na	K	Iron Fe^{++}	Iron Tot.	Mn, Total	SO_4	SiO_2	Specific Conductance at 25°C.	Solids Sus.	Solids Dis.	Solids Tot.
			ft.		MPN/100 ml		°C.	mg/l	mg/l	PCU	JCU	No.	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l		mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	µmhos/cm	mg/l	mg/l	mg/l
6-23-67	1415	Tailrace[5]	0.5	16,500	94	940	18.1	8.6	0.0	5	14		0.40	0.01	0.02	0.40	0.01	0.11	7.8	0	96	128	27.7	14.4	2	2.00	3.00		0.47	0.20	12	4.3	253	27	121	148
7-28-67	1340	Tailrace	0.5	8,600	110	360	19.2	7.7	1.1	10	23		0.01	0.15	0.01	0.52	0.01	0.07	7.9	0	90	112	28.8	9.6	5	2.30	1.50	0.01	0.40	0.07	16	4.6	201	2	120	122
8-15-67	1535	Tailrace	0.5	15,260	3	230	17.5	7.9	0.9	15	31		0.09	0.09	0.01	0.47	0.05	0.25	7.5	0	92	124	31.8	10.8	9	2.20	1.40	0.00	0.26	0.04	14	3.7	230	20	122	142
9-26-67	1650	Tailrace	0.5	8,340	36	110	19.3	5.9	0.7	5	2		0.24	0.00	0.02	0.43	0.07	0.14	7.6	0	106	112	29.5	9.2	18	1.70	1.40	0.01	0.21	0.07	18	3.5	284	63	90	153
10-19-67	1305	Tailrace	0.5	8,340	16	3,400	17.0	6.2	1.6	10	8		0.34	0.17	0.03	0.31	0.06	0.16	7.9	0	100	125	34.0	9.3	2	2.60	1.50	0.01	0.22	0.04	13	3.6	284	8	132	140
11- 8-67	1155	Tailrace	0.5	9,000	62	160	15.0	8.1	0.3	10	9		0.13	0.12	0.01	0.23	0.01	0.13	7.8	0	97	115	31.0	9.1	3	2.80	1.60	0.02	0.17	0.45	14		266	15	98	113
2-16-68	0900	Tailrace	1.0	7,500	3	36	5.0	11.7	<1.0	5	10		0.25	0.11	0.02	0.57	0.06	0.12	7.2	0	111				3	2.3	1.0	<0.05			14	4.0	240		140	140
4-25-68	1815	Tailrace	1.0	0	<2	50	15.8	9.6	1.3	15	3		0.63	0.03	0.01	0.47	0.05	0.09	8.0	0	92	100	26	9.0	3	3.0	4.0	<0.05	0.19	0.04	12	1.1	230	10	100	110

1. Location in Stream: Percent distance from left bank looking downstream.
2. Nitrogen: Values shown are mg/l nitrogen in the forms listed.
3. Tailrace: Norris Dam.
4. Additional data on page V-18.
5. Tailrace: Melton Hill Dam.

CLINCH RIVER MILE 41.5

Date	Color	Turbidity	Alkalinity Phenol.	Alkalinity Total	Hardness as $CaCO_3$	pH	Specific Resistance	Cl	Ca	Mg	Na	K	Fe, Total	Mn, Total	NO_3	Kjeldahl Nitrogen	PO_4	SiO_2	SO_4	Solids Suspended	Solids Dissolved	Solids Total
	PCU	JCU	mg/1	mg/1	mg/1		ohms	mg/1	mg/1	mg/1	mg/1	mg/1	mg/1	mg/1	mg/1	mg/1	mg/1	mg/1	mg/1	mg/1	mg/1	mg/1
1960																						
11/13-19	12	3	0	101	110	7.7	-	5	26	11	3.0	1.3	0.2	0.0	0.5	0.3	0.0	-	14	5	316	321
11/20-26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11/27-12/3	22	15	0	95	115	7.9	-	4	30	10	4.2	1.8	0.5	0.0	1.1	0.5	0.1	4.5	12	10	171	181
12/4-10	-	6	0	91	124	7.7	5,000	6	26	14	3.9	1.7	0.1	0.0	0.7	0.3	0.0	3.9	17	0	197	197
12/11-17	13	2	0	95	110	8.0	4,888	5	24	12	3.6	3.2	0.6	0.0	1.1	0.1	0.5	3.5	10	0	248	248
12/18-24	8	6	0	95	112	8.1	5,028	5	27	11	3.0	1.4	0.1	0.0	1.2	1.6	0.0	2.2	10	48	92	140
12/25-31	22	5	0	93	90	8.0	6,944	4	23	8	3.3	0.9	0.2	0.0	0.6	0.4	0.3	3.4	13	20	123	143
1961																						
1/1-7	110	61	0	77	79	7.6	6,706	5	23	5	2.6	3.1	0.6	0.0	0.7	0.9	0.9	6.9	7	7	164	171
1/8-14	15	12	0	95	89	8.0	4,890	5	24	7	3.5	1.4	0.4	0.0	0.8	0.4	0.1	3.8	12	20	120	140
1/15-21	15	5	0	104	93	8.2	4,864	4	26	6	3.4	1.3	0.2	0.0	1.0	0.1	0.0	3.5	13	17	90	107
1/22-28	7	1	0	-	96	8.2	3,737	3	22	10	3.1	1.3	0.7	0.0	0.9	0.3	0.1	3.7	11	24	114	138
1/29-2/4	8	17	0	104	96	8.2	4,354	4	24	9	6.0	2.0	1.3	0.2	0.9	0.3	0.1	2.8	13	34	156	190
2/5-11	25	30	0	106	98	8.0	4,242	3	31	5	5.6	2.3	1.7	0.4	0.9	1.3	0.3	4.3	16	269	87	356
2/12-18	25	13	0	102	95	8.2	4,445	4	25	8	4.2	2.6	1.8	0.2	0.4	0.4	0.0	4.2	16	61	127	188
2/19-25	134	126	0	80	75	7.7	5,439	5	21	5	3.6	4.5	8.6	0.5	0.9	0.8	0.8	7.1	21	408	109	517
2/26-3/4	56	57	0	92	87	7.4	5,261	5	22	8	2.6	3.0	6.0	0.0	0.4	0.8	0.2	5.5	21	301	94	395
3/5-11	66	52	0	88	84	7.7	4,991	4	22	7	2.2	3.6	7.0	0.6	0.4	0.7	0.3	6.2	18	385	93	478
3/12-18	30	24	0	100	102	7.9	4,572	4	24	10	2.5	1.3	2.9	0.0	1.1	0.6	0.2	6.3	15	97	139	236
3/19-25	11	13	0	94	91	8.0	4,702	4	22	8	2.7	1.3	1.3	0.0	0.9	0.4	0.1	6.2	15	74	128	202
3/26-4/1	27	20	0	96	106	8.0	4,564	3	23	12	2.6	1.4	1.8	0.2	1.2	0.7	0.3	5.4	14	77	133	210
4/2-8	34	20	6	92	86	8.5	4,027	5	24	6	3.6	1.4	2.1	0.2	1.6	0.6	0.4	6.4	18	167	148	315
4/9-15	39	19	0	88	107	8.0	4,603	5	26	10	2.7	1.7	1.0	0.1	1.6	0.5	0.2	7.1	15	115	167	282
4/16-22	18	13	0	98	93	7.9	5,277	4	26	7	3.9	1.0	1.8	0.1	0.4	0.5	0.2	6.0	8	84	146	230
4/23-29	15	17	0	92	89	7.9	4,861	4	23	7	3.1	1.1	2.9	0.3	1.0	0.5	0.2	6.9	2	129	136	265
5/1-31	10	15	0	96	85	7.8	5,293	4	18	10	1.7	1.1	2.1	0.1	0.4	0.5	0.1	6.8	14	90	132	222
6/1-30	27	10	0	90	78	7.1	5,409	5	23	5	5.2	1.4	5.2	0.2	0.5	1.1	0.2	7.7	12	274	67	341
7/1-31	15	35	0	86	87	7.4	-	5	25	6	1.0	1.1	4.2	0.2	1.9	0.8	0.3	8.5	5	192	163	355
8/1-31	0	16	0	92	84	7.4	-	9	25	5	2.3	1.6	1.2	0.4	0.2	0.7	0.3	7.5	5	163	95	258
9/24-30	8	17	0	98	129	7.9	-	5	30	10	2.0	1.2	1.6	0.4	1.2	1.3	0.1	5.8	10	105	150	255
10/1-31	12	12	0	94	122	7.8	5,542	5	32	10	1.8	1.6	1.4	0.8	0.6	0.6	0.1	6.2	11	91	114	205
11/1-30	8	19	0	102	131	7.5	5,422	4	33	12	3.1	1.3	1.5	0.8	0.8	0.6	0.1	3.7	5	122	120	242
12/1-31	20	63	0	96	116	7.7	6,862	2	33	11	3.5	2.3	7.5	0.3	1.8	0.6	0.1	5.5	2	296	132	428
1962																						
1/1-31	25	50	0	107	113	7.9	3,960	11	32	8	3.2	1.8	6.3	0.6	1.6	0.8	0.2	4.7	11	312	136	448
2/1-28	34	68	0	97	110	7.6	5,468	6	25	11	1.6	2.0	9.2	0.5	1.6	0.9	0.2	6.6	23	557	120	677
3/1-31	30	23	0	105	118	7.9	4,982	5	28	12	1.6	2.0	3.4	0.3	0.3	0.6	0.1	5.8	12	213	122	335
4/1-30	10	29	0	99	96	7.5	4,120	4	27	7	2.8	1.3	4.5	0.2	1.5	0.6	0.1	7.5	10	122	129	251
5/1-31	8	6	0	88	101	7.9	8,380	3	26	9	1.6	0.8	0.9	0.1	2.4	1.1	0.1	-	7	79	98	177
6/1-30	3	27	0	86	116	7.5	5,331	7	36	6	1.8	1.3	1.1	0.2	1.9	0.8	0.1	7.9	16	103	119	222
7/1-31	8	13	0	86	106	8.2	5,331	5	27	9	2.2	1.4	2.1	0.3	1.4	0.7	0.1	7.5	9	42	201	243
8/1-31	5	12	0	96	112	7.7	7,475	1	29	10	1.8	1.3	2.5	0.2	0.9	0.5	0.2	6.8	11	96	114	210
9/1-30	3	24	0	95	119	8.0	6,260	4	30	11	1.9	1.5	3.2	0.7	0.9	0.7	0.1	7.4	8	154	113	267
10/1-31	3	19	0	107	121	7.5	4,500	4	32	10	2.7	1.9	1.8	1.1	1.0	0.5	0.2	5.8	16	83	105	188
11/1-30	18	10	0	97	148	7.7	3,800	4	30	18	1.0	1.7	1.7	0.6	0.6	1.3	0.3	-	12	73	115	188

* Data from Clinch River Study, Subcommittee on Water Sampling and Analysis. Analyses were performed by Tennessee Department of Public Health. Samples are daily grab samples composited for weekly or monthly periods as indicated.

CLINCH RIVER MILE 21.7

Date	Time	Location in Stream	Depth	Total Coliforms	Temp.	DO	5-day 20°C. BOD	Color	Turb.	Threshold Odor	Alkalinity Phen.	Alkalinity Tot.	Hard. $CaCO_3$	pH	Spec. Resistance	Cl
1961			ft.	MPN/100 ml	°C.	mg/l	mg/l	PCU	JCU	No.	mg/l	mg/l	mg/l		ohms	mg/l
6-6	10:50 a.	Middle	Surf.	620	20.0	7.60	2.43	10	25	None	0.00	97.1	105	7.7	4,800	2.19
7-11	9:45 a.	Middle	Surf.	1,600	14.0	9.69	0.99	10	20	None	0.00	87.0	105	7.8	5,300	1.92
8-16	9:16 a.	Middle	Surf.	2,300	16.1	8.68	1.40	5	10	None	0.00	93.5	110	7.5	5,100	3.32
9-21	9:30 a.	Middle	Surf.	620	18.5	8.49	0.83	0	4	None	0.00	108	12.1	8.2	4,500	2.28
10-25	9:40 a.	Middle	Surf.	2,700	19.0	7.63	1.00	0	7	None	0.00	101	115	8.0	4,700	1.91
11-20	8:50 a.	Middle	Surf.	3,600	12.5	9.35	1.12	5	4	1+	0.00	104	110	8.0	4,600	2.69
12-18	9:21 a.	Middle	Surf.	2,100	10.0	10.04	2.67	5	180	1+	0.00	64.0	81.8	7.6	6,100	2.35
1962																
1-24	9:15 a.	Middle	Surf.	2,700	7.2	10.81	1.26	10	65	None	0.00	91.9	106	7.8	5,000	1.71
2-21	10:00 a.	Middle	Surf.	620	6.0	11.48	1.49	5	30	None	0.00	93.5	107	7.3	4,600	1.20
3-28	9:15 a.	Middle	Surf.	1,100	10.1	10.30	1.73	5	20	None	0.00	88.3	100	7.9	4,800	2.45
5-7	8:30 a.	Middle	Surf.	600	11.5	10.17	1.19	5	10	None	0.00	85.5	91.9	8.1	4,900	3.00
6-6	2:45 p.	Middle	Surf.	3,600	15.5	9.48	2.49	5	20	None	0.00	86.0	92.0	7.9	5,200	2.64
Maximum					20.0	11.48	2.67	10	180	1+	0.00	108	115	8.2	6,100	3.32
Minimum					6.0	7.60	0.83	0	4	None	0.00	64.0	12.1	7.5	4,500	1.20

CLINCH RIVER MILE 9.0

Date	Time	Location in Stream	Depth	Total Coliforms	Temp.	DO	5-day 20°C. BOD	Color	Turb.	Threshold Odor	Alkalinity Phen.	Alkalinity Tot.	Hard. $CaCO_3$	pH	Spec. Resistance	Cl	Nitrite + Nitrate Nitrogen	PO_4
1961			ft.	MPN/100 ml	°C.	mg/l	mg/l	PCU	JCU	No.	mg/l	mg/l	mg/l		ohms	mg/l	mg/l	mg/l
6-6	4:00 p.	Middle	Surf.	360	20.6	9.83	2.35	5	20	None	0.00	86.0	96.3	8.2	5,400	2.43	0.22	0.00
			5		19.3									8.2				
			10		18.5									8.2				
			20		18.0									8.2				
			30		18.0									8.0				
7-11	2:10 p.	Middle	Surf.	600	16.3	9.95	1.67	10	15	None	0.00	90.4	108	7.8	5,200	1.47	0.10	0.21
			5		16.3	9.86								7.8				
			10		16.3	9.86								7.8				
			20		16.1	9.86								7.9				
			32		15.9	9.90								7.8				
8-16	1:40 p.	Middle	Surf.	1,100	19.5	8.87	-	5	15	None	0.00	91.5	110	7.6	5,000	3.24	0.00	0.12
			5		18.8									7.4				
			10		18.5									7.4				
			20		18.5									7.5				
			30		18.0									7.6				
9-21	1:15 p.	Middle	Surf.	940	21.3	8.77	0.82	0	5	None	0.00	108	123	8.0	4,500	1.53	0.08	0.09
			5		20.4									7.9				
			10		19.8									8.1				
			20		19.2									7.9				
			30		19.0									8.0				
10-25	1:55 p.	Middle	Surf.	3,600	19.8	7.84	1.26	0	8	None	0.00	101	118	7.9	4,600	2.52	0.10	0.07
			4		19.6									7.9				
			9		19.5									8.0				
			19		19.5									8.0				
			29		19.5									8.0				
11-20	12:30 p.	Middle	Surf.	1,600	14.0	8.59	0.64	10	15	None	0.00	101	112	7.9	4,500	2.73	0.06	0.12
			7		13.7									7.8				
			17		13.2									7.7				
			27		13.2									7.8				
12-18	2:40 p.	Middle	Surf.	11,000	10.5	9.61	1.79	5	170	1+	0.00	46.4	72.3	7.7	6,600	2.33	0.10	0.64
1962																		
1-24	2:05 p.	Middle	Surf.	6,200	7.6	10.72	1.39	5	100	1+	0.00	87.8	102	8.0	5,300	1.99	0.05	0.24
			5		7.6									8.0				
			15		7.6									8.0				
			25		7.6									7.9				
2-21	2:15 p.	Middle	Surf.	620	7.0	11.46	1.55	5	25	None	0.00	94.0	107	8.0	4,600	1.41	0.22	0.15
			5		7.0									8.0				
			15		7.0									8.0				
			25		7.0									8.1				
3-28	1:15 p.	Middle	Surf.	5,500	12.9	10.10	1.03	5	20	None	0.00	76.5	90.4	7.8	5,100	2.67	0.05	0.18
			5		12.4									7.8				
			15		12.1									7.8				
			25		12.1									7.9				
5-7	12:35 p.	Middle	Surf.	600	14.2	10.97	0.80	5	15	None	2.0	84.5	92.5	8.4	5,100	2.86	0.17	0.02
			6		13.5									8.4				
			11		13.3									8.4				
			21		13.3									8.4				
			31		13.3									8.4				
6-6	10:42 a.	Middle	Surf.	620	19.0	9.29	1.33	5	15	None	0.00	87.4	93.7	8.3	5,100	2.33	0.07	0.13
			6		19.0									8.3				
			11		18.9									8.2				
			21		19.2									8.2				
			31		19.3									8.1				
Maximum					21.3	11.46	2.35	10	170	1+	2.0	108	123	8.4	6,600	3.24	0.22	0.64
Minimum					7.0	7.84	0.64	0	5	None	0.00	46.4	72.3	7.4	4,500	1.41	0.00	0.00

CLINCH RIVER MILE 5.0

Date	Time	Location in Stream	Depth	Total Coliforms	Temp.	DO	5-day 20°C. BOD	Color	Turb.	Threshold Odor	Alkalinity Phen.	Alkalinity Tot.	Hard. $CaCO_3$	pH	Spec. Resistance	Cl
1961			ft.	MPN/100 ml	°C.	mg/l	mg/l	PCU	JCU	No.	mg/l	mg/l	mg/l		ohms	mg/l
6-6	4:30 p.	Middle	Surf.	1,100	24.2	9.84	3.46	5	10	None	0.00	85.0	97.6	8.3	5,400	2.82
			5		23.0	9.85								8.3		
			10		21.5	9.54								8.2		
			20		19.5	9.12								8.2		
			30		18.6	9.20								8.2		
			42		18.0	9.32	1.74	5	20	None	0.00	85.9	100	8.2	5,200	2.67
7-11	2:37 p.	Middle	Surf.	360	16.5	9.75	1.26	15	20	1+	0.00	90.4	105	8.0	4,900	1.71
			5		16.2	9.71								8.0		
			10		15.9	9.67								8.0		
			20		15.9	9.48								8.0		
			30		15.9	9.47								8.0		
			40		15.9	9.56	0.68	15	20	2	0.00	52.2	109	8.0	4,800	1.57
8-16	2:04 p.	Middle	Surf.	26	27.6	9.07	2.79	5	6	1+	0.00	38.4	57.6	7.8	8,700	3.76
			5		22.1	8.84								7.1		
			10		20.9	8.80								7.4		
			20		20.7	8.90								7.6		
			30		19.0	8.78								7.6		
			40		18.4	8.48	0.77	5	110	None	0.00	89.0	111	7.5	5,100	3.34
9-21	1:33 p.	Middle	Surf.	80	25.0	9.66	1.78	0	1	None	0.00	99.4	116	8.2	4,500	4.33
			5		24.9	9.86								8.3		
			10		23.8	9.86								8.3		
			20		20.6	9.01								7.9		
			30		20.0	8.65								8.0		
			40		19.2	8.54	0.64	0	10	None	0.00	105	120	7.9	4,500	2.27
10-25	2:25 p.	Middle	Surf.	1,100	19.2	7.95	1.04	0	8	None	0.00	102	116	7.9	4,600	3.13
			4		19.1	7.92								7.9		
			9		19.1	7.92								7.9		
			19		19.0	7.75								7.9		
			29		18.9	7.64								7.9		
			39		18.9	7.62	1.49	5	15	None	0.00	101	120	7.9	4,600	2.73
11-20	1:04 p.	Middle	Surf.	2,300	13.6	8.57	-	10	15	None	0.00	-	113	7.8	4,400	2.92
			7		13.1	8.50								7.8		
			17		13.1	8.55								7.9		
			27		13.1	8.52								7.8		
			37		13.1	8.48	1.87	10	15	None	0.00	102	113	7.8	4,400	3.02
12-18	3:00 p.	Middle	Surf.	2,300	10.2	9.57	1.89	5	190	1+	0.00	11.7	62.9	7.5	7,600	1.59
			6		10.2	9.54								7.5		
			16		10.2	9.55								7.6		
			26		10.2	9.55								7.6		
			36		10.2	9.54	1.83	5	160	1+	0.00	47.2	62.7	7.6	7,600	1.58
1962																
1-24	2:40 p.	Middle	Surf.	3,600	7.6	10.67	1.27	5	120	None	0.00	88.7	104	7.2	5,000	2.14
			5		7.6	10.67								7.3		
			15		7.6	10.63								7.4		
			25		7.6	-								7.4		
			35		7.6	10.67	1.70	5	100	None	0.00	89.1	103	7.4	4,900	1.87
2-21	2:30 p.	Middle	Surf.	1,100	7.8	11.41	1.39	5	20	None	0.00	94.9	107	8.1	4,600	1.61
			5		7.8	11.36								8.0		
			15		7.8	11.32								8.0		
			25		7.8	11.40								8.0		
			35		7.8	11.32	1.34	5	25	None	0.00	94.8	107	8.1	4,600	1.36
3-28	1:37 p.	Middle	Surf.	360	12.8	10.18	1.37	5	25	None	0.00	79.6	92.8	7.9	5,100	2.39
			5		11.9	10.33								8.0		
			15		11.1	10.21								8.0		
			25		11.1	10.20								7.9		
			35		11.1	10.07	1.12	5	25	None	0.00	80.4	93.2	7.9	5,100	2.48
5-7	1:00 p.	Middle	Surf.	210	16.6	10.38	0.99	5	20	None	0.00	82.0	92.7	8.3	5,200	3.00
			6		13.6	10.51								8.2		
			11		13.2	10.56								8.2		
			21		13.0	10.47								8.3		
			31		13.0	10.47								8.3		
			41		12.8	10.40	0.57	5	15	None	1.80	85.3	92.7	8.4	5,100	3.04
6-6	11:15 a.	Middle	Surf.	36	-	8.88	1.69	5	8	None	1.70	61.2	72.9	8.4	6,100	2.69
			6		24.9	8.91								8.4		
			11		21.3	9.00								8.2		
			21		19.0	9.17								8.2		
			31		19.0	9.11								8.1		
			41		19.0	9.10	1.62	5	20	None	0.00	81.0	88.8	8.1	5,400	2.51
Maximum					27.6	11.41	3.46	15	190	2	1.80	105	120	8.4	8,700	4.33
Minimum					7.6	7.62	0.57	0	1	None	0.00	11.7	57.6	7.1	4,400	1.36

