STATE OF TENNESSEE
DEPARTMENT OF HEALTH
ENVIRONMENTAL LABORATORIES

TDH: Lab Services JRL
Lab Services - Jackson Regional Lab
Jackson, TN 38301
731-426-0686

TDH: Lab Services KRL
Lab Services - Knoxville Regional Lab
Knoxville, TN 37920
865-549-5201

TDH: Lab Services NCL
Lab Services - Nashville Central Lab
Nashville, TN 37243
615-262-6300

Sent To: Greg Denton
TDEC-WPC
6th Floor, L & C Tower Annex
401 Church Street
Nashville, TN 37243-1534

Michael Atchley
TDEC-WPC
Knoxville FO
3711 Middlebrook Pike
Knoxville, TN 37921

Lab ID: K00002809
Knoxville Regional Laboratory

Sampling Agency: TDEC: Division of Water Pollution Control

Billing Code: 327.34-20

This is to certify that the following results were determined using good laboratory pratices and in accordance with federal or state approved methodologies.

Analytical Supervisor

Lab-Sample Number:	K00002809001	**Field Determinations**	
Project Name:	TVA-Ash Spill	**pH:** 7.72	pH Units
Sample Description:	Emory River mile 12.1	**Chlorine, residual:**	
Sampler Project Name:	TVA Ash Spill	**Conductivity:** 107	uMHO
Project Site No.:	1	**Temperature:** 25.10	
Station No.:	EMORY012.1RO	**Dissolved Oxygen:** 8.92	mg/L
Date/Time Collected:	09/01/2009 11:55	**Other:**	
Sampler's Name:	Geoff Klein	**Flow:**	CFS
County:	ROANE - 73		
Sample Matrix:	Water		
EFO:	Knoxville		
Sampling Agency:	TDEC-WPC		
Billing Code:	327.34-20		
Send Report To:	TDEC-WPC		
Agency Invoiced:	TDEC-WPC		
Priority Date:			
Date/Time Received:	09/01/2009 13:11		
Received By:	E McCrary		

TEST: Alkalinity, Total — **METHOD: EPA 310.2**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	29	mg/L	3.8	10	M Chen	9/4/2009

TEST: Hardness, Calcium — **METHOD: SM 3500-Ca D**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	30	mg/L	0.7	1	M Chen	9/8/2009

TEST: Residue, Settleable — **METHOD: SM 2540F**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	S Burchfield	9/2/2009

TEST: Residue, Suspended — **METHOD: SM 2540D**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	A Peeples	9/4/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number:	K00002809002
Project Name:	TVA-Ash Spill
Sample Description:	Emory River mile 2.1
Sampler Project Name:	TVA Ash Spill
Project Site No.:	2
Station No.:	EMORY002.1RO
Date/Time Collected:	09/01/2009 09:52
Sampler's Name:	Geoff Klein
County:	ROANE - 73
Sample Matrix:	Water
EFO:	Knoxville
Sampling Agency:	TDEC-WPC
Billing Code:	327.34-20
Send Report To:	TDEC-WPC
Agency Invoiced:	TDEC-WPC
Priority Date:	
Date/Time Received:	09/01/2009 13:11
Received By:	E McCrary

Field Determinations		
pH:	7.65	pH Units
Chlorine, residual:		
Conductivity:	205	uMHO
Temperature:	22.66	
Dissolved Oxygen:	8.54	mg/L
Other:		
Flow:		CFS

TEST: Alkalinity, Total **METHOD: EPA 310.2**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	74	mg/L	3.8	10	M Chen	9/4/2009

TEST: Hardness, Calcium **METHOD: SM 3500-Ca D**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	69	mg/L	0.7	1	M Chen	9/8/2009

TEST: Residue, Settleable **METHOD: SM 2540F**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	0.1	ml/L	0.10	0.10	S Burchfield	9/2/2009

TEST: Residue, Suspended **METHOD: SM 2540D**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	26	mg/L	10	10	A Peeples	9/4/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number:	K00002809003
Project Name:	TVA-Ash Spill
Sample Description:	Approx. 100' d/s from middle dredge point
Sampler Project Name:	TVA Ash Spill
Project Site No.:	2A
Station No.:	Dredge Plume
Date/Time Collected:	09/01/2009 10:04
Sampler's Name:	Geoff Klein
County:	ROANE - 73
Sample Matrix:	Water
EFO:	Knoxville
Sampling Agency:	TDEC-WPC
Billing Code:	327.34-20
Send Report To:	TDEC-WPC
Agency Invoiced:	TDEC-WPC
Priority Date:	
Date/Time Received:	09/01/2009 13:11
Received By:	E McCrary

Field Determinations

pH:	7.74	pH Units
Chlorine, residual:		
Conductivity:	222	uMHO
Temperature:	22.41	
Dissolved Oxygen:	9.64	mg/L
Other:		
Flow:		CFS

TEST: Alkalinity, Total — **METHOD: EPA 310.2**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	91	mg/L	3.8	10	M Chen	9/4/2009

TEST: Hardness, Calcium — **METHOD: SM 3500-Ca D**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	76	mg/L	0.7	1	M Chen	9/8/2009

TEST: Residue, Settleable — **METHOD: SM 2540F**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	0.2	ml/L	0.10	0.10	S Burchfield	9/2/2009

TEST: Residue, Suspended — **METHOD: SM 2540D**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	110	mg/L	10	10	A Peeples	9/4/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number:	K00002809004
Project Name:	TVA-Ash Spill
Sample Description:	Emory River mile 1.9 at underwater weir
Sampler Project Name:	TVA Ash Spill
Project Site No.:	2B
Station No.:	EMORY001.9RO
Date/Time Collected:	09/01/2009 10:16
Sampler's Name:	Geoff Klein
County:	ROANE - 73
Sample Matrix:	Water
EFO:	Knoxville
Sampling Agency:	TDEC-WPC
Billing Code:	327.34-20
Send Report To:	TDEC-WPC
Agency Invoiced:	TDEC-WPC
Priority Date:	
Date/Time Received:	09/01/2009 13:11
Received By:	E McCrary

Field Determinations		
pH:	8.04	pH Units
Chlorine, residual:		
Conductivity:	239	uMHO
Temperature:	22.23	
Dissolved Oxygen:	11.30	mg/L
Other:		
Flow:		CFS

TEST: Alkalinity, Total — **METHOD: EPA 310.2**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	110	mg/L	3.8	10	M Chen	9/4/2009

TEST: Hardness, Calcium — **METHOD: SM 3500-Ca D**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	91	mg/L	0.7	1	M Chen	9/8/2009

TEST: Residue, Settleable — **METHOD: SM 2540F**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	S Burchfield	9/2/2009

