



**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: K00003867
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 practices and in accordance with federal or state approved methodologies.

Analytical Supervisor

Lab-Sample Number: K00003867001
Project Name: TVA-Ash Spill
Sample Description:

Field Determinations
pH: 7.74 pH Units
Chlorine, residual:
Conductivity: 158 uMHO
Temperature: 29.85
Dissolved Oxygen: 7.45 mg/L
Other:
Flow: CFS

Sampler Project Name: TVA ash spill
Project Site No.: 2
Station No.: EMORY002.1RO
Date/Time Collected: 06/24/2010 09:45
Sampler's Name: Brandy Long
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Priority Date: 07/04/2010
Date/Time Received: 06/24/2010 12:15

Agency Invoiced: TDEC-WPC
Received By: E McCrary

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	06/25/2010				A Bass	6/25/2010

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	220	µg/L	5.8	10	S Spence	6/29/2010

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	120	µg/L	3	10	M Pattanayek	6/28/2010
Antimony	U	µg/L	0.34	1	M Pattanayek	6/28/2010
Arsenic	3.9J	µg/L	0.82	5	M Pattanayek	6/28/2010
Barium	45	µg/L	0.26	5	M Pattanayek	6/28/2010
Beryllium	U	µg/L	0.21	1	M Pattanayek	6/28/2010
Cadmium	U	µg/L	0.5	1	M Pattanayek	6/28/2010
Chromium	U	µg/L	0.89	5	M Pattanayek	6/28/2010
Cobalt	U	µg/L	0.36	1	M Pattanayek	6/28/2010
Copper	1.2	µg/L	0.34	1	M Pattanayek	6/28/2010
Lead	U	µg/L	0.51	1	M Pattanayek	6/28/2010
Manganese	120	µg/L	0.59	1	M Pattanayek	6/28/2010
Nickel	1.1	µg/L	0.49	1	M Pattanayek	6/28/2010
Selenium	U	µg/L	1.9	5	M Pattanayek	6/28/2010
Silver	U	µg/L	0.07	0.25	M Pattanayek	6/28/2010
Thallium	U	µg/L	0.25	1	M Pattanayek	6/28/2010
Vanadium	U	µg/L	2	5	M Pattanayek	6/28/2010
Zinc	3.9J	µg/L	1.5	5	M Pattanayek	6/28/2010

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE

Lab-Sample Number: K00003867001
Project Name: TVA-Ash Spill
Sample Description:

Field Determinations
pH: 7.74 pH Units
Chlorine, residual:
Conductivity: 158 uMHO
Temperature: 29.85
Dissolved Oxygen: 7.45 mg/L
Other:
Flow: CFS

Sampler Project Name: TVA ash spill
Project Site No.: 2
Station No.: EMORY002.1RO
Date/Time Collected: 06/24/2010 09:45
Sampler's Name: Brandy Long
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Priority Date: 07/04/2010
Date/Time Received: 06/24/2010 12:15

Agency Invoiced: TDEC-WPC
Received By: E McCrary

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	U	µg/L	0.038	0.2	A Bass	6/29/2010

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

Lab-Sample Number: K00003867002
Project Name: TVA-Ash Spill
Sample Description: Dredge Plume

Field Determinations
pH: 7.74 pH Units
Chlorine, residual:
Conductivity: 152 uMHO
Temperature: 29.47
Dissolved Oxygen: 7.79 mg/L
Other:
Flow: CFS

Sampler Project Name: TVA ash spill
Project Site No.: 2A
Station No.:
Date/Time Collected: 06/24/2010 09:52
Sampler's Name: Brandy Long
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Priority Date: 07/04/2010
Date/Time Received: 06/24/2010 12:15

Agency Invoiced: TDEC-WPC
Received By: E McCrary

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MLQ	ANALYZED BY:	DATE
Digestion Metals	06/25/2010				A Bass	6/25/2010

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	MLQ	ANALYZED BY:	DATE
Iron	320	µg/L	5.8	10	S Spence	6/29/2010

