



ENVIRONMENTAL  
SCIENCE CORP.

12065 Lebanon Rd.  
Mt. Juliet, TN 37122  
(615) 758-5858  
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Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Mr. Stanley Bramlett  
TVA-Widows Creek Fossil Plant  
2800 Steamplant Rd.

Stevenson, AL 35772

Report Summary

Monday January 26, 2009

Report Number: L384755

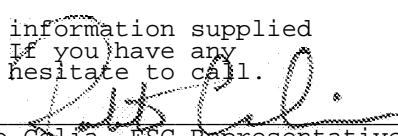
Samples Received: 01/22/09

Client Project: TVAWCF GYPSUM SPILL

Description: TVAWCF GYPSUM POND SPILL

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

  
Roberto Celis, ESC Representative

*Laboratory Certification Numbers*

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487  
GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140  
NJ - TN002, SC - 84004, TN - 2006, VA - 00109, WV - 233  
AZ - 0612, MN - 047-999-395, NY - 11742, WI - 998093910

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Where applicable, sampling conducted by ESC is performed per guidance provided  
in laboratory standard operating procedures: 060302, 060303, and 060304.



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REPORT OF ANALYSIS

Mr. Stanley Bramlett  
TVA-Widows Creek Fossil Plant  
2800 Steamplant Rd.  
Stevenson, AL 35772

January 26, 2009

Date Received : 01/22/09 15:40  
Description : TVAWCF GYPSUM POND SPILL  
Sample ID : CRB-SW-131-20090122  
Collected By : Michael Gamble  
Collection Date : 01/22/09 08:31

ESC Sample # : L384755-01

Site ID :

Project # : TVAWCF GYPSUM SPILL

Parameter	Result	Det. Limit	Units	Method	Prep	PID	Analyzed	AID
Nitrate	0.61	0.10	mg/l	300.0	01/22/09	1253	159 01/22/09	1916 MCH
Sulfate	9.1	5.0	mg/l	300.0	01/22/09	1253	159 01/22/09	1916 MCH
Alkalinity	84.	20.	mg/l	2320B	01/23/09	0729	245 01/23/09	1445 RBS
COD	260	20.	mg/l	410.4	01/22/09	1452	234 01/23/09	1710 LLJ
Ammonia Nitrogen	0.17	0.10	mg/l	350.1	01/24/09	1604	245 01/26/09	1542 LEM
pH	7.4		su	4500H-B	01/23/09	0741	183 01/24/09	1500 MCG
Nitrate-Nitrite	0.55	0.10	mg/l	353.2	01/22/09	1436	165 01/23/09	1252 LEM
Oil & Grease (Hexane Extr)	BDL	5.0	mg/l	1664A	01/23/09	0345	78 01/23/09	1055 TLB
Phosphorus, Total	BDL	0.10	mg/l	365.1	01/22/09	1507	245 01/26/09	0907 LEM
Kjeldahl Nitrogen, TKN	0.28	0.10	mg/l	351.2	01/23/09	1423	245 01/26/09	1017 DTH
TOC (Total Organic Carbon)	BDL	1.0	mg/l	5310B	01/23/09	1016	162 01/23/09	1544 ADH
Dissolved Solids	100	10.	mg/l	2540C	01/22/09	1651	193 01/24/09	1237 AMS
Suspended Solids	1.4	1.0	mg/l	2540D	01/22/09	1652	193 01/23/09	1412 AMS
Antimony	BDL	0.0010	mg/l	200.8	01/22/09	1655	428 01/25/09	2140 LRL
Arsenic	BDL	0.0010	mg/l	200.8	01/22/09	1655	428 01/25/09	2140 LRL
Cadmium	BDL	0.00050	mg/l	200.8	01/22/09	1655	428 01/25/09	2140 LRL
Beryllium	BDL	0.0010	mg/l	200.8	01/22/09	1655	428 01/25/09	2140 LRL
Chromium	BDL	0.0010	mg/l	200.8	01/22/09	1655	428 01/25/09	2140 LRL
Cobalt	BDL	0.0010	mg/l	200.8	01/22/09	1655	428 01/25/09	2140 LRL
Copper	BDL	0.0010	mg/l	200.8	01/22/09	1655	428 01/25/09	2140 LRL
Lead	BDL	0.0010	mg/l	200.8	01/22/09	1655	428 01/25/09	2140 LRL
Nickel	0.0017	0.0010	mg/l	200.8	01/26/09	0945	428 01/26/09	1525 LRL
Selenium	BDL	0.0010	mg/l	200.8	01/22/09	1655	428 01/25/09	2140 LRL
Silver	BDL	0.00050	mg/l	200.8	01/22/09	1655	428 01/25/09	2140 LRL
Thallium	BDL	0.0010	mg/l	200.8	01/22/09	1655	428 01/25/09	2140 LRL
Zinc	BDL	0.010	mg/l	200.8	01/22/09	1655	428 01/25/09	2140 LRL
Mercury	BDL	0.00020	mg/l	245.1	01/23/09	0826	429 01/23/09	1856 ARF

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Laboratory Certification Numbers:

AIHA - 09227, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01  
KY - 90010, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233  
AZ -0612, MN - 047-999-395, NY - 11742, NJ - TN002, WI - 998093910

Notes:

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L384755-01 (PH) - 7.4@19.1c



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January 26, 2009

Date Received : 01/22/09 15:40  
Description : TVAWCF GYPSUM POND SPILL  
Sample ID : CRB-SW-131-20090122  
Collected By : Michael Gamble  
Collection Date : 01/22/09 08:31