TEST: Residue, Suspended — **METHOD: SM 2540D**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	A Peeples	9/4/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number:	K00002809005
Project Name:	TVA-Ash Spill
Sample Description:	Emory River mile 1.7
Sampler Project Name:	TVA Ash Spill
Project Site No.:	3
Station No.:	EMORY001.7RO
Date/Time Collected:	09/01/2009 10:26
Sampler's Name:	Geoff Klein
County:	ROANE - 73
Sample Matrix:	Water
EFO:	Knoxville
Sampling Agency:	TDEC-WPC
Billing Code:	327.34-20
Send Report To:	TDEC-WPC
Agency Invoiced:	TDEC-WPC
Priority Date:	
Date/Time Received:	09/01/2009 13:11
Received By:	E McCrary

Field Determinations		
pH:	8.10	pH Units
Chlorine, residual:		
Conductivity:	248	uMHO
Temperature:	22.24	
Dissolved Oxygen:	11.68	mg/L
Other:		
Flow:		CFS

TEST: Alkalinity, Total — **METHOD: EPA 310.2**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	110	mg/L	3.8	10	M Chen	9/4/2009

TEST: Hardness, Calcium — **METHOD: SM 3500-Ca D**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	96	mg/L	0.7	1	M Chen	9/8/2009

TEST: Residue, Settleable — **METHOD: SM 2540F**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	S Burchfield	9/2/2009

TEST: Residue, Suspended — **METHOD: SM 2540D**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	A Peeples	9/4/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number:	K00002809006
Project Name:	TVA-Ash Spill
Sample Description:	Emory River mile 0.1
Sampler Project Name:	TVA Ash Spill
Project Site No.:	4
Station No.:	EMORY000.1RO
Date/Time Collected:	09/01/2009 10:40
Sampler's Name:	Geoff Klein
County:	ROANE - 73
Sample Matrix:	Water
EFO:	Knoxville
Sampling Agency:	TDEC-WPC
Billing Code:	327.34-20
Send Report To:	TDEC-WPC
Agency Invoiced:	TDEC-WPC
Priority Date:	
Date/Time Received:	09/01/2009 13:11
Received By:	E McCrary

Field Determinations

pH:	8.06	pH Units
Chlorine, residual:		
Conductivity:	252	uMHO
Temperature:	21.76	
Dissolved Oxygen:	11.46	mg/L
Other:		
Flow:		CFS

TEST: Alkalinity, Total — **METHOD: EPA 310.2**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	110	mg/L	3.8	10	M Chen	9/4/2009

TEST: Hardness, Calcium — **METHOD: SM 3500-Ca D**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	89	mg/L	0.7	1	M Chen	9/8/2009

TEST: Residue, Settleable — **METHOD: SM 2540F**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	S Burchfield	9/2/2009

TEST: Residue, Suspended — **METHOD: SM 2540D**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	A Peeples	9/4/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number:	K00002809007
Project Name:	TVA-Ash Spill
Sample Description:	Emory River mile 0.1-Dup
Sampler Project Name:	TVA Ash Spill
Project Site No.:	4 FD
Station No.:	EMORY000.1RO
Date/Time Collected:	09/01/2009 10:40
Sampler's Name:	Geoff Klein
County:	ROANE - 73
Sample Matrix:	Water
EFO:	Knoxville
Sampling Agency:	TDEC-WPC
Billing Code:	327.34-20
Send Report To:	TDEC-WPC
Agency Invoiced:	TDEC-WPC
Priority Date:	
Date/Time Received:	09/01/2009 13:11
Received By:	E McCrary

Field Determinations		
pH:	8.06	pH Units
Chlorine, residual:		
Conductivity:	252	uMHO
Temperature:	21.76	
Dissolved Oxygen:	11.46	mg/L
Other:		
Flow:		CFS

TEST: Alkalinity, Total — **METHOD: EPA 310.2**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	110	mg/L	3.8	10	M Chen	9/4/2009

TEST: Hardness, Calcium — **METHOD: SM 3500-Ca D**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	88	mg/L	0.7	1	M Chen	9/8/2009

TEST: Residue, Settleable — **METHOD: SM 2540F**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	S Burchfield	9/2/2009

TEST: Residue, Suspended — **METHOD: SM 2540D**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	10	mg/L	10	10	A Peeples	9/4/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number:	K00002809008	**Field Determinations**	
Project Name:	TVA-Ash Spill	**pH:**	
Sample Description:	Emory River mile 0.1-Field Blank	**Chlorine, residual:**	
Sampler Project Name:	TVA Ash Spill	**Conductivity:**	
Project Site No.:	4 FB	**Temperature:**	
Station No.:	EMORY000.1RO	**Dissolved Oxygen:**	
Date/Time Collected:	09/01/2009 10:40	**Other:**	
Sampler's Name:	Geoff Klein	**Flow:**	CFS
County:	ROANE - 73		
Sample Matrix:	Water		
EFO:	Knoxville		
Sampling Agency:	TDEC-WPC		
Billing Code:	327.34-20		
Send Report To:	TDEC-WPC		
Agency Invoiced:	TDEC-WPC		
Priority Date:			
Date/Time Received:	09/01/2009 13:11		
Received By:	E McCrary		

TEST: Alkalinity, Total **METHOD: EPA 310.2**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	U	mg/L	3.8	10	M Chen	9/4/2009

TEST: Hardness, Calcium **METHOD: SM 3500-Ca D**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	U	mg/L	0.7	1	M Chen	9/8/2009

TEST: Residue, Suspended **METHOD: SM 2540D**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	A Peeples	9/4/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number:	K00002809009
Project Name:	TVA-Ash Spill
Sample Description:	Clinch River Mile 2.3
Sampler Project Name:	TVA Ash Spill
Project Site No.:	5
Station No.:	CLINC002.3RO
Date/Time Collected:	09/01/2009 10:56
Sampler's Name:	Geoff Klein
County:	ROANE - 73
Sample Matrix:	Water
EFO:	Knoxville
Sampling Agency:	TDEC-WPC
Billing Code:	327.34-20
Send Report To:	TDEC-WPC
Agency Invoiced:	TDEC-WPC
Priority Date:	
Date/Time Received:	09/01/2009 13:11
Received By:	E McCrary

Field Determinations

pH:	7.80	pH Units
Chlorine, residual:		
Conductivity:	275	uMHO
Temperature:	23.04	
Dissolved Oxygen:	10.15	mg/L
Other:		
Flow:		CFS

TEST: Alkalinity, Total — **METHOD: EPA 310.2**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	110	mg/L	3.8	10	M Chen	9/4/2009

TEST: Hardness, Calcium — **METHOD: SM 3500-Ca D**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	90	mg/L	0.7	1	M Chen	9/8/2009

TEST: Residue, Settleable — **METHOD: SM 2540F**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	S Burchfield	9/2/2009