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MLQ	ANALYZED BY:	DATE
Aluminum	230	µg/L	3	10	M Pattanayek	6/28/2010
Antimony	U	µg/L	0.34	1	M Pattanayek	6/28/2010
Arsenic	4.6J	µg/L	0.82	5	M Pattanayek	6/28/2010
Barium	44	µg/L	0.26	5	M Pattanayek	6/28/2010
Beryllium	U	µg/L	0.21	1	M Pattanayek	6/28/2010
Cadmium	U	µg/L	0.5	1	M Pattanayek	6/28/2010
Chromium	0.93J	µg/L	0.89	5	M Pattanayek	6/28/2010
Cobalt	0.41J	µg/L	0.36	1	M Pattanayek	6/28/2010
Copper	1.2	µg/L	0.34	1	M Pattanayek	6/28/2010
Lead	U	µg/L	0.51	1	M Pattanayek	6/28/2010
Manganese	120	µg/L	0.59	1	M Pattanayek	6/28/2010
Nickel	1.2	µg/L	0.49	1	M Pattanayek	6/28/2010
Selenium	U	µg/L	1.9	5	M Pattanayek	6/28/2010
Silver	U	µg/L	0.07	0.25	M Pattanayek	6/28/2010
Thallium	U	µg/L	0.25	1	M Pattanayek	6/28/2010
Vanadium	U	µg/L	2	5	M Pattanayek	6/28/2010
Zinc	4.3J	µg/L	1.5	5	M Pattanayek	6/28/2010

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MLQ	ANALYZED BY:	DATE

Lab-Sample Number: K00003867002
Project Name: TVA-Ash Spill
Sample Description: Dredge Plume

Field Determinations
pH: 7.74 pH Units
Chlorine, residual:
Conductivity: 152 uMHO
Temperature: 29.47
Dissolved Oxygen: 7.79 mg/L
Other:
Flow: CFS

Sampler Project Name: TVA ash spill
Project Site No.: 2A
Station No.:
Date/Time Collected: 06/24/2010 09:52
Sampler's Name: Brandy Long
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Priority Date: 07/04/2010
Date/Time Received: 06/24/2010 12:15

Agency Invoiced: TDEC-WPC
Received By: E McCrary

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MLQ	ANALYZED BY:	DATE
Mercury	U	µg/L	0.038	0.2	A Bass	6/29/2010

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

Lab-Sample Number: K00003867003
Project Name: TVA-Ash Spill
Sample Description:

Field Determinations
pH: 8.08 pH Units
Chlorine, residual:
Conductivity: 278 uMHO
Temperature: 30.20
Dissolved Oxygen: 9.28 mg/L
Other:
Flow: CFS

Sampler Project Name: TVA ash spill
Project Site No.: 3
Station No.: EMORY001.7RO
Date/Time Collected: 06/24/2010 10:10
Sampler's Name: Brandy Long
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Priority Date: 07/04/2010
Date/Time Received: 06/24/2010 12:15

Agency Invoiced: TDEC-WPC
Received By: E McCrary

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	06/25/2010				A Bass	6/25/2010

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	120	µg/L	5.8	10	S Spence	6/29/2010

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	96	µg/L	3	10	M Pattanayek	6/28/2010
Antimony	U	µg/L	0.34	1	M Pattanayek	6/28/2010
Arsenic	4.8J	µg/L	0.82	5	M Pattanayek	6/28/2010
Barium	51	µg/L	0.26	5	M Pattanayek	6/28/2010
Beryllium	U	µg/L	0.21	1	M Pattanayek	6/28/2010
Cadmium	U	µg/L	0.5	1	M Pattanayek	6/28/2010
Chromium	1.0J	µg/L	0.89	5	M Pattanayek	6/28/2010
Cobalt	U	µg/L	0.36	1	M Pattanayek	6/28/2010
Copper	3.1	µg/L	0.34	1	M Pattanayek	6/28/2010
Lead	U	µg/L	0.51	1	M Pattanayek	6/28/2010
Manganese	57	µg/L	0.59	1	M Pattanayek	6/28/2010
Nickel	1.3	µg/L	0.49	1	M Pattanayek	6/28/2010
Selenium	U	µg/L	1.9	5	M Pattanayek	6/28/2010
Silver	U	µg/L	0.07	0.25	M Pattanayek	6/28/2010
Thallium	U	µg/L	0.25	1	M Pattanayek	6/28/2010
Vanadium	3.0J	µg/L	2	5	M Pattanayek	6/28/2010
Zinc	3.9J	µg/L	1.5	5	M Pattanayek	6/28/2010

