

United States Army Corps of Engineers	Nashville District	CELRN-EC-H / Water Management Section
Station: 30LD10054	Project: Old Hickory	Location: Bledsoe Creek, Mile 10.3
State: Tennessee	Latitude: 36° 26" 44'	Quad: Bethpage, TN
County: Sumner	Longitude: 86° 19" 55'	HUC: *
Sample Date: 17 Jul 2012	Water Surface Elevation =	Stream Flow =

(No Laboratory Analyses)

Profile Measurements							
Depth	Water Temp	Water Temp	Dis Oxygen	Dis Oxygen	Spec Cond	pH	Chloro a F
ft	deg C	deg F	mg/l	% sat	umho/cm	units	ug/l
0.0	25.1	77.2	8.5	103.0	402.0	7.9	

United States Army Corps of Engineers	Nashville District	CELRN-EC-H / Water Management Section
Station: 30LD10057	Project: Old Hickory	Location: Spring Creek, Mile 5.8
State: Tennessee	Latitude: 36° 16" 36'	Quad: Hunters Point, TN
County: Wilson	Longitude: 86° 16" 31'	HUC: 05130201
Sample Date: 17 Jul 2012	Water Surface Elevation =	Stream Flow =

(No Laboratory Analyses)

Profile Measurements							
Depth	Water Temp	Water Temp	Dis Oxygen	Dis Oxygen	Spec Cond	pH	Chloro a F
ft	deg C	deg F	mg/l	% sat	umho/cm	units	ug/l
0.0	24.4	75.9	6.7	80.2	431.0	7.8	

United States Army Corps of Engineers

Nashville District

CELNRN-EC-H / Water Management Section

Station: 30LD10058

Project: Old Hickory

Location: Round Lick Creek, Mile 8.3

State: Tennessee

Latitude: 36° 10" 13.2'

Quad: New Middleton, TN

County: Smith

Longitude: 86° 5" 26'

HUC: 05130201

Sample Date: 16 Jul 2012

Water Surface Elevation =

Stream Flow =

Results of Laboratory Analyses

Profile Measurements

Sample Depth ft	0.0	Depth ft	Water Temp deg C	Water Temp deg F	Dis Oxygen mg/l	Dis Oxygen % sat	Spec Cond umho/cm	pH units	Chloro a F ug/l
Alkalinity, Tot	mg/L 170	0.0	27.6	81.7	10.5	132.8	420.0	8.0	
Alkalinity, Phenol	mg/L 0								
Solids, Tot	mg/L								
Solids, Tot Diss	mg/L								
Solids, Tot Susp	mg/L								
Solids, Vol	mg/L								
Solids, Vol Diss	mg/L								
Solids, Vol Susp	mg/L								
Ammonia N, Tot	mg/L <0.200								
Kjeldahl N, Tot	mg/L 0.680								
NO3+NO2, Tot	mg/L 5.68								
Phosphorus, Tot	mg/L 0.186								
Phosphorus, Diss	mg/L 0.175								
OrthoPhosphate, D	mg/L 0.122								
Organic Carbon, T	mg/L 5.90								
Hardness, Tot	mg/L 201								
Sulfate, Tot	mg/L 19.5								
Calcium, Tot	mg/L 72.7								
Magnesium, Tot	mg/L 4.81								
Sodium, Tot	mg/L 3.68								
Potassium, Tot	mg/L 3.30								
Chloride, Tot	mg/L 7.46								
Arsenic, Tot	ug/L 0.8								
Barium, Tot	ug/L 31.5								
Beryllium, Tot	ug/L <0.5								
Cadmium, Tot	ug/L <0.5								
Chromium, Tot	ug/L 0.8								
Cobalt, Tot	ug/L <0.5								
Copper, Tot	ug/L <0.5								
Iron, Tot	ug/L 35.9								
Iron, Diss	ug/L <8.0								
Lead, Tot	ug/L <0.5								
Lead, Diss	ug/L								
Manganese, Tot	ug/L 6.9								
Manganese, Diss	ug/L								
Thallium, Tot	ug/L <0.5								
Molybdenum, Tot	ug/L <0.5								
Nickel, Tot	ug/L 3.2								
Silver, Tot	ug/L <0.5								
Vanadium, Tot	ug/L 1.1								
Zinc, Tot	ug/L 1.0								
Zinc, Diss	ug/L								
Antimony, Tot	ug/L <0.5								
Aluminum, Tot	ug/L <8.0								
Aluminum, Diss	ug/L <8.0								
Selenium, Tot	ug/L 0.6								
Mercury, Tot	ug/L								