CLINCH RIVER MILE 3.5

Date	Time	Location in Stream	Depth	Total Coliforms	Temp.	DO	5-day 20°C. BOD	Color	Turb.	Threshold Odor	Alkalinity Phen.	Alkalinity Tot.	Hard. $CaCO_3$	pH	Spec. Resistance	Cl
1961			ft.	MPN/100 ml	°C.	mg/l	mg/l	PCU	JCU	No.	mg/l	mg/l	mg/l		ohms	mg/l
6-6	4:44 p.	Middle	Surf.	52	24.9	10.24	3.04	5	9	None	2.00	73.6	88.3	8.4	7,500	2.53
			5		24.0	10.29								8.6		
			10		23.8	-								8.5		
			20		22.2	9.79								8.4		
			30		20.1	9.62								8.3		
			40		19.0	9.33	1.77	10	20	None	0.00	87.0	96.3	8.3	5,400	2.82
7-11	2:55 p.	Middle	Surf.	620	24.8	9.76	2.48	10	8	None	0.00	42.4	63.3	8.2	7,800	2.06
			5		22.3	9.77								8.1		
			10		21.1	9.41								8.0		
			20		17.8	9.48								8.0		
			30		17.0	9.47								8.0		
			40		17.0	9.57	0.88	10	25	None	0.00	88.0	106	8.0	5,200	1.67
8-16	2:28 p.	Middle	Surf.	110	27.5	9.20	2.13	5	4	None	0.00	31.8	50.8	8.0	9,200	3.37
			5		27.0	9.55								7.6		
			10		25.1	9.37								7.4		
			20		21.0	8.61								7.4		
			30		19.8	8.61								7.4		
			40		19.3	8.57	1.52	5	20	None	0.00	88.3	107	7.5	5,100	3.06
9-21	2:00 p.	Middle	Surf.	26	26.5	8.52	0.93	0	3	None	0.00	100	118	8.0	4,600	3.65
			5		25.0	8.52								8.1		
			10		24.2	8.63								8.1		
			20		22.1	8.37								8.1		
			30		20.5	8.41								8.0		
			40		19.8	8.59	0.52	0	6	None	0.00	106	122	8.1	4,400	2.12
10-25	2:50 p.	Middle	Surf.	620	19.9	8.43	2.14	0	8	None	0.00	102	116	7.9	4,600	3.58
			4		19.7	8.29								7.9		
			9		19.6	8.22								8.0		
			19		19.3	7.91								8.0		
			29		19.1	7.69								8.0		
			39		19.1	7.69	0.99	5	9	None	0.00	102	119	8.0	4,600	3.73
11-20	1:23 p.	Middle	Surf.	600	16.3	8.52	0.75	5	9	1+	0.00	105	114	7.9	4,200	3.12
			7		16.0	8.64								7.9		
			17		15.0	8.46								7.9		
			27		13.8	8.42								7.8		
			37		13.8	8.43	0.76	10	25	None	0.00	105	114	7.8	4,300	3.13
12-18	3:20 p.	Middle	Surf.	3,600	10.5	9.85	1.46	5	120	None	0.00	23.3	35.4	7.4	12,300	1.62
			6		10.5	9.87								7.4		
			16		10.4	9.88								7.2		
			26		10.4	9.92								7.1		
			36		10.4	9.87	1.78	5	90	1+	0.00	23.7	22.1	7.0	18,500	1.86
1962																
1-24	3:00 p.	Middle	Surf.	3,600	7.6	10.91	1.86	5	100	None	0.00	68.7	81.8	7.1	6,000	1.79
			5		7.6	10.91								7.1		
			15		7.6	10.92								7.2		
			25		7.6	-								7.1		
			35		7.6	10.91	2.57	5	45	None	0.00	67.3	80.0	7.2	6,200	1.64
2-21	2:55 p.	Middle	Surf.	2,300	7.7	11.23	1.18	5	20	None	0.00	93.0	107	8.1	4,500	1.39
			5		7.7	11.18								8.1		
			15		7.7	11.16								8.1		
			25		7.7	11.75								8.1		
			35		7.7	11.18	0.97	5	25	None	0.00	94.4	108	8.0	4,500	1.49

CLINCH RIVER MILE 3.5
(CONTINUED)

Date	Time	Location in Stream	Depth	Total Coliforms	Temp.	DO	5-day 20°C. BOD	Color	Turb.	Threshold Odor	Alkalinity Phen.	Alkalinity Tot.	Hard. $CaCO_3$	pH	Spec. Resistance	Cl
1962			ft.	MPN/100 ml	°C.	mg/l	mg/l	PCU	JCU	No.	mg/l	mg/l	mg/l		ohms	mg/l
3-28	1:53 p.	Middle	Surf.	3,600	13.8	10.26	1.44	5	20	None	0.00	23.8	35.2	7.6	12,000	2.06
			5		13.8	10.23								7.5		
			15		11.2	10.28								7.8		
			25		11.0	10.18								7.8		
			35		11.0	10.33	1.32	5	30	None	0.00	73.4	85.8	7.8	5,500	2.39
5-7	1:16 p.	Middle	Surf.	60	22.0	9.38	1.30	5	8	None	0.00	46.0	58.6	8.3	7,300	3.27
			6		19.6	9.78								8.3		
			11		14.0	10.67								8.2		
			21		13.8	10.67								8.2		
			31		13.6	10.66								8.3		
			41		13.6	10.59	0.51	5	15	None	0.00	84.7	91.1	8.3	5,100	3.27
6-6	12:35 p.	Middle	Surf.	23	27.0	8.60	1.70	5	8	None	1.60	55.2	70.0	8.4	6,300	2.33
			6		26.8	9.11								8.4		
			11		24.9	8.88								8.2		
			21		20.4	9.06								8.1		
			31		19.6	9.20								8.1		
			41		18.7	9.26	1.43	5	20	None	0.00	85.0	92.4	8.1	5,200	2.13
Maximum					27.5	11.75	3.04	10	120	1+	2.00	106	122	8.6	18,500	3.73
Minimum					7.6	7.69	0.51	0	3	None	0.00	23.3	22.1	7.0	4,200	1.39

CLINCH RIVER MILE 0.1

Date	Time	Location in Stream	Depth	Total Coliforms	Temp.	DO	5-day 20°C. BOD	Color	Turb.	Threshold Odor	Alkalinity Phen.	Alkalinity Tot.	Hard. $CaCO_3$	pH	Spec. Resistance	Cl
1961			ft.	MPN/100 ml	°C.	mg/l	mg/l	PCU	JCU	No.	mg/l	mg/l	mg/l		ohms	mg/l
6-6	1:25 p.	Left	Surf.	26	27.0	9.42	1.60	5	10	None	0.00	84.6	89.4	8.1	7,500	3.79
			6		24.2	8.94								8.0		
			11		22.2	8.21								7.9		
			16		21.4	8.91	1.22	10	10	1+	0.00	76.3	82.6	8.0	5,400	13.6
			26		20.8	6.98								7.6		
			36		18.1	6.90	1.27	10	20	None	0.00	54.0	93.8	7.9	6,000	5.59
7-11	9:50 a.	Left	Surf.	360	22.7	8.47	0.75	10	7	None	0.00	74.7	92.4	7.9	5,500	4.03
			6		22.5	8.39								7.9		
			11		22.4	8.01								7.9		
			16		22.1	7.88	1.25	10	15	None	0.00	71.0	92.9	7.8	5,600	6.19
			26		21.8	8.03								8.1		
			36		16.2	9.07	1.61	10	15	None	0.00	81.3	98.3	7.8	5,300	1.66
8-16	9:10 a.	Left	Surf.	620	25.0	8.28	1.31	5	10	None	0.00	83.7	102	8.3	5,200	3.63
			6		23.4	8.09								8.2		
			11		23.1	7.26								7.9		
			16		22.6	6.00	1.03	5	15	4	0.00	56.1	89.3	7.9	5,200	22.1
			26		22.4	6.02								8.0		
			36		17.9	6.86	1.17	10	15	None	0.00	63.1	88.4	8.0	4,900	19.9
9-21	-	Left	Surf.	26	24.0	8.54	0.94	0	3	None	0.00	92.9	114	8.3	4,600	5.72
			5		23.9	8.27								7.9		
			10		23.4	7.84								8.1		
			15		22.8	6.93	1.29	5	9	None	0.00	51.5	76.4	7.6	5,400	19.8
			25		21.9	7.15								7.8		
			35		20.4	8.18	0.70	5	15	None	0.00	106	122	8.2	4,500	2.52
10-25	10:30 a.	Left	Surf.	230	21.0	8.11	1.00	5	6	None	0.00	99.5	116	8.0	4,600	3.19
			4		20.5	8.04								8.0		
			9		18.8	7.51								7.9		
			14		18.6	7.43	-	5	8	None	0.00	102	117	8.0	4,600	4.05
			24		18.3	7.37								8.0		
			34		18.1	7.22	0.89	5	20	None	0.00	103	117	8.0	4,700	3.32
11-20	9:35 a.	Left	Surf.	360	17.0	8.21	1.11	5	7	None	0.00	97.7	107	8.0	4,500	0.81
			7		17.0	8.12								-		
			12		16.9	8.13	0.83	5	7	None	0.00	95.3	103	-	4,500	6.28
			22		14.6	7.48								-		
			32		14.1	7.44	1.26	15	30	None	0.00	45.6	76.3	-	4,300	30.6
			40		14.1	7.35								-		
12-18	10:35 a.	Left	Surf.	11,000	10.4	10.22	0.85	10	110	None	0.00	30.5	33.9	7.7	12,500	2.05
			6		10.4	10.31								-		
			11		10.4	10.24	0.93	10	100	None	0.00	21.2	33.9	7.6	12,500	2.04
			21		10.4	10.24								-		
			31		10.4	10.24	0.87	10	110	None	0.00	21.0	36.3	7.5	12,000	2.22
			40		10.4	10.24								-		
1962																
1-24	10:25 a.	Left	Surf.	620	7.9	11.21	0.89	5	35	None	0.00	44.9	58.1	7.1	8,200	2.57
			7		7.9	11.21								7.3		
			12		7.9	11.15	1.10	5	35	None	0.00	48.5	59.8	7.1	7,900	2.09
			22		7.9	11.19								7.2		
			32		7.9	11.22	1.19	5	30	None	0.00	48.8	62.9	7.1	7,700	1.86
2-21	10:50 a.	Left	Surf.	1,600	10.8	10.75	0.79	10	20	None	0.00	71.5	84.5	7.8	5,700	1.72
			5		10.8	10.58								7.9		
			10		10.8	10.68	0.86	5	20	None	0.00	83.2	96.2	7.8	5,100	1.51
			20		10.8	10.91								7.8		
			30		9.4	10.94	1.30	5	20	None	0.00	88.1	101	7.9	4,800	1.51
			37		9.4	-								-		
3-28	10:20 a.	Left	Surf.	2,200	14.0	10.30	0.71	5	20	None	0.00	34.6	45.7	7.6	9,800	2.06
			5		13.7	10.30								7.7		
			10		13.4	-	1.26	5	20	None	0.00	36.5	48.9	7.7	9,300	2.15
			20		12.1	10.26								7.8		
			30		11.4	10.28	0.60	5	20	None	0.00	66.4	77.5	7.8	6,100	2.49
5-7	9:10 a.	Left	Surf.	600	18.9	9.66	1.38	5	10	None	0.00	77.5	84.8	7.4	5,300	3.27
			6		18.8	10.00								7.3		
			11		18.8	9.06								7.4		
			16		18.8	9.66	1.18	5	15	None	0.00	69.6	77.5	7.4	5,600	3.72
			26		18.7	9.29								7.4		
			36		15.3	10.07	1.01	5	15	None	0.00	78.5	85.7	7.6	5,200	3.40
			48		15.2	10.11								7.4		
6-6	12:40 p.	Left	Surf.	160	25.0	8.91	1.20	5	10	None	0.00	79.4	87.3	8.1	5,300	4.06
			6		23.2	8.61								8.0		
			11		23.0	8.38								7.9		
			16		22.5	8.14	1.15	5	20	None	0.00	73.4	84.1	7.9	5,200	6.59
			26		21.2	8.18								7.8		
			36		21.0	7.89	1.20	5	20	None	0.00	67.7	77.6	8.0	5,500	9.21
Maximum					27.0	11.22	1.61	15	110	4	0.00	106	122	8.3	12,500	30.6
Minimum					7.9	6.00	0.60	0	3	None	0.00	21.0	33.9	7.1	4,300	0.81

GUEST RIVER MILE 26.5

Date	Time ES 24 hr. Clock	Location in Stream	Depth ft.	Stream Disch. cfs	Coliforms Fecal MPN/100ml	Coliforms Total MPN/100ml	Temp. °C.	DO mg/l	5-day 20° C. BOD mg/l	Color PCU	Turb. JCU	Threshold Odor No.	Nitrogens Org.N mg/l	Nitrogens NH_3-N mg/l	Nitrogens NO_2-N mg/l	Nitrogens NO_3-N mg/l	Phosphates Sol. mg/l	Phosphates Tot. mg/l	pH	Alkalinity $CaCO_3$ Phen. mg/l	Alkalinity $CaCO_3$ T. mg/l	Total Hardness $CaCO_3$ mg/l	Ca mg/l	Mg mg/l	Cl mg/l	Na mg/l	K mg/l	Iron Fe^{++} mg/l	Iron Tot. mg/l	Mn. Total mg/l	SO_4 mg/l	SiO_2 mg/l	Specific Conductance at 25° C. Micromho/cm	Solids Sus. mg/l	Solids Dis. mg/l	Solids Tot. mg/l
5-11-64	1100	Middle	Surf.	6	1,600	3,600	17.1	9.35	0.99	15	4.3	0	0.09	0.00	0.00	0.00	0.01	0.05	7.4	0.00	11.8	46.7	13.9	3.78	4.09	2.80	1.33	0.00	0.33	0.00	37.7	6.80	125	15	81	96
6-14-64	920	Middle	Surf.	5	2,100	23,000	19.3	7.66	1.32	10	39.	0	0.06	0.01	0.00	0.00	0.05	0.17	7.0	0	13.9	71.8	14.4	10.7	3.68	3.15	1.67	0.00	0.91	0.01	76.8	5.96	192	35	139	174
7-14-64	900	Middle	Surf.	3	16,000	36,000	18.0	8.13	1.56	10	27.	1	0.12	0.00	0.00	0.18	0.09	0.11	7.0	0	12.0	63.3	14.5	6.61	3.04	3.00	2.00	0.03	1.00	0.00	49.0	5.64	164	35	116	151
8- 4-64	830	Middle	Surf.	3	16,000	140,000	20.9	7.24	1.14	5	140	0	0.24	0.01	0.00	0.00	0.06	0.32	7.0	0	19.8	105	22.7	11.8	3.52	3.00	2.65	0.00	3.98	0.00	109	5.68	244	125	168	293
8-25-64	915	Middle	Surf.	1	11,000	23,000	19.0	7.48	1.30	5	12	0	0.24	0.00	0.00	0.00	0.00	0.15	7.7	0	28.0	105	21.5	12.5	4.92	2.39	2.20	0.03	0.54	0.28	39.5	3.30	244	23	181	204
10- 7-64	945	Middle	Surf.	11	34,000	34,000	8.2	8.34	2.49	5	7.6	1	0.05	0.06	0.00	0.02	0.03	0.04	6.6	0	8.2	53.4	10.4	6.68	5.03	3.70	2.20	0.07	0.32	0.52	39.5	5.85	130	4	106	110
12- 2-64	1020	Middle	Surf.	16	210	2,300	1.7	12.35	1.29	5	6.0	0	0.00	0.00	0.00	0.00	0.03	0.03	7.0	0	8.0	41.6	12.9	2.29	4.71	2.52	0.83	0.09	0.36	0.16	26.6	0.28	103	19	68	87
2-16-65	1015	Middle	Surf.	15	550	1,600	2.4	12.80	0.64	5	10	0	0.00	0.00	0.00	0.28	0.06	0.06	3.4	0	0.00	41.4	7.52	5.51	5.03	2.39	0.83	0.08	1.84	0.04	39.8	1.91	263	22	100	122
Maximum				16	34,000	140,000	20.9	12.80	2.49	15	140	1	0.24	0.06	0.00	0.28	0.09	0.32	7.7		28.0	105	22.7	12.5	5.03	3.70	2.65	0.09	3.98	0.52	109.	6.80	263	125	181	293
Minimum				1	210	1,600	1.7	7.24	0.64	5	4.3	0	0.00	0.00	0.00	0.00	0.00	0.03	3.4		0.0	41.4	7.52	2.29	3.04	2.39	0.83	0.00	0.32	0.00	26.6	0.28	103	4	68	87
Median				6	6,550	23,000	17.6	8.24	1.30	5	11.0	0	0.08	0.00	0.00	0.00	0.04	0.09	7.0		11.9	58.4	14.2	6.65	4.40	2.90	1.84	0.03	0.73	0.03	39.7	5.66	178	23	111	137

GUEST RIVER MILE 20.4

6- 8-67	1350	50	0.5	28	120	310	17.8	8.6	2.2	5			0.27	0.00	0.04	0.50	0.03	0.08	7.3	-	-													26	138	164
7- 3-67	1130	50	0.5	25	3,500	19,000	20.7	7.8	1.6	5			0.58	0.00	0.01	0.26	0.01	0.34	7.4	0	24													111	185	296
8- 1-67	1120	50	0.5	72	70,000	140,000	18.9	8.5	0.8	15			1.15	0.00	0.03	0.18	0.02	1.42	6.9	-	-													814	104	918
8-30-67	1135	50	0.2	20	1,100	-	18.5	8.6	1.7	5			0.22	0.00	0.02	0.32	0.13	0.60	7.5	-	-													125	113	238

GUEST RIVER MILE 19.9

6- 8-67	1450	10	0.5	52	-	-	17.3	8.5	1.5	5			0.24	0.12	0.01	0.13	0.05	0.26	7.2	-	-													59	115	174
7- 3-67	1330	10	0.5	42	7,000	32,000	20.8	7.1	1.7	10			0.77	0.09	0.01	0.28	0.05	0.83	7.5	0	200													177	186	363
8- 1-67	1145	5	0.5	108	310,000	470,000	18.9	7.9	1.5	20			-	-	-	-	-	-	6.8	-	-													758	102	860
8-30-67	1225	5	0.2	27	3,000	-	18.5	7.6	1.6	5			-		-	-	-	-	7.4	-	-													88	126	214

GUEST RIVER MILE 18.5

6 -8-67	1550	50	0.5	53	40	140	18.4	8.7	2.3	5			-	-	-	-	-	-	7.6	-	-													24	116	140
7- 3-67	1520	40	0.5	43	>60,000	>60,000	21.8	7.0	2.7	10			0.87	0.24	0.03	0.33	-	-	7.3	0	22													131	212	343
8- 1-67	1210	50	0.5	109	121,000	310,000	18.9	8.1	1.8	20			-	-	-	-	-	-	6.9	-	-													1,073	96	1,169
8-30-67	1310	50	0.2	27	900	-	20.0	7.6	7.9	10			-	-	-	-	-	-	7.4	-	-													87	128	215