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE

Lab-Sample Number: K00003867003
Project Name: TVA-Ash Spill
Sample Description:

Field Determinations
pH: 8.08 pH Units
Chlorine, residual:
Conductivity: 278 uMHO
Temperature: 30.20
Dissolved Oxygen: 9.28 mg/L
Other:
Flow: CFS

Sampler Project Name: TVA ash spill
Project Site No.: 3
Station No.: EMORY001.7RO
Date/Time Collected: 06/24/2010 10:10
Sampler's Name: Brandy Long
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Priority Date: 07/04/2010
Date/Time Received: 06/24/2010 12:15

Agency Invoiced: TDEC-WPC
Received By: E McCrary

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MLQ	ANALYZED BY:	DATE
Mercury	U	µg/L	0.038	0.2	A Bass	6/29/2010

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

Lab-Sample Number: K00003867004
Project Name: TVA-Ash Spill
Sample Description:

Field Determinations
pH: 7.66 pH Units
Chlorine, residual:
Conductivity: 283 uMHO
Temperature: 30.06
Dissolved Oxygen: 7.27 mg/L
Other:
Flow: CFS

Sampler Project Name: TVA ash spill
Project Site No.: 4
Station No.: EMORY000.1RO
Date/Time Collected: 06/24/2010 10:20
Sampler's Name: Brandy Long
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Priority Date: 07/04/2010
Date/Time Received: 06/24/2010 12:15

Agency Invoiced: TDEC-WPC
Received By: E McCrary

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	06/25/2010				A Bass	6/25/2010

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	160	µg/L	5.8	10	S Spence	6/29/2010

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	150	µg/L	3	10	M Pattanayek	6/28/2010
Antimony	U	µg/L	0.34	1	M Pattanayek	6/28/2010
Arsenic	4.5J	µg/L	0.82	5	M Pattanayek	6/28/2010
Barium	51	µg/L	0.26	5	M Pattanayek	6/28/2010
Beryllium	U	µg/L	0.21	1	M Pattanayek	6/28/2010
Cadmium	U	µg/L	0.5	1	M Pattanayek	6/28/2010
Chromium	1.2J	µg/L	0.89	5	M Pattanayek	6/28/2010
Cobalt	U	µg/L	0.36	1	M Pattanayek	6/28/2010
Copper	3.8	µg/L	0.34	1	M Pattanayek	6/28/2010
Lead	U	µg/L	0.51	1	M Pattanayek	6/28/2010
Manganese	62	µg/L	0.59	1	M Pattanayek	6/28/2010
Nickel	1.4	µg/L	0.49	1	M Pattanayek	6/28/2010
Selenium	U	µg/L	1.9	5	M Pattanayek	6/28/2010
Silver	U	µg/L	0.07	0.25	M Pattanayek	6/28/2010
Thallium	U	µg/L	0.25	1	M Pattanayek	6/28/2010
Vanadium	3.0J	µg/L	2	5	M Pattanayek	6/28/2010
Zinc	4.8J	µg/L	1.5	5	M Pattanayek	6/28/2010

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE

Lab-Sample Number: K00003867004
Project Name: TVA-Ash Spill
Sample Description:

Field Determinations
pH: 7.66 pH Units
Chlorine, residual:
Conductivity: 283 uMHO
Temperature: 30.06
Dissolved Oxygen: 7.27 mg/L
Other:
Flow: CFS

Sampler Project Name: TVA ash spill
Project Site No.: 4
Station No.: EMORY000.1RO
Date/Time Collected: 06/24/2010 10:20
Sampler's Name: Brandy Long
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Priority Date: 07/04/2010
Date/Time Received: 06/24/2010 12:15

Agency Invoiced: TDEC-WPC
Received By: E McCrary

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	U	µg/L	0.038	0.2	A Bass	6/29/2010