ESC Sample # : L384755-01

Site ID :

Project # : TVAWCF GYPSUM SPILL

Parameter	Result	Det. Limit	Units	Method	Prep	PID	Analyzed	AID
Aluminum	0.17	0.10	mg/l	200.7	01/22/09 1654	449	01/23/09 2115	LAT
Barium	0.021	0.0050	mg/l	200.7	01/22/09 1654	449	01/23/09 2115	LAT
Calcium	34.	0.50	mg/l	200.7	01/22/09 1654	449	01/23/09 2115	LAT
Iron	0.29	0.10	mg/l	200.7	01/22/09 1654	449	01/23/09 2115	LAT
Magnesium	4.8	0.10	mg/l	200.7	01/22/09 1654	449	01/23/09 2115	LAT
Manganese	0.057	0.010	mg/l	200.7	01/22/09 1654	449	01/23/09 2115	LAT
Potassium	0.93	0.50	mg/l	200.7	01/22/09 1654	449	01/23/09 2115	LAT
Sodium	1.8	0.50	mg/l	200.7	01/22/09 1654	449	01/23/09 2115	LAT
Vanadium	BDL	0.010	mg/l	200.7	01/22/09 1654	449	01/23/09 2115	LAT

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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Reported: 01/26/09 16:51 Printed: 01/26/09 16:51

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January 26, 2009

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Description : TVAWCF GYPSUM POND SPILL  
Sample ID : MDB-SW-132-20090122  
Collected By : Michael Gamble  
Collection Date : 01/22/09 09:21

ESC Sample # : L384755-02

Site ID :

Project # : TVAWCF GYPSUM SPILL

Parameter	Result	Det. Limit	Units	Method	Prep	PID	Analyzed	AID
Nitrate	0.56	0.10	mg/l	300.0	01/22/09	1253	159 01/22/09	1933 MCH
Sulfate	15.	5.0	mg/l	300.0	01/22/09	1253	159 01/22/09	1933 MCH
Alkalinity	83.	20.	mg/l	2320B	01/23/09	0729	245 01/23/09	1445 RBS
COD	330	20.	mg/l	410.4	01/22/09	1452	234 01/23/09	1710 LLJ
Ammonia Nitrogen	BDL	0.10	mg/l	350.1	01/24/09	1604	245 01/26/09	1543 LEM
pH	7.4		su	4500H-B	01/23/09	0741	183 01/24/09	1500 MCG
Nitrate-Nitrite	0.53	0.10	mg/l	353.2	01/22/09	1436	165 01/23/09	1253 LEM
Oil & Grease (Hexane Extr)	BDL	5.0	mg/l	1664A	01/23/09	0345	78 01/23/09	1055 TLB
Phosphorus, Total	BDL	0.10	mg/l	365.1	01/22/09	1507	245 01/26/09	0908 LEM
Kjeldahl Nitrogen, TKN	0.23	0.10	mg/l	351.2	01/23/09	1423	245 01/26/09	1018 DTH
TOC (Total Organic Carbon)	1.1	1.0	mg/l	5310B	01/23/09	1016	162 01/23/09	1555 ADH
Dissolved Solids	120	10.	mg/l	2540C	01/22/09	1651	193 01/24/09	1236 AMS
Suspended Solids	1.3	1.0	mg/l	2540D	01/22/09	1652	193 01/23/09	1412 AMS
Antimony	BDL	0.0010	mg/l	200.8	01/22/09	1655	428 01/25/09	2125 LRL
Arsenic	BDL	0.0010	mg/l	200.8	01/22/09	1655	428 01/25/09	2125 LRL
Cadmium	BDL	0.00050	mg/l	200.8	01/22/09	1655	428 01/25/09	2125 LRL
Beryllium	BDL	0.0010	mg/l	200.8	01/22/09	1655	428 01/25/09	2125 LRL
Chromium	BDL	0.0010	mg/l	200.8	01/22/09	1655	428 01/25/09	2125 LRL
Cobalt	BDL	0.0010	mg/l	200.8	01/22/09	1655	428 01/25/09	2125 LRL
Copper	BDL	0.0010	mg/l	200.8	01/22/09	1655	428 01/25/09	2125 LRL
Lead	BDL	0.0010	mg/l	200.8	01/22/09	1655	428 01/25/09	2125 LRL
Nickel	0.0019	0.0010	mg/l	200.8	01/26/09	0945	428 01/26/09	1321 LRL
Selenium	BDL	0.0010	mg/l	200.8	01/22/09	1655	428 01/25/09	2125 LRL
Silver	BDL	0.00050	mg/l	200.8	01/22/09	1655	428 01/25/09	2125 LRL
Thallium	BDL	0.0010	mg/l	200.8	01/22/09	1655	428 01/25/09	2125 LRL
Zinc	BDL	0.010	mg/l	200.8	01/22/09	1655	428 01/25/09	2125 LRL
Mercury	BDL	0.00020	mg/l	245.1	01/23/09	0826	429 01/23/09	1858 ARF

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Laboratory Certification Numbers:

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January 26, 2009

Date Received : 01/22/09 15:40  
Description : TVAWCF GYPSUM POND SPILL  
Sample ID : MDB-SW-132-20090122  
Collected By : Michael Gamble  
Collection Date : 01/22/09 09:21

ESC Sample # : L384755-02

Site ID :

