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: K00002648
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:	K00002648001
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:	07/23/2009 12:06
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:	08/07/2009
Date/Time Received:	07/23/2009 14:00
Received By:	E McCrary

Field Determinations

pH:	7.94	pH Units
Chlorine, residual:		
Conductivity:	90	uMHO
Temperature:	24.99	
Dissolved Oxygen:	8.43	mg/L
Other:		
Flow:		CFS

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

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	23	mg/L	3.8	10	M Chen	7/28/2009

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

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	22	mg/L	0.7	1	M Chen	7/28/2009

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

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	7/24/2009

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

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	A Peeples	7/24/2009

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

Lab-Sample Number:	K00002648002
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:	07/23/2009 10:01
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:	08/07/2009
Date/Time Received:	07/23/2009 14:00
Received By:	E McCrary

Field Determinations

pH:	7.10	pH Units
Chlorine, residual:		
Conductivity:	122	uMHO
Temperature:	24.39	
Dissolved Oxygen:	5.97	mg/L
Other:		
Flow:		CFS

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

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	35	mg/L	3.8	10	M Chen	7/28/2009

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

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	32	mg/L	0.7	1	M Chen	7/28/2009

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

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	7/24/2009

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

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	19	mg/L	10	10	A Peeples	7/24/2009

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

Lab-Sample Number:	K00002648003
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:	07/23/2009 10:24
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:	08/07/2009
Date/Time Received:	07/23/2009 14:00
Received By:	E McCrary

Field Determinations		
pH:	7.83	pH Units
Chlorine, residual:		
Conductivity:	176	uMHO
Temperature:	24.54	
Dissolved Oxygen:	7.95	mg/L
Other:		
Flow:		CFS

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

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	77	mg/L	3.8	10	M Chen	7/28/2009

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

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	70	mg/L	0.7	1	M Chen	7/28/2009

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

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	7/24/2009

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

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	11	mg/L	10	10	A Peeples	7/24/2009

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

Lab-Sample Number:	K00002648004
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:	07/23/2009 10:39
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:	08/07/2009
Date/Time Received:	07/23/2009 14:00
Received By:	E McCrary

Field Determinations

pH:	7.70	pH Units
Chlorine, residual:		
Conductivity:	182	uMHO
Temperature:	24.48	
Dissolved Oxygen:	7.85	mg/L
Other:		
Flow:		CFS

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

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	97	mg/L	3.8	10	M Chen	7/28/2009

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

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	80	mg/L	0.7	1	M Chen	7/28/2009

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

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	7/24/2009

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

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	10	mg/L	10	10	A Peeples	7/24/2009

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

Lab-Sample Number:	K00002648005
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:	07/23/2009 10:50
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:	08/07/2009
Date/Time Received:	07/23/2009 14:00
Received By:	E McCrary

Field Determinations

pH:	8.37	pH Units
Chlorine, residual:		
Conductivity:	240	uMHO
Temperature:	24.90	
Dissolved Oxygen:	9.49	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	7/28/2009

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

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	86	mg/L	0.7	1	M Chen	7/28/2009

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

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	7/24/2009

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

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	13	mg/L	10	10	A Peeples	7/24/2009

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

Lab-Sample Number:	K00002648006	**Field Determinations**	
Project Name:	TVA-Ash Spill	**pH:** 8.25	pH Units
Sample Description:	Clinch River mile 2.3	**Chlorine, residual:**	
Sampler Project Name:	TVA ash spill	**Conductivity:** 229	uMHO
Project Site No.:	5	**Temperature:** 25.85	
Station No.:	CLINC002.3RO	**Dissolved Oxygen:** 9.14	mg/L
Date/Time Collected:	07/23/2009 11:04	**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:	08/07/2009		
Date/Time Received:	07/23/2009 14:00		
Received By:	E McCrary		

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

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	85	mg/L	3.8	10	M Chen	7/28/2009

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

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	71	mg/L	0.7	1	M Chen	7/28/2009