GUEST RIVER MILE 14.4 [2]

6- 8-67	1500	50	0.5	-	18.3	8.7
7- 3-67	1650	50	0.5	-	22.2	7.6
8- 1-67	1255	50	0.5	-	19.4	8.4
8-30-67	1420	50	0.5	-	20.3	8.2

1. Location in Stream: Percent distance from left bank looking downstream.
2. Temperature and DO station only.

GUEST RIVER MILE 13.6

Date	Time ET 24-hr. Clock	Location in Stream[1]	Depth	Stream Disch.	Coliforms Fecal	Coliforms Total	Water Temp.	DO	5-Day 20°C. BOD	Color	Turb.	Threshold Odor	Nitrogen[2] Org.	Nitrogen[2] NH_3	Nitrogen[2] NO_2	Nitrogen[2] NO_3	Phosphate Sol.	Phosphate Tot.	pH	Alkalinity ($CaCO_3$) Phen.	Alkalinity ($CaCO_3$) Tot.	Total Hardness ($CaCO_3$)	Ca	Mg	Cl	Na	K	Iron Fe^{++}	Iron Tot.	Mn, Total	SO_4	SiO_2	Specific Conductance at 25°C.	Solids Sus.	Solids Dis.	Solids Tot.
			ft.	cfs	No./100 ml		°C.	mg/l	mg/l	PCU	JCU	No.	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l		mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	µmhos/cm	mg/l	mg/l	mg/l
6- 8-67	1510	50	0.5				17.3	8.6																												
7- 3-67	1750	50	0.5				22.2	7.5																												
8- 1-67	1305	50	0.5				19.4	8.7																												
8-30-67	1425	50	0.5				20.5	8.1																												

GUEST RIVER MILE 9.9

6- 8-67	1530	50	0.5	98	300	300	17.7	8.5	1.8	5			0.22	0.01	0.01	0.17	0.06	0.24	7.3															20	92	112
7- 3-67	1705	50	0.5	73	3,400	14,000	22.2	7.1	1.5	10			0.58	0.06	0.03	0.51	0.04	0.37	7.3	0	22													74	167	241
8- 1-67	1300	50	0.5	170	180,000	180,000	19.2	8.1	1.0	20			0.52	0.00	0.03	0.20	0.06	0.58	6.8															159	48	207
8-30-67	1500	50	0.2	40	740		19.8	7.9	2.0	10			0.36	0.00	0.02	0.37	0.19	0.64	7.4															33	128	161

GUEST RIVER MILE 6.3

5-11-64	1240	Middle	Surf.	37	230	2,100	20.5	10.64	0.90	15	5.0	0	0.36	0.00	0.00	0.00	0.05	0.14	8.4	1.2	46.8	90.3	20.7	11.7	4.73	14.8	2.00	0.00	0.47	0.00	82.0	3.60	250	26	155	181
6-14-64	1005	Middle	Surf.	34	620	6,200	22.3	8.17	1.80	15	13	0	0.05	0.04	0.00	0.00	0.09	0.32	7.4	0	37.0	94.2	20.0	13.2	5.41	10.9	2.05	0.00	0.56	0.02	90.4	4.90	256	9	194	203
7-14-64	1000	Middle	Surf.	17	55	3,600	20.3	8.23	2.99	10	14	0	0.17	0.00	0.01	0.22	0.12	0.28	7.7	0	54.0	140	31.8	14.8	7.74	18.2	3.82	0.03	0.76	0.00	136	3.12	385	4	262	266
8- 4-64	925	Middle	Surf.	17	24,000	70,000	23.3	6.39	2.46	15	36	0	0.36	0.03	0.00	0.02	0.22	0.54	7.7	0	78.2	133	30.3	14.0	7.27	13.4	3.67	0.00	0.99	0.00	126	3.68	370	34	242	276
8-25-64	1010	Middle	Surf.	5	230	940	22.3	8.58	1.64	5	5	0	0.19	0.01	0.00	0.04	0.11	0.21	8.1	0	73.9	145	29.7	17.3	9.38	5.05	2.20	0.03	0.31	0.18	81.5	0.85	385	14	264	278
10- 7-64	1045	Middle	Surf.	73	11,000	36,000	11.0	10.14	2.59	5	11	1	0.09	0.02	0.00	0.00	0.07	0.16	7.0	0	20.0	57.6	12.6	6.37	6.32	19.0	3.40	0.04	0.53	0.20	30.5	4.89	156	3	112	115
12- 2-64	1135	Middle	Surf.	102	2,300	6,200	2.0	12.35	1.72	5	10	0	0.00	0.00	0.00	0.06	0.02	0.11	7.4	0	21.8	56.0	11.7	6.54	5.65	6.62	1.30	0.02	0.75	0.15	33.8	2.93	149	18	98	116
2-16-65	1100	Middle	Surf.	100	230	3,900	3.0	13.22	1.33	5	4	0	0.24	0.01	0.00	0.00	0.05	0.06	7.2	0	22.7	60.8	13.9	6.34	6.28	7.52	0.83	0.02	0.89	0.01	39.8	3.01	175	2	114	116
Maximum				102	24,000	70,000	23.3	13.22	2.99	15	36	1	0.36	0.04	0.01	0.22	0.22	0.54	8.4		78.2	145	31.8	17.3	9.38	19.0	3.82	0.04	0.99	0.20	136	5.01	385	34	264	278
Minimum				5	55	940	2.0	6.39	0.90	5	4	0	0.00	0.00	0.00	0.00	0.02	0.06	7.0		20.0	56.0	11.7	6.34	73	5.05	0.83	0.00	0.31	0.00	30.5	0.85	149	2	98	115
Median				36	425	5,050	20.4	9.36	1.76	8	11	0	0.18	0.01	0.00	0.01	0.08	0.19	7.6		41.9	92.3	20.4	12.5	6.30	12.2	2.13	0.02	0.66	0.02	81.8	3.64	253	12	175	192

BEAR CREEK MILE 0.05

6- 8-67	1415	50	0.5	11	700	2,900	17.7	8.3	3.1	10			0.52	0.16	0.02	0.13	0.40	0.92	7.2															62	100	162
7- 3-67	1150	25	0.5	15	51,000	>60,000	19.2	6.9	4.3	5			1.28	0.17	0.02	0.37	0.13	1.10	7.0	0	15													220	230	450
8- 1-67	1040	50	0.5	35	110,000	370,000	18.8	8.0	4.2	20			1.54	0.00	0.04	0.28	0.06	2.42	6.5	0	14													2,319	103	2,422
8-30-67	1105	50	0.3	4	2,200		18.5	5.6	6.0	10			1.27	0.23	0.08	0.28	1.75	3.45	7.3															32	209	241

STONY CREEK MILE 3.8

5-12-64	830	Middle	Surf.	20	94	6,200	16.6	9.34	3.40	10	1.0	0	0.07	0.00	0.00	0.00	0.00	0.02	7.1	0.00	4.70	12.8	1.45	2.73	3.73	1.19	0.60	0.00	0.05	0.01	9.0	3.66	27	1	24	25
6-14-64	1425	Middle	Surf.	15	160	3,300	23.1	8.24	1.68	10	5	0	0.02	0.01	0.00	0.00	0.05	0.06	6.6	0.00	5.40	8.30	1.57	1.30	3.19	0.50	0.88	0.00	0.05	0.01	8.1	3.18	28	9	21	30
7-14-64	1200	Middle	Surf.	10	360	360	22.7	8.13	2.25	10	3.5	1	0.08	0.05	0.00	0.38	0.03	0.06	6.9	0.00	8.40	13.3	2.19	1.90	2.99	1.41	1.03	0.01	0.11	0.00	8.1	3.82	38	62	131	193
8- 4-64	1110	Middle	Surf.	10	6,200	6,200	23.0	8.18	1.03	5	3.5	0	0.20	0.01	0.00	0.00	0.04	0.05	7.0	0.00	12.0	26.6	2.74	4.83	2.58	1.41	1.53	0.00	0.06	0.00	7.2	3.40	42	7	22	29
8-25-64	1110	Middle	Surf.	10	110	620	22.8	8.53	1.41	5	2.6	0	0.12	0.00	0.00	0.00	0.01	0.03	7.2	0.00	11.6	18.9	3.30	2.61	4.39	0.40	0.54	0.01	0.64	0.00	3.1	2.17	42	0	38	38
10- 7-64	1220	Middle	Surf.	10	26	360	11.2	10.43	1.64	5	2.6	0	0.00	0.00	0.00	0.00	0.02	0.05	6.4	0.00	3.3	7.57	2.45	0.35	3.83	3.53	2.40	0.01	0.09	0.03	3.7	3.20	22	2	34	36
12- 2-64	1245	Middle	Surf.	25	<2.3	360	3.8	12.20	1.11	5	<5	0	0.00	0.00	0.00	0.00	0.01	0.08	6.6	0.00	3.0	14.9	2.62	2.02	3.63	0.99	0.54	0.00	0.17	0.00	11.0	0.15	21	1	27	28
2-16-65	1520	Middle	Surf.	30	<2.3	91	6.0	11.97	0.99	5	9.0	0	0.00	0.00	0.00	0.00	0.03	0.08	6.6	0.00	3.4	10.4	2.28	1.15	3.69	1.10	0.70	0.02	0.18	0.00	2.8	4.43	28	2	14	35
Maximum				30	6,200	6,200	23.1	12.20	3.40	10	9.0	1	0.20	0.05	0.08	0.08	0.05	0.08	7.2	0.00	12.0	26.6	3.30	4.83	4.39	3.53	2.40	0.02	0.64	0.03	11.0	4.43	42	62	31	193
Minimum				10	<2.3	91	3.8	8.13	0.99	0	<5	0	0.00	0.00	0.00	0.00	0.00	0.02	6.4	0.00	3.00	7.57	1.45	0.35	2.58	0.40	0.54	0.00	0.05	0.00	2.8	0.15	21	0	14	25
Median				13	102	490	19.7	8.94	1.53	5	3.1	0	0.05	0.00	0.00	0.00	0.03	0.06	6.8	0.00	5.05	13.1	2.37	1.96	3.66	1.15	0.79	0.00	0.10	0.00	7.7	3.30	28	5	26	33

1. Location in Stream: Percent distance from left bank looking downstream.
2. Nitrogen: Values shown are mg/l nitrogen in the forms listed.
3. Temperature and DO station only.

COPPER CREEK MILE 12.7

Date	Time ES 24 hr. Clock	Location in Stream	Depth ft.	Stream Disch. cfs.	Coliforms Fecal MPN/100ml	Coliforms Total MPN/100ml	Temp. °C.	DO mg/l	5-day 20° C. BOD mg/l	Color PCU	Turb. JCU	Threshold Odor No.	Nitrogens Org.N mg/l	Nitrogens NH_3-N mg/l	Nitrogens NO_2-N mg/l	Nitrogens NO_3-N mg/l	Phosphates Sol. mg/l	Phosphates Tot. mg/l	pH	Alkalinity $CaCO_3$ Phen. mg/l	Alkalinity $CaCO_3$ Tot. mg/l	Total Hardness $CaCO_3$ mg/l	Ca mg/l	Mg mg/l	Cl mg/l	Na mg/l	K mg/l	Iron Fe^{++} mg/l	Iron Tot. mg/l	Mn, Total mg/l	SO_4 mg/l	SiO_2 mg/l	Specific Conductance at 25° C. Micromho/cm	Solids Sus. mg/l	Solids Dis. mg/l	Solids Tot. mg/l
5-12-64	720	Middle	Surf.	55	550	940	18.5	8.22	0.64	15	4.3	0	0.13	0.00	0.00	0.00	0.01	0.05	7.7	0.00	128	144	33.4	18.2	3.17	1.30	1.38	0.00	0.40	0.02	10.9	3.52	278	15	158	173
6-14-64	1535	Middle	Surf.	35	160	360	28	8.02	1.10	10	10	0	0.13	0.00	0.00	0.00	0.05	0.11	8.2	0.00	132	141	32.3	18.2	4.91	0.81	1.17	0.00	0.24	0.01	9.0	4.30	286	6	164	170
7-14-64	1310	Middle	Surf.	31	360	620	23.0	8.73	1.99	5	13	0	0.01	0.00	0.00	0.10	0.09	0.39	8.3	0.00	135	148	31.7	16.8	2.95	1.1	1.38	0.01	0.23	0.01	10.9	5.06	286	53	150	203
8- 4-64	1215	Middle	Surf.	28	550	5,500	24.7	7.68	0.79	5	20	0	0.24	0.03	0.00	0.00	0.03	0.12	8.2	0.00	128	140	31.5	14.9	3.19	1.36	1.53	0.00	0.24	0.00	10.0	5.52	256	40	147	187
8-25-64	1230	Middle	Surf.	23	280	2,300	23.0	8.43	1.46	5	7.6	0	0.20	0.03	0.00	0.01	0.05	0.06	8.4	2.0	139	145	29.4	17.4	9.95	1.10	1.30	0.00	0.14	0.08	3.1	4.94	278	3	174	177
10-7- 64	1330	Middle	Surf.	31	26	1,600	12.5	10.53	2.34	5	6.0	1	0.06	0.00	0.00	0.00	0.00	0.12	8.0	0.00	146	149	37.5	13.5	8.75	0.80	1.66	0.01	0.06	0.03	7.9	4.30	303	1	200	201
12- 2-64	1400	Middle	Surf.	67	60	550	3.6	12.95	0.69	5	3.5	0	0.09	0.00	0.00	0.20	0.02	0.02	8.3	0.00	143	123	28.7	12.5	6.02	0.99	1.00	0.00	0.08	0.00	15.8	1.70	244	25	160	185
2-16-65	1620	Middle	Surf.	110	260	360	7.4	12.18	1.35	5	3.0	0	0.09	0.00	0.00	0.80	0.02	0.03	8.2	0.00	126	109	30.8	7.80	6.37	1.10	0.70	0.00	0.30	0.00	15.8	4.25	222	24	138	162
Maximum				110	550	5,500	28.0	12.95	2.34	15	20	1	0.24	0.03	0.00	0.80	0.09	0.39	8.4		146	149	37.5	18.2	9.95	1.36	1.66	0.01	0.30	0.01	15.8	5.52	303	53	200	203
Minimum				23	26	360	3.6	7.68	0.64	5	3.0	0	0.01	0.00	0.00	0.00	0.00	0.02	7.7		126	109	28.7	7.80	2.95	0.80	0.70	0.00	0.06	0.00	3.1	1.70	222	1	138	162
Median				33	270	780	20.8	8.58	1.23	5	6.8	0	0.11	0.00	0.00	0.01	0.03	0.09	8.2		134	143	31.6	15.9	5.47	1.10	1.34	0.00	0.19	0.02	10.5	4.30	278	20	159	181

POWELL RIVER MILE 195.4

Date	Time ES 24 hr. Clock	Location in Stream	Depth ft.	Stream Disch. cfs.	Coliforms Fecal MPN/100ml	Coliforms Total MPN/100ml	Temp. °C.	DO mg/l	5-day 20° C. BOD mg/l	Color PCU	Turb. JCU	Threshold Odor No.	Nitrogens Org.N mg/l	Nitrogens NH_3-N mg/l	Nitrogens NO_2-N mg/l	Nitrogens NO_3-N mg/l	Phosphates Sol. mg/l	Phosphates Tot. mg/l	pH	Alkalinity $CaCO_3$ Phen. mg/l	Alkalinity $CaCO_3$ Tot. mg/l	Total Hardness $CaCO_3$ mg/l	Ca mg/l	Mg mg/l	Cl mg/l	Na mg/l	K mg/l	Iron Fe^{++} mg/l	Iron Tot. mg/l	Mn, Total mg/l	SO_4 mg/l	SiO_2 mg/l	Specific Conductance at 25° C. Micromho/cm	Solids Sus. mg/l	Solids Dis. mg/l	Solids Tot. mg/l
5-11-64	1015	Middle	Surf.	5	160	6,200	16.5	9.15	1.50	10	6.8	0	0.02	0.00	0.00	0.00	0.00	0.02	7.5	0.00	11.7	72.4	14.8	10.7	3.99	3.30	1.38	0.00	0.25	0.00	6.0	95.5	185	22	126	148
6-14-64	840	Middle	Surf.	5	2,300	24,000	19.6	7.79	2.43	5	850	0	0.16	0.01	0.00	0.00	0.04	1.51	6.8	0.00	11.9	84.3	21.6	9.17	4.24	3.45	5.10	0.00	19.4	0.00	5.52	81.4	227	820	163	983
7-14-64	815	Middle	Surf.	5	2,300	11,000	18.0	8.23	2.58	10	28	0	0.21	0.00	0.00	0.15	0.05	0.99	7.0	0.00	16.8	71.9	17.4	6.93	2.66	4.12	2.20	0.03	1.24	0.00	5.86	82.0	189	28	128	156
8- 4-64	745	Middle	Surf.	5	16,000	39,000	20.5	7.58	1.20	5	270	0	0.26	0.00	0.00	0.08	0.17	0.67	7.1	0.00	17.5	59.8	13.0	6.66	3.73	2.69	2.88	0.01	5.28	0.00	5.60	46.3	154	264	102	366
8-25-64	815	Middle	Surf.	2	6,200	110,000	17.8	7.98	1.44	0	11	0	0.10	0.00	0.00	0.01	0.03	0.05	7.6	0.00	20.7	121	24.4	14.6	4.29	3.02	2.20	0.02	0.39	0.18	4.56	75.5	278	23	208	231
10- 7-64	905	Middle	Surf.	10	260	1,600	7.2	10.38	2.87	0	14	1	0.01	0.02	0.00	0.00	0.07	0.16	6.7	0.00	10.4	56.6	11.8	6.61	5.68	4.39	2.00	0.10	0.52	0.45	5.19	45.5	152	3	109	112
12- 2-64	940	Middle	Surf.	10	2.6	360	1.0	12.40	0.90	0	8.5	0	0.00	0.00	0.00	0.00	0.00	0.05	7.0	0.00	6.8	54.2	9.30	7.56	4.26	2.52	0.83	0.11	0.76	0.24	0.50	35.0	135	8	114	122
2-16-65	935	Middle	Surf.	10	110	1,100	1.6	13.12	0.71	0	6.0	0	0.00	0.01	0.00	0.12	0.02	0.02	6.7	0.00	5.8	56.8	11.4	8.29	4.19	3.38	1.00	0.12	0.69	0.18	2.92	38.6	143	16	110	126
Maximum				10	16,000	110,000	20.5	13.12	2.87	10	850	1	0.26	0.02	0.00	0.15	0.17	1.51	7.6	0.00	20.7	121	24.4	14.6	5.68	4.39	5.10	0.12	19.4	0.45	6.00	95.5	278	820	208	983
Minimum				2	2.6	360	1.0	7.58	0.71	0	6.0	0	0.00	0.00	0.00	0.00	0.00	0.02	6.7	0.00	5.8	54.2	9.30	6.61	2.66	2.52	0.83	0.00	0.25	0.00	0.50	35.0	135	3	102	112
Median				5	1,280	8,600	17.2	8.69	1.47	3	13	0	0.06	0.00	0.00	0.01	0.04	0.11	7.0	0.00	11.8	65.9	13.9	7.93	4.22	3.42	2.10	0.02	0.73	0.09	5.36	60.9	170	23	120	152