Project # : TVAWCF GYPSUM SPILL

Parameter	Result	Det. Limit	Units	Method	Prep	PID	Analyzed	AID
Aluminum	0.30	0.10	mg/l	200.7	01/22/09 1654	449	01/23/09 2119	LAT
Barium	0.024	0.0050	mg/l	200.7	01/22/09 1654	449	01/23/09 2119	LAT
Calcium	18.	0.50	mg/l	200.7	01/22/09 1654	449	01/23/09 2119	LAT
Iron	0.26	0.10	mg/l	200.7	01/22/09 1654	449	01/23/09 2119	LAT
Magnesium	4.6	0.10	mg/l	200.7	01/22/09 1654	449	01/23/09 2119	LAT
Manganese	0.028	0.010	mg/l	200.7	01/22/09 1654	449	01/23/09 2119	LAT
Potassium	1.8	0.50	mg/l	200.7	01/22/09 1654	449	01/23/09 2119	LAT
Sodium	7.6	0.50	mg/l	200.7	01/22/09 1654	449	01/23/09 2119	LAT
Vanadium	BDL	0.010	mg/l	200.7	01/22/09 1654	449	01/23/09 2119	LAT

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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L384755-02 (PH) - 7.4@18.9c



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January 26, 2009

Date Received : 01/22/09 15:40  
Description : TVAWCF GYPSUM POND SPILL  
Sample ID : TNUP-SW-133-20090122  
Collected By : Michael Gamble  
Collection Date : 01/22/09 09:40

ESC Sample # : L384755-03

Site ID :

Project # : TVAWCF GYPSUM SPILL

Parameter	Result	Det. Limit	Units	Method	Prep	PID	Analyzed	AID
Nitrate	0.42	0.10	mg/l	300.0	01/22/09	1253	159 01/22/09	1951 MCH
Sulfate	14.	5.0	mg/l	300.0	01/22/09	1253	159 01/22/09	1951 MCH
Alkalinity	64.	20.	mg/l	2320B	01/23/09	0729	245 01/23/09	1445 RBS
COD	57.	20.	mg/l	410.4	01/22/09	1452	234 01/23/09	1711 LLJ
Ammonia Nitrogen	BDL	0.10	mg/l	350.1	01/24/09	1604	245 01/26/09	1544 LEM
pH	7.4		su	4500H-B	01/23/09	0741	183 01/24/09	1500 MCG
Nitrate-Nitrite	0.37	0.10	mg/l	353.2	01/22/09	1436	165 01/23/09	1254 LEM
Oil & Grease (Hexane Extr)	BDL	5.0	mg/l	1664A	01/23/09	0345	78 01/23/09	1105 TLB
Phosphorus, Total	BDL	0.10	mg/l	365.1	01/22/09	1507	245 01/26/09	0909 LEM
Kjeldahl Nitrogen, TKN	0.40	0.10	mg/l	351.2	01/23/09	1423	245 01/26/09	1019 DTH
TOC (Total Organic Carbon)	1.9	1.0	mg/l	5310B	01/23/09	1016	162 01/23/09	1606 ADH
Dissolved Solids	82.	10.	mg/l	2540C	01/22/09	1651	193 01/24/09	1236 AMS
Suspended Solids	4.1	1.0	mg/l	2540D	01/22/09	1652	193 01/23/09	1412 AMS
Antimony	BDL	0.0010	mg/l	200.8	01/22/09	1655	428 01/25/09	2122 LRL
Arsenic	BDL	0.0010	mg/l	200.8	01/22/09	1655	428 01/25/09	2122 LRL
Cadmium	BDL	0.00050	mg/l	200.8	01/22/09	1655	428 01/25/09	2122 LRL
Beryllium	BDL	0.0010	mg/l	200.8	01/22/09	1655	428 01/25/09	2122 LRL
Chromium	BDL	0.0010	mg/l	200.8	01/22/09	1655	428 01/25/09	2122 LRL
Cobalt	BDL	0.0010	mg/l	200.8	01/22/09	1655	428 01/25/09	2122 LRL
Copper	0.0011	0.0010	mg/l	200.8	01/22/09	1655	428 01/25/09	2122 LRL
Lead	BDL	0.0010	mg/l	200.8	01/22/09	1655	428 01/25/09	2122 LRL
Nickel	0.0015	0.0010	mg/l	200.8	01/26/09	0945	428 01/26/09	1324 LRL
Selenium	BDL	0.0010	mg/l	200.8	01/22/09	1655	428 01/25/09	2122 LRL
Silver	BDL	0.00050	mg/l	200.8	01/22/09	1655	428 01/25/09	2122 LRL
Thallium	BDL	0.0010	mg/l	200.8	01/22/09	1655	428 01/25/09	2122 LRL
Zinc	BDL	0.010	mg/l	200.8	01/22/09	1655	428 01/25/09	2122 LRL
Mercury	BDL	0.00020	mg/l	245.1	01/23/09	0826	429 01/23/09	1901 ARF

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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Sample ID : TNUP-SW-133-20090122  
Collected By : Michael Gamble  
Collection Date : 01/22/09 09:40

ESC Sample # : L384755-03

Site ID :