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

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	7/24/2009

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

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	A Peeples	7/24/2009

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

Lab-Sample Number:	K00002648007
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:	07/23/2009 11:15
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:	08/07/2009
Date/Time Received:	07/23/2009 14:00
Received By:	E McCrary

Field Determinations

pH:	7.74	pH Units
Chlorine, residual:		
Conductivity:	230	uMHO
Temperature:	26.72	
Dissolved Oxygen:	7.18	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	7/28/2009

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

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	65	mg/L	0.7	1	M Chen	7/28/2009

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

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	7/24/2009

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

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	16	mg/L	10	10	A Peeples	7/24/2009

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

Lab-Sample Number:	K00002648008	**Field Determinations**	
Project Name:	TVA-Ash Spill	**pH:** 8.50	pH Units
Sample Description:	Clinch River mile 4.5 near Sugar Grove Valley R	**Chlorine, residual:**	
Sampler Project Name:	TVA ash spill	**Conductivity:** 239	uMHO
Project Site No.:	6	**Temperature:** 25.20	
Station No.:	CLINC004.5RO	**Dissolved Oxygen:** 10.27	mg/L
Date/Time Collected:	07/23/2009 11:30	**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:	08/07/2009		
Date/Time Received:	07/23/2009 14:00		
Received By:	E McCrary		

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

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	100	mg/L	3.8	10	M Chen	7/28/2009

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

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	83	mg/L	0.7	1	M Chen	7/28/2009

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

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	7/24/2009

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

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	A Peeples	7/24/2009

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

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

Lab ID: K00002648
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:	K00002648001
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:	07/23/2009 12:06
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:	08/07/2009
Date/Time Received:	07/23/2009 14:00
Received By:	E McCrary

Field Determinations		
pH:	7.94	pH Units
Chlorine, residual:		
Conductivity:	90	uMHO
Temperature:	24.99	
Dissolved Oxygen:	8.43	mg/L
Other:		
Flow:		CFS

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

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	07/25/2009				W Frye	7/25/2009

TEST: ICP — **METHOD: EPA 200.7**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	270	µg/L	2.9	10	S Ufegbu	8/3/2009

TEST: ICP-MS — **METHOD: EPA 200.8**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	340	µg/L	6.4	10	M Pattanayek	8/1/2009
Antimony	U	µg/L	0.33	1	M Pattanayek	7/31/2009
Arsenic	1.0J	µg/L	0.93	5	M Pattanayek	8/3/2009
Barium	56	µg/L	2.5	5	M Pattanayek	7/31/2009
Beryllium	U	µg/L	0.11	1	M Pattanayek	7/31/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	7/31/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	8/3/2009
Cobalt	0.41J	µg/L	0.04	1	M Pattanayek	7/31/2009
Copper	1.6	µg/L	0.38	1	M Pattanayek	7/31/2009
Lead	0.63J	µg/L	0.10	1	M Pattanayek	7/31/2009
Manganese	73	µg/L	0.42	1	M Pattanayek	7/31/2009
Nickel	1.2	µg/L	0.25	1	M Pattanayek	7/31/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	7/31/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	7/31/2009
Thallium	0.16J	µg/L	0.03	1	M Pattanayek	7/31/2009
Vanadium	U	µg/L	3.4	5	M Pattanayek	8/3/2009
Zinc	5.5	µg/L	1.9	5	M Pattanayek	7/31/2009

Lab-Sample Number:	K00002648001
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:	07/23/2009 12:06
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:	08/07/2009
Date/Time Received:	07/23/2009 14:00
Received By:	E McCrary

Field Determinations		
pH:	7.94	pH Units
Chlorine, residual:		
Conductivity:	90	uMHO
Temperature:	24.99	
Dissolved Oxygen:	8.43	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	7/28/2009

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

Lab-Sample Number:	K00002648002
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:	07/23/2009 10:01
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:	08/07/2009
Date/Time Received:	07/23/2009 14:00
Received By:	E McCrary