United States Army Corps of Engineers

Nashville District

CELRN-EC-H / Water Management Section

Station: 30LD10062

Project: Old Hickory

Location: Goose Creek, Mile 4.5

State: Tennessee

Latitude: 36° 23" 2.5'

Quad: Hartsville, TN

County: Trousdale

Longitude: 86° 7" 44'

HUC: 05130201

Sample Date: 17 Jul 2012

Water Surface Elevation =

Stream Flow =

(No Laboratory Analyses)

Profile Measurements								
Depth	Water Temp	Water Temp	Dis Oxygen	Dis Oxygen	Spec Cond	pH	Chloro a F	
ft	deg C	deg F	mg/l	% sat	umho/cm	units	ug/l	
0.0	26.2	79.2	8.4	103.7	385.0	8.1		

United States Army Corps of Engineers

Nashville District

CELNRN-EC-H / Water Management Section

Station: 30LD20002

Project: Old Hickory

Location: Cumberland River, Mile 216.9

State: Tennessee

Latitude: 36° 17" 29'

Quad: Goodlettsville, TN

County: Davidson

Longitude: 86° 38" 41'

HUC: 05130201

Sample Date: 17 Jul 2012

Water Surface Elevation = 445.5 ft

Stream Flow =

Results of Laboratory Analyses

Profile Measurements

Sample	Depth ft	0.0	25.0	60.0	Depth ft	Water Temp deg C	Water Temp deg F	Dis Oxygen mg/l	Dis Oxygen % sat	Spec Cond umho/cm	pH units	Chloro a F ug/l
Alkalinity, Tot	mg/L	68	70	78	0.0	31.3	88.3	13.8	185.5	190.0	9.4	10.0
Alkalinity, Phenol	mg/L	16	0	0	5.0	30.1	86.2	14.0	184.6	191.0	9.3	21.4
Solids, Tot	mg/L				10.0	29.2	84.6	8.7	113.0	192.0	8.8	19.0
Solids, Tot Diss	mg/L				15.0	28.5	83.3	4.6	59.1	200.0	7.7	11.8
Solids, Tot Susp	mg/L				20.0	28.0	82.4	2.2	28.0	200.0	7.3	7.0
Solids, Vol	mg/L				25.0	27.9	82.2	1.6	20.3	202.0	7.2	5.3
Solids, Vol Diss	mg/L				30.0	27.5	81.5	1.5	18.9	203.0	7.1	4.2
Solids, Vol Susp	mg/L				35.0	26.8	80.2	0.6	7.5	204.0	7.0	2.9
Ammonia N, Tot	mg/L	<0.200	0.250	0.440	40.0	26.3	79.3	0.2	2.5	206.0	7.0	2.2
Kjeldahl N, Tot	mg/L	0.590	0.320	0.500	45.0	26.1	79.0	0.0	0.0	207.0	7.0	2.2
NO3+NO2, Tot	mg/L	0.0518	<0.0200	0.0377	50.0	26.0	78.8	0.0	0.0	207.0	7.0	2.0
Phosphorus, Tot	mg/L	0.0527	0.108	0.0860	55.0	25.8	78.4	0.0	0.0	208.0	7.0	1.6