TEST: Residue, Suspended — **METHOD: SM 2540D**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	A Peeples	9/4/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number:	K00002809010
Project Name:	TVA-Ash Spill
Sample Description:	Clinch River TVA Discharge Point
Sampler Project Name:	TVA Ash Spill
Project Site No.:	5A
Station No.:	KingAshOutF2
Date/Time Collected:	09/01/2009 11:05
Sampler's Name:	Geoff Klein
County:	ROANE - 73
Sample Matrix:	Water
EFO:	Knoxville
Sampling Agency:	TDEC-WPC
Billing Code:	327.34-20
Send Report To:	TDEC-WPC
Agency Invoiced:	TDEC-WPC
Priority Date:	
Date/Time Received:	09/01/2009 13:11
Received By:	E McCrary

Field Determinations		
pH:	7.77	pH Units
Chlorine, residual:		
Conductivity:	287	uMHO
Temperature:	24.97	
Dissolved Oxygen:	10.01	mg/L
Other:		
Flow:		CFS

TEST: Alkalinity, Total — **METHOD: EPA 310.2**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	110	mg/L	3.8	10	M Chen	9/4/2009

TEST: Hardness, Calcium — **METHOD: SM 3500-Ca D**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	93	mg/L	0.7	1	M Chen	9/8/2009

TEST: Residue, Settleable — **METHOD: SM 2540F**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	S Burchfield	9/2/2009

TEST: Residue, Suspended — **METHOD: SM 2540D**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	14	mg/L	10	10	A Peeples	9/4/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number:	K00002809011	**Field Determinations**	
Project Name:	TVA-Ash Spill	**pH:** 7.82	pH Units
Sample Description:	Clinch River mile 4.5 near Sugar Grove Valley R	**Chlorine, residual:**	
Sampler Project Name:	TVA Ash Spill	**Conductivity:** 266	uMHO
Project Site No.:	6	**Temperature:** 20.10	
Station No.:	CLINC004.5RO	**Dissolved Oxygen:** 11.20	mg/L
Date/Time Collected:	09/01/2009 11:20	**Other:**	
Sampler's Name:	Geoff Klein	**Flow:**	CFS
County:	ROANE - 73		
Sample Matrix:	Water		
EFO:	Knoxville		
Sampling Agency:	TDEC-WPC		
Billing Code:	327.34-20		
Send Report To:	TDEC-WPC		
Agency Invoiced:	TDEC-WPC		
Priority Date:			
Date/Time Received:	09/01/2009 13:11		
Received By:	E McCrary		

TEST: Alkalinity, Total — **METHOD: EPA 310.2**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	110	mg/L	3.8	10	M Chen	9/10/2009

TEST: Hardness, Calcium — **METHOD: SM 3500-Ca D**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	93	mg/L	0.7	1	M Chen	9/8/2009

TEST: Residue, Settleable — **METHOD: SM 2540F**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	S Burchfield	9/2/2009

TEST: Residue, Suspended — **METHOD: SM 2540D**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	A Peeples	9/4/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

STATE OF TENNESSEE
DEPARTMENT OF HEALTH
ENVIRONMENTAL LABORATORIES

TDH: Lab Services JRL
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Knoxville, TN 37920
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TDH: Lab Services NCL
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Nashville, TN 37243-1534

Michael Atchley
TDEC-WPC
Knoxville FO
3711 Middlebrook Pike
Knoxville, TN 37921

Lab ID: K00002809
Knoxville Regional Laboratory

Sampling Agency: TDEC: Division of Water Pollution Control

Billing Code: 327.34-20

This is to certify that the following results were determined using good laboratory pratices and in accordance with federal or state approved methodologies.

Analytical Supervisor

Lab-Sample Number:	K00002809001
Project Name:	TVA-Ash Spill
Sample Description:	Emory River mile 12.1
Sampler Project Name:	TVA Ash Spill
Project Site No.:	1
Station No.:	EMORY012.1RO
Date/Time Collected:	09/01/2009 11:55
Sampler's Name:	Geoff Klein
County:	ROANE - 73
Sample Matrix:	Water
EFO:	Knoxville
Sampling Agency:	TDEC-WPC
Billing Code:	327.34-20
Send Report To:	TDEC-WPC
Agency Invoiced:	TDEC-WPC
Priority Date:	
Date/Time Received:	09/01/2009 13:11
Received By:	E McCrary

Field Determinations		
pH:	7.72	pH Units
Chlorine, residual:		
Conductivity:	107	uMHO
Temperature:	25.10	
Dissolved Oxygen:	8.92	mg/L
Other:		
Flow:		CFS

TEST: Digestion Metals **METHOD: EPA 200.2**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	09/02/2009				M Pattanayek	9/2/2009

TEST: ICP **METHOD: EPA 200.7**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	170	µg/L	2.9	10	A Bass	9/4/2009

TEST: ICP-MS **METHOD: EPA 200.8**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	15	µg/L	6.4	10	M Pattanayek	9/4/2009
Antimony	U	µg/L	0.33	1	M Pattanayek	9/3/2009
Arsenic	U	µg/L	0.93	5	M Pattanayek	9/3/2009
Barium	32	µg/L	2.5	5	M Pattanayek	9/3/2009
Beryllium	U	µg/L	0.11	1	M Pattanayek	9/3/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	9/3/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	9/3/2009
Cobalt	0.19J	µg/L	0.04	1	M Pattanayek	9/3/2009
Copper	1.7	µg/L	0.38	1	M Pattanayek	9/3/2009
Lead	0.11J	µg/L	0.10	1	M Pattanayek	9/3/2009
Manganese	84	µg/L	0.42	1	M Pattanayek	9/3/2009
Nickel	0.93J	µg/L	0.25	1	M Pattanayek	9/3/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	9/3/2009
Silver	0.035J	µg/L	0.03	0.25	M Pattanayek	9/3/2009
Thallium	0.079J	µg/L	0.03	1	M Pattanayek	9/3/2009
Vanadium	U	µg/L	3.4	5	M Pattanayek	9/3/2009
Zinc	3.7J	µg/L	1.9	5	M Pattanayek	9/3/2009

Lab-Sample Number:	K00002809001
Project Name:	TVA-Ash Spill
Sample Description:	Emory River mile 12.1
Sampler Project Name:	TVA Ash Spill
Project Site No.:	1
Station No.:	EMORY012.1RO
Date/Time Collected:	09/01/2009 11:55
Sampler's Name:	Geoff Klein
County:	ROANE - 73
Sample Matrix:	Water
EFO:	Knoxville
Sampling Agency:	TDEC-WPC
Billing Code:	327.34-20
Send Report To:	TDEC-WPC
Agency Invoiced:	TDEC-WPC
Priority Date:	
Date/Time Received:	09/01/2009 13:11
Received By:	E McCrary

Field Determinations		
pH:	7.72	pH Units
Chlorine, residual:		
Conductivity:	107	uMHO
Temperature:	25.10	
Dissolved Oxygen:	8.92	mg/L
Other:		
Flow:		CFS