Field Determinations		
pH:	7.10	pH Units
Chlorine, residual:		
Conductivity:	122	uMHO
Temperature:	24.39	
Dissolved Oxygen:	5.97	mg/L
Other:		
Flow:		CFS

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

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	07/25/2009				W Frye	7/25/2009

TEST: ICP — **METHOD: EPA 200.7**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	270	µg/L	2.9	10	S Ufegbu	8/3/2009

TEST: ICP-MS — **METHOD: EPA 200.8**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	170	µg/L	6.4	10	M Pattanayek	7/31/2009
Antimony	U	µg/L	0.33	1	M Pattanayek	7/31/2009
Arsenic	5.5	µg/L	0.93	5	M Pattanayek	8/4/2009
Barium	54	µg/L	2.5	5	M Pattanayek	7/31/2009
Beryllium	U	µg/L	0.11	1	M Pattanayek	7/31/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	7/31/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	8/3/2009
Cobalt	0.32J	µg/L	0.04	1	M Pattanayek	7/31/2009
Copper	3.0	µg/L	0.38	1	M Pattanayek	7/31/2009
Lead	0.39J	µg/L	0.10	1	M Pattanayek	7/31/2009
Manganese	67	µg/L	0.42	1	M Pattanayek	7/31/2009
Nickel	1.1	µg/L	0.25	1	M Pattanayek	7/31/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	7/31/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	7/31/2009
Thallium	0.12J	µg/L	0.03	1	M Pattanayek	7/31/2009
Vanadium	U	µg/L	3.4	5	M Pattanayek	8/1/2009
Zinc	5.8	µg/L	1.9	5	M Pattanayek	7/31/2009

Lab-Sample Number:	K00002648002
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:	07/23/2009 10:01
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:	08/07/2009
Date/Time Received:	07/23/2009 14:00
Received By:	E McCrary

Field Determinations

pH:	7.10	pH Units
Chlorine, residual:		
Conductivity:	122	uMHO
Temperature:	24.39	
Dissolved Oxygen:	5.97	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	7/28/2009

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

Lab-Sample Number:	K00002648003
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:	07/23/2009 10:24
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:	08/07/2009
Date/Time Received:	07/23/2009 14:00
Received By:	E McCrary

Field Determinations

pH:	7.83	pH Units
Chlorine, residual:		
Conductivity:	176	uMHO
Temperature:	24.54	
Dissolved Oxygen:	7.95	mg/L
Other:		
Flow:		CFS

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

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	07/25/2009				W Frye	7/25/2009

TEST: ICP **METHOD: EPA 200.7**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	200	µg/L	2.9	10	S Ufegbu	8/3/2009

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

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	140	µg/L	6.4	10	M Pattanayek	7/31/2009
Antimony	U	µg/L	0.33	1	M Pattanayek	7/31/2009
Arsenic	4.0J	µg/L	0.93	5	M Pattanayek	8/4/2009
Barium	48	µg/L	2.5	5	M Pattanayek	7/31/2009
Beryllium	U	µg/L	0.11	1	M Pattanayek	7/31/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	7/31/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	8/3/2009
Cobalt	0.29J	µg/L	0.04	1	M Pattanayek	7/31/2009
Copper	1.8	µg/L	0.38	1	M Pattanayek	7/31/2009
Lead	0.33J	µg/L	0.10	1	M Pattanayek	7/31/2009
Manganese	63	µg/L	0.42	1	M Pattanayek	7/31/2009
Nickel	1.0	µg/L	0.25	1	M Pattanayek	7/31/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	7/31/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	7/31/2009
Thallium	0.096J	µg/L	0.03	1	M Pattanayek	7/31/2009
Vanadium	U	µg/L	3.4	5	M Pattanayek	8/3/2009
Zinc	3.2J	µg/L	1.9	5	M Pattanayek	7/31/2009

Lab-Sample Number:	K00002648003
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:	07/23/2009 10:24
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:	08/07/2009
Date/Time Received:	07/23/2009 14:00
Received By:	E McCrary