Columns Reversed

POWELL RIVER MILE 177.9

Date	Time ES 24 hr. Clock	Location in Stream	Depth ft.	Stream Disch. cfs.	Coliforms Fecal MPN/100ml	Coliforms Total MPN/100ml	Temp. °C.	DO mg/l	5-day 20° C. BOD mg/l	Color PCU	Turb. JCU	Threshold Odor No.	Nitrogens Org.N mg/l	Nitrogens NH_3-N mg/l	Nitrogens NO_2-N mg/l	Nitrogens NO_3-N mg/l	Phosphates Sol. mg/l	Phosphates Tot. mg/l	pH	Alkalinity $CaCO_3$ Phen. mg/l	Alkalinity $CaCO_3$ Tot. mg/l	Total Hardness $CaCO_3$ mg/l	Ca mg/l	Mg mg/l	Cl mg/l	Na mg/l	K mg/l	Iron Fe^{++} mg/l	Iron Tot. mg/l	Mn, Total mg/l	SO_4 mg/l	SiO_2 mg/l	Specific Conductance at 25° C. Micromho/cm	Solids Sus. mg/l	Solids Dis. mg/l	Solids Tot. mg/l
5-11-64	910	Middle	Surf.	55	2,300	8,100	18.3	8.53	2.19	20	6.0	0	0.34	0.00	0.00	1.18	0.02	0.11	8.2	0.00	83.5	106	25.1	13.0	4.23	22.4	2.56	0.00	0.27	0.00	86.5	1.12	323	17	200	217
6-14-64	700	Middle	Surf.	130	3,600	36,000	21.4	6.04	3.01	20	94	0	0.00	0.02	0.00	0.00	0.08	0.35	7.6	0.00	64.2	103	24.4	12.7	4.78	7.64	3.42	0.00	1.38	0.00	78.4	4.20	294	69	189	258
7-14-64	710	Middle	Surf.	70	16,000	62,000	19.6	6.29	4.22	10	247	0	0.33	0.05	0.00	0.02	0.66	0.69	7.7	0.00	80.3	122	28.8	20.6	3.61	23.8	4.91	0.00	3.70	0.00	104	4.80	370	170	222	392
8- 4-64	645	Middle	Surf.	120	70,000	240,000	23.2	6.14	3.04	10	900	2	2.27	0.02	0.00	0.00	0.10	1.51	7.2	0.00	58.0	94.0	20.1	10.7	3.20	13.2	7.23	0.00	13.9	0.00	68.0	4.16	256	764	172	936
8-25-64	700	Middle	Surf.	30	3,600	11,000	20.7	5.23	2.48	5	17	0	0.33	0.04	0.00	0.00	0.52	0.71	8.2	0.00	110	129	31.0	12.6	5.55	8.08	2.40	0.02	0.56	0.24	51.5	1.91	385	24	240	264
10- 7-64	805	Middle	Surf.	180	36,000	36,000	9.1	9.99	3.99	5	24	1	0.14	0.03	0.00	0.01	0.11	0.14	7.3	0.00	43.9	77.7	19.4	7.12	5.05	32.8	3.40	0.02	1.21	0.30	22.0	6.68	200	45	133	178
12- 2-64	845	Middle	Surf.	180	5,500	110,000	2.0	12.30	1.72	5	77	0	0.11	0.00	0.01	0.04	0.03	0.19	7.8	0.00	53.6	78.3	9.97	13.0	4.58	13.3	1.85	0.00	0.91	0.15	33.8	1.13	217	63	143	206
2-16-65	800	Middle	Surf.	170	5,500	70,000	3.1	12.08	1.70	5	28	0	0.17	0.03	0.00	0.08	0.08	0.12	7.6	0.00	51.0	77.1	19.2	7.10	5.21	12.8	1.00	0.00	1.10	0.03	35.0	0.93	213	9	148	157
Maximum				180	70,000	240,000	23.2	12.30	4.22	20	900	2	2.27	0.05	0.01	1.18	0.66	1.51	8.2	0.00	110	129	31.0	20.6	5.55	32.8	7.23	0.02	13.9	0.30	104	6.68	385	764	240	936
Minimum				30	2,300	8,100	2.0	5.23	1.70	5	6.0	0	0.00	0.00	0.00	0.00	0.02	0.11	7.2	0.00	43.9	77.1	9.97	7.10	3.20	7.64	1.00	0.00	0.27	0.00	22.0	0.93	200	9	133	157
Median				125	5,500	49,000	19.0	7.41	2.75	8	53	0	0.25	0.03	0.00	0.02	0.09	0.27	7.7	0.00	61.1	98.5	22.3	12.7	4.68	13.3	2.98	0.00	1.16	0.02	59.8	3.03	275	54	161	238

POWELL RIVER MILE 156.6

Date	Time ES 24 hr. Clock	Location in Stream	Depth ft.	Stream Disch. cfs.	Coliforms Fecal MPN/100ml	Coliforms Total MPN/100ml	Temp. °C.	DO mg/l	5-day 20° C. BOD mg/l	Color PCU	Turb. JCU	Threshold Odor No.	Nitrogens Org.N mg/l	Nitrogens NH_3-N mg/l	Nitrogens NO_2-N mg/l	Nitrogens NO_3-N mg/l	Phosphates Sol. mg/l	Phosphates Tot. mg/l	pH	Alkalinity $CaCO_3$ Phen. mg/l	Alkalinity $CaCO_3$ Tot. mg/l	Total Hardness $CaCO_3$ mg/l	Ca mg/l	Mg mg/l	Cl mg/l	Na mg/l	K mg/l	Iron Fe^{++} mg/l	Iron Tot. mg/l	Mn, Total mg/l	SO_4 mg/l	SiO_2 mg/l	Specific Conductance at 25° C. Micromho/cm	Solids Sus. mg/l	Solids Dis. mg/l	Solids Tot. mg/l
5-11-64	820	Middle	Surf.	110	230	1,600	19.4	7.97	1.26	15	4.3	0	0.18	0.00	0.00	0.00	0.06	0.06	6.4	1.9	74.3	98.2	29.8	7.49	3.60	16.3	2.06	0.00	0.17	0.01	73.0	1.56	263	21	165	186
6-14-64	620	Middle	Surf.	250	3,600	39,000	22.0	7.39	2.20	10	94	0	0.42	0.02	0.07	0.08	0.09	0.45	7.5	0.00	54.4	92.6	22.4	11.0	6.08	9.25	1.86	0.00	3.21	0.00	45.0	2.96	227	119	138	257
7-14-64	615	Middle	Surf.	140	3,600	11,000	20.0	7.19	3.04	5	14	0	0.12	0.06	0.00	0.00	0.08	0.41	7.8	0.00	94.0	118	30.0	10.5	4.30	23.4	2.60	0.01	0.57	0.01	73.0	1.72	345	6	196	202
8- 4-64	550	Middle	Surf.	230	24,000	240,000	22.0	6.24	2.35	10	2,500	2	0.08	0.01	0.00	0.15	0.10	9.12	6.8	0.00	37.9	106	21.6	12.7	3.33	50.0	67.6	0.00	193.	0.00	73.0	4.72	196	3429	182	8,611
8-25-64	600	Middle	Surf.	60	360	6,200	21.6	6.99	1.16	5	19	0	0.16	0.02	0.00	0.00	0.08	0.12	8.1	0.00	95.5	121	29.7	11.4	5.58	5.05	2.40	0.00	0.28	0.14	63.5	2.72	313	8	198	206
10- 7-64	725	Middle	Surf.	350	360	11,000	10.0	9.26	5.47	5	21	0	0.13	0.00	0.00	0.08	0.08	0.18	7.4	0.00	52.5	85.3	21.8	7.51	5.48	15.8	2.40	0.02	0.47	0.16	18.5	6.06	182	24	122	146
12- 2-64	745	Middle	Surf.	340	2,300	11,000	2.7	12.00	1.94	5	8.5	0	0.04	0.00	0.00	0.10	0.09	0.18	7.8	0.00	53.8	78.7	20.4	6.76	4.00	6.08	1.50	0.02	0.79	0.04	26.6	0.85	196	5	128	133
2-16-65	700	Middle	Surf.	320	2,300	2,300	3.6	12.28	2.82	5	6	0	0.01	0.01	0.00	0.20	0.08	0.09	7.7	0.00	46.3	73.5	18.7	6.51	5.11	8.27	0.70	0.01	0.62	0.00	24.2	1.28	179	4	120	124
Maximum				350	24,000	240,000	22.0	12.28	5.47	15	2,500	2	0.42	0.06	0.07	0.20	0.10	9.12	8.4	1.9	95.5	121	30.0	12.7	6.08	23.4	67.6	0.02	193	0.16	73.0	6.06	345	8429	198	8,611
Minimum				60	230	1,600	2.7	6.24	1.16	5	4.3	0	0.01	0.00	0.00	0.00	0.06	0.06	6.8	0.00	37.9	73.5	18.7	6.51	3.33	5.05	0.70	0.00	0.17	0.00	18.5	0.85	179	4	120	124
Median				240	2,300	11,000	19.7	7.68	2.28	5	17.0	0	0.13	0.01	0.00	0.08	0.08	0.18	7.8	0.00	54.1	95.4	22.1	9.01	4.71	8.76	2.23	0.00	0.60	0.01	34.7	2.22	212	15	152	194

POWELL RIVER MILE 130.6

Date	Time ES 24 hr. Clock	Location in Stream	Depth ft.	Stream Disch. cfs.	Coliforms Fecal MPN/100ml	Coliforms Total MPN/100ml	Temp. °C.	DO mg/l	5-day 20° C. BOD mg/l	Color PCU	Turb. JCU	Threshold Odor No.	Nitrogens Org.N mg/l	Nitrogens NH_3-N mg/l	Nitrogens NO_2-N mg/l	Nitrogens NO_3-N mg/l	Phosphates Sol. mg/l	Phosphates Tot. mg/l	pH	Alkalinity $CaCO_3$ Phen. mg/l	Alkalinity $CaCO_3$ Tot. mg/l	Total Hardness $CaCO_3$ mg/l	Ca mg/l	Mg mg/l	Cl mg/l	Na mg/l	K mg/l	Iron Fe^{++} mg/l	Iron Tot. mg/l	Mn, Total mg/l	SO_4 mg/l	SiO_2 mg/l	Specific Conductance at 25° C. Micromho/cm	Solids Sus. mg/l	Solids Dis. mg/l	Solids Tot. mg/l
5-11-64	705	Middle	Surf.	160	16	110.	19.1	8.07	1.18	15	3.5	0	0.16	0.00	0.00	0.00	0.02	0.08	8.4	2.1	86.8	106	27.5	11.3	3.92	11.2	1.62	0.00	0.14	0.01	42.7	0.88	263	27	153	180
6-14-64	530	Middle	Surf.	350	230	230	23.6	7.32	1.16	10	7.6	1	0.01	0.01	0.00	0.00	0.13	0.14	8.0	0.00	32.3	104	27.9	10.4	4.69	8.15	1.43	0.00	0.13	0.01	33.0	1.16	256	7	145	152
7-14-64	515	Middle	Surf.	190	230	2,300	21.6	7.04	3.57	5	14	0	0.11	0.00	0.00	0.08	0.05	1.14	8.0	0.00	116	139	35.2	12.4	6.35	19.3	2.50	0.00	0.43	0.00	45.8	1.46	370	32	209	241
8- 4-64	500	Middle	Surf.	310	620	2,400	24.7	6.64	1.30	5	30	1	0.28	0.10	0.00	0.00	0.05	0.26	7.5	0.00	62.5	98.0	22.1	10.4	3.18	5.81	2.40	0.01	0.92	0.00	45.2	6.24	227	43	148	191
8-25-64	510	Middle	Surf.	80	160	360	22.8	7.19	1.46	5	19	0	0.29	0.00	0.00	0.00	0.02	0.20	8.2	0.00	98.7	121	31.8	10.1	4.86	3.70	2.00	0.00	0.42	0.12	26.6	3.72	294	17	173	190
10- 7-64	545	Middle	Surf.	480	2,100	21,000	11.7	9.46	4.93	5	35	0	0.13	0.02	0.00	0.01	0.11	0.26	7.6	0.00	64.8	101	25.5	9.07	5.40	9.33	2.00	0.01	0.26	0.13	20.6	3.68	200	24	137	161
12- 2-64	625	Middle	Surf.	460	940	940	3.5	12.00	1.33	5	6.0	0	0.07	0.00	0.00	0.00	0.03	0.16	8.0	0.00	67.0	92.2	24.7	7.41	4.44	5.58	0.70	0.00	1.36	0.00	23.0	0.89	196	5	129	134
2-16-65	600	Middle	Surf.	500	230	6,200	4.0	12.08	1.94	5	8.0	0	0.15	0.00	0.00	0.04	0.06	0.11	7.6	0.00	64.8	88.2	23.2	7.37	4.64	6.47	1.00	0.00	0.81	0.00	23.0	1.36	213	7	127	134
Maximum				500	2,100	21,000	24.7	12.08	4.93	15	35	1	0.29	0.10	0.00	0.08	0.13	1.14	8.4	2.1	116	139	35.2	12.4	6.35	19.2	2.50	0.01	1.36	0.13	45.8	6.24	370	43	209	241
Minimum				80	16	110	3.5	6.64	1.16	5	3.5	0	0.01	0.00	0.00	0.00	0.02	0.08	7.5	0.00	62.5	88.2	22.1	7.37	3.18	3.70	0.70	0.00	0.13	0.00	20.6	0.88	196	5	127	134
Median				330	230	1,620	20.4	7.70	1.40	5	11.0	0	0.14	0.00	0.00	0.00	0.05	0.18	8.0	0.00	74.7	103	26.5	10.3	4.67	7.31	1.81	0.00	0.43	0.01	29.8	1.41	242	21	147	171

POWELL RIVER MILE 95.1

Date	Time EST 24-hr. Clock	Location in Stream[1]	Depth	Stream Disch.	Coliforms Fecal	Coliforms Total	Water Temp.	DO	5-Day 20°C. BOD	Color	Turb.	Threshold Odor	Nitrogen[2] Org.	Nitrogen[2] NH_3	Nitrogen[2] NO_2	Nitrogen[2] NO_3	Phosphate Sol.	Phosphate Tot.	pH	Alkalinity ($CaCO_3$) Phen.	Alkalinity ($CaCO_3$) Tot.	Total Hardness ($CaCO_3$)	Ca	Mg	Cl	Na	K	Iron Fe^{++}	Iron Tot.	Mn, Total	SO_4	SiO_2	Specific Conductance at 25°C.	Solids Sus.	Solids Dis.	Solids Tot.
			ft.	cfs	MPN/100 ml		°C.	mg/l	mg/l	PCU	JCU	No.	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l		mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	µmhos/cm	mg/l	mg/l	mg/l
6-22-67	1010	50	0.5	330	55	230	24.7	7.3	0.3	10	6		0.21	0.00	0.01	0.21	0.01	0.02	8.3	0	109	106	22.5	12.2	3	8.5	3.8	0.02	0.05	0.06	20	2.2	315	86	130	216
7-26-67	1335	50	0.5	450	3,600	3,600	22.5	8.4	0.9	10	31		0.14	0.03	0.01	0.37	0.02	0.15	8.2	0	114	151	36.2	14.7	3	6.7	1.7	0.00	0.32	0.06	18	3.2	354	18	155	173
8-14-67	1725	50	0.5	250	94	360	22.0	9.2	2.4	10	18		0.10	0.00	0.01	0.42	0.01	0.19	7.9	0	121	147	37.2	13.2	3	4.9	1.8	0.00	0.28	0.04	26	3.9	309	32	154	186
9-25-67	1235	50	0.5	120	36	340	17.8	7.9	0.3	5	6		0.36	0.09	0.02	0.21	0.10	0.15	8.0	0	143	171	40.0	17.3	16	11.0	1.8	0.00	0.25	0.03	26	2.0	384	29	201	230
10-18-67	1250	50	0.5	135	6,200	6,200	16.0	7.8	0.7	25	26		0.33	0.00	0.01	0.09	0.10	0.23	8.1	0	125	175	46.2	14.5	4	7.8	2.6	0.03	0.56	0.04	31	2.6	277	3	190	193
11- 6-67	1050	50	0.5	450	1,100	3,600	8.0	10.7	0.9	35	53		0.28	0.23	0.01	0.75	0.06	0.31	7.9	0	88	116	32.0	8.8	4	4.6	2.2	0.01	0.84	0.06	31	5.3	256	45	149	194
2-13-68	1140	50	1.0	450	23	110	2.0	13.1	1.3	5	8		0.13	<0.01	0.02	0.40	0.34	0.34	8.0	0	95				6	7.2	3.9	<0.05			18	3.8	240	0	160	160
4-25-68	1350	50	1.0	1,700	11,000	24,000	16.0	8.3	2.2	50	340		0.11	<0.01	0.02	0.60	0.06	0.99	7.8	0	85	65	12	8.5	3	5.9	5.1	0.10	3.0	0.34	21	1.6	260	240	190	430

POWELL RIVER MILE 65.4

Date	Time EST 24-hr. Clock	Location in Stream[1]	Depth	Stream Disch.	Coliforms Fecal	Coliforms Total	Water Temp.	DO	5-Day 20°C. BOD	Color	Turb.	Threshold Odor	Nitrogen[2] Org.	Nitrogen[2] NH_3	Nitrogen[2] NO_2	Nitrogen[2] NO_3	Phosphate Sol.	Phosphate Tot.	pH	Alkalinity ($CaCO_3$) Phen.	Alkalinity ($CaCO_3$) Tot.	Total Hardness ($CaCO_3$)	Ca	Mg	Cl	Na	K	Iron Fe^{++}	Iron Tot.	Mn, Total	SO_4	SiO_2	Specific Conductance at 25°C.	Solids Sus.	Solids Dis.	Solids Tot.
6-22-67	1140	50	0.5	425	160	360	25.0	7.9	0.2	10	3		0.22	0.00	0.02	0.41	0.01	0.01	8.3	0	113	103	20.0	12.9	3	6.4	3.5		0.08	0.10	13	2.4	306	9	132	141
7-26-67	1515	50	0.5	790	3,600	6,200	21.1	8.8	0.8	15	58		0.21	0.00	0.01	0.66	0.06	0.40	8.1	0	128	164	41.5	14.7	9	3.6	1.7	0.01	0.66	0.12	22	4.6	404	110	150	260
8-14-67	1850	50	0.5	340	130	1,100	22.9	9.5	1.6	10	53		0.17	0.14	0.01	0.47	0.11	0.13	7.6	0	123	149	36.8	13.8	2	1.2	1.6	0.00	0.32	0.05	18	5.3	305	45	140	185
9-25-67	1335	50	0.5	164	23	360	18.8	9.9	0.6	5	11		0.30	0.05	0.02	0.17	0.11	0.11	8.3	0	142	154	37.0	15.0	15	8.6	1.7	0.03	0.18	0.02	27	1.3	384	5	169	174
10-18-67	1345	50	0.5	175	6,200	39,000	16.3	8.6	1.3	30	38		0.28	0.00	<0.01	0.04	0.09	0.18	8.3	0	130	159	40.0	14.5	2	8.8	2.2	0.03	0.88	0.07	28	1.6	356	46	128	174
11- 6-67	1225	50	0.5	625	360	3,600	8.0	11.0	0.8	30	33		0.24	0.00	0.01	0.81	0.10	0.18	8.1	0	104	130	36.8	9.4	4	4.8	2.1	0.03	0.43	0.07	43	4.2	284	21	186	207
2-13-68	1240	50	1.0	435	<2	230	2.0	13.5	1.2	5	3		0.08	<0.01	0.02	0.41		0.27	8.2	0	104				3	4.0	0.9	<0.05			10	2.8	230	0	60	60
4-25-68	1150	50	1.0	2,080	2,300	2,300	17.0	9.0	1.1	15	10		0.12	<0.01	<0.01	0.29	0.04	0.27	8.3	1	91	100	24	10	3	6.2	4.5	<0.05	0.55	0.04	20	0.4	270	20	140	160

1. Location in Stream: Percent distance from left bank looking downstream.
2. Nitrogen: Values shown are mg/l nitrogen in the forms listed.