TEST: Mercury **METHOD: EPA 245.1**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	0.06J	µg/L	0.029	0.2	A Bass	9/10/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number:	K00002809002	**Field Determinations**	
Project Name:	TVA-Ash Spill	**pH:** 7.65	pH Units
Sample Description:	Emory River mile 2.1	**Chlorine, residual:**	
Sampler Project Name:	TVA Ash Spill	**Conductivity:** 205	uMHO
Project Site No.:	2	**Temperature:** 22.66	
Station No.:	EMORY002.1RO	**Dissolved Oxygen:** 8.54	mg/L
Date/Time Collected:	09/01/2009 09:52	**Other:**	
Sampler's Name:	Geoff Klein	**Flow:**	CFS
County:	ROANE - 73		
Sample Matrix:	Water		
EFO:	Knoxville		
Sampling Agency:	TDEC-WPC		
Billing Code:	327.34-20		
Send Report To:	TDEC-WPC		
Agency Invoiced:	TDEC-WPC		
Priority Date:			
Date/Time Received:	09/01/2009 13:11		
Received By:	E McCrary		

TEST: Digestion Metals **METHOD: EPA 200.2**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	09/02/2009				M Pattanayek	9/2/2009

TEST: ICP **METHOD: EPA 200.7**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	360	µg/L	2.9	10	A Bass	9/4/2009

TEST: ICP-MS **METHOD: EPA 200.8**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	450	µg/L	6.4	10	M Pattanayek	9/4/2009
Antimony	0.65J	µg/L	0.33	1	M Pattanayek	9/3/2009
Arsenic	13	µg/L	0.93	5	M Pattanayek	9/3/2009
Barium	91	µg/L	2.5	5	M Pattanayek	9/3/2009
Beryllium	0.12J	µg/L	0.11	1	M Pattanayek	9/3/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	9/3/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	9/3/2009
Cobalt	0.59J	µg/L	0.04	1	M Pattanayek	9/3/2009
Copper	2.3	µg/L	0.38	1	M Pattanayek	9/3/2009
Lead	0.70J	µg/L	0.10	1	M Pattanayek	9/3/2009
Manganese	130	µg/L	0.42	1	M Pattanayek	9/3/2009
Nickel	1.6	µg/L	0.25	1	M Pattanayek	9/3/2009
Selenium	1.3J	µg/L	1.3	5	M Pattanayek	9/3/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	9/3/2009
Thallium	0.29J	µg/L	0.03	1	M Pattanayek	9/3/2009
Vanadium	8.9	µg/L	3.4	5	M Pattanayek	9/3/2009
Zinc	2.5J	µg/L	1.9	5	M Pattanayek	9/3/2009

Lab-Sample Number:	K00002809002
Project Name:	TVA-Ash Spill
Sample Description:	Emory River mile 2.1
Sampler Project Name:	TVA Ash Spill
Project Site No.:	2
Station No.:	EMORY002.1RO
Date/Time Collected:	09/01/2009 09:52
Sampler's Name:	Geoff Klein
County:	ROANE - 73
Sample Matrix:	Water
EFO:	Knoxville
Sampling Agency:	TDEC-WPC
Billing Code:	327.34-20
Send Report To:	TDEC-WPC
Agency Invoiced:	TDEC-WPC
Priority Date:	
Date/Time Received:	09/01/2009 13:11
Received By:	E McCrary

Field Determinations

pH:	7.65	pH Units
Chlorine, residual:		
Conductivity:	205	uMHO
Temperature:	22.66	
Dissolved Oxygen:	8.54	mg/L
Other:		
Flow:		CFS

TEST: Mercury **METHOD: EPA 245.1**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	U	µg/L	0.029	0.2	A Bass	9/10/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number:	K00002809003
Project Name:	TVA-Ash Spill
Sample Description:	Approx. 100' d/s from middle dredge point
Sampler Project Name:	TVA Ash Spill
Project Site No.:	2A
Station No.:	Dredge Plume
Date/Time Collected:	09/01/2009 10:04
Sampler's Name:	Geoff Klein
County:	ROANE - 73
Sample Matrix:	Water
EFO:	Knoxville
Sampling Agency:	TDEC-WPC
Billing Code:	327.34-20
Send Report To:	TDEC-WPC
Agency Invoiced:	TDEC-WPC
Priority Date:	
Date/Time Received:	09/01/2009 13:11
Received By:	E McCrary

Field Determinations		
pH:	7.74	pH Units
Chlorine, residual:		
Conductivity:	222	uMHO
Temperature:	22.41	
Dissolved Oxygen:	9.64	mg/L
Other:		
Flow:		CFS

TEST: Digestion Metals — **METHOD: EPA 200.2**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	09/02/2009				M Pattanayek	9/2/2009

TEST: ICP — **METHOD: EPA 200.7**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	650	µg/L	2.9	10	A Bass	9/4/2009

TEST: ICP-MS — **METHOD: EPA 200.8**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	870	µg/L	6.4	10	M Pattanayek	9/4/2009
Antimony	0.74J	µg/L	0.33	1	M Pattanayek	9/3/2009
Arsenic	18	µg/L	0.93	5	M Pattanayek	9/3/2009
Barium	120	µg/L	2.5	5	M Pattanayek	9/3/2009
Beryllium	0.23J	µg/L	0.11	1	M Pattanayek	9/3/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	9/3/2009
Chromium	2.4J	µg/L	2.0	5	M Pattanayek	9/3/2009
Cobalt	0.94J	µg/L	0.04	1	M Pattanayek	9/3/2009
Copper	5.1	µg/L	0.38	1	M Pattanayek	9/3/2009
Lead	1.3	µg/L	0.10	1	M Pattanayek	9/3/2009
Manganese	160	µg/L	0.42	1	M Pattanayek	9/3/2009
Nickel	2.2	µg/L	0.25	1	M Pattanayek	9/3/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	9/3/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	9/3/2009
Thallium	0.27J	µg/L	0.03	1	M Pattanayek	9/3/2009
Vanadium	13	µg/L	3.4	5	M Pattanayek	9/3/2009
Zinc	4.5J	µg/L	1.9	5	M Pattanayek	9/3/2009

Lab-Sample Number:	K00002809003
Project Name:	TVA-Ash Spill
Sample Description:	Approx. 100' d/s from middle dredge point
Sampler Project Name:	TVA Ash Spill
Project Site No.:	2A
Station No.:	Dredge Plume
Date/Time Collected:	09/01/2009 10:04
Sampler's Name:	Geoff Klein
County:	ROANE - 73
Sample Matrix:	Water
EFO:	Knoxville
Sampling Agency:	TDEC-WPC
Billing Code:	327.34-20
Send Report To:	TDEC-WPC
Agency Invoiced:	TDEC-WPC
Priority Date:	
Date/Time Received:	09/01/2009 13:11
Received By:	E McCrary

Field Determinations		
pH:	7.74	pH Units
Chlorine, residual:		
Conductivity:	222	uMHO
Temperature:	22.41	
Dissolved Oxygen:	9.64	mg/L
Other:		
Flow:		CFS