Field Determinations		
pH:	7.83	pH Units
Chlorine, residual:		
Conductivity:	176	uMHO
Temperature:	24.54	
Dissolved Oxygen:	7.95	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	7/28/2009

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

Lab-Sample Number:	K00002648004
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:	07/23/2009 10:39
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:	08/07/2009
Date/Time Received:	07/23/2009 14:00
Received By:	E McCrary

Field Determinations

pH:	7.70	pH Units
Chlorine, residual:		
Conductivity:	182	uMHO
Temperature:	24.48	
Dissolved Oxygen:	7.85	mg/L
Other:		
Flow:		CFS

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

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	07/25/2009				W Frye	7/25/2009

TEST: ICP **METHOD: EPA 200.7**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	140	µg/L	2.9	10	S Ufegbu	8/3/2009

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

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	98	µg/L	6.4	10	M Pattanayek	7/31/2009
Antimony	U	µg/L	0.33	1	M Pattanayek	7/31/2009
Arsenic	2.8J	µg/L	0.93	5	M Pattanayek	8/4/2009
Barium	35	µg/L	2.5	5	M Pattanayek	7/31/2009
Beryllium	U	µg/L	0.11	1	M Pattanayek	7/31/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	7/31/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	7/31/2009
Cobalt	0.21J	µg/L	0.04	1	M Pattanayek	7/31/2009
Copper	1.4	µg/L	0.38	1	M Pattanayek	7/31/2009
Lead	0.24J	µg/L	0.10	1	M Pattanayek	7/31/2009
Manganese	35	µg/L	0.42	1	M Pattanayek	7/31/2009
Nickel	0.84J	µg/L	0.25	1	M Pattanayek	7/31/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	7/31/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	7/31/2009
Thallium	0.24J	µg/L	0.03	1	M Pattanayek	7/31/2009
Vanadium	U	µg/L	3.4	5	M Pattanayek	8/3/2009
Zinc	3.3J	µg/L	1.9	5	M Pattanayek	7/31/2009

Lab-Sample Number:	K00002648004
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:	07/23/2009 10:39
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:	08/07/2009
Date/Time Received:	07/23/2009 14:00
Received By:	E McCrary

Field Determinations

pH:	7.70	pH Units
Chlorine, residual:		
Conductivity:	182	uMHO
Temperature:	24.48	
Dissolved Oxygen:	7.85	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	7/28/2009

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

Lab-Sample Number:	K00002648005
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:	07/23/2009 10:50
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:	08/07/2009
Date/Time Received:	07/23/2009 14:00
Received By:	E McCrary

Field Determinations

pH:	8.37	pH Units
Chlorine, residual:		
Conductivity:	240	uMHO
Temperature:	24.90	
Dissolved Oxygen:	9.49	mg/L
Other:		
Flow:		CFS

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

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	07/25/2009				W Frye	7/25/2009

TEST: ICP — **METHOD: EPA 200.7**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	120	µg/L	2.9	10	S Ufegbu	8/3/2009

TEST: ICP-MS — **METHOD: EPA 200.8**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	81	µg/L	6.4	10	M Pattanayek	7/31/2009
Antimony	U	µg/L	0.33	1	M Pattanayek	7/31/2009
Arsenic	U	µg/L	0.93	5	M Pattanayek	7/31/2009
Barium	37	µg/L	2.5	5	M Pattanayek	7/31/2009
Beryllium	U	µg/L	0.11	1	M Pattanayek	7/31/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	7/31/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	7/31/2009
Cobalt	0.19J	µg/L	0.04	1	M Pattanayek	7/31/2009
Copper	2.5	µg/L	0.38	1	M Pattanayek	7/31/2009
Lead	0.25J	µg/L	0.10	1	M Pattanayek	7/31/2009
Manganese	22	µg/L	0.42	1	M Pattanayek	7/31/2009
Nickel	0.60J	µg/L	0.25	1	M Pattanayek	7/31/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	7/31/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	7/31/2009
Thallium	0.065J	µg/L	0.03	1	M Pattanayek	7/31/2009
Vanadium	U	µg/L	3.4	5	M Pattanayek	8/3/2009
Zinc	7.3	µg/L	1.9	5	M Pattanayek	7/31/2009