NORTH FORK POWELL RIVER MILE 1.9

Date	Time ET 24-hr. Clock	Location in Stream[1]	Depth ft.	Stream Disch. cfs	Coliforms[3] Fecal MPN/100ml	Coliforms[3] Total MPN/100ml	Water Temp. °C.	DO mg/l	5-Day 20°C. BOD mg/l	Color PCU	Turb. JCU	Threshold Odor No.	Nitrogen[2] Org. mg/l	Nitrogen[2] NH_3 mg/l	Nitrogen[2] NO_2 mg/l	Nitrogen[2] NO_3 mg/l	Phosphate Sol. mg/l	Phosphate Tot. mg/l	pH	Alkalinity ($CaCO_3$) Phen. mg/l	Alkalinity ($CaCO_3$) Tot. mg/l	Total Hardness ($CaCO_3$) mg/l	Ca mg/l	Mg mg/l	Cl mg/l	Na mg/l	K mg/l	Iron Fe^{++} mg/l	Iron Tot. mg/l	Mn, Total mg/l	SO_4 mg/l	SiO_2 mg/l	Specific Conductance at 25°C. µmhos/cm	Solids Sus. mg/l	Solids Dis. mg/l	Solids Tot. mg/l
6- 8-67	1000	15	0.5	57	2,600	3,500	16.1	9.1	1.3	5			0.21	0.00	0.01	0.18	0.08	0.09	7.8																	
7- 3-67	0930	25	0.5	38	600	3,200	20.7	7.8	0.8	5			0.23	0.00	<0.01	0.25	0.01	0.10	7.8	0	47													20	69	89
8- 1-67	0840	10	0.5	115	43,000	43,000	20.0	9.1	0.5	15			1.49	0.00	0.03	0.13	0.04	1.26	7.0	0	15													11	117	128
8-30-67	0925	15	0.3	34	<10		19.0	8.1	1.6	10			0.17	0.01	0.02	0.20	0.55	0.80	7.6															793	54	847
																																		62	102	164

RUSSELL CREEK MILE 2.8

Date	Time ET 24-hr. Clock	Location in Stream[1]	Depth ft.	Stream Disch. cfs	Coliforms[3] Fecal MPN/100ml	Coliforms[3] Total MPN/100ml	Water Temp. °C.	DO mg/l	5-Day 20°C. BOD mg/l	Color PCU	Turb. JCU	Threshold Odor No.	Nitrogen[2] Org. mg/l	Nitrogen[2] NH_3 mg/l	Nitrogen[2] NO_2 mg/l	Nitrogen[2] NO_3 mg/l	Phosphate Sol. mg/l	Phosphate Tot. mg/l	pH	Alkalinity ($CaCO_3$) Phen. mg/l	Alkalinity ($CaCO_3$) Tot. mg/l	Total Hardness ($CaCO_3$) mg/l	Ca mg/l	Mg mg/l	Cl mg/l	Na mg/l	K mg/l	Iron Fe^{++} mg/l	Iron Tot. mg/l	Mn, Total mg/l	SO_4 mg/l	SiO_2 mg/l	Specific Conductance at 25°C. µmhos/cm	Solids Sus. mg/l	Solids Dis. mg/l	Solids Tot. mg/l
6-22-67	1100	80	1.0	13	3,600	16,000	18.3	9.8	11	15	3		0.40	<0.01	0.04	1.0	0.61	0.70	8.1	0	130	130	28	14	4	3.7	3.5		0.08	0.02	6	6.7	310	10	150	160
7-25-67	1425	90	1.0	22	24,000	24,000	16.7	10.1	1.5	10	30		0.20	<0.01	0.02	1.1	0.20	0.78	8.0	0	146	170	42	15	3	2.1	1.5	<0.05	0.40	0.06	14	5.0	350	20	140	160
8-14-67	1800	90	1.0	14	39,000	39,000	19.0	10.3	1.9	5	10		0.13	<0.01	0.01	1.1	0.34	0.44	7.7	0	135	150	37	14	13	3.8	1.4	<0.05	0.12	0.08	1	6.5	320	20	160	180
9-25-67	1440	90	1.0	7	36,000	62,000	16.1	10.5	1.1	5	2		0.33	<0.01	0.01	1.2	0.82	0.95	7.9	0	152	160	33	20	16	4.1	1.6	<0.05	0.09	0.02	7	5.0	380	30	170	200
10-18-67	1215	50	1.0	6	11,000	36,000	13.5	9.8	1.5	35	60		0.34	0.84	0.07	1.4	1.3	1.9	8.1	0	148	170	42	16	12	9.5	3.6	<0.05	0.33	0.02	10	6.2	360	30	180	210
11- 6-67	1015	50	1.0	15	2,300	6,200	8.5	11.5	1.0	20	15		0.21	0.03	0.02	2.0	0.50	0.62	8.1	0	163	180	49	14	4	2.8	1.4	<0.05	0.20	0.04	13	6.4	370	40	100	140
2-13-68	1105	5	1.0	14	360	2,200	2.0	14.7	3.0	<5	8		0.35	0.02	0.03	0.97	1.0	1.0	8.2	0	136				4	2.0	0.8	<0.05			6	4.8	260	20	160	180
4-25-68	1315	50	1.0	20	93	810	16.0	12.0	1.8	10	3		0.10	<0.01	0.02	1.4	0.33	0.39	8.8	2	139	150	36	15	6	2.8	3.4	<0.05	0.16	0.01	6	2.1	330	10	180	190

DOG CREEK MILE 0.8

Date	Time ET 24-hr. Clock	Location in Stream[1]	Depth ft.	Stream Disch. cfs	Coliforms[3] Fecal MPN/100ml	Coliforms[3] Total MPN/100ml	Water Temp. °C.	DO mg/l	5-Day 20°C. BOD mg/l	Color PCU	Turb. JCU	Threshold Odor No.	Nitrogen[2] Org. mg/l	Nitrogen[2] NH_3 mg/l	Nitrogen[2] NO_2 mg/l	Nitrogen[2] NO_3 mg/l	Phosphate Sol. mg/l	Phosphate Tot. mg/l	pH	Alkalinity ($CaCO_3$) Phen. mg/l	Alkalinity ($CaCO_3$) Tot. mg/l	Total Hardness ($CaCO_3$) mg/l	Ca mg/l	Mg mg/l	Cl mg/l	Na mg/l	K mg/l	Iron Fe^{++} mg/l	Iron Tot. mg/l	Mn, Total mg/l	SO_4 mg/l	SiO_2 mg/l	Specific Conductance at 25°C. µmhos/cm	Solids Sus. mg/l	Solids Dis. mg/l	Solids Tot. mg/l
6-20-67	1220	50	1.0	4	3,600	5,500	19.7	7.0	1.4	5			0.36	<0.01	0.04	0.52	0.46	0.53	8.1	0	153															
7-25-67	1710	50	1.0	6	39,000	70,000	19.4	8.2	1.1	10	35		0.31	<0.01	0.02	0.75	0.17	0.67	7.9	0	113				4		<0.05						360			
8-15-67	1335	50	1.0	4	13,000	70,000	18.5	8.9	1.0	15	4		0.11	0.02	0.04	0.81		0.40	7.7	0	147				9											
9-25-67	1620	50	1.0	2	3,600	6,200	17.0	8.3	1.1	5			0.39	0.20	0.03	0.57	0.72	0.96	7.6	0	146												320			
10-18-67	1545	50	1.0	2	160,000	390,000	16.0	6.8	3.0	50			0.19	0.02	0.04	0.70	0.74	1.2	7.8	0	122													60	120	180
11- 6-67	1415	50	1.0	4	16,000	62,000	11.0	9.6	1.5	15			0.16	<0.01	0.02	1.5	0.53	0.61	8.2	0	161															
2-13-68	1400	50	1.0	4	1,600	6,200	5.0	14.6	2.8				0.74	0.16	0.03	0.70	0.82	0.98	8.0	0	154													0	180	180
4-24-68	1600	50	1.0	6	55,000	94,000	17.5	9.3	2.4	5	20						0.48	0.64	8.1	0	130												320	20	170	190

1. Location in Stream: Percent distance from left bank looking downstream.
2. Nitrogen: Values shown are mg/l nitrogen in the forms listed.
3. Membrane Filter Method used to determine coliform densities in North Fork Powell River.

COAL CREEK MILE 4.9

Date	Time ET 24-hr. Clock	Location in Stream[1]	Depth	Stream Disch.	Coliforms Fecal	Coliforms Total	Water Temp.	DO	5-Day 20° C. BOD	Color	Turb.	Nitrogens[2] Org.	Nitrogens[2] NH_3	Nitrogens[2] NO_2	Nitrogens[2] NO_3	Phosphate Sol.	Phosphate Tot.	pH	Alkalinity ($CaCO_3$) Phen.	Alkalinity ($CaCO_3$) Tot.	Total Hardness ($CaCO_3$)	Ca	Mg	Cl	Na	K	Iron Fe^{++}	Iron Tot.	Mn, Total	Cu	Zn	SO_4	SiO_2	Specific Conductance at 25° C.	Solids Dis.	Solids Tot.
			ft.	cfs	No./100 ml		°C.	mg/l	mg/l	PCU	JCU	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l		mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	µmhos/cm	mg/l	mg/l
6-20-67	1340	60	1.0	6	2,300	6,200	23.4	8.9	1.1	5	15	0.09	0.02	0.02	0.12	<0.01	0.02	8.3	0	114	91	15	13	22	8.0	2.5	0.10	0.31	0.04	<0.01	0.02	84	5.7	490	220	280
7-27-67	0940	60	1.0	22	620	11,000	18.3	9.4	<1.0	10	55	0.06	<0.01	0.02	0.17	0.02	0.24	7.8	0	49	66	11	9.5	4	15.9	2.1	<0.05	12	0.77	<0.01	0.16	46	7.5	230	120	210
8-15-67	1155	70	1.0	8	520	23,000	18.5	10.4	1.0	10	15	<0.01	<0.01	0.01	0.19	0.01	0.06	7.5	0	114	100	19	13	4	6.3	2.7	<0.05	0.33	0.06	<0.01	0.02	43	7.2	410	290	300
9-25-67	1755	50	1.0	4	360	16,000	18.0	9.2	<1.0	5	20	0.43	0.13	0.03	0.10	0.10	0.23	7.8	0	145	100	22	12	14	94	2.9	<0.05	0.36	0.04	0.01	0.06	89	4.9	720	360	380
10-18-67	1700	50	1.0	30	34,000	94,000	15.0	9.0	2.4	30	80	0.43	<0.01	0.04	0.19	0.09	2.0	7.5	0	40	51	10	6.5	2	7.5	4.5	0.05	0.50	0.29	<0.01	0.08	41	4.7	190		
11- 6-67	1520	50	1.0	16	940	6,200	8.0	11.4	1.1	20	20	0.17	0.04	<0.01	0.21	0.05	0.18	7.8	0	47	65	13	8.0	3	19.5	1.9	<0.05	0.31	0.26	<0.01	0.17	140	7.0	260		
2-15-68	1000	50	1.0	9	360	3,400	1.5	13.3	1.4	5	10	0.26	0.08	0.01	0.28	0.07	0.11	8.1	0	100				2	45	1.6	<0.05					50	5.4	330	210	210
4-24-68	1445	50	1.0	22	2,300	39,000	18.0	9.0	1.0	20	140	0.31	<0.01	0.01	0.28	0.07	0.33	7.8	0	44				3	11.3	4.8	<0.05					32	3.5	200	120	200

COAL CREEK MILE 1.2

6-20-67	1405	50	1.0	15	6,200	9,400	21.9	8.1	1.5	5	25	0.12	0.03	0.03	0.22	0.26	0.38	8.1	0	124	120	25	13	11	28.6	1.9		0.41	0.06	<0.01	0.02	48	5.5	410	170	220
7-27-67	1020	50	1.0	30	6,200	11,000	18.6	9.2	1.1	10	65	0.19	<0.01	0.01	0.24	0.03	0.37	7.7	0	65	80	16	9.5	7	12.1	1.8	<0.05	1.5	0.14	<0.01	0.13	38	5.3	260	140	220
8-15-67	1230	50	1.0	16	2,600	36,000	17.5	9.7	<1.0	5	1	0.13	<0.01	0.02	0.26	0.20	0.29	7.6	0	125	130	30	13	18	40	2.1	<0.05	0.38	0.05	<0.01	0.01	35	3.8	440	220	270
9-25-67	1830	50	1.0	11	5,500	16,000	16.5	8.3	1.4	5	40	0.42	0.19	0.06	0.36	0.61	0.93	7.8	0	150	130	31	13	14	37	2.5	<0.05	0.44	0.05		0.06	84	5.9	520	210	220
10-18-67	1735	50	1.0	39	62,000	62,000	14.9	8.5	3.6	40	300	0.53	<0.01	0.02	0.31	0.15	2.1	7.8	0	55	67	15	7.0	3	6.8	5.5	<0.05	6.0	4.5	<0.01	0.10	39	4.9	190	140	160
11- 6-67	1550	50	1.0	23	16,000	16,000	8.0	11.6	<1.0	20	25	0.20	0.03	0.01	0.32	0.16	0.42	8.1	0	68	83	18	8.5	3	15.7	1.8	<0.05	0.80	0.10	<0.01	0.08	73	6.2	230		
2-15-68	0955	50	1.0	16	3,600	11,000	2.0	12.1	1.5	5	20	0.28	0.10	0.01	0.31		0.52	8.1	0	10				2	35	1.5	<0.05					60	4.1	330	210	210
4-24-68	1415	50	1.0	30	23,000	23,000	16.8	9.3	2.4	40	100	0.36	0.03	0.02	0.42	0.14	0.34	7.6	0	52	50	8.0	7.5	3	9.2	4.4	<0.05	1.3	0.10	0.09	0.04	28	4.2	200		

BUFFALO CREEK MILE 1.8

6-20-67	0945	50	1.0	1	1,600	5,500	20.3	6.8	1.1	10	10	0.27	0.01	0.05	0.72	1.2	1.6	8.0	0	148	190	55	12	18	3.8	1.4		0.34	0.02	<0.01	0.05	10	4.4	360	170	170
7-27-67	0810	75	1.0	4	11,000	39,000	16.1	8.3	1.3	15	35	0.19	<0.01	0.02	0.49	0.40	0.58	8.0	0	168	190	62	9.0	5	2.1	1.5	<0.05	0.43	0.07	<0.01	0.10	10	4.7	380	190	200
8-15-67	0915	75	1.0	2	6,200	23,000	17.0	8.6	<1.0	15	3	0.14	<0.01	0.03	0.75	0.93	1.2	7.8	0	162	180	53	12	8	2.4	1.2	<0.05	0.26	0.04	<0.01	<0.01	7	3.4	330	180	200
9-26-67	0850	75	1.0	0.4	360	3,600	13.5	7.1	<1.0	5	4	0.27	0.01	0.02	1.3		1.1	7.5	0	167	180	53	12	15	4.4	2.5	<0.05	0.21	0.02	<0.01	0.08	10	3.7	430	200	280
10-19-67	1000	50	1.0	3	23,000	36,000	12.0	8.5	1.6	25	10	0.53	0.06	0.01	0.61	0.76	1.1	8.0	0	157	200	67	8.0	3	2.4	3.1	<0.05	0.38	0.10	<0.01	0.04	16	5.1	340	200	220
11- 6-67	1645	50	1.0	5	6,200	39,000	9.0	10.9	<1.0	25	20	0.21	0.08	0.01	0.89	0.42	0.48	8.6		166	190	62	7.5	3	1.9	1.1	<0.05	0.22	0.07	<0.01	0.04	20	5.9	450	140	200
2-15-68	0850	50	1.0	2	2,300	3,600	2.5	11.4	1.5	5	3	0.35	0.42	0.02	0.65			8.0	0	168				4	3.0	1.1	<0.05					8	1.4	320	190	190
4-24-68	1745	50	1.0	4	36,000	62,000	15.3	8.8	2.8	30	55	0.72	<0.01	0.03	0.72	0.55	0.77	7.9	0	151	170	56	7.5	4	1.7	4.1	0.05	0.84	0.09	0.02	<0.01	11	3.1	350	180	230

1. Location in Stream: Percent distance from left bank looking downstream.
2. Nitrogen: Values shown are mg/l nitrogen in the forms listed.

POPLAR CREEK MILE 21.6

Date	Time ET 24-hr. Clock	Location in Stream[1]	Depth ft.	Stream Disch. cfs	Coliforms Fecal No./100 ml	Coliforms Total No./100 ml	Water Temp. °C.	DO mg/l	5-Day 20° C. BOD mg/l	Color PCU	Turb. JCU	Nitrogens[2] Org. mg/l	Nitrogens[2] NH_3 mg/l	Nitrogens[2] NO_2 mg/l	Nitrogens[2] NO_3 mg/l	Phosphate Sol. mg/l	Phosphate Tot. mg/l	pH	Alkalinity ($CaCO_3$) Phen. mg/l	Alkalinity ($CaCO_3$) Tot. mg/l	Total Hardness ($CaCO_3$) mg/l	Ca mg/l	Mg mg/l	Cl mg/l	Na mg/l	K mg/l	Iron Fe^{++} mg/l	Iron Tot. mg/l	Mn, Total mg/l	Cu mg/l	Zn mg/l	SO_4 mg/l	SiO_2 mg/l	Specific Conductance at 25° C. µmhos/cm	Solids Dis. mg/l	Solids Tot. mg/l
6-20-67	1525	50	1.0	13	1,100	3,600	25.3	8.0	1.2	5	20	0.09	<0.01	0.01	0.09	<0.01	0.04	8.1	0	40	110	26	12	16	5.8	1.8		2.5	0.11	<0.01	0.02	72	4.4	340	180	190
7-27-67	1305	75	1.0	30	2,300	6,200	21.1	8.9	<1.0	10	30	0.23	<0.01	0.01	0.09	0.01	0.12	7.4	0	29	89	21	9.0	4	3.6	1.7	0.10	1.1	0.32	<0.01	0.10	51	5.0	250	140	180
8-17-67	1210	50	1.0	12	210	3,600	21.0	9.3	<1.0	10		<0.01	<0.01	0.01	0.03	0.02	0.15	7.2	0	35	130	32	11	4	5.3	1.6	<0.05	0.12	0.10	<0.01	0.05	31	3.6	200	160	190
9-26-67	1325	50	1.0	6	23	1,100	17.5	9.1	<1.0	5	4	0.16	<0.01	0.02	0.29	0.09	0.11	7.4	0	49	170	46	13	13	8.3	2.3	<0.05	0.62	0.09	<0.01	0.06	96	6.5	510	250	250
10-19-67	1445	50	1.0	45	2,300	6,200	14.0	9.5	1.2	20	80	0.21	0.06	0.01	0.08	0.07	0.18	7.4	0	23	63	15	6.0	2	2.4	2.0	0.05	1.1	0.24	<0.01	0.05	58	5.7	190	120	120
11- 7-67	1700	50	1.0	28	60	230	8.0	11.6	<1.0	5	25	0.11	0.02	<0.01	0.13	0.07	0.07	6.8	0	20	57	13	6.0	3	3.2	1.2		0.91	0.32	0.01	0.14	42	6.1	160	110	120
2-15-68	1100	50	1.0	21	6	230	1.0	13.8	<1.0	<5	10	0.18	0.04	0.01	0.07	0.06	0.11	8.2	0	22				2	3.6	0.6	<0.05					80	4.8	160	110	120
4-24-68	1125	50	1.0	220	1,600	11,000	16.0	9.3	1.1	30	275	0.32	<0.01	0.02	0.24	0.02	0.23	6.8	0	26	47	7.5	7.0	3	3.0	4.5	<0.05	2.2	0.30	0.06	0.04	35	2.7	180	70	310

POPLAR CREEK MILE 13.8

Date	Time ET 24-hr. Clock	Location in Stream[1]	Depth ft.	Stream Disch. cfs	Coliforms Fecal No./100 ml	Coliforms Total No./100 ml	Water Temp. °C.	DO mg/l	5-Day 20° C. BOD mg/l	Color PCU	Turb. JCU	Nitrogens[2] Org. mg/l	Nitrogens[2] NH_3 mg/l	Nitrogens[2] NO_2 mg/l	Nitrogens[2] NO_3 mg/l	Phosphate Sol. mg/l	Phosphate Tot. mg/l	pH	Alkalinity ($CaCO_3$) Phen. mg/l	Alkalinity ($CaCO_3$) Tot. mg/l	Total Hardness ($CaCO_3$) mg/l	Ca mg/l	Mg mg/l	Cl mg/l	Na mg/l	K mg/l	Iron Fe^{++} mg/l	Iron Tot. mg/l	Mn, Total mg/l	Cu mg/l	Zn mg/l	SO_4 mg/l	SiO_2 mg/l	Specific Conductance at 25° C. µmhos/cm	Solids Dis. mg/l	Solids Tot. mg/l
6-23-67	0820	50	1.0	120	70,000	>240,000	20.8	7.0	<1.0	20	300	0.86	<0.01	0.02	0.42	0.04	1.3	7.6	0	59	75	10	12	2	2.6	5.6		2.5	0.58	0.02	0.05	31	7.8	240	110	290
7-27-67	1405	50	1.0	125	16,000	22,000	20.0	8.3	1.2	10	85	0.16	<0.01	0.01	0.22	0.01	0.22	7.6	0	60	100	23	11	3	3.2	2.1	<0.05	1.6	0.44	<0.01	0.24	40	6.4	250	140	210
8-17-67	1100	50	1.0	36	210	1,100	19.9	7.8	1.2	5	<1	<0.01	<0.01	0.01	0.22	0.01	0.08	7.2	0	91	140	35	12	3	3.2	1.4	<0.05	0.30	0.16	0.02	0.10	32	4.9	250	160	160
9-26-67	1430	50	1.0	20	36	1,100	15.5	8.1	<1.0	5	6	0.15	<0.01	0.01	0.12	0.07	0.12	7.4	0	110	140	35	12	19	2.9	1.6	<0.05	0.18	0.11	<0.01	0.03	36	4.0	370	130	200
10-19-67	1535	50	1.0	180	6,200	22,000	13.0	9.1	1.4	15	70	0.34	0.22	0.01	0.11	0.10	0.40	7.6	0	40	66	16	6.5	2	3.3	2.7	<0.05	0.28	0.39	<0.01	0.06	40	5.1	190	110	120
11- 7-67	1755	50	1.0	150	160	940	7.0	11.2	<1.0	5	25	0.11	<0.01	<0.01	0.28	0.07	0.14	7.2	0	55	81	20	7.5	3	3.7	1.3	0.05	0.46	0.38	0.01	0.28	36	6.4	170	80	80
2-15-68	1155	50	1.0	65	36	360	2.0	12.8	<1.0	5	9	0.19	0.07	0.01	0.16	0.07	0.07	8.0	0	88				2	2.6	0.9	<0.05					30	5.2	220	130	130
4-24-68	1200	50	1.0	235	5,500	16,000	15.0	8.7	2.1	40	425	0.71	0.24	0.02	0.25	0.05	0.39	6.8	0	39	48	6.0	8.0	2	1.9	4.8	0.05	3.3	0.47	0.04	0.04	30	3.6	180	100	450

1. Location in Stream: Percent distance from left bank looking downstream.
2. Nitrogen: Values shown are mg/l nitrogen in the forms listed.