TEST: Mercury **METHOD: EPA 245.1**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	0.06J	µg/L	0.029	0.2	A Bass	9/10/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number:	K00002809004
Project Name:	TVA-Ash Spill
Sample Description:	Emory River mile 1.9 at underwater weir
Sampler Project Name:	TVA Ash Spill
Project Site No.:	2B
Station No.:	EMORY001.9RO
Date/Time Collected:	09/01/2009 10:16
Sampler's Name:	Geoff Klein
County:	ROANE - 73
Sample Matrix:	Water
EFO:	Knoxville
Sampling Agency:	TDEC-WPC
Billing Code:	327.34-20
Send Report To:	TDEC-WPC
Agency Invoiced:	TDEC-WPC
Priority Date:	
Date/Time Received:	09/01/2009 13:11
Received By:	E McCrary

Field Determinations		
pH:	8.04	pH Units
Chlorine, residual:		
Conductivity:	239	uMHO
Temperature:	22.23	
Dissolved Oxygen:	11.30	mg/L
Other:		
Flow:		CFS

TEST: Digestion Metals — **METHOD: EPA 200.2**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	09/02/2009				M Pattanayek	9/2/2009

TEST: ICP — **METHOD: EPA 200.7**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	110	µg/L	2.9	10	A Bass	9/4/2009

TEST: ICP-MS — **METHOD: EPA 200.8**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	76	µg/L	6.4	10	M Pattanayek	9/4/2009
Antimony	U	µg/L	0.33	1	M Pattanayek	9/3/2009
Arsenic	2.1J	µg/L	0.93	5	M Pattanayek	9/3/2009
Barium	49	µg/L	2.5	5	M Pattanayek	9/3/2009
Beryllium	U	µg/L	0.11	1	M Pattanayek	9/3/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	9/3/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	9/3/2009
Cobalt	0.24J	µg/L	0.04	1	M Pattanayek	9/3/2009
Copper	2.3	µg/L	0.38	1	M Pattanayek	9/3/2009
Lead	0.24J	µg/L	0.10	1	M Pattanayek	9/3/2009
Manganese	52	µg/L	0.42	1	M Pattanayek	9/3/2009
Nickel	1.5	µg/L	0.25	1	M Pattanayek	9/3/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	9/3/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	9/3/2009
Thallium	0.050J	µg/L	0.03	1	M Pattanayek	9/3/2009
Vanadium	U	µg/L	3.4	5	M Pattanayek	9/3/2009
Zinc	2.7J	µg/L	1.9	5	M Pattanayek	9/3/2009

Lab-Sample Number:	K00002809004	**Field Determinations**	
Project Name:	TVA-Ash Spill	**pH:** 8.04	pH Units
Sample Description:	Emory River mile 1.9 at underwater weir	**Chlorine, residual:**	
Sampler Project Name:	TVA Ash Spill	**Conductivity:** 239	uMHO
Project Site No.:	2B	**Temperature:** 22.23	
Station No.:	EMORY001.9RO	**Dissolved Oxygen:** 11.30	mg/L
Date/Time Collected:	09/01/2009 10:16	**Other:**	
Sampler's Name:	Geoff Klein	**Flow:**	CFS
County:	ROANE - 73		
Sample Matrix:	Water		
EFO:	Knoxville		
Sampling Agency:	TDEC-WPC		
Billing Code:	327.34-20		
Send Report To:	TDEC-WPC		
Agency Invoiced:	TDEC-WPC		
Priority Date:			
Date/Time Received:	09/01/2009 13:11		
Received By:	E McCrary		

TEST: Mercury **METHOD: EPA 245.1**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	0.03J	µg/L	0.029	0.2	A Bass	9/10/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number:	K00002809005
Project Name:	TVA-Ash Spill
Sample Description:	Emory River mile 1.7
Sampler Project Name:	TVA Ash Spill
Project Site No.:	3
Station No.:	EMORY001.7RO
Date/Time Collected:	09/01/2009 10:26
Sampler's Name:	Geoff Klein
County:	ROANE - 73
Sample Matrix:	Water
EFO:	Knoxville
Sampling Agency:	TDEC-WPC
Billing Code:	327.34-20
Send Report To:	TDEC-WPC
Agency Invoiced:	TDEC-WPC
Priority Date:	
Date/Time Received:	09/01/2009 13:11
Received By:	E McCrary

Field Determinations		
pH:	8.10	pH Units
Chlorine, residual:		
Conductivity:	248	uMHO
Temperature:	22.24	
Dissolved Oxygen:	11.68	mg/L
Other:		
Flow:		CFS

TEST: Digestion Metals — **METHOD: EPA 200.2**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	09/02/2009				M Pattanayek	9/2/2009

TEST: ICP — **METHOD: EPA 200.7**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	110	µg/L	2.9	10	A Bass	9/4/2009

TEST: ICP-MS — **METHOD: EPA 200.8**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	60	µg/L	6.4	10	M Pattanayek	9/4/2009
Antimony	U	µg/L	0.33	1	M Pattanayek	9/3/2009
Arsenic	1.2J	µg/L	0.93	5	M Pattanayek	9/3/2009
Barium	40	µg/L	2.5	5	M Pattanayek	9/3/2009
Beryllium	U	µg/L	0.11	1	M Pattanayek	9/3/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	9/3/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	9/3/2009
Cobalt	0.19J	µg/L	0.04	1	M Pattanayek	9/3/2009
Copper	2.0	µg/L	0.38	1	M Pattanayek	9/3/2009
Lead	0.16J	µg/L	0.10	1	M Pattanayek	9/3/2009
Manganese	36	µg/L	0.42	1	M Pattanayek	9/3/2009
Nickel	1.3	µg/L	0.25	1	M Pattanayek	9/3/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	9/3/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	9/3/2009
Thallium	0.036J	µg/L	0.03	1	M Pattanayek	9/3/2009
Vanadium	U	µg/L	3.4	5	M Pattanayek	9/3/2009
Zinc	2.1J	µg/L	1.9	5	M Pattanayek	9/3/2009

Lab-Sample Number:	K00002809005
Project Name:	TVA-Ash Spill
Sample Description:	Emory River mile 1.7
Sampler Project Name:	TVA Ash Spill
Project Site No.:	3
Station No.:	EMORY001.7RO
Date/Time Collected:	09/01/2009 10:26
Sampler's Name:	Geoff Klein
County:	ROANE - 73
Sample Matrix:	Water
EFO:	Knoxville
Sampling Agency:	TDEC-WPC
Billing Code:	327.34-20
Send Report To:	TDEC-WPC
Agency Invoiced:	TDEC-WPC
Priority Date:	
Date/Time Received:	09/01/2009 13:11
Received By:	E McCrary

Field Determinations		
pH:	8.10	pH Units
Chlorine, residual:		
Conductivity:	248	uMHO
Temperature:	22.24	
Dissolved Oxygen:	11.68	mg/L
Other:		
Flow:		CFS