Phosphorus, Diss	mg/L	0.0339	0.0643	0.0697	60.0	25.7	78.3	0.0	0.0	208.0	7.0	1.5
OrthoPhosphate, D	mg/L	<0.0500	<0.0500	<0.0500	65.0	25.6	78.1	0.0	0.0	210.0	7.0	1.2
Organic Carbon, T	mg/L	3.80	2.90	2.50	68.0	25.4	77.7	0.0	0.0	216.0	7.1	1.2
Hardness, Tot	mg/L	79.2	83.5	85.5								
Sulfate, Tot	mg/L	25.5	25.3	25.5								
Calcium, Tot	mg/L	21.8	23.5	24.3								
Magnesium, Tot	mg/L	6.03	6.04	6.04								
Sodium, Tot	mg/L	5.58	5.57	5.48								
Potassium, Tot	mg/L	1.48	1.50	1.52								
Chloride, Tot	mg/L	4.77	4.75	4.79								
Arsenic, Tot	ug/L	1.6	1.7	1.5								
Barium, Tot	ug/L	16.5	23.4	36.4								
Beryllium, Tot	ug/L	<0.5	<0.5	<0.5								
Cadmium, Tot	ug/L	<0.5	<0.5	<0.5								
Chromium, Tot	ug/L	<0.5	0.5	0.6								
Cobalt, Tot	ug/L	<0.5	<0.5	<0.5								
Copper, Tot	ug/L	<0.5	<0.5	<0.5								
Iron, Tot	ug/L	16.8	72.0	49.9								
Iron, Diss	ug/L	<8.0	<8.0	<8.0								
Lead, Tot	ug/L	1.5	<0.5	<0.5								
Lead, Diss	ug/L	8.1	<0.5	<0.5								
Manganese, Tot	ug/L	42.4	113.0	510.0								
Manganese, Diss	ug/L	2.9	14.3	494.0								
Thallium, Tot	ug/L	<0.5	<0.5	<0.5								
Molybdenum, Tot	ug/L	0.75	0.7	0.69								
Nickel, Tot	ug/L	1.2	1.4	1.5								
Silver, Tot	ug/L	<0.5	<0.5	<0.5								
Vanadium, Tot	ug/L	1.0	1.0	0.7								
Zinc, Tot	ug/L	2.3	1.3	1.1								
Zinc, Diss	ug/L	3.2	0.6	1.2								
Antimony, Tot	ug/L	<0.5	<0.5	<0.5								
Aluminum, Tot	ug/L	<8.0	<8.0	<8.0								
Aluminum, Diss	ug/L	<8.0	<8.0	<8.0								
Selenium, Tot	ug/L	<0.5	<0.5	<0.5								
Mercury, Tot	ug/L	0.038	0.024	0.058								

United States Army Corps of Engineers

Nashville District

CELNRN-EC-H / Water Management Section

Station: 30LD20003

Project: Old Hickory

Location: Cumberland River, Mile 221.2

State: Tennessee

Latitude: 36° 14" 41'

Quad: Hermitage, TN

County: Davidson

Longitude: 86° 36" 50'

HUC: 05130201

Sample Date: 17 Jul 2012

Water Surface Elevation = 445.5 ft

Secchi Disk = 0.7 m

(No Laboratory Analyses)