Project # : TVAWCF GYPSUM SPILL

Parameter	Result	Det. Limit	Units	Method	Prep	PID	Analyzed	AID
Aluminum	0.34	0.10	mg/l	200.7	01/22/09 1654	449	01/23/09 2135	LAT
Barium	0.025	0.0050	mg/l	200.7	01/22/09 1654	449	01/23/09 2135	LAT
Calcium	18.	0.50	mg/l	200.7	01/22/09 1654	449	01/23/09 2135	LAT
Iron	0.28	0.10	mg/l	200.7	01/22/09 1654	449	01/23/09 2135	LAT
Magnesium	4.6	0.10	mg/l	200.7	01/22/09 1654	449	01/23/09 2135	LAT
Manganese	0.029	0.010	mg/l	200.7	01/22/09 1654	449	01/23/09 2135	LAT
Potassium	1.7	0.50	mg/l	200.7	01/22/09 1654	449	01/23/09 2135	LAT
Sodium	7.5	0.50	mg/l	200.7	01/22/09 1654	449	01/23/09 2135	LAT
Vanadium	BDL	0.010	mg/l	200.7	01/22/09 1654	449	01/23/09 2135	LAT

BDL - Below Detection Limit

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January 26, 2009

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Description : TVAWCF GYPSUM POND SPILL  
Sample ID : TNDN-SW-134-20090122  
Collected By : Michael Gamble  
Collection Date : 01/22/09 09:03

ESC Sample # : L384755-04

Site ID :

Project # : TVAWCF GYPSUM SPILL

Parameter	Result	Det. Limit	Units	Method	Prep	PID	Analyzed	AID
Nitrate	0.43	0.10	mg/l	300.0	01/22/09	1253	159 01/22/09	2008 MCH
Sulfate	14.	5.0	mg/l	300.0	01/22/09	1253	159 01/22/09	2008 MCH
Alkalinity	52.	20.	mg/l	2320B	01/23/09	0729	245 01/23/09	1445 RBS
COD	350	20.	mg/l	410.4	01/22/09	1452	234 01/23/09	1711 LLJ
Ammonia Nitrogen	BDL	0.10	mg/l	350.1	01/24/09	1604	245 01/26/09	1545 LEM
pH	7.4		su	4500H-B	01/23/09	0741	183 01/24/09	1500 MCG
Nitrate-Nitrite	0.38	0.10	mg/l	353.2	01/22/09	1436	165 01/23/09	1255 LEM
Oil & Grease (Hexane Extr)	BDL	5.6	mg/l	1664A	01/23/09	0345	78 01/23/09	1054 TLB
Phosphorus, Total	BDL	0.10	mg/l	365.1	01/22/09	1507	245 01/26/09	0910 LEM
Kjeldahl Nitrogen, TKN	0.44	0.10	mg/l	351.2	01/23/09	1423	245 01/26/09	1020 DTH
TOC (Total Organic Carbon)	2.0	1.0	mg/l	5310B	01/23/09	1016	162 01/23/09	1618 ADH
Dissolved Solids	84.	10.	mg/l	2540C	01/22/09	1651	193 01/24/09	1237 AMS
Suspended Solids	4.1	1.0	mg/l	2540D	01/22/09	1652	193 01/23/09	1412 AMS
Antimony	BDL	0.0010	mg/l	200.8	01/22/09	1655	428 01/25/09	2143 LRL
Arsenic	BDL	0.0010	mg/l	200.8	01/22/09	1655	428 01/25/09	2143 LRL
Cadmium	BDL	0.00050	mg/l	200.8	01/22/09	1655	428 01/25/09	2143 LRL
Beryllium	BDL	0.0010	mg/l	200.8	01/22/09	1655	428 01/25/09	2143 LRL
Chromium	BDL	0.0010	mg/l	200.8	01/22/09	1655	428 01/25/09	2143 LRL
Cobalt	BDL	0.0010	mg/l	200.8	01/22/09	1655	428 01/25/09	2143 LRL
Copper	BDL	0.0010	mg/l	200.8	01/22/09	1655	428 01/25/09	2143 LRL
Lead	BDL	0.0010	mg/l	200.8	01/22/09	1655	428 01/25/09	2143 LRL
Nickel	0.0015	0.0010	mg/l	200.8	01/26/09	0945	428 01/26/09	1328 LRL
Selenium	BDL	0.0010	mg/l	200.8	01/22/09	1655	428 01/25/09	2143 LRL
Silver	BDL	0.00050	mg/l	200.8	01/22/09	1655	428 01/25/09	2143 LRL
Thallium	BDL	0.0010	mg/l	200.8	01/22/09	1655	428 01/25/09	2143 LRL
Zinc	BDL	0.010	mg/l	200.8	01/22/09	1655	428 01/25/09	2143 LRL
Mercury	BDL	0.00020	mg/l	245.1	01/23/09	0826	429 01/23/09	1908 ARF

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Laboratory Certification Numbers:

AIHA - 09227, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01  
KY - 90010, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233  
AZ -0612, MN - 047-999-395, NY - 11742, NJ - TN002, WI - 998093910

Notes:

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Est. 1970

REPORT OF ANALYSIS

Mr. Stanley Bramlett  
TVA-Widows Creek Fossil Plant  
2800 Steamplant Rd.  
Stevenson, AL 35772

January 26, 2009

Date Received : 01/22/09 15:40  
Description : TVAWCF GYPSUM POND SPILL  
Sample ID : TNDN-SW-134-20090122  
Collected By : Michael Gamble  
Collection Date : 01/22/09 09:03

ESC Sample # : L384755-04

Site ID :