TEST: Mercury **METHOD: EPA 245.1**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	0.04J	µg/L	0.029	0.2	A Bass	9/10/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number:	K00002809006
Project Name:	TVA-Ash Spill
Sample Description:	Emory River mile 0.1
Sampler Project Name:	TVA Ash Spill
Project Site No.:	4
Station No.:	EMORY000.1RO
Date/Time Collected:	09/01/2009 10:40
Sampler's Name:	Geoff Klein
County:	ROANE - 73
Sample Matrix:	Water
EFO:	Knoxville
Sampling Agency:	TDEC-WPC
Billing Code:	327.34-20
Send Report To:	TDEC-WPC
Agency Invoiced:	TDEC-WPC
Priority Date:	
Date/Time Received:	09/01/2009 13:11
Received By:	E McCrary

Field Determinations		
pH:	8.06	pH Units
Chlorine, residual:		
Conductivity:	252	uMHO
Temperature:	21.76	
Dissolved Oxygen:	11.46	mg/L
Other:		
Flow:		CFS

TEST: Digestion Metals **METHOD: EPA 200.2**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	09/02/2009				M Pattanayek	9/2/2009

TEST: ICP **METHOD: EPA 200.7**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	79	µg/L	2.9	10	A Bass	9/4/2009

TEST: ICP-MS **METHOD: EPA 200.8**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	36	µg/L	6.4	10	M Pattanayek	9/4/2009
Antimony	U	µg/L	0.33	1	M Pattanayek	9/3/2009
Arsenic	U	µg/L	0.93	5	M Pattanayek	9/3/2009
Barium	36	µg/L	2.5	5	M Pattanayek	9/3/2009
Beryllium	U	µg/L	0.11	1	M Pattanayek	9/3/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	9/3/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	9/3/2009
Cobalt	0.15J	µg/L	0.04	1	M Pattanayek	9/3/2009
Copper	2.7	µg/L	0.38	1	M Pattanayek	9/3/2009
Lead	0.11J	µg/L	0.10	1	M Pattanayek	9/3/2009
Manganese	42	µg/L	0.42	1	M Pattanayek	9/3/2009
Nickel	1.1	µg/L	0.25	1	M Pattanayek	9/3/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	9/3/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	9/3/2009
Thallium	0.037J	µg/L	0.03	1	M Pattanayek	9/3/2009
Vanadium	U	µg/L	3.4	5	M Pattanayek	9/3/2009
Zinc	2.1J	µg/L	1.9	5	M Pattanayek	9/3/2009

Lab-Sample Number:	K00002809006
Project Name:	TVA-Ash Spill
Sample Description:	Emory River mile 0.1
Sampler Project Name:	TVA Ash Spill
Project Site No.:	4
Station No.:	EMORY000.1RO
Date/Time Collected:	09/01/2009 10:40
Sampler's Name:	Geoff Klein
County:	ROANE - 73
Sample Matrix:	Water
EFO:	Knoxville
Sampling Agency:	TDEC-WPC
Billing Code:	327.34-20
Send Report To:	TDEC-WPC
Agency Invoiced:	TDEC-WPC
Priority Date:	
Date/Time Received:	09/01/2009 13:11
Received By:	E McCrary

Field Determinations

pH:	8.06	pH Units
Chlorine, residual:		
Conductivity:	252	uMHO
Temperature:	21.76	
Dissolved Oxygen:	11.46	mg/L
Other:		
Flow:		CFS

TEST: Mercury **METHOD: EPA 245.1**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	U	µg/L	0.029	0.2	A Bass	9/10/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number:	K00002809007
Project Name:	TVA-Ash Spill
Sample Description:	Emory River mile 0.1-Dup
Sampler Project Name:	TVA Ash Spill
Project Site No.:	4 FD
Station No.:	EMORY000.1RO
Date/Time Collected:	09/01/2009 10:40
Sampler's Name:	Geoff Klein
County:	ROANE - 73
Sample Matrix:	Water
EFO:	Knoxville
Sampling Agency:	TDEC-WPC
Billing Code:	327.34-20
Send Report To:	TDEC-WPC
Agency Invoiced:	TDEC-WPC
Priority Date:	
Date/Time Received:	09/01/2009 13:11
Received By:	E McCrary

Field Determinations		
pH:	8.06	pH Units
Chlorine, residual:		
Conductivity:	252	uMHO
Temperature:	21.76	
Dissolved Oxygen:	11.46	mg/L
Other:		
Flow:		CFS

TEST: Digestion Metals **METHOD: EPA 200.2**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	09/02/2009				M Pattanayek	9/2/2009

TEST: ICP **METHOD: EPA 200.7**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	160	µg/L	2.9	10	A Bass	9/4/2009

TEST: ICP-MS **METHOD: EPA 200.8**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	94	µg/L	6.4	10	M Pattanayek	9/4/2009
Antimony	U	µg/L	0.33	1	M Pattanayek	9/3/2009
Arsenic	1.2J	µg/L	0.93	5	M Pattanayek	9/3/2009
Barium	47	µg/L	2.5	5	M Pattanayek	9/3/2009
Beryllium	U	µg/L	0.11	1	M Pattanayek	9/3/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	9/3/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	9/3/2009
Cobalt	0.27J	µg/L	0.04	1	M Pattanayek	9/3/2009
Copper	1.6	µg/L	0.38	1	M Pattanayek	9/3/2009
Lead	0.24J	µg/L	0.10	1	M Pattanayek	9/3/2009
Manganese	48	µg/L	0.42	1	M Pattanayek	9/3/2009
Nickel	1.5	µg/L	0.25	1	M Pattanayek	9/3/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	9/3/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	9/3/2009
Thallium	0.045J	µg/L	0.03	1	M Pattanayek	9/3/2009
Vanadium	U	µg/L	3.4	5	M Pattanayek	9/3/2009
Zinc	U	µg/L	1.9	5	M Pattanayek	9/3/2009

Lab-Sample Number:	K00002809007
Project Name:	TVA-Ash Spill
Sample Description:	Emory River mile 0.1-Dup
Sampler Project Name:	TVA Ash Spill
Project Site No.:	4 FD
Station No.:	EMORY000.1RO
Date/Time Collected:	09/01/2009 10:40
Sampler's Name:	Geoff Klein
County:	ROANE - 73
Sample Matrix:	Water
EFO:	Knoxville
Sampling Agency:	TDEC-WPC
Billing Code:	327.34-20
Send Report To:	TDEC-WPC
Agency Invoiced:	TDEC-WPC
Priority Date:	
Date/Time Received:	09/01/2009 13:11
Received By:	E McCrary

Field Determinations

pH:	8.06	pH Units
Chlorine, residual:		
Conductivity:	252	uMHO
Temperature:	21.76	
Dissolved Oxygen:	11.46	mg/L
Other:		
Flow:		CFS