Profile Measurements

Depth ft	Water Temp deg C	Water Temp deg F	Dis Oxygen mg/l	Dis Oxygen % sat	Spec Cond umho/cm	pH units	Chloro a F ug/l
0.0	31.2	88.2	14.7	197.3	192.0	9.5	18.6
5.0	28.8	83.8	8.4	108.4	197.0	8.5	23.9
10.0	28.2	82.8	4.1	52.4	200.0	7.5	10.2
15.0	28.0	82.4	3.3	42.0	202.0	7.3	10.2
20.0	27.9	82.2	3.1	39.4	202.0	7.3	7.6
25.0	27.6	81.7	2.3	33.3	204.0	7.2	5.5
30.0	27.3	81.1	1.9	23.9	205.0	7.1	4.3
35.0	26.9	80.4	1.1	13.8	204.0	7.0	3.2
40.0	26.4	79.5	0.5	6.2	205.0	6.9	2.6
45.0	25.8	78.4	0.1	1.2	205.0	6.9	1.6
50.0	25.5	77.9	0.0	0.0	207.0	6.9	1.3
55.0	25.4	77.7	0.0	0.0	210.0	7.0	1.2
60.0	24.6	76.3	0.0	0.0	227.0	7.2	1.7
65.0	24.1	75.4	0.0	0.0	241.0	7.5	2.9
70.0	23.8	74.8	0.0	0.0	252.0	7.7	4.2
73.0	23.8	74.8	0.0	0.0	252.0	7.7	4.2

CELRN-EC-H / Water Management Section

Location: Cumberland River, Mile 236.0

Quad: Laguardo, TN
HUC: 05130201

Secchi Disk = 0.8 m

Profile Measurements

[illegible]

United States Army Corps of Engineers

Nashville District

CELNRN-EC-H / Water Management Section

Station: 30LD20005

Project: Old Hickory

Location: Cumberland River, Mile 241.0

State: Tennessee

Latitude: 36° 19" 40'

Quad: Laguardo, TN

County: Wilson

Longitude: 86° 25" 5'

HUC: 05130201

Sample Date: 17 Jul 2012

Water Surface Elevation = 445.5 ft

Secchi Disk = 0.9 m

(No Laboratory Analyses)

Profile Measurements

Depth ft	Water Temp deg C	Water Temp deg F	Dis Oxygen mg/l	Dis Oxygen % sat	Spec Cond umho/cm	pH units	Chloro a F ug/l
0.0	31.2	88.2	9.0	120.8	217.0	8.2	9.1
5.0	29.6	85.3	5.6	73.2	215.0	7.5	7.1
10.0	29.0	84.2	4.9	63.5	212.0	7.4	6.2
15.0	28.3	82.9	4.4	56.3	205.0	7.4	5.9
20.0	27.5	81.5	4.0	50.5	210.0	7.3	5.4
25.0	26.3	79.3	3.1	38.4	213.0	7.1	3.4
30.0	25.2	77.4	3.0	36.4	225.0	7.0	2.5
35.0	25.2	77.4	2.8	34.0	225.0	7.0	2.4
40.0	25.1	77.2	2.7	32.7	227.0	7.0	2.4
45.0	25.1	77.2	2.6	31.5	227.0	7.0	2.3
48.0	25.1	77.2	2.6	31.5	227.0	7.0	2.5

United States Army Corps of Engineers

Nashville District

CELNRN-EC-H / Water Management Section

Station: 30LD20006

Project: Old Hickory

Location: Cumberland River, Mile 245.0

State: Tennessee

Latitude: 36° 19" 40'

Quad: Laguardo, TN

County: Wilson

Longitude: 86° 23" 22'

HUC: 05130201

Sample Date: 17 Jul 2012

Water Surface Elevation = 445.5 ft

Secchi Disk = 0.8 m

(No Laboratory Analyses)

Profile Measurements

Depth ft	Water Temp deg C	Water Temp deg F	Dis Oxygen mg/l	Dis Oxygen % sat	Spec Cond umho/cm	pH units	Chloro a F ug/l
0.0	30.8	87.4	9.9	132.0	211.0	8.5	13.1
5.0	30.0	86.0	9.6	126.4	206.0	8.5	22.4
10.0	28.1	82.6	5.0	63.8	200.0	7.6	12.2
15.0	27.6	81.7	3.9	49.3	205.0	7.4	8.4
20.0	26.6	79.9	3.9	48.5	209.0	7.3	7.3
25.0	25.7	78.3	4.1	50.2	203.0	7.1	3.8
30.0	24.9	76.8	3.9	47.1	206.0	7.1	2.7
35.0	24.7	76.5	3.7	44.5	210.0	7.0	2.5
40.0	24.7	76.5	3.7	44.5	210.0	7.0	2.5
45.0	24.6	76.3	3.6	43.2	211.0	7.0	2.6
50.0	24.6	76.3	3.5	42.0	211.0	7.0	2.7
53.0	24.6	76.3	3.4	40.8	211.0	7.0	2.8