Project # : TVAWCF GYPSUM SPILL

Parameter	Result	Det. Limit	Units	Method	Prep	PID	Analyzed	AID
Aluminum	0.33	0.10	mg/l	200.7	01/22/09 1654	449	01/23/09 2139	LAT
Barium	0.025	0.0050	mg/l	200.7	01/22/09 1654	449	01/23/09 2139	LAT
Calcium	19.	0.50	mg/l	200.7	01/22/09 1654	449	01/23/09 2139	LAT
Iron	0.28	0.10	mg/l	200.7	01/22/09 1654	449	01/23/09 2139	LAT
Magnesium	4.6	0.10	mg/l	200.7	01/22/09 1654	449	01/23/09 2139	LAT
Manganese	0.031	0.010	mg/l	200.7	01/22/09 1654	449	01/23/09 2139	LAT
Potassium	1.8	0.50	mg/l	200.7	01/22/09 1654	449	01/23/09 2139	LAT
Sodium	7.8	0.50	mg/l	200.7	01/22/09 1654	449	01/23/09 2139	LAT
Vanadium	BDL	0.010	mg/l	200.7	01/22/09 1654	449	01/23/09 2139	LAT

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Laboratory Certification Numbers:

AIHA - 09227, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01  
KY - 90010, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233  
AZ -0612, MN - 047-999-395, NY - 11742, NJ - TN002, WI - 998093910

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Est. 1970

REPORT OF ANALYSIS

Mr. Stanley Bramlett  
TVA-Widows Creek Fossil Plant  
2800 Steamplant Rd.  
Stevenson, AL 35772

January 26, 2009

Date Received : 01/22/09 15:40  
Description : TVAWCF GYPSUM POND SPILL  
Sample ID : TN 117-SW-135-20090122  
Collected By : Michael Gamble  
Collection Date : 01/22/09 08:39

ESC Sample # : L384755-05

Site ID :

Project # : TVAWCF GYPSUM SPILL

Parameter	Result	Det. Limit	Units	Method	Prep	PID	Analyzed	AID
Nitrate	0.44	0.10	mg/l	300.0	01/22/09	1253	159 01/22/09	2026 MCH
Sulfate	15.	5.0	mg/l	300.0	01/22/09	1253	159 01/22/09	2026 MCH
Alkalinity	56.	20.	mg/l	2320B	01/23/09	0729	245 01/23/09	1445 RBS
COD	60.	20.	mg/l	410.4	01/22/09	1452	234 01/23/09	1711 LLJ
Ammonia Nitrogen	BDL	0.10	mg/l	350.1	01/24/09	1604	245 01/26/09	1547 LEM
pH	7.4		su	4500H-B	01/23/09	0741	183 01/24/09	1500 MCG
Nitrate-Nitrite	0.38	0.10	mg/l	353.2	01/22/09	1436	165 01/23/09	1256 LEM
Oil & Grease (Hexane Extr)	BDL	5.0	mg/l	1664A	01/23/09	0345	78 01/23/09	1105 TLB
Phosphorus, Total	BDL	0.10	mg/l	365.1	01/22/09	1507	245 01/26/09	0911 LEM
Kjeldahl Nitrogen, TKN	0.46	0.10	mg/l	351.2	01/23/09	1423	245 01/26/09	1021 DTH
TOC (Total Organic Carbon)	2.0	1.0	mg/l	5310B	01/23/09	1016	162 01/23/09	1634 ADH
Dissolved Solids	90.	10.	mg/l	2540C	01/22/09	1651	193 01/24/09	1238 AMS
Suspended Solids	3.9	1.0	mg/l	2540D	01/22/09	1652	193 01/23/09	1412 AMS
Antimony	BDL	0.0010	mg/l	200.8	01/22/09	1655	428 01/25/09	2153 LRL
Arsenic	BDL	0.0010	mg/l	200.8	01/22/09	1655	428 01/25/09	2153 LRL
Cadmium	BDL	0.00050	mg/l	200.8	01/22/09	1655	428 01/25/09	2153 LRL
Beryllium	BDL	0.0010	mg/l	200.8	01/22/09	1655	428 01/25/09	2153 LRL
Chromium	BDL	0.0010	mg/l	200.8	01/22/09	1655	428 01/25/09	2153 LRL
Cobalt	BDL	0.0010	mg/l	200.8	01/22/09	1655	428 01/25/09	2153 LRL
Copper	0.0011	0.0010	mg/l	200.8	01/22/09	1655	428 01/25/09	2153 LRL
Lead	BDL	0.0010	mg/l	200.8	01/22/09	1655	428 01/25/09	2153 LRL
Nickel	0.0014	0.0010	mg/l	200.8	01/26/09	0945	428 01/26/09	1331 LRL
Selenium	BDL	0.0010	mg/l	200.8	01/22/09	1655	428 01/25/09	2153 LRL
Silver	BDL	0.00050	mg/l	200.8	01/22/09	1655	428 01/25/09	2153 LRL
Thallium	BDL	0.0010	mg/l	200.8	01/22/09	1655	428 01/25/09	2153 LRL
Zinc	BDL	0.010	mg/l	200.8	01/22/09	1655	428 01/25/09	2153 LRL
Mercury	BDL	0.00020	mg/l	245.1	01/23/09	0826	429 01/23/09	1911 ARF

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Laboratory Certification Numbers:

AIHA - 09227, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01  
KY - 90010, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233  
AZ -0612, MN - 047-999-395, NY - 11742, NJ - TN002, WI - 998093910

Notes:

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Est. 1970

REPORT OF ANALYSIS

Mr. Stanley Bramlett  
TVA-Widows Creek Fossil Plant  
2800 Steamplant Rd.  
Stevenson, AL 35772

January 26, 2009

Date Received : 01/22/09 15:40  
Description : TVAWCF GYPSUM POND SPILL  
Sample ID : TN 117-SW-135-20090122  
Collected By : Michael Gamble  
Collection Date : 01/22/09 08:39

ESC Sample # : L384755-05

Site ID :

Project # : TVAWCF GYPSUM SPILL

Parameter	Result	Det. Limit	Units	Method	Prep	PID	Analyzed	AID
Aluminum	0.28	0.10	mg/l	200.7	01/22/09 1654	449	01/23/09 2142	LAT
Barium	0.024	0.0050	mg/l	200.7	01/22/09 1654	449	01/23/09 2142	LAT
Calcium	23.	0.50	mg/l	200.7	01/22/09 1654	449	01/23/09 2142	LAT
Iron	0.28	0.10	mg/l	200.7	01/22/09 1654	449	01/23/09 2142	LAT
Magnesium	4.6	0.10	mg/l	200.7	01/22/09 1654	449	01/23/09 2142	LAT
Manganese	0.036	0.010	mg/l	200.7	01/22/09 1654	449	01/23/09 2142	LAT
Potassium	1.6	0.50	mg/l	200.7	01/22/09 1654	449	01/23/09 2142	LAT
Sodium	6.3	0.50	mg/l	200.7	01/22/09 1654	449	01/23/09 2142	LAT
Vanadium	BDL	0.010	mg/l	200.7	01/22/09 1654	449	01/23/09 2142	LAT

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Laboratory Certification Numbers:

AIHA - 09227, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01  
KY - 90010, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233  
AZ -0612, MN - 047-999-395, NY - 11742, NJ - TN002, WI - 998093910

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Mr. Stanley Bramlett  
TVA-Widows Creek Fossil Plant  
2800 Steamplant Rd.  
Stevenson, AL 35772

January 26, 2009

Date Received : 01/22/09 15:40  
Description : TVAWCF GYPSUM POND SPILL  
Sample ID : TNSL-SW-136-20090122  
Collected By : Michael Gamble  
Collection Date : 01/22/09 09:16

ESC Sample # : L384755-06

Site ID :

Project # : TVAWCF GYPSUM SPILL

Parameter	Result	Det. Limit	Units	Method	Prep	PID	Analyzed	AID
Nitrate	0.46	0.10	mg/l	300.0	01/22/09	1253	159 01/22/09	2043 MCH
Sulfate	17.	5.0	mg/l	300.0	01/22/09	1253	159 01/22/09	2043 MCH
Alkalinity	62.	20.	mg/l	2320B	01/23/09	0729	245 01/23/09	1445 RBS
COD	55.	20.	mg/l	410.4	01/22/09	1452	234 01/23/09	1711 LLJ
Ammonia Nitrogen	BDL	0.10	mg/l	350.1	01/24/09	1604	245 01/26/09	1548 LEM
pH	7.6		su	4500H-B	01/23/09	0741	183 01/24/09	1500 MCG
Nitrate-Nitrite	0.40	0.10	mg/l	353.2	01/22/09	1436	165 01/23/09	1257 LEM
Oil & Grease (Hexane Extr)	BDL	5.6	mg/l	1664A	01/23/09	0345	78 01/23/09	1106 TLB
Phosphorus, Total	BDL	0.10	mg/l	365.1	01/22/09	1507	245 01/26/09	0912 LEM
Kjeldahl Nitrogen, TKN	0.36	0.10	mg/l	351.2	01/23/09	1423	245 01/26/09	1022 DTH
TOC (Total Organic Carbon)	1.6	1.0	mg/l	5310B	01/23/09	1016	162 01/23/09	1645 ADH
Dissolved Solids	89.	10.	mg/l	2540C	01/22/09	1651	193 01/24/09	1236 AMS
Suspended Solids	4.4	1.0	mg/l	2540D	01/22/09	1652	193 01/23/09	1412 AMS
Antimony	BDL	0.0010	mg/l	200.8	01/22/09	1655	428 01/25/09	2150 LRL
Arsenic	BDL	0.0010	mg/l	200.8	01/22/09	1655	428 01/25/09	2150 LRL
Cadmium	BDL	0.00050	mg/l	200.8	01/22/09	1655	428 01/25/09	2150 LRL
Beryllium	BDL	0.0010	mg/l	200.8	01/22/09	1655	428 01/25/09	2150 LRL
Chromium	BDL	0.0010	mg/l	200.8	01/22/09	1655	428 01/25/09	2150 LRL
Cobalt	BDL	0.0010	mg/l	200.8	01/22/09	1655	428 01/25/09	2150 LRL
Copper	0.0010	0.0010	mg/l	200.8	01/22/09	1655	428 01/25/09	2150 LRL
Lead	BDL	0.0010	mg/l	200.8	01/22/09	1655	428 01/25/09	2150 LRL
Nickel	0.0016	0.0010	mg/l	200.8	01/26/09	0945	428 01/26/09	1521 LRL
Selenium	BDL	0.0010	mg/l	200.8	01/22/09	1655	428 01/25/09	2150 LRL
Silver	BDL	0.00050	mg/l	200.8	01/22/09	1655	428 01/25/09	2150 LRL
Thallium	BDL	0.0010	mg/l	200.8	01/22/09	1655	428 01/25/09	2150 LRL
Zinc	BDL	0.010	mg/l	200.8	01/22/09	1655	428 01/25/09	2150 LRL
Mercury	BDL	0.00020	mg/l	245.1	01/23/09	0826	429 01/23/09	1913 ARF