TEST: Mercury **METHOD: EPA 245.1**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	U	µg/L	0.029	0.2	A Bass	9/10/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number:	K00002809008	**Field Determinations**	
Project Name:	TVA-Ash Spill	**pH:**	
Sample Description:	Emory River mile 0.1-Field Blank	**Chlorine, residual:**	
Sampler Project Name:	TVA Ash Spill	**Conductivity:**	
Project Site No.:	4 FB	**Temperature:**	
Station No.:	EMORY000.1RO	**Dissolved Oxygen:**	
Date/Time Collected:	09/01/2009 10:40	**Other:**	
Sampler's Name:	Geoff Klein	**Flow:**	CFS
County:	ROANE - 73		
Sample Matrix:	Water		
EFO:	Knoxville		
Sampling Agency:	TDEC-WPC		
Billing Code:	327.34-20		
Send Report To:	TDEC-WPC		
Agency Invoiced:	TDEC-WPC		
Priority Date:			
Date/Time Received:	09/01/2009 13:11		
Received By:	E McCrary		

TEST: Digestion Metals **METHOD: EPA 200.2**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	09/02/2009				M Pattanayek	9/2/2009

TEST: ICP **METHOD: EPA 200.7**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	U	µg/L	2.9	10	A Bass	9/4/2009

TEST: ICP-MS **METHOD: EPA 200.8**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	U	µg/L	6.4	10	M Pattanayek	9/4/2009
Antimony	U	µg/L	0.33	1	M Pattanayek	9/3/2009
Arsenic	U	µg/L	0.93	5	M Pattanayek	9/3/2009
Barium	U	µg/L	2.5	5	M Pattanayek	9/3/2009
Beryllium	U	µg/L	0.11	1	M Pattanayek	9/3/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	9/3/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	9/3/2009
Cobalt	0.081J	µg/L	0.04	1	M Pattanayek	9/3/2009
Copper	U	µg/L	0.38	1	M Pattanayek	9/3/2009
Lead	U	µg/L	0.10	1	M Pattanayek	9/3/2009
Manganese	U	µg/L	0.42	1	M Pattanayek	9/3/2009
Nickel	U	µg/L	0.25	1	M Pattanayek	9/3/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	9/3/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	9/3/2009
Thallium	U	µg/L	0.03	1	M Pattanayek	9/3/2009
Vanadium	U	µg/L	3.4	5	M Pattanayek	9/3/2009
Zinc	U	µg/L	1.9	5	M Pattanayek	9/3/2009

Lab-Sample Number:	K00002809008	**Field Determinations**	
Project Name:	TVA-Ash Spill	**pH:**	
Sample Description:	Emory River mile 0.1-Field Blank	**Chlorine, residual:**	
Sampler Project Name:	TVA Ash Spill	**Conductivity:**	
Project Site No.:	4 FB	**Temperature:**	
Station No.:	EMORY000.1RO	**Dissolved Oxygen:**	
Date/Time Collected:	09/01/2009 10:40	**Other:**	
Sampler's Name:	Geoff Klein	**Flow:**	CFS
County:	ROANE - 73		
Sample Matrix:	Water		
EFO:	Knoxville		
Sampling Agency:	TDEC-WPC		
Billing Code:	327.34-20		
Send Report To:	TDEC-WPC		
Agency Invoiced:	TDEC-WPC		
Priority Date:			
Date/Time Received:	09/01/2009 13:11		
Received By:	E McCrary		

TEST: Mercury **METHOD: EPA 245.1**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	U	µg/L	0.029	0.2	A Bass	9/10/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number:	K00002809009
Project Name:	TVA-Ash Spill
Sample Description:	Clinch River Mile 2.3
Sampler Project Name:	TVA Ash Spill
Project Site No.:	5
Station No.:	CLINC002.3RO
Date/Time Collected:	09/01/2009 10:56
Sampler's Name:	Geoff Klein
County:	ROANE - 73
Sample Matrix:	Water
EFO:	Knoxville
Sampling Agency:	TDEC-WPC
Billing Code:	327.34-20
Send Report To:	TDEC-WPC
Agency Invoiced:	TDEC-WPC
Priority Date:	
Date/Time Received:	09/01/2009 13:11
Received By:	E McCrary

Field Determinations		
pH:	7.80	pH Units
Chlorine, residual:		
Conductivity:	275	uMHO
Temperature:	23.04	
Dissolved Oxygen:	10.15	mg/L
Other:		
Flow:		CFS

TEST: Digestion Metals — **METHOD: EPA 200.2**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	09/02/2009				M Pattanayek	9/2/2009

TEST: ICP — **METHOD: EPA 200.7**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	96	µg/L	2.9	10	A Bass	9/4/2009

TEST: ICP-MS — **METHOD: EPA 200.8**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	42	µg/L	6.4	10	M Pattanayek	9/4/2009
Antimony	U	µg/L	0.33	1	M Pattanayek	9/3/2009
Arsenic	U	µg/L	0.93	5	M Pattanayek	9/3/2009
Barium	37	µg/L	2.5	5	M Pattanayek	9/3/2009
Beryllium	U	µg/L	0.11	1	M Pattanayek	9/3/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	9/3/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	9/3/2009
Cobalt	0.17J	µg/L	0.04	1	M Pattanayek	9/3/2009
Copper	2.5	µg/L	0.38	1	M Pattanayek	9/3/2009
Lead	0.13J	µg/L	0.10	1	M Pattanayek	9/3/2009
Manganese	36	µg/L	0.42	1	M Pattanayek	9/3/2009
Nickel	1.2	µg/L	0.25	1	M Pattanayek	9/3/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	9/3/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	9/3/2009
Thallium	0.036J	µg/L	0.03	1	M Pattanayek	9/3/2009
Vanadium	U	µg/L	3.4	5	M Pattanayek	9/3/2009
Zinc	2.4J	µg/L	1.9	5	M Pattanayek	9/3/2009

Lab-Sample Number:	K00002809009
Project Name:	TVA-Ash Spill
Sample Description:	Clinch River Mile 2.3
Sampler Project Name:	TVA Ash Spill
Project Site No.:	5
Station No.:	CLINC002.3RO
Date/Time Collected:	09/01/2009 10:56
Sampler's Name:	Geoff Klein
County:	ROANE - 73
Sample Matrix:	Water
EFO:	Knoxville
Sampling Agency:	TDEC-WPC
Billing Code:	327.34-20
Send Report To:	TDEC-WPC
Agency Invoiced:	TDEC-WPC
Priority Date:	
Date/Time Received:	09/01/2009 13:11
Received By:	E McCrary

Field Determinations

pH:	7.80	pH Units
Chlorine, residual:		
Conductivity:	275	uMHO
Temperature:	23.04	
Dissolved Oxygen:	10.15	mg/L
Other:		
Flow:		CFS