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

Lab-Sample Number: K00003867005
Project Name: TVA-Ash Spill
Sample Description:

Field Determinations
pH: 7.66 pH Units
Chlorine, residual:
Conductivity: 274 uMHO
Temperature: 30.64
Dissolved Oxygen: 7.03 mg/L
Other:
Flow: CFS

Sampler Project Name: TVA ash spill
Project Site No.: 5
Station No.: CLINC002.3RO
Date/Time Collected: 06/24/2010 10:40
Sampler's Name: Brandy Long
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Priority Date: 07/04/2010
Date/Time Received: 06/24/2010 12:15

Agency Invoiced: TDEC-WPC
Received By: E McCrary

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	06/25/2010				A Bass	6/25/2010

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	190	µg/L	5.8	10	S Spence	6/29/2010

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	190	µg/L	3	10	M Pattanayek	6/28/2010
Antimony	U	µg/L	0.34	1	M Pattanayek	6/28/2010
Arsenic	3.8J	µg/L	0.82	5	M Pattanayek	6/28/2010
Barium	48	µg/L	0.26	5	M Pattanayek	6/28/2010
Beryllium	U	µg/L	0.21	1	M Pattanayek	6/28/2010
Cadmium	U	µg/L	0.5	1	M Pattanayek	6/28/2010
Chromium	1.1J	µg/L	0.89	5	M Pattanayek	6/28/2010
Cobalt	U	µg/L	0.36	1	M Pattanayek	6/28/2010
Copper	3.5	µg/L	0.34	1	M Pattanayek	6/28/2010
Lead	U	µg/L	0.51	1	M Pattanayek	6/28/2010
Manganese	62	µg/L	0.59	1	M Pattanayek	6/28/2010
Nickel	1.3	µg/L	0.49	1	M Pattanayek	6/28/2010
Selenium	U	µg/L	1.9	5	M Pattanayek	6/28/2010
Silver	U	µg/L	0.07	0.25	M Pattanayek	6/28/2010
Thallium	U	µg/L	0.25	1	M Pattanayek	6/28/2010
Vanadium	2.4J	µg/L	2	5	M Pattanayek	6/28/2010
Zinc	4.0J	µg/L	1.5	5	M Pattanayek	6/28/2010

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE

Lab-Sample Number: K00003867005
Project Name: TVA-Ash Spill
Sample Description:

Field Determinations
pH: 7.66 pH Units
Chlorine, residual:
Conductivity: 274 uMHO
Temperature: 30.64
Dissolved Oxygen: 7.03 mg/L
Other:
Flow: CFS

Sampler Project Name: TVA ash spill
Project Site No.: 5
Station No.: CLINC002.3RO
Date/Time Collected: 06/24/2010 10:40
Sampler's Name: Brandy Long
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Priority Date: 07/04/2010
Date/Time Received: 06/24/2010 12:15

Agency Invoiced: TDEC-WPC
Received By: E McCrary

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	U	µg/L	0.038	0.2	A Bass	6/29/2010

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

Lab-Sample Number: K00003867006
Project Name: TVA-Ash Spill
Sample Description:

Field Determinations
pH: 7.66 pH Units
Chlorine, residual:
Conductivity: 290 uMHO
Temperature: 33.91
Dissolved Oxygen: 6.53 mg/L
Other:
Flow: CFS

Sampler Project Name: TVA ash spill
Project Site No.: 5A
Station No.: KingAshOutF2
Date/Time Collected: 06/24/2010 10:50
Sampler's Name: Brandy Long
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Priority Date: 07/04/2010
Date/Time Received: 06/24/2010 12:15

Agency Invoiced: TDEC-WPC
Received By: E McCrary

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	06/25/2010				A Bass	6/25/2010

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	310	µg/L	5.8	10	S Spence	6/29/2010