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Laboratory Certification Numbers:

AIHA - 09227, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01  
KY - 90010, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233  
AZ -0612, MN - 047-999-395, NY - 11742, NJ - TN002, WI - 998093910

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REPORT OF ANALYSIS

Mr. Stanley Bramlett  
TVA-Widows Creek Fossil Plant  
2800 Steamplant Rd.  
Stevenson, AL 35772

January 26, 2009

Date Received : 01/22/09 15:40  
Description : TVAWCF GYPSUM POND SPILL  
Sample ID : TNSL-SW-136-20090122  
Collected By : Michael Gamble  
Collection Date : 01/22/09 09:16

ESC Sample # : L384755-06

Site ID :

Project # : TVAWCF GYPSUM SPILL

Parameter	Result	Det. Limit	Units	Method	Prep	PID	Analyzed	AID
Aluminum	0.30	0.10	mg/l	200.7	01/22/09 1654	449	01/23/09 2145	LAT
Barium	0.025	0.0050	mg/l	200.7	01/22/09 1654	449	01/23/09 2145	LAT
Calcium	23.	0.50	mg/l	200.7	01/22/09 1654	449	01/23/09 2145	LAT
Iron	0.30	0.10	mg/l	200.7	01/22/09 1654	449	01/23/09 2145	LAT
Magnesium	4.6	0.10	mg/l	200.7	01/22/09 1654	449	01/23/09 2145	LAT
Manganese	0.037	0.010	mg/l	200.7	01/22/09 1654	449	01/23/09 2145	LAT
Potassium	1.5	0.50	mg/l	200.7	01/22/09 1654	449	01/23/09 2145	LAT
Sodium	6.2	0.50	mg/l	200.7	01/22/09 1654	449	01/23/09 2145	LAT
Vanadium	BDL	0.010	mg/l	200.7	01/22/09 1654	449	01/23/09 2145	LAT

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Laboratory Certification Numbers:

AIHA - 09227, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01  
KY - 90010, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233  
AZ -0612, MN - 047-999-395, NY - 11742, NJ - TN002, WI - 998093910

Notes:

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REPORT OF ANALYSIS

Mr. Stanley Bramlett  
TVA-Widows Creek Fossil Plant  
2800 Steamplant Rd.  
Stevenson, AL 35772

January 26, 2009

Date Received : 01/22/09 15:40  
Description : TVAWCF GYPSUM POND SPILL  
Sample ID : TNSL-MD-137-20090122  
Collected By : Michael Gamble  
Collection Date : 01/22/09 09:18

ESC Sample # : L384755-07

Site ID :

Project # : TVAWCF GYPSUM SPILL

Parameter	Result	Det. Limit	Units	Method	Prep	PID	Analyzed	AID
Nitrate	0.47	0.10	mg/l	300.0	01/22/09	1253	159 01/22/09	2100 MCH
Sulfate	18.	5.0	mg/l	300.0	01/22/09	1253	159 01/22/09	2100 MCH
Alkalinity	60.	20.	mg/l	2320B	01/23/09	0729	245 01/23/09	1445 RBS
COD	50.	20.	mg/l	410.4	01/22/09	1452	234 01/23/09	1711 LLJ
Ammonia Nitrogen	BDL	0.10	mg/l	350.1	01/24/09	1604	245 01/26/09	1549 LEM
pH	7.5		su	4500H-B	01/23/09	0741	183 01/24/09	1500 MCG
Nitrate-Nitrite	0.41	0.10	mg/l	353.2	01/22/09	1436	165 01/23/09	1258 LEM
Oil & Grease (Hexane Extr)	BDL	5.9	mg/l	1664A	01/23/09	0345	78 01/23/09	1105 TLB
Phosphorus, Total	BDL	0.10	mg/l	365.1	01/22/09	1507	245 01/26/09	0914 LEM
Kjeldahl Nitrogen, TKN	0.40	0.10	mg/l	351.2	01/23/09	1423	245 01/26/09	1024 DTH
TOC (Total Organic Carbon)	1.5	1.0	mg/l	5310B	01/23/09	1016	162 01/23/09	1656 ADH
Dissolved Solids	110	10.	mg/l	2540C	01/22/09	1651	193 01/24/09	1236 AMS
Suspended Solids	3.9	1.0	mg/l	2540D	01/22/09	1652	193 01/23/09	1412 AMS
Antimony	BDL	0.0010	mg/l	200.8	01/22/09	1655	428 01/25/09	2147 LRL
Arsenic	BDL	0.0010	mg/l	200.8	01/22/09	1655	428 01/25/09	2147 LRL
Cadmium	BDL	0.00050	mg/l	200.8	01/22/09	1655	428 01/25/09	2147 LRL
Beryllium	BDL	0.0010	mg/l	200.8	01/22/09	1655	428 01/25/09	2147 LRL
Chromium	BDL	0.0010	mg/l	200.8	01/22/09	1655	428 01/25/09	2147 LRL
Cobalt	BDL	0.0010	mg/l	200.8	01/22/09	1655	428 01/25/09	2147 LRL
Copper	0.0011	0.0010	mg/l	200.8	01/22/09	1655	428 01/25/09	2147 LRL
Lead	BDL	0.0010	mg/l	200.8	01/22/09	1655	428 01/25/09	2147 LRL
Nickel	0.0016	0.0010	mg/l	200.8	01/26/09	0945	428 01/26/09	1547 LRL
Selenium	BDL	0.0010	mg/l	200.8	01/22/09	1655	428 01/25/09	2147 LRL
Silver	BDL	0.00050	mg/l	200.8	01/22/09	1655	428 01/25/09	2147 LRL
Thallium	BDL	0.0010	mg/l	200.8	01/22/09	1655	428 01/25/09	2147 LRL
Zinc	BDL	0.010	mg/l	200.8	01/22/09	1655	428 01/25/09	2147 LRL
Mercury	BDL	0.00020	mg/l	245.1	01/23/09	0826	429 01/23/09	1916 ARF