EMORY RIVER MILE 34.5

Date	Time ET 24-hr. Clock	Location in Stream[1]	Depth	Stream Disch.	Coliforms Fecal	Coliforms Total	Water Temp.	DO	5-Day 20°C. BOD	Color	Turb.	Acidity ($CaCO_3$)	Nitrogen[2] Org.	Nitrogen[2] NH_3	Nitrogen[2] NO_2	Nitrogen[2] NO_3	Phosphate Sol.	Phosphate Tot.	pH	Alkalinity ($CaCO_3$) Phen.	Alkalinity ($CaCO_3$) Tot.	Total Hardness ($CaCO_3$)	Ca	Mg	Cl	Na	K	Iron Fe^{++}	Iron Tot.	Mn, Total	SO_4	SiO_2	Specific Conductance at 25°C.	Solids Sus.	Solids Dis.	Solids Tot.
				cfs	MPN/100 ml		°C.	mg/l	mg/l	PCU	JCU	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l		mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	µmhos/cm	mg/l	mg/l	mg/l
6-23-67	1040	50	0.5	38	3,600	16,000	22.8	3.9	0.0	5	65		0.26	0.00	0.02	0.04	0.01	0.14	7.2	0	16	38	2.2	8.0	1	1.3	2.5		0.87	0.24	11	4.1	81	39	46	85
7-28-67	0940	50	0.5	32	620	3,600	21.1	7.4	0.9	5	125		0.00	0.00	0.03	0.09	0.03	0.46	6.9	0	10	33	4.2	5.4	17	1.5	4.6	0.00	3.90	0.20	32	9.6	100	245	138	383
8-16-67	1705	50	0.5	8	60	360	21.5	7.4	1.1	15	12		0.00	0.00	0.01	0.09	0.02	0.08	6.6	0	13	24	4.2	3.4	3	4.5	1.8	0.02	0.65	0.09	7	4.7	98	3	57	60
9-27-67	1335	50	0.5	2	1,100	3,600	16.0	3.7	0.9	5	25	44	0.12	0.09	0.02	0.01	0.10	0.16	5.8	0	24	38	8.0	4.4	13	2.3	1.7	0.02	1.50	0.38	152	2.5	152	4	68	72
10- 3-67	1705	50	0.5	287			14.0					10							6.6	0	18	23	4.3	3.0	1				1.37		14					
10-11-67	1515	50	0.5	10			15.0	2.7				27							6.6	0	24	44	11.3	3.8	1			0.04	1.29		12					
10-17-67	1315	50	0.5	3	23	1,000	16.5	5.0	2.2	30	4	10	0.33	0.30	0.01	0.03	0.09	0.24	6.9	0	20	29	6.2	3.3	3	1.6	2.6	0.06	0.92	0.12	23	4.9	83	4	59	63
11- 2-67	1340	50	0.5	2,180			12.0	9.7				5							7.1	0	40	14	2.2	2.2	3			0.03	2.55		13					
11- 5-67	1312	50	0.5	171	94	2,300	7.5	11.4	0.8			2	0.13	0.00	<0.01	0.05	0.05	0.10	7.2	0	7	16	3.3	2.0	2	1.1	1.1	0.05	0.31	0.04	12	5.5	54	7	28	35
11-13-67	1635	50	1.0	34			10.0	10.1											7.3	0	18	20	4.0	2.5	3			<0.05	0.58		12					
12- 5-67	1106	50	1.0	331	11	620	5.0	13.2	3.0	20	25		0.29	<0.01	<0.01	0.03	0.05	0.14	6.8	0	8	12	2.0	1.5	2	1.0	0.9	<0.05	0.66	0.04	9	5.2	39	10	40	50
2-14-68	1250	50	1.0	49	<2	110	0.5	13.0	<1.0	5	15		0.20	0.01	<0.01	0.10	0.10	0.10	8.1	0	26				3	1.4	0.8	0.10			7	4.1	47	0	40	40
4-22-68	1625	50	1.0	88	62	220	17.4	9.7	1.5	15	30		0.07	<0.01	<0.01	0.04	0.08	0.08	6.9	0	5	11	1.0	2.0	1	0.4	2.8	<0.05	0.46	0.04	10	3.3	44	10	80	90

EMORY RIVER MILE 18.4

6-23-67	1510	50	1.0		2,200	6,200	27.0	7.3	0.8	10	53		0.22	0.00	0.03	0.07	0.12	0.12	7.1	0	6	61	5.0	11.8	2	2.7	2.9		0.24	0.20	26	3.1	131	10	74	84
7-25-67	1645	60	0.5	370	110	940	25.8	8.4	1.1	10	3		0.25	0.00	0.01	0.03	0.01	0.03	7.1	0	6	24	5.0	2.8	4	1.8	1.0	0.20	0.30	0.20	24	~~3~~3.4	88	8	41	49
8-16-67	1850	50	0.5	167	2	36	24.5	8.9	0.9	5	12		0.00	0.00	0.01	0.03	0.01	0.02	6.9	0	6	24	5.2	2.8	2	1.6	1.3	0.02	0.19	0.11	14	2.9	129	0	56	56
9-27-67	1800	50	0.5	42	620	6,200	19.5	8.1	0.8	5	18		0.20	0.08	0.03	0.01		0.10	7.9	0	13	51	12.0	5.2	18	2.8	1.5	0.01	1.00	0.13	66	2.8	206	43	50	93
10- 2-67	1705	50	0.5	197			16.0	9.4											6.2	0	11	22	5.3	2.2	10			0.02	1.67		25					
10-11-67	0935	50	0.5	182			15.0	9.1				14							6.8	0	10		9.3	3.8	6			0.01	0.31		25					
10-17-67	1600	50	0.5	82	34	3,600	18.0	8.8	1.9	35	6	3	0.12	0.00	<0.01	<0.01	0.10	0.10	7.3	0	9	29	7.0	2.8	4	2.4	1.7	0.04	0.27	0.29	19	2.50	86	21	49	70
11- 2-67	0917	50	0.5	12,100			11.5	10.0				12							7.4	0	8	13	2.2	1.9	3			0.03	2.70		9					
11- 7-67	1345	50	0.5	1,440	34	1,100	6.5	12.0	1.2	10	4	2	0.15	0.04	<0.01	0.11	0.05	0.19	7.1	0	5	15	3.3	1.6	3	1.3	0.9	0.12	0.36	0.12	8	4.20	47	3	15	18
12- 4-67	1520	50	1.0	5,000	110	5,500	7.0	12.3	<1.0										7.9	0	110	10	2.0	1.0	1	0.9	0.9	<0.05	0.53	0.07		4.2	38	10	30	40
2-14-68	1515	50	1.0	420	<2	5	1.0	11.2	<1.0	5	6		0.20	0.07	<0.01	0.17	0.08	0.08	8.1	0	16				3	1.0	0.6	0.10			17	2.5	59	10	40	50
4-22-68	1220	50	1.0	3,700	9	94	16.7	9.6	1.8	10	15		0.05	<0.01	<0.01	0.06	0.14	0.17	6.7	0	2	9	1.0	1.5	1	3.1	5.3	<0.05	0.22	0.08	8	1.8	42	0	20	20

1. Location in Stream: Percent distance from left bank looking downstream.
2. Nitrogen: Values shown are mg/l nitrogen in the forms listed.

EMORY RIVER MILE 12.5

Date	Time	Location in Stream	Depth	Total Coliforms	Temp.	DO	5-day 20°C. BOD	Color	Turb.	Threshold Odor	Alkalinity Phen.	Alkalinity Tot.	Hard. $CaCO_3$	pH	Spec. Resistance	Cl	Ca	Mg	Na	K	Fe, Total	Mn, Total	SiO_2	SO_4	Solids Sus.	Solids Dis.	Solids Tot.
1961			ft.	MPN/100 ml	°C.	mg/1	mg/1	PCU	JCU	No.	mg/1	mg/1	mg/1		ohms	mg/1	mg/1	mg/1	mg/1	mg/1	mg/1	mg/1	mg/1	mg/1	mg/1	mg/1	mg/1
6-6	11:55 a.	Middle	Surf.	16	24.6	8.13	1.41	10	3	None	0.00	6.20	18.1	7.3	20,200	1.80	4.36	2.14	2.28	0.52	0.22	0.07	3.56	10.9	8	37	45
			5		24.0	8.11								7.3													
			10		23.0	8.16								7.2													
			20		18.0	6.52	1.12	10	3	None	0.00	15.1	23.2	6.3	17,500	1.94	6.11	2.33	1.62	0.52	0.48	0.25	4.32	11.8	10	30	40
7-11	10:45 a.	Middle	Surf.	360	24.6	7.96	1.65	15	9	None	0.00	0.50	26.4	5.5	8,800	0.98	5.30	3.52	1.44	1.18	0.40	0.13	4.36	20.0	3	40	43
			5		24.3	7.91								5.6													
			10		22.8	7.13								5.8													
			20		19.7	2.79	1.95	10	8	None	0.00	16.9	37.3	6.0	11,500	1.59	9.17	3.77	2.73	1.16	0.83	0.72	5.74	15.5	5	30	35
8-16	11:05 a.	Middle	Surf.	-	24.6	7.90	1.00	5	10	None	0.00	5.90	21.7	7.5	19,400	2.97	5.73	1.42	1.55	0.56	0.74	0.05	3.84	21.8	18	40	58
			5		24.4	7.91								6.5													
			10		24.0	7.76								6.6													
			20		21.9	1.69	1.45	5	15	1+	0.00	62.9	76.4	6.8	6,400	3.31	19.8	5.30	4.06	0.84	0.98	0.59	4.54	22.7	5	86	91
9-21	10:35 a.	Middle	Surf.	340	22.9	7.44	1.54	5	<5	None	0.00	47.0	70.3	7.9	6,800	2.12	17.4	6.59	4.30	0.85	0.22	0.05	2.74	20.0	11	91	102
			5		22.7	7.31								7.9													
			10		22.1	6.59								8.2													
			20		21.0	1.03	2.29	10	5	1+	0.00	85.4	100	8.0	5,000	2.70	24.1	9.98	5.25	0.88	0.38	0.38	3.10	22.7	40	109	149
10-25	10:30 a.	Middle	Surf.	230	16.7	6.87	0.51	5	4	1+	0.00	49.2	78.4	7.5	5,800	3.98	18.1	8.73	6.46	0.97	0.33	0.07	3.16	28.8	27	97	124
			4		16.3	6.78								7.5													
			9		16.3	6.57								7.5													
			19		16.3	6.98	1.77	10	15	None	0.00	43.7	77.1	7.5	5,900	4.23	18.7	7.98	5.60	0.77	0.94	0.13	2.90	29.8	25	98	123
11-20	9:45 a.	Middle	Surf.	360	10.0	10.08	0.51	10	7	1+	0.00	10.3	29.6	7.1	13,700	2.45	6.11	3.97	1.93	1.29	0.22	0.15	4.10	22.7	5	58	63
			7		10.0	10.24								6.8													
			17		10.0	10.17	0.53	10	9	None	0.00	10.4	30.2	6.6	13,700	3.12	6.11	4.09	1.91	1.21	0.45	0.14	4.04	23.6	22	36	58
12-18	10:07 a.	Middle	Surf.	940	10.4	10.41	1.99	5	75	None	0.00	2.50	11.4	6.7	30,800	1.28	1.81	1.98	0.61	0.97	1.42	0.26	3.84	20.9	195	54	249
			6		10.5	10.39								6.7													
			16		10.6	10.45	1.75	15	80	None	0.00	2.50	11.2	6.7	32,300	1.36	2.07	1.67	0.70	0.97	1.45	0.28	3.90	20.0	216	19	235
1962																											
1-24	10:00 a.	Middle	Surf.	1,600	6.4	11.76	0.80	5	15	None	0.00	3.00	11.6	7.0	31,900	1.20	2.31	1.60	0.74	0.92	0.74	0.04	3.36	15.5	32	23	55
			15		6.4	11.82	0.87	5	15	None	0.00	4.90	10.7	7.1	26,800	1.00	4.11	0.06	0.93	0.71	0.93	-	3.90	13.6	19	40	59
2-21	10:45 a.	Middle	Surf.	94	6.8	11.24	1.18	5	20	None	0.00	4.00	14.4	6.6	23,600	1.31	3.81	1.40	1.38	0.93	0.34	-	0.96	16.4	1	24	25
			5		6.8	11.28								6.7													
			15		6.8	11.26	1.22	5	20	None	0.00	3.40	13.3	6.7	25,000	1.43	4.57	0.55	1.13	0.57	0.39	0.06	2.84	16.4	3	26	29
3-28	10:00 a.	Middle	Surf.	1,100	9.3	10.98	3.41	5	6	None	0.00	6.30	12.5	7.2	23,100	2.01	2.65	1.72	0.81	0.91	0.35	0.05	3.50	15.5	9	14	23
			5		9.3	10.90								7.2													
			15		9.2	10.96	0.66	5	7	None	0.00	6.30	12.5	7.3	23,200	2.14	2.56	1.78	0.81	0.48	0.29	0.07	3.06	16.4	13	21	34
5-7	9:30 a.	Middle	Surf.	360	20.0	8.54	1.08	5	5	None	0.00	5.00	19.0	7.3	17,400	2.61	4.52	2.34	1.27	0.70	0.15	0.12	3.60	24.5	4	24	28
			6		19.8	8.25								7.3													
			11		16.1	4.69								7.1													
			21		14.9	3.82	2.35	10	4	None	0.00	19.6	28.1	7.2	10,100	3.04	6.49	3.63	5.90	0.70	0.28	0.17	4.18	27.9	2	59	61
6-6	1:35 p.	Middle	Surf.	36	27.0	8.01	0.84	5	8	None	0.00	13.0	35.3	7.8	10,200	2.74	9.40	3.41	2.27	0.94	0.27	0.10	2.04	39.2	38	44	82
			6		27.0	7.88								7.8													
			11		21.8	2.16								7.3													
			21		21.3	0.39	1.35	5	25	None	0.00	67.2	72.5	7.3	5,900	3.37	22.0	5.06	5.00	0.94	0.24	0.04	4.04	35.3	99	94	193
Maximum					27.0	11.82	3.41	15	80	1+	0.00	85.4	100	8.2	32,300	4.23	24.1	9.98	6.46	1.29	1.45	0.72	5.74	39.2	216	109	249
Minimum					6.4	0.39	0.51	5	<5	None	0.00	0.50	10.7	5.5	5,000	0.98	1.81	0.06	0.61	0.48	0.15	0.04	0.96	10.9	1	14	23

EMORY RIVER MILE 5.1

Date	Time	Location in Stream	Depth	Total Coliforms	Temp.	DO	5-day 20°C. BOD	Color	Turb.	Threshold Odor	Alkalinity Phen.	Alkalinity Tot.	Hard. $CaCO_3$	pH	Spec. Resistance	Cl
1961			ft.	MPN/100 ml	°C.	mg/l	mg/l	PCU	JCU	No.	mg/l	mg/l	mg/l		ohms	mg/l
6-6	2:45 p.	Middle	Surf.	160	25.6	8.28	1.85	10	4	None	0.00	14.5	22.7	8.2	16,200	1.65
			5		25.0	8.37								7.9		
			10		24.2	8.11								7.7		
			20		21.1	7.60								7.5		
			30		18.2	6.40								7.1		
			40		18.0	6.29	0.63	10	15	None	0.00	12.1	23.2	7.0	18,000	1.85
7-11	1:05 p.	Middle	Surf.	230	25.8	8.44	0.57	10	10	None	0.00	11.2	27.1	7.9	11,900	1.27
			5		24.9	8.25								7.6		
			10		20.4	6.13								7.4		
			20		19.5	6.84								7.4		
			30		18.8	8.09								7.5		
			40		18.5	8.46	1.32	10	20	None	0.00	84.0	103	7.7	5,400	1.66
8-16	12:20 p.	Middle	Surf.	360	29.5	7.82	0.85	5	4	None	0.00	10.1	26.5	6.8	16,200	3.24
			5		26.9	7.86								7.0		
			10		24.8	6.71								7.0		
			20		23.1	6.03								7.2		
			30		20.5	4.05								7.5		
			40		20.3	3.89	2.49	5	10	1+	0.00	23.6	38.2	7.3	12,100	3.28
9-21	12:05 p.	Middle	Surf.	16	23.3	9.17	1.58	0	8	1+	0.00	74.9	96.7	8.0	5,400	1.91
			5		23.2	8.80								7.5		
			10		23.0	9.06								7.3		
			20		22.8	8.25								7.6		
			30		20.6	2.45								7.5		
			40		19.8	0.15	0.99	0	20	1+	0.00	75.5	109	7.6	5,100	2.72
10-25	12:35 p.	Middle	Surf.	23	18.0	8.74	2.43	5	10	None	0.00	84.1	104	7.8	4,900	3.50
			4		17.8	8.53								7.9		
			9		17.5	7.73								7.7		
			19		17.2	6.84								7.6		
			29		16.8	7.20								7.8		
			39		16.6	7.26	1.41	5	15	1+	0.00	79.4	103	7.8	5,000	3.32
11-20	11:40 a.	Middle	Surf.	230	13.0	7.15	0.91	10	10	None	0.00	56.6	77.8	7.5	5,900	3.43
			7		13.0	7.15								7.3		
			17		13.0	6.95								7.3		
			27		13.0	7.19								7.3		
			37		13.0	7.42	1.04	15	15	2	0.00	63.5	81.4	7.4	5,600	3.49
12-18	12:30 p.	Middle	Surf.	940	10.6	9.84	1.72	5	120	None	0.00	3.50	12.7	6.7	30,400	1.62
			6		10.7	9.74								6.6		
			16		10.8	9.84								6.5		
			26		10.8	9.93								6.5		
			36		10.8	9.79	1.88	10	140	None	0.00	3.10	12.9	6.5	29,400	1.69
1962																
1-24	12:30 p.	Middle	Surf.	1,100	6.7	11.69	0.74	5	15	None	0.00	5.70	13.2	5.9	25,700	1.49
			5		6.7	11.81								6.1		
			15		6.7	11.78								6.0		
			25		6.7	11.70								6.1		
			35		6.7	11.78	0.76	5	20	None	0.00	3.70	11.4	6.2	28,800	1.69
2-21	1:00 p.	Middle	Surf.	1,100	8.0	10.95	1.11	5	20	None	0.00	7.00	17.4	7.3	23,200	1.51
			5		8.0	10.85								7.2		
			15		8.0	10.94								7.2		
			25		8.0	10.90								7.1		
			35		8.0	10.82	0.93	5	15	None	0.00	6.60	18.6	7.1	20,500	1.61

EMORY RIVER MILE 5.1
(CONTINUED)

Date	Time	Location in Stream	Depth	Total Coliforms	Temp.	DO	5-day 20°C. BOD	Color	Turb.	Threshold Odor	Alkalinity Phen.	Alkalinity Tot.	Hard. $CaCO_3$	pH	Spec. Resistance	Cl
1962			ft.	MPN/100 ml	°C.	mg/l	mg/l	PCU	JCU	No.	mg/l	mg/l	mg/l		ohms	mg/l
3-28	12:10 p.	Middle	Surf.	2,400	11.9	10.92	1.55	5	15	None	0.00	5.20	12.5	7.5	24,500	2.30
			5		11.9	10.98								7.2		
			15		11.8	10.97								7.2		
			25		11.4	11.07								7.2		
			35		11.3	11.00	1.03	5	10	1+	0.00	3.20	12.1	7.1	25,800	2.25
			40		11.5	10.93								7.1		
5-7	11:30 a.	Middle	Surf.	70,000	22.9	9.27	1.97	5	7	None	0.00	7.70	19.6	8.1	15,200	2.86
			6		21.3	9.36								8.0		
			11		17.8	8.35								7.6		
			21		15.2	8.94								7.4		
			31		15.0	8.59								7.6		
			41		13.6	7.65	0.47	5	8	None	0.00	21.0	29.4	7.6	12,800	2.58
6-6	11:50 a.	Middle	Surf.	36	28.9	8.29	1.47	5	8	None	1.20	32.5	45.2	8.5	8,800	3.04
			6		27.5	7.89								8.1		
			11		26.3	7.20								7.9		
			21		21.4	7.04								7.9		
			31		19.7	4.01								7.7		
			41		19.0	2.29	1.07	5	9	None	0.00	65.4	69.6	7.4	6,400	2.54
Maximum					29.5	11.81	2.49	15	140	2	1.20	84.0	109	8.5	30,400	3.50
Minimum					6.7	0.15	0.47	0	4	None	0.00	3.10	11.4	5.9	4,900	1.27