United States Army Corps of Engineers

Nashville District

CELNRN-EC-H / Water Management Section

Station: 30LD20007

Project: Old Hickory

Location: Cumberland River, Mile 263.1

State: Tennessee

Latitude: 36° 17" 57'

Quad: Hunters Point, TN

County: Wilson

Longitude: 86° 15" 49'

HUC: 05130201

Sample Date: 17 Jul 2012

Water Surface Elevation = 445.5 ft

Secchi Disk = 1.0 m

Results of Laboratory Analyses

Profile Measurements

Sample Depth ft	15.0	Depth ft	Water Temp deg C	Water Temp deg F	Dis Oxygen mg/l	Dis Oxygen % sat	Spec Cond umho/cm	pH units	Chloro a F ug/l
Alkalinity, Tot	mg/L 68	0.0	28.5	83.3	13.1	168.2	187.0	9.2	3.0
Alkalinity, Phenol	mg/L 0	5.0	27.5	81.5	14.0	176.8	186.0	9.2	13.3
Solids, Tot	mg/L	10.0	25.1	77.2	9.4	113.9	189.0	8.2	9.8
Solids, Tot Diss	mg/L	15.0	24.0	75.2	7.0	83.2	188.0	7.4	5.3
Solids, Tot Susp	mg/L	20.0	23.7	74.7	6.2	73.3	188.0	7.2	4.0
Solids, Vol	mg/L	25.0	23.6	74.5	6.1	72.0	188.0	7.2	3.8
Solids, Vol Diss	mg/L	30.0	23.5	74.3	5.8	68.3	190.0	7.2	3.0
Solids, Vol Susp	mg/L	35.0	23.5	74.3	5.7	8.2	190.0	7.2	2.8
Ammonia N, Tot	mg/L <0.200	40.0	23.5	74.3	5.8	68.3	190.0	7.2	2.9
Kjeldahl N, Tot	mg/L 0.250	45.0	23.5	74.3	5.7	67.1	190.0	7.2	3.0
NO3+NO2, Tot	mg/L 0.114	50.0	23.5	74.3	5.7	67.1	190.0	7.2	3.1
Phosphorus, Tot	mg/L 0.0285								
Phosphorus, Diss	mg/L 0.0187								
OrthoPhosphate, D	mg/L <0.0500								
Organic Carbon, T	mg/L 2.20								
Hardness, Tot	mg/L 80.0								
Sulfate, Tot	mg/L 22.9								
Calcium, Tot	mg/L 22.9								
Magnesium, Tot	mg/L 5.54								
Sodium, Tot	mg/L 4.44								
Potassium, Tot	mg/L 1.33								
Chloride, Tot	mg/L 4.06								
Arsenic, Tot	ug/L 0.5								
Barium, Tot	ug/L 21.6								
Beryllium, Tot	ug/L <0.5								
Cadmium, Tot	ug/L <0.5								
Chromium, Tot	ug/L <0.5								
Cobalt, Tot	ug/L <0.5								
Copper, Tot	ug/L <0.5								
Iron, Tot	ug/L 31.6								
Iron, Diss	ug/L <8.0								
Lead, Tot	ug/L <0.5								
Lead, Diss	ug/L								
Manganese, Tot	ug/L 23.8								
Manganese, Diss	ug/L								
Thallium, Tot	ug/L <0.5								
Molybdenum, Tot	ug/L <0.5								
Nickel, Tot	ug/L 1.4								
Silver, Tot	ug/L <0.5								
Vanadium, Tot	ug/L <0.5								
Zinc, Tot	ug/L 1.4								
Zinc, Diss	ug/L								
Antimony, Tot	ug/L <0.5								
Aluminum, Tot	ug/L <8.0								
Aluminum, Diss	ug/L <8.0								
Selenium, Tot	ug/L <0.5								
Mercury, Tot	ug/L								