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Laboratory Certification Numbers:

AIHA - 09227, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01  
KY - 90010, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233  
AZ -0612, MN - 047-999-395, NY - 11742, NJ - TN002, WI - 998093910

Notes:

The reported analytical results relate only to the sample submitted  
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L384755-07 (PH) - 7.5@19.2c



**ENVIRONMENTAL  
SCIENCE CORP.**

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(615) 758-5858  
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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Mr. Stanley Bramlett  
TVA-Widows Creek Fossil Plant  
2800 Steamplant Rd.  
Stevenson, AL 35772

January 26, 2009

Date Received : 01/22/09 15:40  
Description : TVAWCF GYPSUM POND SPILL  
Sample ID : TNSL-MD-137-20090122  
Collected By : Michael Gamble  
Collection Date : 01/22/09 09:18

ESC Sample # : L384755-07

Site ID :

Project # : TVAWCF GYPSUM SPILL

Parameter	Result	Det. Limit	Units	Method	Prep	PID	Analyzed	AID
Aluminum	BDL	0.10	mg/l	200.7	01/22/09 1654	449	01/23/09 2036	LAT
Barium	0.020	0.0050	mg/l	200.7	01/22/09 1654	449	01/23/09 2036	LAT
Calcium	39.	0.50	mg/l	200.7	01/22/09 1654	449	01/23/09 2036	LAT
Iron	BDL	0.10	mg/l	200.7	01/22/09 1654	449	01/23/09 2036	LAT
Magnesium	4.4	0.10	mg/l	200.7	01/22/09 1654	449	01/23/09 2036	LAT
Manganese	0.018	0.010	mg/l	200.7	01/22/09 1654	449	01/23/09 2036	LAT
Potassium	11.	0.50	mg/l	200.7	01/22/09 1654	449	01/23/09 2036	LAT
Sodium	25.	0.50	mg/l	200.7	01/22/09 1654	449	01/23/09 2036	LAT
Vanadium	BDL	0.010	mg/l	200.7	01/22/09 1654	449	01/23/09 2036	LAT

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Laboratory Certification Numbers:

AIHA - 09227, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01  
KY - 90010, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233  
AZ -0612, MN - 047-999-395, NY - 11742, NJ - TN002, WI - 998093910

Notes:

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Reported: 01/26/09 16:51 Printed: 01/26/09 16:52

L384755-07 (PH) - 7.5@19.2c

Attachment A  
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L384755-01	WG403864	SAMP	pH	R604848	T8
L384755-02	WG403864	SAMP	pH	R604848	T8
L384755-03	WG403864	SAMP	pH	R604848	T8
L384755-04	WG403864	SAMP	pH	R604848	T8
L384755-05	WG403864	SAMP	pH	R604848	T8
L384755-06	WG403864	SAMP	pH	R604848	T8
L384755-07	WG403864	SAMP	pH	R604848	T8

Attachment B  
Explanation of QC Qualifier Codes

Qualifier	Meaning
T8	(ESC) - Additional method/sample information: Sample(s) received past/too close to holding time expiration.

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods, it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable unless qualified as 'R' (Rejected).

Definitions

- Accuracy - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.
- Precision - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Difference.
- Surrogate - Organic compounds that are similar in chemical composition, extraction, and chromatography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.
- TIC - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.

Summary of Remarks For Samples Printed  
01/26/09 at 16:52:05

TSR Signing Reports: 400  
RX - Priority Rush

Must have cooler receipt form-LC

Sample: L384755-01 Account: TVAWCF Received: 01/22/09 15:40 Due Date: 01/27/09 00:00 RPT Date: 01/26/09 16:51  
Sample: L384755-02 Account: TVAWCF Received: 01/22/09 15:40 Due Date: 01/27/09 00:00 RPT Date: 01/26/09 16:51  
Sample: L384755-03 Account: TVAWCF Received: 01/22/09 15:40 Due Date: 01/27/09 00:00 RPT Date: 01/26/09 16:51  
Sample: L384755-04 Account: TVAWCF Received: 01/22/09 15:40 Due Date: 01/27/09 00:00 RPT Date: 01/26/09 16:51  
Sample: L384755-05 Account: TVAWCF Received: 01/22/09 15:40 Due Date: 01/27/09 00:00 RPT Date: 01/26/09 16:51  
Sample: L384755-06 Account: TVAWCF Received: 01/22/09 15:40 Due Date: 01/27/09 00:00 RPT Date: 01/26/09 16:51  
Sample: L384755-07 Account: TVAWCF Received: 01/22/09 15:40 Due Date: 01/27/09 00:00 RPT Date: 01/26/09 16:51