Lab-Sample Number:	K00002648005
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:	07/23/2009 10:50
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:	08/07/2009
Date/Time Received:	07/23/2009 14:00
Received By:	E McCrary

Field Determinations

pH:	8.37	pH Units
Chlorine, residual:		
Conductivity:	240	uMHO
Temperature:	24.90	
Dissolved Oxygen:	9.49	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	7/28/2009

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

Lab-Sample Number:	K00002648006
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:	07/23/2009 11:04
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:	08/07/2009
Date/Time Received:	07/23/2009 14:00
Received By:	E McCrary

Field Determinations

pH:	8.25	pH Units
Chlorine, residual:		
Conductivity:	229	uMHO
Temperature:	25.85	
Dissolved Oxygen:	9.14	mg/L
Other:		
Flow:		CFS

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

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	07/25/2009				W Frye	7/25/2009

TEST: ICP — **METHOD: EPA 200.7**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	66	µg/L	2.9	10	S Ufegbu	8/3/2009

TEST: ICP-MS — **METHOD: EPA 200.8**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	220	µg/L	6.4	10	M Pattanayek	8/1/2009
Antimony	0.36J	µg/L	0.33	1	M Pattanayek	8/3/2009
Arsenic	3.7J	µg/L	0.93	5	M Pattanayek	8/4/2009
Barium	63	µg/L	2.5	5	M Pattanayek	7/31/2009
Beryllium	U	µg/L	0.11	1	M Pattanayek	7/31/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	7/31/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	8/3/2009
Cobalt	0.44J	µg/L	0.04	1	M Pattanayek	7/31/2009
Copper	6.0	µg/L	0.38	1	M Pattanayek	7/31/2009
Lead	0.52J	µg/L	0.10	1	M Pattanayek	7/31/2009
Manganese	68	µg/L	0.42	1	M Pattanayek	7/31/2009
Nickel	1.4	µg/L	0.25	1	M Pattanayek	7/31/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	7/31/2009
Silver	0.052J	µg/L	0.03	0.25	M Pattanayek	7/31/2009
Thallium	1.4	µg/L	0.03	1	M Pattanayek	7/31/2009
Vanadium	4.8J	µg/L	3.4	5	M Pattanayek	8/4/2009
Zinc	5.8	µg/L	1.9	5	M Pattanayek	7/31/2009

Lab-Sample Number:	K00002648006
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:	07/23/2009 11:04
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:	08/07/2009
Date/Time Received:	07/23/2009 14:00
Received By:	E McCrary

Field Determinations

pH:	8.25	pH Units
Chlorine, residual:		
Conductivity:	229	uMHO
Temperature:	25.85	
Dissolved Oxygen:	9.14	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	7/28/2009

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

Lab-Sample Number:	K00002648007	**Field Determinations**	
Project Name:	TVA-Ash Spill	**pH:** 7.74	pH Units
Sample Description:	Clinch River TVA Discharge Point	**Chlorine, residual:**	
Sampler Project Name:	TVA ash spill	**Conductivity:** 230	uMHO
Project Site No.:	5A	**Temperature:** 26.72	
Station No.:	KingAshOutF2	**Dissolved Oxygen:** 7.18	mg/L
Date/Time Collected:	07/23/2009 11:15	**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:	08/07/2009		
Date/Time Received:	07/23/2009 14:00		
Received By:	E McCrary		

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

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	07/25/2009				W Frye	7/25/2009

TEST: ICP **METHOD: EPA 200.7**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	170	µg/L	2.9	10	S Ufegbu	8/3/2009