United States Army Corps of Engineers

Nashville District

CELNRN-EC-H / Water Management Section

Station: 30LD20008

Project: Old Hickory

Location: Cumberland River, Mile 278.7

State: Tennessee
County: TrousdaleLatitude: 36° 22" 25'
Longitude: 86° 10" 37'Quad: Bellwood, TN
HUC: 05130201

Sample Date: 17 Jul 2012

Water Surface Elevation = 445.5 ft

Secchi Disk = 0.9 m

(No Laboratory Analyses)

Profile Measurements

Depth ft	Water Temp deg C	Water Temp deg F	Dis Oxygen mg/l	Dis Oxygen % sat	Spec Cond umho/cm	pH units	Chloro a F ug/l
0.0	26.2	79.2	17.6	217.4	191.0	9.3	21.3
5.0	24.1	75.4	14.3	170.2	203.0	8.8	24.5
10.0	22.7	72.9	10.2	118.4	210.0	7.8	15.0
15.0	21.9	71.4	9.0	102.9	205.0	7.5	11.3
20.0	21.0	69.8	8.0	89.9	195.0	7.3	8.5
25.0	20.7	69.3	7.6	84.9	190.0	7.3	5.5
30.0	20.7	69.3	7.5	83.8	190.0	7.3	5.4
35.0	20.7	69.3	7.5	83.8	191.0	7.3	5.7
40.0	20.7	69.3	7.5	83.8	192.0	7.3	5.1

United States Army Corps of Engineers

Nashville District

CELNRN-EC-H / Water Management Section

Station: 30LD20009

Project: Old Hickory

Location: Cumberland River, Mile 308.2

State: Tennessee

Latitude: 36° 14" 54'

Quad: Gordonsville, TN

County: Smith

Longitude: 85° 57" 18'

HUC: 05130201

Sample Date: 17 Jul 2012

Water Surface Elevation = 445.5 ft

Secchi Disk = 1.0 m

(No Laboratory Analyses)

Profile Measurements

Depth ft	Water Temp deg C	Water Temp deg F	Dis Oxygen mg/l	Dis Oxygen % sat	Spec Cond umho/cm	pH units	Chloro a F ug/l
0.0	22.6	72.7	8.5	98.4	204.0	7.4	1.1
5.0	22.6	72.7	8.5	98.4	204.0	7.4	1.1
10.0	22.6	72.7	8.5	98.4	205.0	7.3	1.3
15.0	22.6	72.7	8.5	97.3	205.0	7.3	1.4
18.0	22.6	72.7	8.4	97.3	205.0	7.3	1.3

CELRN-EC-H / Water Management Section

Location: Drakes Creek, Mile 1.9

Quad: Hendersonville, TN
HUC: 05130201

Secchi Disk = 0.6 m

Profile Measurements

[illegible]

United States Army Corps of Engineers

Nashville District

CELNRN-EC-H / Water Management Section

Station: 30LD20016

Project: Old Hickory

Location: Cumberland River, Mile 292.4

State: Tennessee

Latitude: 36° 15" 51'

Quad: Dixon Springs, TN

County: Smith

Longitude: 86° 4" 12'