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	380	µg/L	3	10	M Pattanayek	6/28/2010
Antimony	0.35J	µg/L	0.34	1	M Pattanayek	6/28/2010
Arsenic	5.9	µg/L	0.82	5	M Pattanayek	6/28/2010
Barium	56	µg/L	0.26	5	M Pattanayek	6/28/2010
Beryllium	U	µg/L	0.21	1	M Pattanayek	6/28/2010
Cadmium	U	µg/L	0.5	1	M Pattanayek	6/28/2010
Chromium	1.2J	µg/L	0.89	5	M Pattanayek	6/28/2010
Cobalt	0.45J	µg/L	0.36	1	M Pattanayek	6/28/2010
Copper	6.5	µg/L	0.34	1	M Pattanayek	6/28/2010
Lead	0.54J	µg/L	0.51	1	M Pattanayek	6/28/2010
Manganese	77	µg/L	0.59	1	M Pattanayek	6/28/2010
Nickel	1.9	µg/L	0.49	1	M Pattanayek	6/28/2010
Selenium	U	µg/L	1.9	5	M Pattanayek	6/28/2010
Silver	U	µg/L	0.07	0.25	M Pattanayek	6/28/2010
Thallium	U	µg/L	0.25	1	M Pattanayek	6/28/2010
Vanadium	5.3	µg/L	2	5	M Pattanayek	6/28/2010
Zinc	5.6	µg/L	1.5	5	M Pattanayek	6/28/2010

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE

Lab-Sample Number: K00003867006
Project Name: TVA-Ash Spill
Sample Description:

Field Determinations
pH: 7.66 pH Units
Chlorine, residual:
Conductivity: 290 uMHO
Temperature: 33.91
Dissolved Oxygen: 6.53 mg/L
Other:
Flow: CFS

Sampler Project Name: TVA ash spill
Project Site No.: 5A
Station No.: KingAshOutF2
Date/Time Collected: 06/24/2010 10:50
Sampler's Name: Brandy Long
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Priority Date: 07/04/2010
Date/Time Received: 06/24/2010 12:15

Agency Invoiced: TDEC-WPC
Received By: E McCrary

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	U	µg/L	0.038	0.2	A Bass	6/29/2010

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

Lab-Sample Number: K00003867007
Project Name: TVA-Ash Spill
Sample Description:

Field Determinations
pH: 7.72 pH Units
Chlorine, residual:
Conductivity: 283 uMHO
Temperature: 30.08
Dissolved Oxygen: 7.81 mg/L
Other:
Flow: CFS

Sampler Project Name: TVA ash spill
Project Site No.: 6
Station No.: CLINC004.5RO
Date/Time Collected: 06/24/2010 10:30
Sampler's Name: Brandy Long
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Priority Date: 07/04/2010
Date/Time Received: 06/24/2010 12:15

Agency Invoiced: TDEC-WPC
Received By: E McCrary

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	06/25/2010				A Bass	6/25/2010

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	130	µg/L	5.8	10	S Spence	6/29/2010

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	110	µg/L	3	10	M Pattanayek	6/28/2010
Antimony	U	µg/L	0.34	1	M Pattanayek	6/28/2010
Arsenic	4.3J	µg/L	0.82	5	M Pattanayek	6/28/2010
Barium	49	µg/L	0.26	5	M Pattanayek	6/28/2010
Beryllium	U	µg/L	0.21	1	M Pattanayek	6/28/2010
Cadmium	U	µg/L	0.5	1	M Pattanayek	6/28/2010
Chromium	0.97J	µg/L	0.89	5	M Pattanayek	6/28/2010
Cobalt	U	µg/L	0.36	1	M Pattanayek	6/28/2010
Copper	3.8	µg/L	0.34	1	M Pattanayek	6/28/2010
Lead	U	µg/L	0.51	1	M Pattanayek	6/28/2010
Manganese	55	µg/L	0.59	1	M Pattanayek	6/28/2010
Nickel	1.2	µg/L	0.49	1	M Pattanayek	6/28/2010
Selenium	U	µg/L	1.9	5	M Pattanayek	6/28/2010
Silver	U	µg/L	0.07	0.25	M Pattanayek	6/28/2010
Thallium	U	µg/L	0.25	1	M Pattanayek	6/28/2010
Vanadium	3.2J	µg/L	2	5	M Pattanayek	6/28/2010
Zinc	3.6J	µg/L	1.5	5	M Pattanayek	6/28/2010

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE

Lab-Sample Number: K00003867007
Project Name: TVA-Ash Spill
Sample Description:

Field Determinations
pH: 7.72 pH Units
Chlorine, residual:
Conductivity: 283 uMHO
Temperature: 30.08
Dissolved Oxygen: 7.81 mg/L
Other:
Flow: CFS

Sampler Project Name: TVA ash spill
Project Site No.: 6
Station No.: CLINC004.5RO
Date/Time Collected: 06/24/2010 10:30
Sampler's Name: Brandy Long
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Priority Date: 07/04/2010
Date/Time Received: 06/24/2010 12:15

Agency Invoiced: TDEC-WPC
Received By: E McCrary

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MLQ	ANALYZED BY:	DATE
Mercury	U	µg/L	0.038	0.2	A Bass	6/29/2010

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
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

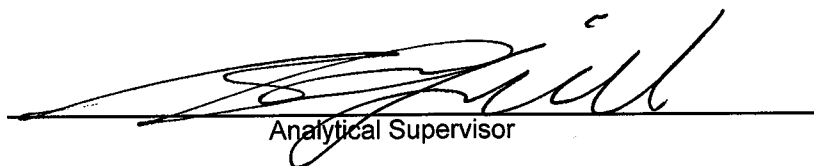
Michael Atchley
TDEC-WPC
Knoxville FO
3711 Middlebrook Pike
Knoxville, TN 37921

Lab ID: K00003867
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 practices and in accordance with federal or state approved methodologies.


Analytical Supervisor

Lab-Sample Number: K00003867001
 Project Name: TVA-Ash Spill
 Sample Description:

Field Determinations
 pH: 7.74 pH Units
 Chlorine, residual:
 Conductivity: 158 uMHO
 Temperature: 29.85
 Dissolved Oxygen: 7.45 mg/L
 Other:
 Flow: CFS

Sampler Project Name: TVA ash spill
 Project Site No.: 2
 Station No.: EMORY002.1RO
 Date/Time Collected: 06/24/2010 09:45
 Sampler's Name: Brandy Long
 County: ROANE - 73
 Sample Matrix: Water
 EFO: Knoxville
 Sampling Agency: TDEC-WPC
 Billing Code: 327.34-20
 Send Report To: TDEC-WPC
 Priority Date: 07/04/2010
 Date/Time Received: 06/24/2010 12:15

Agency Invoiced: TDEC-WPC
 Received By: E McCrary

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	49	mg/L	3.8	10	M Chen	6/30/2010

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	37	mg/L	0.7	1	M Chen	6/29/2010

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	6/25/2010

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	17	mg/L	10	10	A Peoples	6/25/2010

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

Lab-Sample Number: K00003867002
Project Name: TVA-Ash Spill
Sample Description: Dredge Plume

Field Determinations
pH: 7.74 pH Units
Chlorine, residual:
Conductivity: 152 uMHO
Temperature: 29.47
Dissolved Oxygen: 7.79 mg/L
Other:
Flow: CFS

Sampler Project Name: TVA ash spill
Project Site No.: 2A
Station No.:
Date/Time Collected: 06/24/2010 09:52
Sampler's Name: Brandy Long
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Priority Date: 07/04/2010
Date/Time Received: 06/24/2010 12:15

Agency Invoiced: TDEC-WPC

Received By: E McCrary

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	45	mg/L	3.8	10	M Chen	6/30/2010

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	38	mg/L	0.7	1	M Chen	6/29/2010

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	6/25/2010

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	25	mg/L	10	10	A Peebles	6/25/2010

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

Lab-Sample Number: K00003867003
 Project Name: TVA-Ash Spill
 Sample Description:

Field Determinations
 pH: 8.08 pH Units
 Chlorine, residual:
 Conductivity: 278 uMHO
 Temperature: 30.20
 Dissolved Oxygen: 9.28 mg/L
 Other:
 Flow: CFS

Sampler Project Name: TVA ash spill
 Project Site No.: 3
 Station No.: EMORY001.7RO
 Date/Time Collected: 06/24/2010 10:10
 Sampler's Name: Brandy Long
 County: ROANE - 73
 Sample Matrix: Water
 EFO: Knoxville
 Sampling Agency: TDEC-WPC
 Billing Code: 327.34-20
 Send Report To: TDEC-WPC
 Priority Date: 07/04/2010
 Date/Time Received: 06/24/2010 12:15