EMORY RIVER MILE 1.4

Date	Time	Location in Stream	Depth	Total Coliforms	Temp.	DO	5-day 20°C. BOD	Color	Turb.	Threshold Odor	Alkalinity Phen.	Alkalinity Tot.	Hard. $CaCO_3$	pH	Spec. Resistance	Cl
1961			ft.	MPN/100 ml	°C.	mg/l	mg/l	PCU	JCU	No.	mg/l	mg/l	mg/l		ohms	mg/l
6-6	3:18 p.	Right	Surf.	13	25.2	8.81	2.20	5	6	None	0.00	49.5	66.0	7.1	7,300	2.19
			5		24.6	8.89								8.0		
			10		24.1	8.78								7.4		
			20		21.0	8.18								7.8		
			30		18.1	9.40								5.9		
			40		17.8	9.00	1.55	5	25	None	0.00	88.1	103	6.5	5,400	2.28
7-11	1:30 p.	Right	Surf.	23	-	8.94	0.64	10	10	None	0.00	22.8	42.7	7.9	11,900	1.08
			5		24.1	8.86								7.8		
			10		22.7	8.86								7.5		
			20		18.8	9.43								7.5		
			30		18.1	9.53								7.6		
			40		17.6	9.56	2.42	10	30	None	0.00	88.9	106	7.5	5,200	1.27
			45		17.2	9.56								7.9		
8-16	12:56 p.	Right	Surf.	62	29.0	8.38	1.61	5	2	None	0.00	14.9	34.8	7.7	11,500	3.24
			5		26.2	8.28								6.6		
			10		25.0	6.41								6.9		
			20		21.2	8.39								7.3		
			30		20.3	8.28								7.5		
			40		19.4	8.32	0.94	5	20	None	0.00	88.9	110	7.4	5,000	3.01
			50		19.3	8.24								7.0		
9-21	12:35 p.	Right	Surf.	55	25.0	9.69	2.76	0	1	1+	0.00	96.0	115	8.2	4,600	3.70
			5		24.1	10.00								8.1		
			10		23.9	9.91								8.3		
			20		23.1	9.69								8.2		
			30		20.5	8.54								8.2		
			40		19.5	8.26	0.73	0	10	1+	0.00	107	122	8.2	4,500	2.02
			49		19.0	8.13								7.9		
10-25	1:10 p.	Right	Surf.	110	19.5	8.22	1.18	0	6	None	0.00	103	116	7.5	4,500	1.92
			4		19.1	8.26								7.7		
			9		18.7	7.95								7.8		
			19		18.5	7.78								7.9		
			29		18.4	7.70								7.9		
			39		17.8	7.14	0.87	5	15	None	0.00	102	119	7.8	4,400	2.11
11-20	12:03 p.	Right	Surf.	360	15.2	8.50	1.14	5	10	None	0.00	102	110	7.8	4,400	3.05
			7		14.5	8.57								7.9		
			17		14.3	8.42								7.9		
			27		14.3	8.25								7.9		
			37		14.3	8.23	1.36	5	15	None	0.00	104	111	7.9	4,400	2.69
			39		14.3	8.21								7.9		
12-18	1:40 p.	Right	Surf.	1,600	10.6	9.97	1.32	5	100	1+	0.00	5.00	13.3	6.9	27,500	1.33
			6		10.7	9.91								6.8		
			16		10.7	9.94								6.8		
			26		10.6	9.92								6.8		
			36		10.5	9.89	2.26	10	150	1+	0.00	4.20	13.5	6.9	27,500	1.44
			41		-	10.04								6.9		
1962																
1-24	1:25 p.	Right	Surf.	24,000	6.8	11.61	0.57	5	25	None	0.00	3.80	16.7	6.2	27,000	1.35
			5		6.8	-								6.2		
			15		6.8	11.64								6.1		
			25		6.8	-								6.1		
			35		6.8	11.67	1.45	5	20	None	0.00	3.80	13.8	6.2	27,600	1.39
2-21	1:35 p.	Right	Surf.	16,000	8.5	10.15	1.59	5	15	None	0.00	14.6	27.5	7.3	14,100	1.53
			5		8.4	10.46								7.3		
			15		8.3	10.56								7.7		
			25		8.0	10.90								7.8		
			35		8.0	10.95	1.01	5	20	None	0.00	87.7	101	8.0	4,900	1.51
3-28	12:37 p.	Right	Surf.	360	11.0	10.61	0.82	5	15	None	0.00	4.70	6.14	7.4	21,400	2.20
			5		11.0	10.73								7.3		
			15		11.0	10.58								7.1		
			25		11.0	10.61								7.0		
			35		11.0	10.47	1.03	5	20	None	0.00	26.4	36.4	7.4	11,500	2.67
			43		11.0	9.88								7.4		
5-7	12:01 p.	Right	Surf.	2,300	22.4	9.08	1.53	5	7	None	0.00	14.0	26.7	8.0	13,400	2.86
			6		19.1	9.46								7.9		
			11		16.5	9.79								8.1		
			21		14.7	10.26								8.1		
			31		14.0	10.46								8.2		
			41		14.3	10.38	0.97	5	15	None	0.00	83.7	89.6	8.2	5,100	2.86
6-6	12:10 p.	Right	Surf.	23	28.0	8.01	1.07	5	8	None	0.00	45.7	58.8	8.3	7,100	2.70
			6		26.8	7.99								8.2		
			11		24.8	8.37								8.1		
			21		20.3	9.00								8.2		
			31		19.8	9.21								8.2		
			41		18.9	8.90	0.93	5	20	None	0.00	85.4	70.4	8.0	5,300	2.51
Maximum					29.0	11.67	2.76	10	150	1+	0.00	107	122	8.3	27,600	3.70
Minimum					6.8	6.41	0.57	0	1	None	0.00	3.80	6.14	5.9	4,400	1.08

OBED RIVER MILE 40.1

Date	Time ET 24-hr. Clock	Location in Stream[1]	Depth	Stream Disch.	Coliforms Fecal	Coliforms Total	Water Temp.	DO	5-Day 20°C. BOD	Color	Turb.	Threshold Odor	Nitrogen[2] Org.	Nitrogen[2] NH_3	Nitrogen[2] NO_2	Nitrogen[2] NO_3	Phosphate Sol.	Phosphate Tot.	pH	Alkalinity ($CaCO_3$) Phen.	Alkalinity ($CaCO_3$) Tot.	Total Hardness ($CaCO_3$)	Ca	Mg	Cl	Na	K	Iron Fe^{++}	Iron Tot.	Mn, Total	SO_4	SiO_2	Specific Conductance at 25°C.	Solids Sus.	Solids Dis.	Solids Tot.
			ft.	cfs	No./100 ml		°C.	mg/l	mg/l	PCU	JCU	No.	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l		mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	µmhos/cm	mg/l	mg/l	mg/l
9-28-67	0915	30	0.2	2	4,000	11,000	18.0	7.5	1.1	15			0.25	0.00	0.03	0.03	0.26	0.40	7.6									0.04	0.92					20	52	72
10-16-67	0935	50	1.0	1	100		17.2	7.8	2.0	25			0.41	0.15	0.01	0.01	0.18	0.18	6.8			10	3.0	0.6		1.1	1.1	0.04	0.49					9	37	46
11- 7-67	1146	50	0.5	16	11	36	12.0	9.7	0.5	30	14		0.30	0.09	<0.01	0.02	0.06	0.09	7.1	0	7				4	1.0	1.0	0.11			<1	2.8		1	34	35
12- 4-67	1020	50	1.0	62	6	62	7.0	10.9	<1.0	15	4		0.43	0.10	0.01	0.05	0.05	0.12	7.4	0	8	8	2.0	0.5	2	0.7	1.0	<0.05	1.1	0.12	<1	2.8	29	0	40	40
2-12-68	1355	50	1.0	9	<2	280	4.0	11.5	1.2	5	8		0.18	0.04	0.02	0.36	0.26	0.33	8.1	0	4				1	1.0	0.9	<0.05			4	1.5	30	0	30	30
4-23-68	0900	50	1.0	11	<2	17	18.0	9.9	1.1	15	10		1.4	<0.01	<0.01	0.21			7.1	0	2	5	1.0	0.5	3	0.4	2.0	<0.05	0.30	0.10	5	<0.1	29			

OBED RIVER MILE 38.9

Date	Time ET 24-hr. Clock	Location in Stream[1]	Depth	Stream Disch.	Coliforms Fecal	Coliforms Total	Water Temp.	DO	5-Day 20°C. BOD	Color	Turb.	Threshold Odor	Nitrogen[2] Org.	Nitrogen[2] NH_3	Nitrogen[2] NO_2	Nitrogen[2] NO_3	Phosphate Sol.	Phosphate Tot.	pH	Alkalinity ($CaCO_3$) Phen.	Alkalinity ($CaCO_3$) Tot.	Total Hardness ($CaCO_3$)	Ca	Mg	Cl	Na	K	Iron Fe^{++}	Iron Tot.	Mn, Total	SO_4	SiO_2	Specific Conductance at 25°C.	Solids Sus.	Solids Dis.	Solids Tot.
6-23-67	1025	50	1.0	3	1,100	70,000	18.0	5.0	0.3	20	6		0.85	0.63	0.02	0.25	0.02	0.13	7.0	0	23	11	9.2	2.6	2	1.1	1.9		1.43	0.09	3	4.0	90	0	12	12
7-25-67	1210	50	0.5	5	24,000	140,000	22.8	6.1	0.7	35	3		0.36	0.33	0.01	0.10	0.03	0.15	7.0	0	15	27	9.0	1.1	5	1.0	1.2	0.12	1.72	0.00	4	4.0	62	13	38	51
8-16-67	0850	50	0.5	6	260	2,300	15.5	6.1	0.8	25	15		0.39	0.64	0.02	0.03	0.05	0.11	6.5	0	20	12	4.5	0.1	3	20.9	1.2	0.27	3.24	2.50	7	4.0	101	13	174	187
9-28-67	1340	50	0.5	2	36,000	>240,000	13.2	6.1	8.0	20	78		0.30	0.17	0.04	0.26	0.65	1.64	6.5	0	51	68	24	2.0	6	4.0	5.7	0.44	1.80	0.31	19	5.1	206	42	101	143
10-16-67	1650	50	0.5	2	1,600	3,900,000	17.0	0.0	>7.0	35	75		2.90	1.50	0.01	0.10	3.25	3.45	6.1	0	48	50	15.2	2.8	6	5.8	10.8	3.18	5.20	1.08	12	4.5	183	10	120	130
11- 7-67	1120	50	0.5	23	55	360	9.5	10.3	2.0	20			0.31	0.08	<0.01	0.06	0.10	0.10	7.2	0	8				2	1.4	1.1	0.14			10	2.8	40	20	47	67
12- 4-67	0950	50	1.0	86	11	360	6.0	11.7	<1.0	25			0.44	0.03	<0.01	0.14	0.20	0.20	7.4	0	10	9	3.0	0.5	2	0.7	1.1	0.05	1.0	0.13	<1	2.9	35	0	40	40
2-12-68	1335	50	1.0	12	<2	130	3.0	9.7	1.2	10	9		0.20	0.02	0.01	0.36	0.26	0.32	7.3	0	8				2	2.0	0.8	0.05			6	1.3	38	10	30	40
4-23-68	0930	50	1.0	15	210	16,000	17.0	9.9	1.2	15	4		1.9	<0.01	<0.01	0.22	0.07	0.10	7.3	0	3	8	2.0	0.5	3	<0.1	2.6	0.05	0.42	0.13	5	<0.1	36			

OBED RIVER MILE 38.4

Date	Time ET 24-hr. Clock	Location in Stream[1]	Depth	Stream Disch.	Coliforms Fecal	Coliforms Total	Water Temp.	DO	5-Day 20°C. BOD	Color	Turb.	Threshold Odor	Nitrogen[2] Org.	Nitrogen[2] NH_3	Nitrogen[2] NO_2	Nitrogen[2] NO_3	Phosphate Sol.	Phosphate Tot.	pH	Alkalinity ($CaCO_3$) Phen.	Alkalinity ($CaCO_3$) Tot.	Total Hardness ($CaCO_3$)	Ca	Mg	Cl	Na	K	Iron Fe^{++}	Iron Tot.	Mn, Total	SO_4	SiO_2	Specific Conductance at 25°C.	Solids Sus.	Solids Dis.	Solids Tot.
6-23-67	1035	50	0.3	3	2,700	5,300	20.5	2.6	0.0	35	11								7.0						12	8.0	8.3				9	6.7	217	8	102	110
7-25-67	1045	50	0.1	6	1,300	66,000	21.7	3.2	4.9	25									6.9															32	61	93
8-16-67	1015	30	0.3	6	>60,000	>60,000	19.7	4.0	5.2	30									7.0															19	60	79
9-28-67	1000	50	0.5	3	40,000	150,000	15.0	4.1		25									6.9															33	100	133
10-16-67	1005	50	0.3	2	6,800		16.0	0.4	900.0	20									7.0															166	266	432
11- 7-67	1035	50	0.5	25	21,000	80,000	9.2	10.4	2.0	20									6.8															2	196	198

OBED RIVER MILE 37.7

Date	Time ET 24-hr. Clock	Location in Stream[1]	Depth	Stream Disch.	Coliforms Fecal	Coliforms Total	Water Temp.	DO	5-Day 20°C. BOD	Color	Turb.	Threshold Odor	Nitrogen[2] Org.	Nitrogen[2] NH_3	Nitrogen[2] NO_2	Nitrogen[2] NO_3	Phosphate Sol.	Phosphate Tot.	pH	Alkalinity ($CaCO_3$) Phen.	Alkalinity ($CaCO_3$) Tot.	Total Hardness ($CaCO_3$)	Ca	Mg	Cl	Na	K	Iron Fe^{++}	Iron Tot.	Mn, Total	SO_4	SiO_2	Specific Conductance at 25°C.	Solids Sus.	Solids Dis.	Solids Tot.
6-23-67	1235	50	0.3	4			22.0	0.1	6.2	50	9														16	11.2	8.3				7	6.4	261	4	111	115
7-25-67	1253	50	0.3	7	2,700	81,000	21.7	2.6	2.0	15									6.8															20	54	74
8-16-67	1055	50	0.3	7	450,000	510,000	20.4	3.1	5.0	30									6.8															19	63	82
9-28-67	1030	50	0.3	4	57,000	220,000	15.3	3.7	3.9	35									7.1															15	152	167
10-16-67	1045	50	0.3	2	85,000		14.5	0.0	110.0	400									6.9															18	250	268
11- 7-67	1115	50	0.5	27	8,500	250,000	8.6	10.3		25									6.8															2	36	38

OBED RIVER MILE 36.9

Date	Time ET 24-hr. Clock	Location in Stream[1]	Depth	Stream Disch.	Coliforms Fecal	Coliforms Total	Water Temp.	DO	5-Day 20°C. BOD	Color	Turb.	Threshold Odor	Nitrogen[2] Org.	Nitrogen[2] NH_3	Nitrogen[2] NO_2	Nitrogen[2] NO_3	Phosphate Sol.	Phosphate Tot.	pH	Alkalinity ($CaCO_3$) Phen.	Alkalinity ($CaCO_3$) Tot.	Total Hardness ($CaCO_3$)	Ca	Mg	Cl	Na	K	Iron Fe^{++}	Iron Tot.	Mn, Total	SO_4	SiO_2	Specific Conductance at 25°C.	Solids Sus.	Solids Dis.	Solids Tot.
6-23-67	1430	50	1.0	5	42,000	60,000	22.0	0.0	6.6	50	12														17	9.5	8.7				9	6.3	284	22	124	146
7-25-67	1327	50	1.0	8	63,000	220,000	21.6	1.7	4.0	25									6.7															7	57	64
8-16-67	1140	50	0.5	8	1,350,000	1,350,000	20.3	2.1	6.9	30									7.0															20	81	101
9-28-67	1145	50	0.5	5	53,000	1,600,000	15.0	1.4	4.6	50									7.3															26	155	181
10-16-67	1130	50	0.3	2	180,000		14.5	0.0	150.0	200									6.8															15	255	270
11- 7-67	1215	50	0.5	28	8,000	210,000	9.0	9.7	3.0	25									6.7															3	32	35

1. Location in Stream: Percent distance from left bank looking downstream.
2. Nitrogen: Values shown are mg/l nitrogen in the forms listed.

OBED RIVER MILE 36.5

Date	Time ET 24-hr. Clock	Location in Stream[1]	Depth	Stream Disch.	Coliforms Fecal	Coliforms Total	Water Temp.	DO	5-Day 20°C. BOD	Color	Turb.	Threshold Odor	Nitrogen[2] Org.	Nitrogen[2] NH_3	Nitrogen[2] NO_2	Nitrogen[2] NO_3	Phosphate Sol.	Phosphate Tot.	pH	Alkalinity ($CaCO_3$) Phen.	Alkalinity ($CaCO_3$) Tot.	Total Hardness ($CaCO_3$)	Ca	Mg	Cl	Na	K	Iron Fe^{++}	Iron Tot.	Mn, Total	SO_4	SiO_2	Specific Conductance at 25°C.	Solids Sus.	Solids Dis.	Solids Tot.
			ft.	cfs	No./100 ml		°C.	mg/l	mg/l	PCU	JCU	No.	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l		mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	µmhos/cm	mg/l	mg/l	mg/l
6-23-67	1510	50	1.0	5	50,000	>60,000	22.0	1.3	7.0	30	6														17	8.5	7.9				7	6.1	245	112	103	215
7-25-67	1415	50	0.1	8	28,000	270,000	22.5	2.8	2.6	25									6.8															4	68	72
8-16-67	1220	50	0.3	8	640,000	960,000	20.0	3.4	6.6	30									7.1															15	77	92
9-28-67	1215	50	0.5	6	170,000	240,000	15.0	1.7		50									6.9															23	140	163
10-16-67	1202	25	0.3	4	170,000		14.1	0.0	80.0	240									6.8															2	256	258
11- 7-67	1235	50	0.5	29	14,000	30,000	8.5	9.8	3.0	25									6.8															4	32	36

OBED RIVER MILE 34.4

Date	Time ET 24-hr. Clock	Location in Stream[1]	Depth	Stream Disch.	Coliforms Fecal	Coliforms Total	Water Temp.	DO	5-Day 20°C. BOD	Color	Turb.	Threshold Odor	Nitrogen[2] Org.	Nitrogen[2] NH_3	Nitrogen[2] NO_2	Nitrogen[2] NO_3	Phosphate Sol.	Phosphate Tot.	pH	Alkalinity ($CaCO_3$) Phen.	Alkalinity ($CaCO_3$) Tot.	Total Hardness ($CaCO_3$)	Ca	Mg	Cl	Na	K	Iron Fe^{++}	Iron Tot.	Mn, Total	SO_4	SiO_2	Specific Conductance at 25°C.	Solids Sus.	Solids Dis.	Solids Tot.
			ft.	cfs	No./100 ml		°C.	mg/l	mg/l	PCU	JCU	No.	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l		mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	µmhos/cm	mg/l	mg/l	mg/l
6-23-67	1110	50	1.0	6	110	6,200	21.0	6.0	1.3	20	20		0.61	0.26	0.06	0.44	0.92	1.22	7.0	0	19	13	4.2	3.0	7	2.6	3.4		0.56	0.09	6	3.8	106	20	18	38
7-25-67	1330	50	0.5	22	240	940	21.7	8.6	1.3	20	4		0.26	<.01	0.03	0.59	0.47	0.56	7.2	0	9	19	5.5	1.4	7	2.3	1.4	0.07	0.69	0.26	6	3.9	69	2	41	43
8-16-67	0940	50	0.5	12	130	1,100	16.2	7.4	1.2	10	6		0.19	0.07	0.06	0.57	0.95	1.19	6.6	0	11	15	4.2	1.0	4	3.0	1.5	0.13	0.58	0.02	6	2.4	108	35	27	62
9-28-67	1255	50	0.5	56	44,000	83,000	13.0	6.5	2.5	20	80		0.85	0.76	0.04	0.08	2.54	2.88	6.9	0	21	49	14.2	3.1	25	4.4	5.5	0.21	4.45	0.48	22	3.9	222	21	130	151
10-16-67	1605	50	0.5	12	2,300	23,000	16.0	7.0	3.0	10	35		0.45	0.24	0.01	0.01	0.86	1.44	6.9	0	20	16	4.2	1.2	7	2.5	2.6	0.13	0.84	0.42	10	3.9	80	20	30	50
11- 7-67	1040	50	0.5	140	1,100	23,000	6.0	10.9	11.0	20	11		0.19	0.06	0.01	0.17	0.24	0.30	6.9	0	7				4	1.1	1.0	0.08			4	3.9	47		40	40
12- 4-67	1059	50	1.0	400	550	3,600	6.0	11.3	<1.0	10	3		0.36	0.04	0.02	0.28	0.12	0.12	7.5	0	8	11	3.0	1.0	2	0.9	1.2	<0.05	0.44	0.07	4	3.7	39	10	40	50
2-12-68	1455	50	1.0	54	3,600	39,000	1.0	12.2	1.2	5	8		0.24	0.11	0.01	0.41	0.60	0.75	7.3	0	4				2	1.8	0.9	<0.05			8	2.1	46	10	40	50
4-23-68	1015	50	1.0	58	110	16,000	16.5	8.7	1.9	20	8		2.0	0.04	<0.01	0.24	0.32	0.37	7.1	0	5	9	2.0	1.0	4	0.4	3.0	0.10	0.48	0.08	4	0.6	41			

OBED RIVER MILE 24.9

Date	Time ET 24-hr. Clock	Location in Stream[1]	Depth	Stream Disch.	Coliforms Fecal	Coliforms Total	Water Temp.	DO	5-Day 20°C. BOD	Color	Turb.	Threshold Odor	Nitrogen[2] Org.	Nitrogen[2] NH_3	Nitrogen[2] NO_2	Nitrogen[2] NO_3	Phosphate Sol.	Phosphate Tot.	pH	Alkalinity ($CaCO_3$) Phen.	Alkalinity ($CaCO_3$) Tot.	Total Hardness ($CaCO_3$)	Ca	Mg	Cl	Na	K	Iron Fe^{++}	Iron Tot.	Mn, Total	SO_4	SiO_2	Specific Conductance at 25°C.	Solids Sus.	Solids Dis.	Solids Tot.
			ft.	cfs	No./100 ml		°C.	mg/l	mg/l	PCU	JCU	No.	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l		mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	µmhos/cm	mg/l	mg/l	mg/l
6-23-67	1150	50	1.0	10	110	6,200	23.0	6.7	1.5	5	2		0.32	0.00	0.02	0.43	0.12	0.22	7.0	0	10	29	4.5	4.4	7	2.7	3.2		0.08	0.06	6	2.9	87	56	87	143
7-25-67	1420	50	0.5	28	62	360	23.8	9.3	0.6	15	<5		0.04	0.00	0.02	0.06	0.10	0.23	7.6	0	13	22	6.8	1.3	5	2.5	1.5	0.03	0.24	0.67	8	1.7	54	28	13	41
8-16-67	1025	50	0.5	28	93	340	19.0	8.9	0.2	10	2		0.00	0.00	0.01	0.16	0.10	0.15	6.8	0	9	9	3.5	0.1	3	1.2	1.1	0.03	0.21	0.02	5	2.5	267	8	70	78
9-28-67	1215	50	0.5	32	1,100	5,000	15.0	8.1	1.0	15	25		0.30	0.00	0.03	0.16	0.15	0.26	6.9	0	20	19	5.2	1.4	3	5.8	3.2	0.06	0.64	0.12	12	2.1	99	2	74	76
10-16-67	1525	50	0.5	21	< 2	620	16.0	9.7	2.9	30	25		0.28	0.00	<0.01	0.03	0.43	0.44	7.4	0	12	18	5.0	1.2	9	2.2	2.3	0.24	0.22	0.04	6	1.9	38	22	29	51
11- 7-67	0950	50	0.5	185	160	6,200	5.0	12.1	0.2	10	25		0.17	0.00	0.01	0.23	0.09	0.12	6.8	0	5				4	1.0	1.2	0.06			3	3.4	41	49	147	196
12- 4-67	1137	50	1.0	570	1,600	39,000	6.0	12.1	<1.0	10	10		0.36	0.07	0.01	0.30	0.07	0.13	7.5	0	5	10	2.5	1.0	2	0.9	1.1	<0.05	0.35	0.04	5	3.6	41	10	40	50
2-12-68	1535	50	1.0	75	<2	2,300	0.3	13.5	<1.0	5	2		0.20	<0.01	0.03	0.41	0.50	0.50	7.9	0	8				2	2.2	0.6	<0.05			5	1.8	42	0	50	50
4-23-68	1115	50	1.0	95	94	6,200	18.0	9.6	2.0	15	10		0.86	0.06	<0.01	0.24	0.13	0.18	7.4	0	4	8	1.5	1.0	<1	1.5	3.1	0.05	0.31	0.03	1	0.2	41	0	20	20

LITTLE OBED RIVER MILE 0.1

Date	Time ET 24-hr. Clock	Location in Stream[1]	Depth	Stream Disch.	Coliforms Fecal	Coliforms Total	Water Temp.	DO	5-Day 20°C. BOD	Color	Turb.	Threshold Odor	Nitrogen[2] Org.	Nitrogen[2] NH_3	Nitrogen[2] NO_2	Nitrogen[2] NO_3	Phosphate Sol.	Phosphate Tot.	pH	Alkalinity ($CaCO_3$) Phen.	Alkalinity ($CaCO_3$) Tot.	Total Hardness ($CaCO_3$)	Ca	Mg	Cl	Na	K	Iron Fe^{++}	Iron Tot.	Mn, Total	SO_4	SiO_2	Specific Conductance at 25°C.	Solids Sus.	Solids Dis.	Solids Tot.
			ft.	cfs	No./100 ml		°C.	mg/l	mg/l	PCU	JCU	No.	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l		mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	µmhos/cm	mg/l	mg/l	mg/l
9-28-67	1245	50	1.0		170	1,300	17.0	7.8	4.0	50			0.99	0.05	0.03	0.01	0.20	0.54	7.4				22.8	2.4		3.9	3.9	0.18	1.80					39	97	136
10-16-67	1220	50	0.3		20		14.8	4.8	2.0	25			0.42	0.12	0.01	0.22	-	0.18	6.9			66	22.5	2.5		4.0	5.0	0.03	0.22					2	121	123
11- 7-67	1315	50	1.0		2,000	28,000	6.3	11.0	4.0	20			0.30	0.07	<0.01	0.44	0.14	0.22	6.8							2.8	1.9	0.09						3	39	42

1. Location in Stream: Percent distance from left bank looking downstream.
2. Nitrogen: Values shown are mg/l nitrogen in the forms listed.

CROOKED FORK MILE 16.7

Date	Time ET 24-hr. Clock	Location in Stream[1]	Depth	Stream Disch.	Coliforms Fecal	Coliforms Total	Water Temp.	DO	5-Day 20°C. BOD	Color	Turb.	Acidity ($CaCO_3$)	Nitrogen[2] Org.	Nitrogen[2] NH_3	Nitrogen[2] NO_2	Nitrogen[2] NO_3	Phosphate Sol.	Phosphate Tot.	pH	Alkalinity ($CaCO_3$) Phen.	Alkalinity ($CaCO_3$) Tot.	Total Hardness ($CaCO_3$)	Ca	Mg	Cl	Na	K	Iron Fe^{++}	Iron Tot.	Mn, Total	SO_4	SiO_2	Specific Conductance at 25°C.	Solids Sus.	Solids Dis.	Solids Tot.
			ft.		MPN/100 ml		°C.	mg/l	mg/l	PCU	JCU	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l		mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	µmhos/cm	mg/l	mg/l	mg/l
6-23-67	0920	50	0.5	4	2,300	11,000	20.3	7.6	2.1	10	57		0.34	0.11	0.02	0.38	0.01	0.30	7.4	0	36	75	7.0	14.1	4	19.4	4.8		0.41	0.23	31	7.6	379	7	226	233
7-28-67	0755	50	0.5	7	1,600	11,000	18.9	8.6	0.6	5	28		0.32	0.00	0.01	0.36	0.01	0.10	7.5	0	30	95	14.5	14.3	5	15.9	2.6	0.21	0.69	0.48	58	6.8	326	58	148	206
8-16-67	1515	50	0.5	3	<2	26	24.5	11.8	0.5	10	11		0.00	0.00	0.02	0.03	0.02	0.12	7.5	0	38	134	25.5	17.2	5	31.8	4.3	0.01	0.73	0.16	40	5.5	496	31	258	289
9-27-67	0955	50	0.5	2	3,600	3,600	17.0	7.0	1.0	10	9		0.09	0.10	0.04	0.46	0.12	0.26	7.2	0	45	161	31.8	20.0	24	32.0	5.0	0.44	1.25	0.45	22	3.8	720	55	322	377
10- 4-67	1040	50	0.5	2			14.2	8.5				17							6.2	0	43	128	22.5	17.5	6			0.25	0.92		155					
10-12-67	1015	50	0.5	2			11.0	8.7				23							6.4	0	39	145	27	18.9	16			0.30	0.79		120					
10-17-67	0905	50	0.5	2	620	2,300	16.5	6.9	2.1	35	4	8	0.23	0.00	0.02	0.33	0.11	0.24	7.3	0	40	149	28	18.8	5	36.0	5.4	0.21	0.68	0.38	19	5.2	498	12	321	333
11- 2-67	1740	50	0.5	530			12.0	9.0				6							7.3	0	12	47	8.8	6.2	4			0.05	0.91		45					
11- 5-67	1742	50	0.5	15	160	620	8.0	10.2	0.7	10	17	4	0.28	0.08	0.01	0.33	0.09	0.18	7.1	0	18	68	12.5	9.2	2	12.5	2.4	0.39	0.52	0.31	110	5.5	213	2	154	156
11-13-67	0915	50	1.0				8.0	9.9											7.2	0	28	90	18	11.0	4				1.2		19					
12- 5-67	0912	50	1.0	19	210	940	5.0	12.2	3.4	5	3		0.16	0.06	0.01	0.23	0.05	0.36	7.0	0	18	49	8.0	7.0	2	8.3	1.8		0.56	0.33	62	3.8	180	10	100	110
2-14-68	0920	50	1.0	5	55	1,100	0.0	12.6	2.9	<5	6		0.20	0.09	0.01	0.55	0.22	0.28	7.9	0	32				3	16.5	2.2	0.85			140	5.7	320	10	200	210
4-24-68	1025	50	1.0	56	1,600	39,000	12.0	10.2	1.9	15	35		0.22	<0.01	<0.01	0.39	0.08	0.21	6.7	0	7	24	1.5	5.0	2	4.7	3.5	0.10	0.93	0.18	28	4.3	130	40	70	110

CROOKED FORK MILE 4.2

Date	Time ET 24-hr. Clock	Location in Stream[1]	Depth	Stream Disch.	Coliforms Fecal	Coliforms Total	Water Temp.	DO	5-Day 20°C. BOD	Color	Turb.	Acidity ($CaCO_3$)	Nitrogen[2] Org.	Nitrogen[2] NH_3	Nitrogen[2] NO_2	Nitrogen[2] NO_3	Phosphate Sol.	Phosphate Tot.	pH	Alkalinity ($CaCO_3$) Phen.	Alkalinity ($CaCO_3$) Tot.	Total Hardness ($CaCO_3$)	Ca	Mg	Cl	Na	K	Iron Fe^{++}	Iron Tot.	Mn, Total	SO_4	SiO_2	Specific Conductance at 25°C.	Solids Sus.	Solids Dis.	Solids Tot.
6-23-67	1255	50	0.5	32	2,300	2,300	24.4	7.5	0.1	15	45		0.49	0.00	0.03	1.23	0.01	0.19	7.0	0	4	91	8.3	17.2	4	7.5	4.9		0.48	0.07	34	5.1	279	43	167	210
7-28-67	1135	50	0.5	57	160	360	21.4	9.0	0.6	5	34		0.00	0.00	0.02	0.24	0.01	0.05	7.1	0	5	81	13	11.8	7	5.5	1.7	0.11	0.53	0.94	48	4.8	251	13	143	156
8-16-67	1630	50	0.5	19	<2	< 2	22.0	8.5	0.1	10	4		0.00	0.00	0.02	0.17	0.01	0.04	5.4	0	1	151	32.2	17.2	3	1.0	1.1	0.33	0.36	2.92	49	6.8	588	72	263	335
9-27-67	1215	50	0.5	2	<2	430	17.0	8.9	0.9	5	38	23	0.22	0.13	0.04	0.22	0.07	0.10	5.4	0	20	207	37.2	27.8	12	23.8	4.0	0.04	0.25	4.14	193	1.0	720	13	407	420
10- 3-67	1900	50	0.5	11			15.0	8.7				13							6.0	0	3	114	22.3	14.3	3			0.33	0.63		140					
10-11-67	1345	50	0.5	6			13.5	9.6				35							4.9	0		185	32.3	25.5	7			0.11	0.28		170					
10-17-67	1110	50	0.5	6	2	10	16.9	9.0	0.7	30	6	18	0.17	0.01	0.01	0.14	0.07	0.09	4.7	0		196	36.5	25.3	5	15.6	3.7	0.07	0.13	3.42	260	6.0	498	31	374	405
11- 2-67	1300	50	0.5	1,550			12.0	9.8				5							7.6	0	6	21	4.0	2.8	4			0.06	2.40		25					
11- 5-67	1617	50	0.5	130	3	94	7.5	11.7	0.9	20	33	3	0.20	0.00	<0.01	0.26	0.06	0.15	7.1	0	6	49	9.0	6.7	2	4.4	1.6	0.62	1.05	0.63	79	5.3	160	37	74	111
11-13-67	1550	50	1.0	37			11.0	10.5											7.5	0	8	81	16	10.0	4				1.6		94					
12- 5-67	1032	50	1.0	194	160	220	5.0	12.8	5.3	10	20		0.32	0.13	0.01	0.21	0.04	0.15	6.8	0	7	30	4.5	4.5	3	2.7	1.2	0.35	1.2	0.46	42	6.1	100	0	60	60
2-14-68	1400	60	1.0	42	<2	16	1.0	11.9	<1.0	<5	8		0.22	0.09	0.01	0.22	0.05	0.19	7.8	0	8				5	7.7	1.1	1.2			90	5.4	230	0	160	160
4-22-68	1530	50	1.0	57	23	360	18.1	9.4	3.2	10	15		0.05	0.01	0.01	0.19	0.07	0.09	6.0	0	2	36	3.0	7.0	1	2.6	2.1	0.35	0.88	0.72	40	4.6	150			

1. Location in Stream: Percent distance from left bank looking downstream.
2. Nitrogen: Values shown are mg/l nitrogen in the forms listed.

CRAB ORCHARD CREEK MILE 2.9

Date	Time ET 24-hr. Clock	Location in Stream[1]	Depth	Stream Disch.	Coliforms Fecal	Coliforms Total	Water Temp.	DO	5-Day 20°C. BOD	Color	Turb.	Acidity ($CaCO_3$)	Nitrogen[2] Org.	Nitrogen[2] NH_3	Nitrogen[2] NO_2	Nitrogen[2] NO_3	Phosphate Sol.	Phosphate Tot.	pH	Alkalinity ($CaCO_3$) Phen.	Alkalinity ($CaCO_3$) Tot.	Total Hardness ($CaCO_3$)	Ca	Mg	Cl	Na	K	Iron Fe^{++}	Iron Tot.	Mn, Total	SO_4	SiO_2	Specific Conductance at 25°C.	Solids Sus.	Solids Dis.	Solids Tot.
			ft.	cfs	MPN/100 ml		°C.	mg/l	mg/l	PCU	JCU	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l		mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	μmhos/cm	mg/l	mg/l	mg/l
6-23-67	1605	50	1.0	7	<2	6	27.0	7.3	0.1	5	<5		0.11	0.00	0.02	0.05	0.01	0.01	4.7	0	0	61	2.3	13.4	2	0.6	3.0		0.09	1.24	18	5.1	150	45	91	136
7-25-67	1735	50	0.5	9	<2	<2	25.0	8.3	1.1	10	<5		0.10	0.00	0.02	0.03	0.01	0.02	4.9	0	0	34	4.5	5.6	2	0.7	1.1	0.07	0.14	1.70	48	3.9	124	24	59	83
8-16-67	0730	50	0.5	4	<2	<2	23.5	8.4	0.4	10	<5		0.00	0.00	0.01	0.01	0.01	0.01	4.9	0	0	30	4.0	4.9	3	10.3	1.6	0.06	0.10	1.00	28	5.6	134	30	35	65
9-28-67	1000	50	0.5	15	36	110		9.1	2.6	5	20		0.08	0.00	0.03	0.01	0.07	0.18	4.5	0	0	38	5.8	5.9	5	1.9	1.5	0.07	0.89	1.90	45	3.9	180	5	83	88
10-2-67	1840	50	0.5	3			13.5	9.7				19							4.5	0	0	37	6.5	5.1	11			0.08	0.89		59					
10-11-67	1201	50	0.5	2			12.5	9.5											4.9	0	0	55	9.3	7.7	2			0.11	0.23		65					
10-17-67	1655	50	0.5	2	6	10	17.0	9.1	0.8	35	34	13	0.08	0.00	0.03	<0.01	0.07	0.07	4.7	0	0	65	10.8	9.3	2	1.0	2.0	0.12	0.38	2.55	110	4.0	208	2	149	151
11-2-67	1145	50	0.5	886	<2	2	12.0	9.6				8							5.3	0	1	11	1.8	1.6	4			0.11	1.10		19					
11-7-67	1520	50	0.5	54	<2	2	6.0	11.9	0.2	5	45	7	0.08	0.00	<0.01	0.04	0.04	0.07	5.1	0	0	13	2.0	1.9	2	0.8	0.8	0.20	0.28	0.48	21	3.7	54	12	42	54
11-14-67	1340	50	1.0	18			9.0	11.2											5.1	0	0	16	2.5	2.5	2			0.15	0.20		30					
12-4-67	1641	50	1.0	145	6	6	7.0	12.3	<1.0	10	<1		0.21	0.03	0.01	0.03	0.03	0.04	6.3	0	3	7	1.0	1.0	1	0.5	0.7	0.15	1.9	0.30	10	3.8	35	10	40	50
2-14-68	1600	30	1.0	25	<2	3	1.0	12.6	<1.0	<5	9		0.18	0.06	0.01	0.03	0.03	0.03	6.3	0	7				3	1.0	0.4	0.45			21	3.5	68	0	50	50
4-24-68	0815	50	1.0	60	3,600	6,200	14.0	9.9	1.1	15	43		0.23	0.02	<0.01	0.13	0.06	0.16	7.1	0	3	12	1.5	2.0	2	0.5	3.4	<0.05	1.1	0.43	14	1.7	72	50	30	80

CRAB ORCHARD CREEK MILE 0.2

9-28-67	0920	50	1.0	24	110	230	15.0	9.6	2.9	15	70		0.12	<0.01	0.04	0.03	0.10	0.70	6.4	0	5	46	5.0	8.0	4	1.9	2.2	0.05	2.5	1.9	64	4.3	190			
10-2-67	1755	50	1.0	5			15.5	9.2											5.1	0	0	42	8.5	5.0	10			0.15	1.6		48					
10-11-67	1045	50	1.0	2			12.0	10.0											5.8	0	2	58	10	8.0	3			0.05	0.20		42					
10-17-67	1730	50	1.0	2	6	36	17.0	8.9	<1.0	30	10		0.08	<0.01	<0.01	<0.01	0.06	0.18	5.8	0	2	63	11	8.5	2	2.0	2.0	0.10	0.16	1.2	140	4.8	190			
11-2-67	1105	50	1.0	1,050			13.0	9.7											6.1	0	3	13	2.0	2.0	4			0.10	1.9		16					
11-7-67	1445	50	1.0	66	<2	<2	6.0	11.9	<1.0	5	55		0.06	0.12	<0.01	0.04	0.06	0.18	5.2	0	1	14	2.0	2.0	2	0.6	0.9	0.20	0.24	0.50	22	4.0	56	30	110	140
11-14-67	1310	50	1.0	25			10.0	11.0											5.7	0	1	25	4.0	3.0	2			0.15	0.34		25					
12-4-67	1615	50	1.0	215	2	36	7.0	12.2	1.1	10	<1		0.23	0.08	0.01	0.03	0.03	0.08	6.3	0	2	8	1.5	1.5	2	0.5	0.7	0.10	0.56	0.31	12	4.2	37	0	50	50
2-14-68	1635	50	1.0	27	<2	5	1.0	13.3	<1.0	<5	8		0.17	0.06	0.01	0.02	0.02	0.02	6.0	0					3	1.3	0.4	0.45			20	3.3	68	0	50	50
4-24-68	0850	50	1.0	82	1,100	1,100	14.0	10.0	<1.0	10	45		0.19	<0.01	<0.01	0.10	0.03	0.14	6.9	0	2	11	1.0	2.0	2	0.4	3.7	0.05	0.81	0.42	15	2.1	64			

1. Location in Stream: Percent distance from left bank looking downstream.
2. Nitrogen: Values shown are mg/l nitrogen in the forms listed.

OBSERVED DISSOLVED OXYGEN AND TEMPERATURE CONDITIONS DOWNSTREAM OF RESERVOIRS

CLINCH RIVER WATERSHED

Norris Reservoir

Dam Location: Clinch River Mile 79.8

Date	Discharge	Sample Location	Temperature	Dissolved Oxygen
	cfs	River Mile	° C.	mg/l
8-18-67	8,500	79.8 (penstock)	14	2.8
		75.8	14	3.5
		65.7	14	5.0
		64.0	14	5.2
		60.5	14	5.5
		53.9	14	6.0
7-10-57*	5,900	79.8 (penstock)	12	6.1
		72.0	12	7.1
		65.2	12	7.7
		62.6	12	7.9
10- 2-59*	4,500	79.8 (penstock)	14	1.7
		76.4	14	2.4
7- 2-57*	3,200	79.8 (penstock)	12	6.2
		72.0	12	7.8
		65.0	12	8.6
		62.6	12	8.9
7- 2-57*	2,500	79.8 (penstock)	12	6.2
		76.5	12	7.5
9-29-59*	2,300	79.8 (penstock)	13	1.7
		76.4	13	2.7

*Data from The Prediction of Stream Reaeration Rates, TVA, Division of Health and Safety, July 1962.