HUC: 05130201

Sample Date: 17 Jul 2012

Water Surface Elevation = 445.5 ft

Secchi Disk = 1.1 m

Results of Laboratory Analyses

Profile Measurements

Sample Depth ft	10.0	Depth ft	Water Temp deg C	Water Temp deg F	Dis Oxygen mg/l	Dis Oxygen % sat	Spec Cond umho/cm	pH units	Chloro a F ug/l
Alkalinity, Tot	mg/L 70	0.0	23.9	75.0	8.8	104.4	198.0	7.6	2.7
Alkalinity, Phenol	mg/L 0	5.0	23.2	73.8	8.5	99.5	198.0	7.4	3.1
Solids, Tot	mg/L	10.0	22.0	71.6	8.0	91.6	196.0	7.3	2.3
Solids, Tot Diss	mg/L	15.0	21.8	71.2	7.8	89.0	195.0	7.3	2.1
Solids, Tot Susp	mg/L	20.0	21.7	71.1	7.8	88.8	195.0	7.3	2.0
Solids, Vol	mg/L	25.0	21.7	71.1	7.7	87.7	195.0	7.3	2.1
Solids, Vol Diss	mg/L	28.0	21.6	70.9	7.7	87.5	195.0	7.3	2.1
Solids, Vol Susp	mg/L								
Ammonia N, Tot	mg/L <0.200								
Kjeldahl N, Tot	mg/L 0.280								
NO3+NO2, Tot	mg/L 0.208								
Phosphorus, Tot	mg/L 0.0401								
Phosphorus, Diss	mg/L 0.0323								
OrthoPhosphate, D	mg/L <0.0500								
Organic Carbon, T	mg/L 2.20								
Hardness, Tot	mg/L 83.3								
Sulfate, Tot	mg/L 22.8								
Calcium, Tot	mg/L 24.3								
Magnesium, Tot	mg/L 5.49								
Sodium, Tot	mg/L 4.89								
Potassium, Tot	mg/L 1.36								
Chloride, Tot	mg/L 4.99								
Arsenic, Tot	ug/L 0.57								
Barium, Tot	ug/L 23.0								
Beryllium, Tot	ug/L <0.5								
Cadmium, Tot	ug/L <0.5								
Chromium, Tot	ug/L 0.6								
Cobalt, Tot	ug/L <0.5								
Copper, Tot	ug/L 1.8								
Iron, Tot	ug/L 82.7								
Iron, Diss	ug/L 22.9								
Lead, Tot	ug/L 1.4								
Lead, Diss	ug/L								
Manganese, Tot	ug/L 39.8								
Manganese, Diss	ug/L								
Thallium, Tot	ug/L <0.5								
Molybdenum, Tot	ug/L 0.5								
Nickel, Tot	ug/L 1.6								
Silver, Tot	ug/L <0.5								
Vanadium, Tot	ug/L 0.5								
Zinc, Tot	ug/L 1.8								
Zinc, Diss	ug/L								
Antimony, Tot	ug/L <0.5								
Aluminum, Tot	ug/L 121.0								
Aluminum, Diss	ug/L <8.0								
Selenium, Tot	ug/L <0.5								
Mercury, Tot	ug/L								

United States Army Corps of Engineers

Nashville District

CELRN-EC-H / Water Management Section

Station: 30LD20019

Project: Old Hickory

Location: Gallatin Fossil Plant Discharge, Mile 0.3

State: Tennessee

Latitude: 36° 18" 50.6'

Quad: Laguardo, TN

County: Sumner

Longitude: 86° 24" 12.8'

HUC: 05130201

Sample Date: 17 Jul 2012

Water Surface Elevation = 445.5 ft

Secchi Disk = 0.8 m

(No Laboratory Analyses)

Profile Measurements

Depth ft	Water Temp deg C	Water Temp deg F	Dis Oxygen mg/l	Dis Oxygen % sat	Spec Cond umho/cm	pH units	Chloro a F ug/l
0.0	33.6	92.5	3.6	50.2	214.0	7.2	2.5
5.0	33.6	92.5	3.5	48.8	214.0	7.2	3.3
10.0	33.6	92.5	3.5	48.8	214.0	7.2	2.9
13.0	33.6	92.5	3.5	48.8	214.0	7.2	3.0