Agency Invoiced: TDEC-WPC
 Received By: E McCrary

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	6/30/2010

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	6/29/2010

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	6/25/2010

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	12	mg/L	10	10	A Peebles	6/25/2010

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

Lab-Sample Number: K00003867004
Project Name: TVA-Ash Spill
Sample Description:

Field Determinations
pH: 7.66 pH Units
Chlorine, residual:
Conductivity: 283 uMHO
Temperature: 30.06
Dissolved Oxygen: 7.27 mg/L
Other:
Flow: CFS

Sampler Project Name: TVA ash spill
Project Site No.: 4
Station No.: EMORY000.1RO
Date/Time Collected: 06/24/2010 10:20
Sampler's Name: Brandy Long
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Priority Date: 07/04/2010
Date/Time Received: 06/24/2010 12:15

Agency Invoiced: TDEC-WPC

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	6/30/2010

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	75	mg/L	0.7	1	M Chen	6/29/2010

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	6/25/2010

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	A Peebles	6/25/2010

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

Lab-Sample Number: K00003867005
Project Name: TVA-Ash Spill
Sample Description:

Field Determinations
pH: 7.66 pH Units
Chlorine, residual:
Conductivity: 274 uMHO
Temperature: 30.64
Dissolved Oxygen: 7.03 mg/L
Other:
Flow: CFS

Sampler Project Name: TVA ash spill
Project Site No.: 5
Station No.: CLINC002.3RO
Date/Time Collected: 06/24/2010 10:40
Sampler's Name: Brandy Long
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Priority Date: 07/04/2010
Date/Time Received: 06/24/2010 12:15

Agency Invoiced: TDEC-WPC

Received By: E McCrary

TEST: Alkalinity, Total		METHOD: EPA 310.2					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE	
Total Alkalinity	94	mg/L	3.8	10	M Chen	6/30/2010	

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE	
Calcium hardness	74	mg/L	0.7	1	M Chen	6/29/2010	

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	6/25/2010	

TEST: Residue, Suspended		METHOD: SM 2540D					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE	
Total Suspended Solids	15	mg/L	10	10	A Peebles	6/25/2010	

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

Lab-Sample Number: K00003867006
Project Name: TVA-Ash Spill
Sample Description:

Field Determinations
pH: 7.66 pH Units
Chlorine, residual:
Conductivity: 290 uMHO
Temperature: 33.91
Dissolved Oxygen: 6.53 mg/L
Other:
Flow: CFS

Sampler Project Name: TVA ash spill
Project Site No.: 5A
Station No.: KingAshOutF2
Date/Time Collected: 06/24/2010 10:50
Sampler's Name: Brandy Long
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Priority Date: 07/04/2010
Date/Time Received: 06/24/2010 12:15

Agency Invoiced: TDEC-WPC

Received By: E McCrary

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	87	mg/L	3.8	10	M Chen	6/30/2010

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	72	mg/L	0.7	1	M Chen	6/29/2010

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	6/25/2010

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	20	mg/L	10	10	A Peebles	6/25/2010

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

Lab-Sample Number: K00003867007
Project Name: TVA-Ash Spill
Sample Description:

Field Determinations
pH: 7.72 pH Units
Chlorine, residual:
Conductivity: 283 uMHO
Temperature: 30.08
Dissolved Oxygen: 7.81 mg/L
Other:
Flow: CFS

Sampler Project Name: TVA ash spill
Project Site No.: 6
Station No.: CLINC004.5RO
Date/Time Collected: 06/24/2010 10:30
Sampler's Name: Brandy Long
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Priority Date: 07/04/2010
Date/Time Received: 06/24/2010 12:15

Agency Invoiced: TDEC-WPC

Received By: E McCrary

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	96	mg/L	3.8	10	M Chen	6/30/2010

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	78	mg/L	0.7	1	M Chen	6/29/2010

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	6/25/2010

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	11	mg/L	10	10	A Peebles	6/25/2010

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