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

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	72	µg/L	6.4	10	M Pattanayek	7/31/2009
Antimony	U	µg/L	0.33	1	M Pattanayek	7/31/2009
Arsenic	5.5	µg/L	0.93	5	M Pattanayek	8/4/2009
Barium	38	µg/L	2.5	5	M Pattanayek	7/31/2009
Beryllium	U	µg/L	0.11	1	M Pattanayek	7/31/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	7/31/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	8/3/2009
Cobalt	0.26J	µg/L	0.04	1	M Pattanayek	7/31/2009
Copper	1.4	µg/L	0.38	1	M Pattanayek	7/31/2009
Lead	0.27J	µg/L	0.10	1	M Pattanayek	7/31/2009
Manganese	39	µg/L	0.42	1	M Pattanayek	7/31/2009
Nickel	0.90J	µg/L	0.25	1	M Pattanayek	7/31/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	7/31/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	7/31/2009
Thallium	0.29J	µg/L	0.03	1	M Pattanayek	7/31/2009
Vanadium	8.4	µg/L	3.4	5	M Pattanayek	8/4/2009
Zinc	2.7J	µg/L	1.9	5	M Pattanayek	7/31/2009

Lab-Sample Number:	K00002648007
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:	07/23/2009 11:15
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:	08/07/2009
Date/Time Received:	07/23/2009 14:00
Received By:	E McCrary

Field Determinations

pH:	7.74	pH Units
Chlorine, residual:		
Conductivity:	230	uMHO
Temperature:	26.72	
Dissolved Oxygen:	7.18	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	7/28/2009

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

Lab-Sample Number:	K00002648008	**Field Determinations**	
Project Name:	TVA-Ash Spill	**pH:** 8.50	pH Units
Sample Description:	Clinch River mile 4.5 near Sugar Grove Valley R	**Chlorine, residual:**	
Sampler Project Name:	TVA ash spill	**Conductivity:** 239	uMHO
Project Site No.:	6	**Temperature:** 25.20	
Station No.:	CLINC004.5RO	**Dissolved Oxygen:** 10.27	mg/L
Date/Time Collected:	07/23/2009 11:30	**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:	08/07/2009		
Date/Time Received:	07/23/2009 14:00		
Received By:	E McCrary		

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

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	07/25/2009				W Frye	7/25/2009

TEST: ICP **METHOD: EPA 200.7**

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	98	µg/L	2.9	10	S Ufegbu	8/3/2009

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

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	71	µg/L	6.4	10	M Pattanayek	7/31/2009
Antimony	U	µg/L	0.33	1	M Pattanayek	7/31/2009
Arsenic	2.0J	µg/L	0.93	5	M Pattanayek	8/3/2009
Barium	36	µg/L	2.5	5	M Pattanayek	7/31/2009
Beryllium	U	µg/L	0.11	1	M Pattanayek	7/31/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	7/31/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	7/31/2009
Cobalt	0.22J	µg/L	0.04	1	M Pattanayek	7/31/2009
Copper	1.4	µg/L	0.38	1	M Pattanayek	7/31/2009
Lead	0.26J	µg/L	0.10	1	M Pattanayek	7/31/2009
Manganese	38	µg/L	0.42	1	M Pattanayek	7/31/2009
Nickel	0.88J	µg/L	0.25	1	M Pattanayek	7/31/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	7/31/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	7/31/2009
Thallium	0.16J	µg/L	0.03	1	M Pattanayek	7/31/2009
Vanadium	U	µg/L	3.4	5	M Pattanayek	8/4/2009
Zinc	4.1J	µg/L	1.9	5	M Pattanayek	7/31/2009

Lab-Sample Number:	K00002648008	**Field Determinations**	
Project Name:	TVA-Ash Spill	**pH:** 8.50	pH Units
Sample Description:	Clinch River mile 4.5 near Sugar Grove Valley R	**Chlorine, residual:**	
Sampler Project Name:	TVA ash spill	**Conductivity:** 239	uMHO
Project Site No.:	6	**Temperature:** 25.20	
Station No.:	CLINC004.5RO	**Dissolved Oxygen:** 10.27	mg/L
Date/Time Collected:	07/23/2009 11:30	**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:	08/07/2009		
Date/Time Received:	07/23/2009 14:00		
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	7/28/2009

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