United States Army Corps of Engineers

Nashville District

CELNRN-EC-H / Water Management Section

Station: 30LD20025

Project: Old Hickory

Location: Cumberland River, Mile 296.5

State: Tennessee

Latitude: 36° 18" 38.2'

Quad: Dixon Springs, TN

County: Smith

Longitude: 86° 3" 58.6'

HUC: 05130201

Sample Date: 17 Jul 2012

Water Surface Elevation = 445.5 ft

Secchi Disk = 1.0 m

(No Laboratory Analyses)

Profile Measurements

Depth ft	Water Temp deg C	Water Temp deg F	Dis Oxygen mg/l	Dis Oxygen % sat	Spec Cond umho/cm	pH units	Chloro a F ug/l
0.0	23.1	73.6	8.1	94.7	204.0	7.4	2.3
5.0	23.1	73.6	8.1	94.7	204.0	7.4	2.0
10.0	22.9	73.2	8.0	93.2	203.0	7.4	2.1
15.0	22.2	72.0	7.9	90.8	202.0	7.3	2.6
20.0	22.0	71.6	7.9	90.5	201.0	7.3	2.1
25.0	21.8	71.2	7.8	89.0	201.0	7.3	2.1
30.0	21.7	71.1	7.8	88.8	200.0	7.3	2.0
35.0	21.6	70.9	7.8	88.7	198.0	7.3	2.0
40.0	21.5	70.7	7.8	88.5	197.0	7.3	2.0
45.0	21.5	70.7	7.7	87.4	197.0	7.3	1.9
47.0	21.5	70.7	7.6	86.2	197.0	7.3	1.9

United States Army Corps of Engineers

Nashville District

CELRN-EC-H / Water Management Section

Station: 30LD20026

Project: Old Hickory

Location: Cumberland River, Mile 301.8

State: Tennessee
County: Smith

Latitude: 36° 17" 54.6'
Longitude: 86° 0" 13'

Quad: Dixon Springs, TN
HUC: 05130201

Sample Date: 17 Jul 2012

Water Surface Elevation = 445.5 ft

Secchi Disk = 1.0 m

(No Laboratory Analyses)

Profile Measurements								
Depth	Water Temp	Water Temp	Dis Oxygen	Dis Oxygen	Spec Cond	pH	Chloro a F	
ft	deg C	deg F	mg/l	% sat	umho/cm	units	ug/l	
0.0	22.5	72.5	8.3	96.0	201.0	7.4	1.2	
5.0	22.5	72.5	8.3	96.0	201.0	7.3	1.3	
10.0	22.5	72.5	8.3	96.0	201.0	7.3	1.4	
15.0	22.5	72.5	8.3	96.0	201.0	7.3	1.4	
20.0	22.5	72.5	8.3	96.0	201.0	7.3	1.8	

United States Army Corps of Engineers

Nashville District

CELRN-EC-H / Water Management Section

Station: 30LD20027

Project: Old Hickory

Location: Cumberland River, Mile 305.8

State: Tennessee

Latitude: 36° 16" 7.4'

Quad: Carthage, TN

County: Smith

Longitude: 85° 58" 55.9'

HUC: 05130201

Sample Date: 17 Jul 2012

Water Surface Elevation = 445.5 ft

Secchi Disk = 1.0 m

(No Laboratory Analyses)

Profile Measurements

Depth ft	Water Temp deg C	Water Temp deg F	Dis Oxygen mg/l	Dis Oxygen % sat	Spec Cond umho/cm	pH units	Chloro a F ug/l
0.0	22.5	72.5	8.3	96.0	204.0	7.4	1.4
5.0	22.5	72.5	8.3	96.0	205.0	7.3	1.5
10.0	22.5	72.5	8.3	96.0	205.0	7.3	1.5
15.0	22.5	72.5	8.3	96.0	205.0	7.3	1.7
20.0	22.5	72.5	8.3	96.0	205.0	7.3	1.7
23.0	22.4	72.3	8.3	95.8	205.0	7.3	1.4