TEST: Mercury **METHOD: EPA 245.1**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	U	µg/L	0.029	0.2	A Bass	9/10/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number:	K00002809010
Project Name:	TVA-Ash Spill
Sample Description:	Clinch River TVA Discharge Point
Sampler Project Name:	TVA Ash Spill
Project Site No.:	5A
Station No.:	KingAshOutF2
Date/Time Collected:	09/01/2009 11:05
Sampler's Name:	Geoff Klein
County:	ROANE - 73
Sample Matrix:	Water
EFO:	Knoxville
Sampling Agency:	TDEC-WPC
Billing Code:	327.34-20
Send Report To:	TDEC-WPC
Agency Invoiced:	TDEC-WPC
Priority Date:	
Date/Time Received:	09/01/2009 13:11
Received By:	E McCrary

Field Determinations		
pH:	7.77	pH Units
Chlorine, residual:		
Conductivity:	287	uMHO
Temperature:	24.97	
Dissolved Oxygen:	10.01	mg/L
Other:		
Flow:		CFS

TEST: Digestion Metals — **METHOD: EPA 200.2**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	09/02/2009				M Pattanayek	9/2/2009

TEST: ICP — **METHOD: EPA 200.7**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	150	µg/L	2.9	10	A Bass	9/4/2009

TEST: ICP-MS — **METHOD: EPA 200.8**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	150	µg/L	6.4	10	M Pattanayek	9/4/2009
Antimony	0.38J	µg/L	0.33	1	M Pattanayek	9/3/2009
Arsenic	3.2J	µg/L	0.93	5	M Pattanayek	9/3/2009
Barium	50	µg/L	2.5	5	M Pattanayek	9/3/2009
Beryllium	U	µg/L	0.11	1	M Pattanayek	9/3/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	9/3/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	9/3/2009
Cobalt	0.29J	µg/L	0.04	1	M Pattanayek	9/3/2009
Copper	7.6	µg/L	0.38	1	M Pattanayek	9/3/2009
Lead	0.27J	µg/L	0.10	1	M Pattanayek	9/3/2009
Manganese	57	µg/L	0.42	1	M Pattanayek	9/3/2009
Nickel	1.5	µg/L	0.25	1	M Pattanayek	9/3/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	9/3/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	9/3/2009
Thallium	0.088J	µg/L	0.03	1	M Pattanayek	9/3/2009
Vanadium	U	µg/L	3.4	5	M Pattanayek	9/3/2009
Zinc	6.1	µg/L	1.9	5	M Pattanayek	9/3/2009

Lab-Sample Number:	K00002809010
Project Name:	TVA-Ash Spill
Sample Description:	Clinch River TVA Discharge Point
Sampler Project Name:	TVA Ash Spill
Project Site No.:	5A
Station No.:	KingAshOutF2
Date/Time Collected:	09/01/2009 11:05
Sampler's Name:	Geoff Klein
County:	ROANE - 73
Sample Matrix:	Water
EFO:	Knoxville
Sampling Agency:	TDEC-WPC
Billing Code:	327.34-20
Send Report To:	TDEC-WPC
Agency Invoiced:	TDEC-WPC
Priority Date:	
Date/Time Received:	09/01/2009 13:11
Received By:	E McCrary

Field Determinations

pH:	7.77	pH Units
Chlorine, residual:		
Conductivity:	287	uMHO
Temperature:	24.97	
Dissolved Oxygen:	10.01	mg/L
Other:		
Flow:		CFS

TEST: Mercury **METHOD: EPA 245.1**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	0.03J	µg/L	0.029	0.2	A Bass	9/10/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number:	K00002809011	**Field Determinations**	
Project Name:	TVA-Ash Spill	**pH:** 7.82	pH Units
Sample Description:	Clinch River mile 4.5 near Sugar Grove Valley R	**Chlorine, residual:**	
Sampler Project Name:	TVA Ash Spill	**Conductivity:** 266	uMHO
Project Site No.:	6	**Temperature:** 20.10	
Station No.:	CLINC004.5RO	**Dissolved Oxygen:** 11.20	mg/L
Date/Time Collected:	09/01/2009 11:20	**Other:**	
Sampler's Name:	Geoff Klein	**Flow:**	CFS
County:	ROANE - 73		
Sample Matrix:	Water		
EFO:	Knoxville		
Sampling Agency:	TDEC-WPC		
Billing Code:	327.34-20		
Send Report To:	TDEC-WPC		
Agency Invoiced:	TDEC-WPC		
Priority Date:			
Date/Time Received:	09/01/2009 13:11		
Received By:	E McCrary		

TEST: Digestion Metals — **METHOD: EPA 200.2**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	09/02/2009				M Pattanayek	9/2/2009

TEST: ICP — **METHOD: EPA 200.7**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	80	µg/L	2.9	10	A Bass	9/4/2009

TEST: ICP-MS — **METHOD: EPA 200.8**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	13	µg/L	6.4	10	M Pattanayek	9/4/2009
Antimony	U	µg/L	0.33	1	M Pattanayek	9/3/2009
Arsenic	U	µg/L	0.93	5	M Pattanayek	9/3/2009
Barium	35	µg/L	2.5	5	M Pattanayek	9/3/2009
Beryllium	U	µg/L	0.11	1	M Pattanayek	9/3/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	9/3/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	9/3/2009
Cobalt	0.16J	µg/L	0.04	1	M Pattanayek	9/3/2009
Copper	1.3	µg/L	0.38	1	M Pattanayek	9/3/2009
Lead	0.14J	µg/L	0.10	1	M Pattanayek	9/3/2009
Manganese	34	µg/L	0.42	1	M Pattanayek	9/3/2009
Nickel	1.1	µg/L	0.25	1	M Pattanayek	9/3/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	9/3/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	9/3/2009
Thallium	U	µg/L	0.03	1	M Pattanayek	9/3/2009
Vanadium	U	µg/L	3.4	5	M Pattanayek	9/3/2009
Zinc	U	µg/L	1.9	5	M Pattanayek	9/3/2009

Lab-Sample Number:	K00002809011	**Field Determinations**	
Project Name:	TVA-Ash Spill	**pH:** 7.82	pH Units
Sample Description:	Clinch River mile 4.5 near Sugar Grove Valley R	**Chlorine, residual:**	
Sampler Project Name:	TVA Ash Spill	**Conductivity:** 266	uMHO
Project Site No.:	6	**Temperature:** 20.10	
Station No.:	CLINC004.5RO	**Dissolved Oxygen:** 11.20	mg/L
Date/Time Collected:	09/01/2009 11:20	**Other:**	
Sampler's Name:	Geoff Klein	**Flow:**	CFS
County:	ROANE - 73		
Sample Matrix:	Water		
EFO:	Knoxville		
Sampling Agency:	TDEC-WPC		
Billing Code:	327.34-20		
Send Report To:	TDEC-WPC		
Agency Invoiced:	TDEC-WPC		
Priority Date:			
Date/Time Received:	09/01/2009 13:11		
Received By:	E McCrary		

TEST: Mercury **METHOD: EPA 245.1**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	0.03J	µg/L	0.029	0.2	A Bass	9/10/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected