



ENVIRONMENTAL  
SCIENCE CORP.

12065 Lebanon Rd.  
Mt. Juliet, TN 37122  
(615) 758-5858  
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Tax I.D. 62-0814289

Est. 1970

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

Stevenson, AL 35772

Report Summary

Tuesday March 10, 2009

Report Number: L390606

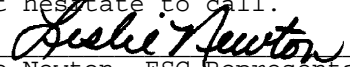
Samples Received: 03/02/09

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:

  
Leslie Newton, 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

March 10, 2009

Date Received : 03/02/09 15:25  
Description : TVAWCF GYPSUM POND SPILL  
Sample ID : CRB-SW-323-20090302  
Collected By : MG/WP  
Collection Date : 03/02/09 08:40

ESC Sample # : L390606-01

Site ID :

Project # : TVAWCF GYPSUM SPILL

Parameter	Result	Det. Limit	Units	Method	Prep	PID	Analyzed	AID
Nitrate	0.31	0.10	mg/l	300.0	03/03/09 0730	245	03/03/09 1219	RBS
Sulfate	8.7	5.0	mg/l	300.0	03/03/09 0730	245	03/03/09 1219	RBS
Alkalinity	89.	20.	mg/l	2320B	02/27/09 1811	234	03/03/09 1553	MCG
COD	BDL	20.	mg/l	410.4	03/02/09 1724	234	03/04/09 1843	LLJ
Ammonia Nitrogen	BDL	0.10	mg/l	350.1	03/05/09 1506	234	03/06/09 1442	LEM
pH	9.2		su	4500H-B	03/03/09 0821	476	03/03/09 1110	TWF
Nitrate-Nitrite	0.30	0.10	mg/l	353.2	03/04/09 1706	236	03/06/09 1036	LEM
Oil & Grease (Hexane Extr)	BDL	5.6	mg/l	1664A	03/05/09 0849	78	03/06/09 1113	TLB
Phosphorus, Total	BDL	0.10	mg/l	365.1	03/02/09 1723	234	03/05/09 0205	LEM
Kjeldahl Nitrogen, TKN	0.35	0.10	mg/l	351.2	03/04/09 1407	234	03/05/09 1617	DTH
TOC (Total Organic Carbon)	2.0	1.0	mg/l	5310B	03/03/09 1822	162	03/05/09 0535	ADH
Dissolved Solids	120	10.	mg/l	2540C	03/03/09 1448	193	03/05/09 1535	AMS
Suspended Solids	4.4	1.0	mg/l	2540D	03/03/09 1452	193	03/04/09 1524	AMS
Antimony	BDL	0.0010	mg/l	200.8	03/03/09 0900	237	03/04/09 1223	LAT
Arsenic	BDL	0.0010	mg/l	200.8	03/03/09 0900	237	03/04/09 1223	LAT
Cadmium	BDL	0.00050	mg/l	200.8	03/03/09 0900	237	03/04/09 1223	LAT
Beryllium	BDL	0.0010	mg/l	200.8	03/03/09 0900	237	03/04/09 1223	LAT
Chromium	0.0014	0.0010	mg/l	200.8	03/03/09 0900	237	03/04/09 1223	LAT
Cobalt	BDL	0.0010	mg/l	200.8	03/03/09 0900	237	03/04/09 1223	LAT
Copper	0.0015	0.0010	mg/l	200.8	03/03/09 0900	237	03/04/09 1223	LAT
Lead	BDL	0.0010	mg/l	200.8	03/03/09 0900	237	03/04/09 1223	LAT
Nickel	0.0018	0.0010	mg/l	200.8	03/03/09 0900	237	03/04/09 1223	LAT
Selenium	BDL	0.0010	mg/l	200.8	03/03/09 0900	237	03/04/09 1223	LAT
Silver	BDL	0.00050	mg/l	200.8	03/03/09 0900	237	03/04/09 1223	LAT
Thallium	BDL	0.0010	mg/l	200.8	03/03/09 0900	237	03/04/09 1223	LAT
Zinc	0.014	0.010	mg/l	200.8	03/03/09 0900	237	03/04/09 1223	LAT
Mercury	BDL	0.00020	mg/l	245.1	03/03/09 0757	429	03/04/09 1609	MAM

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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L390606-01 (PH) - 9.2@12.8c



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REPORT OF ANALYSIS

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

March 10, 2009

Date Received : 03/02/09 15:25  
Description : TVAWCF GYPSUM POND SPILL  
Sample ID : CRB-SW-323-20090302  
Collected By : MG/WP  
Collection Date : 03/02/09 08:40

ESC Sample # : L390606-01

Site ID :

Project # : TVAWCF GYPSUM SPILL

Parameter	Result	Det. Limit	Units	Method	Prep	PID	Analyzed	AID
Aluminum	0.78	0.10	mg/l	200.7	03/03/09 0903	237	03/04/09 0513	LRL
Barium	0.022	0.0050	mg/l	200.7	03/03/09 0903	237	03/04/09 0513	LRL
Calcium	35.	0.50	mg/l	200.7	03/03/09 0903	237	03/04/09 0513	LRL
Iron	0.60	0.10	mg/l	200.7	03/03/09 0903	237	03/04/09 0513	LRL
Magnesium	4.4	0.10	mg/l	200.7	03/03/09 0903	237	03/04/09 0513	LRL
Manganese	0.034	0.010	mg/l	200.7	03/03/09 0903	237	03/04/09 0513	LRL
Potassium	1.5	0.50	mg/l	200.7	03/03/09 0903	237	03/04/09 0513	LRL
Sodium	2.0	0.50	mg/l	200.7	03/03/09 0903	237	03/04/09 0513	LRL
Vanadium	BDL	0.010	mg/l	200.7	03/03/09 0903	237	03/04/09 0513	LRL

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Laboratory Certification Numbers:

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KY - 90010, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233  
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Reported: 03/10/09 16:29 Printed: 03/10/09 16:30

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2800 Steamplant Rd.  
Stevenson, AL 35772

March 10, 2009

Date Received : 03/02/09 15:25  
Description : TVAWCF GYPSUM POND SPILL  
Sample ID : MDB-SW-324-20090302  
Collected By : MG/WP  
Collection Date : 03/02/09 09:18

ESC Sample # : L390606-02

Site ID :

Project # : TVAWCF GYPSUM SPILL

Parameter	Result	Det. Limit	Units	Method	Prep	PID	Analyzed	AID
Nitrate	0.28	0.10	mg/l	300.0	03/03/09 0730	245	03/03/09 1256	RBS
Sulfate	12.	5.0	mg/l	300.0	03/03/09 0730	245	03/03/09 1256	RBS
Alkalinity	90.	20.	mg/l	2320B	02/27/09 1811	234	03/03/09 1553	MCG
COD	53.	20.	mg/l	410.4	03/02/09 1724	234	03/04/09 1844	LLJ
Ammonia Nitrogen	BDL	0.10	mg/l	350.1	03/05/09 1506	234	03/06/09 1443	LEM
pH	8.1		su	4500H-B	03/03/09 0821	476	03/03/09 1110	TWF
Nitrate-Nitrite	0.24	0.10	mg/l	353.2	03/04/09 1706	236	03/06/09 1037	LEM
Oil & Grease (Hexane Extr)	BDL	5.6	mg/l	1664A	03/05/09 0849	78	03/06/09 1111	TLB
Phosphorus, Total	BDL	0.10	mg/l	365.1	03/02/09 1723	234	03/05/09 0207	LEM
Kjeldahl Nitrogen, TKN	0.33	0.10	mg/l	351.2	03/04/09 1407	234	03/05/09 1619	DTH
TOC (Total Organic Carbon)	2.0	1.0	mg/l	5310B	03/03/09 1822	162	03/05/09 0547	ADH
Dissolved Solids	130	10.	mg/l	2540C	03/03/09 1448	193	03/05/09 1539	AMS
Suspended Solids	3.9	1.0	mg/l	2540D	03/03/09 1453	193	03/04/09 1038	AMS
Antimony	BDL	0.0010	mg/l	200.8	03/03/09 0900	237	03/04/09 1226	LAT
Arsenic	BDL	0.0010	mg/l	200.8	03/03/09 0900	237	03/04/09 1226	LAT
Cadmium	BDL	0.00050	mg/l	200.8	03/03/09 0900	237	03/04/09 1226	LAT
Beryllium	BDL	0.0010	mg/l	200.8	03/03/09 0900	237	03/04/09 1226	LAT
Chromium	0.0012	0.0010	mg/l	200.8	03/03/09 0900	237	03/04/09 1226	LAT
Cobalt	BDL	0.0010	mg/l	200.8	03/03/09 0900	237	03/04/09 1226	LAT
Copper	0.0011	0.0010	mg/l	200.8	03/03/09 0900	237	03/04/09 1226	LAT
Lead	BDL	0.0010	mg/l	200.8	03/03/09 0900	237	03/04/09 1226	LAT
Nickel	0.0018	0.0010	mg/l	200.8	03/03/09 0900	237	03/04/09 1226	LAT
Selenium	BDL	0.0010	mg/l	200.8	03/03/09 0900	237	03/04/09 1226	LAT
Silver	BDL	0.00050	mg/l	200.8	03/03/09 0900	237	03/04/09 1226	LAT
Thallium	BDL	0.0010	mg/l	200.8	03/03/09 0900	237	03/04/09 1226	LAT
Zinc	BDL	0.010	mg/l	200.8	03/03/09 0900	237	03/04/09 1226	LAT
Mercury	BDL	0.00020	mg/l	245.1	03/03/09 0757	429	03/04/09 1611	MAM

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Laboratory Certification Numbers:

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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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L390606-02 (PH) - 8.1@18.1c



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

March 10, 2009

Date Received : 03/02/09 15:25  
Description : TVAWCF GYPSUM POND SPILL  
Sample ID : MDB-SW-324-20090302  
Collected By : MG/WP  
Collection Date : 03/02/09 09:18

ESC Sample # : L390606-02

Site ID :

Project # : TVAWCF GYPSUM SPILL

Parameter	Result	Det. Limit	Units	Method	Prep	PID	Analyzed	AID
Aluminum	0.74	0.10	mg/l	200.7	03/03/09 0903	237	03/04/09 0517	LRL
Barium	0.022	0.0050	mg/l	200.7	03/03/09 0903	237	03/04/09 0517	LRL
Calcium	37.	0.50	mg/l	200.7	03/03/09 0903	237	03/04/09 0517	LRL
Iron	0.55	0.10	mg/l	200.7	03/03/09 0903	237	03/04/09 0517	LRL
Magnesium	4.6	0.10	mg/l	200.7	03/03/09 0903	237	03/04/09 0517	LRL
Manganese	0.045	0.010	mg/l	200.7	03/03/09 0903	237	03/04/09 0517	LRL
Potassium	0.86	0.50	mg/l	200.7	03/03/09 0903	237	03/04/09 0517	LRL
Sodium	1.4	0.50	mg/l	200.7	03/03/09 0903	237	03/04/09 0517	LRL
Vanadium	BDL	0.010	mg/l	200.7	03/03/09 0903	237	03/04/09 0517	LRL

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Laboratory Certification Numbers:

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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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L390606-02 (PH) - 8.1@18.1c



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2800 Steamplant Rd.  
Stevenson, AL 35772

March 10, 2009

Date Received : 03/02/09 15:25  
Description : TVAWCF GYPSUM POND SPILL  
Sample ID : TNUP-SW-318-20090302  
Collected By : MG/WP  
Collection Date : 03/02/09 10:05

ESC Sample # : L390606-03

Site ID :

Project # : TVAWCF GYPSUM SPILL

Parameter	Result	Det. Limit	Units	Method	Prep	PID	Analyzed	AID
Nitrate	0.23	0.10	mg/l	300.0	03/03/09 0730	245	03/03/09 1600	RBS
Sulfate	17.	5.0	mg/l	300.0	03/03/09 0730	245	03/03/09 1600	RBS
Alkalinity	68.	20.	mg/l	2320B	02/27/09 1811	234	03/03/09 1553	MCG
COD	BDL	20.	mg/l	410.4	03/03/09 1709	234	03/04/09 1411	BSD
Ammonia Nitrogen	BDL	0.10	mg/l	350.1	03/05/09 1506	234	03/06/09 1444	LEM
pH	8.1		su	4500H-B	03/03/09 0821	476	03/03/09 1110	TWF
Nitrate-Nitrite	0.25	0.10	mg/l	353.2	03/09/09 1628	236	03/10/09 0236	NJM
Oil & Grease (Hexane Extr)	BDL	5.6	mg/l	1664A	03/05/09 0849	78	03/06/09 1112	TLB
Phosphorus, Total	BDL	0.10	mg/l	365.1	03/02/09 1723	234	03/05/09 0209	LEM
Kjeldahl Nitrogen, TKN	0.44	0.10	mg/l	351.2	03/04/09 1407	234	03/05/09 1620	DTH
TOC (Total Organic Carbon)	2.2	1.0	mg/l	5310B	03/03/09 1822	162	03/05/09 0558	ADH
Dissolved Solids	120	10.	mg/l	2540C	03/03/09 1449	193	03/06/09 1512	AMS
Suspended Solids	8.2	1.0	mg/l	2540D	03/03/09 1453	193	03/04/09 1038	AMS
Antimony	BDL	0.0010	mg/l	200.8	03/03/09 0900	237	03/04/09 1242	LAT
Arsenic	BDL	0.0010	mg/l	200.8	03/03/09 0900	237	03/04/09 1242	LAT
Cadmium	BDL	0.00050	mg/l	200.8	03/03/09 0900	237	03/04/09 1242	LAT
Beryllium	BDL	0.0010	mg/l	200.8	03/03/09 0900	237	03/04/09 1242	LAT
Chromium	BDL	0.0010	mg/l	200.8	03/03/09 0900	237	03/04/09 1242	LAT
Cobalt	BDL	0.0010	mg/l	200.8	03/03/09 0900	237	03/04/09 1242	LAT
Copper	0.0023	0.0010	mg/l	200.8	03/03/09 0900	237	03/04/09 1242	LAT
Lead	BDL	0.0010	mg/l	200.8	03/03/09 0900	237	03/04/09 1242	LAT
Nickel	0.0013	0.0010	mg/l	200.8	03/03/09 0900	237	03/04/09 1242	LAT
Selenium	BDL	0.0010	mg/l	200.8	03/03/09 0900	237	03/04/09 1242	LAT
Silver	BDL	0.00050	mg/l	200.8	03/03/09 0900	237	03/04/09 1242	LAT
Thallium	BDL	0.0010	mg/l	200.8	03/03/09 0900	237	03/04/09 1242	LAT
Zinc	0.057	0.010	mg/l	200.8	03/03/09 0900	237	03/04/09 1242	LAT
Mercury	BDL	0.00020	mg/l	245.1	03/03/09 0757	429	03/04/09 1613	MAM

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Laboratory Certification Numbers:

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L390606-03 (PH) - 8.1@18.3c



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2800 Steamplant Rd.  
Stevenson, AL 35772

March 10, 2009

Date Received : 03/02/09 15:25  
Description : TVAWCF GYPSUM POND SPILL  
Sample ID : TNUP-SW-318-20090302  
Collected By : MG/WP  
Collection Date : 03/02/09 10:05

ESC Sample # : L390606-03

Site ID :

Project # : TVAWCF GYPSUM SPILL

Parameter	Result	Det. Limit	Units	Method	Prep	PID	Analyzed	AID
Aluminum	0.32	0.10	mg/l	200.7	03/03/09 0903	237	03/04/09 0520	LRL
Barium	0.027	0.0050	mg/l	200.7	03/03/09 0903	237	03/04/09 0520	LRL
Calcium	23.	0.50	mg/l	200.7	03/03/09 0903	237	03/04/09 0520	LRL
Iron	0.20	0.10	mg/l	200.7	03/03/09 0903	237	03/04/09 0520	LRL
Magnesium	6.2	0.10	mg/l	200.7	03/03/09 0903	237	03/04/09 0520	LRL
Manganese	0.043	0.010	mg/l	200.7	03/03/09 0903	237	03/04/09 0520	LRL
Potassium	1.6	0.50	mg/l	200.7	03/03/09 0903	237	03/04/09 0520	LRL
Sodium	8.9	0.50	mg/l	200.7	03/03/09 0903	237	03/04/09 0520	LRL
Vanadium	BDL	0.010	mg/l	200.7	03/03/09 0903	237	03/04/09 0520	LRL

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Laboratory Certification Numbers:

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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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L390606-03 (PH) - 8.1@18.3c



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

March 10, 2009

Date Received : 03/02/09 15:25  
Description : TVAWCF GYPSUM POND SPILL  
Sample ID : TNDN-SW-319-20090302  
Collected By : MG/WP  
Collection Date : 03/02/09 09:30

ESC Sample # : L390606-04

Site ID :

Project # : TVAWCF GYPSUM SPILL

Parameter	Result	Det. Limit	Units	Method	Prep	PID	Analyzed	AID
Nitrate	0.25	0.10	mg/l	300.0	03/03/09 0730	245	03/03/09 1655	RBS
Sulfate	17.	5.0	mg/l	300.0	03/03/09 0730	245	03/03/09 1655	RBS
Alkalinity	68.	20.	mg/l	2320B	02/27/09 1811	234	03/03/09 1553	MCG
COD	27.	20.	mg/l	410.4	03/03/09 1709	234	03/04/09 1411	BSD
Ammonia Nitrogen	BDL	0.10	mg/l	350.1	03/05/09 1506	234	03/06/09 1445	LEM
pH	8.1		su	4500H-B	03/03/09 0821	476	03/03/09 1110	TWF
Nitrate-Nitrite	0.27	0.10	mg/l	353.2	03/09/09 1628	236	03/10/09 0239	NJM
Oil & Grease (Hexane Extr)	BDL	5.6	mg/l	1664A	03/05/09 0849	78	03/06/09 1110	TLB
Phosphorus, Total	BDL	0.10	mg/l	365.1	03/03/09 1708	234	03/05/09 0258	LEM
Kjeldahl Nitrogen, TKN	0.48	0.10	mg/l	351.2	03/04/09 1407	234	03/05/09 1622	DTH
TOC (Total Organic Carbon)	2.7	1.0	mg/l	5310B	03/05/09 0946	162	03/05/09 1505	ADH
Dissolved Solids	110	10.	mg/l	2540C	03/03/09 1448	193	03/05/09 1536	AMS
Suspended Solids	7.9	1.0	mg/l	2540D	03/03/09 1453	193	03/04/09 1038	AMS
Antimony	BDL	0.0010	mg/l	200.8	03/03/09 0900	237	03/04/09 1245	LAT
Arsenic	BDL	0.0010	mg/l	200.8	03/03/09 0900	237	03/04/09 1245	LAT
Cadmium	BDL	0.00050	mg/l	200.8	03/03/09 0900	237	03/04/09 1245	LAT
Beryllium	BDL	0.0010	mg/l	200.8	03/03/09 0900	237	03/04/09 1245	LAT
Chromium	BDL	0.0010	mg/l	200.8	03/03/09 0900	237	03/04/09 1245	LAT
Cobalt	BDL	0.0010	mg/l	200.8	03/03/09 0900	237	03/04/09 1245	LAT
Copper	0.0018	0.0010	mg/l	200.8	03/03/09 0900	237	03/04/09 1245	LAT
Lead	BDL	0.0010	mg/l	200.8	03/03/09 0900	237	03/04/09 1245	LAT
Nickel	0.0011	0.0010	mg/l	200.8	03/03/09 0900	237	03/04/09 1245	LAT
Selenium	BDL	0.0010	mg/l	200.8	03/03/09 0900	237	03/04/09 1245	LAT
Silver	BDL	0.00050	mg/l	200.8	03/03/09 0900	237	03/04/09 1245	LAT
Thallium	BDL	0.0010	mg/l	200.8	03/03/09 0900	237	03/04/09 1245	LAT
Zinc	BDL	0.010	mg/l	200.8	03/03/09 0900	237	03/04/09 1245	LAT
Mercury	BDL	0.00020	mg/l	245.1	03/03/09 0757	429	03/04/09 1616	MAM

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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L390606-04 (PH) - 8.1@17.9c



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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

March 10, 2009

Date Received : 03/02/09 15:25  
Description : TVAWCF GYPSUM POND SPILL  
Sample ID : TNDN-SW-319-20090302  
Collected By : MG/WP  
Collection Date : 03/02/09 09:30

ESC Sample # : L390606-04

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	03/03/09 0903	237	03/04/09 0537	LRL
Barium	0.027	0.0050	mg/l	200.7	03/03/09 0903	237	03/04/09 0537	LRL
Calcium	23.	0.50	mg/l	200.7	03/03/09 0903	237	03/04/09 0537	LRL
Iron	0.21	0.10	mg/l	200.7	03/03/09 0903	237	03/04/09 0537	LRL
Magnesium	6.1	0.10	mg/l	200.7	03/03/09 0903	237	03/04/09 0537	LRL
Manganese	0.041	0.010	mg/l	200.7	03/03/09 0903	237	03/04/09 0537	LRL
Potassium	1.6	0.50	mg/l	200.7	03/03/09 0903	237	03/04/09 0537	LRL
Sodium	8.5	0.50	mg/l	200.7	03/03/09 0903	237	03/04/09 0537	LRL
Vanadium	BDL	0.010	mg/l	200.7	03/03/09 0903	237	03/04/09 0537	LRL

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

March 10, 2009

Date Received : 03/02/09 15:25  
Description : TVAWCF GYPSUM POND SPILL  
Sample ID : TN 117-SW-320-20090302  
Collected By : MG/WP  
Collection Date : 03/02/09 09:02

ESC Sample # : L390606-05

Site ID :

Project # : TVAWCF GYPSUM SPILL

Parameter	Result	Det. Limit	Units	Method	Prep	PID	Analyzed	AID
Nitrate	0.26	0.10	mg/l	300.0	03/03/09	1103	245 03/03/09	1553 RBS
Sulfate	20.	5.0	mg/l	300.0	03/03/09	1103	245 03/03/09	1553 RBS
Alkalinity	69.	20.	mg/l	2320B	02/27/09	1811	234 03/03/09	1553 MCG
COD	BDL	20.	mg/l	410.4	03/03/09	1709	234 03/04/09	1414 BSD
Ammonia Nitrogen	BDL	0.10	mg/l	350.1	03/05/09	1506	234 03/06/09	1446 LEM
pH	8.0		su	4500H-B	03/03/09	0821	476 03/03/09	1110 TWF
Nitrate-Nitrite	0.21	0.10	mg/l	353.2	03/09/09	1628	236 03/10/09	0240 NJM
Oil & Grease (Hexane Extr)	BDL	5.0	mg/l	1664A	03/05/09	0849	78 03/06/09	1111 TLB
Phosphorus, Total	BDL	0.10	mg/l	365.1	03/03/09	1708	234 03/05/09	0300 LEM
Kjeldahl Nitrogen, TKN	0.41	0.10	mg/l	351.2	03/04/09	1407	234 03/05/09	1623 DTH
TOC (Total Organic Carbon)	3.2	1.0	mg/l	5310B	03/05/09	0946	162 03/05/09	1516 ADH
Dissolved Solids	120	10.	mg/l	2540C	03/03/09	1448	193 03/05/09	1538 AMS
Suspended Solids	7.9	1.0	mg/l	2540D	03/03/09	1452	193 03/04/09	1524 AMS
Antimony	BDL	0.0010	mg/l	200.8	03/03/09	0900	237 03/04/09	1248 LAT
Arsenic	BDL	0.0010	mg/l	200.8	03/03/09	0900	237 03/04/09	1248 LAT
Cadmium	BDL	0.00050	mg/l	200.8	03/03/09	0900	237 03/04/09	1248 LAT
Beryllium	BDL	0.0010	mg/l	200.8	03/03/09	0900	237 03/04/09	1248 LAT
Chromium	BDL	0.0010	mg/l	200.8	03/03/09	0900	237 03/04/09	1248 LAT
Cobalt	BDL	0.0010	mg/l	200.8	03/03/09	0900	237 03/04/09	1248 LAT
Copper	0.0033	0.0010	mg/l	200.8	03/03/09	0900	237 03/04/09	1248 LAT
Lead	BDL	0.0010	mg/l	200.8	03/03/09	0900	237 03/04/09	1248 LAT
Nickel	0.0015	0.0010	mg/l	200.8	03/03/09	0900	237 03/04/09	1248 LAT
Selenium	BDL	0.0010	mg/l	200.8	03/03/09	0900	237 03/04/09	1248 LAT
Silver	BDL	0.00050	mg/l	200.8	03/03/09	0900	237 03/04/09	1248 LAT
Thallium	BDL	0.0010	mg/l	200.8	03/03/09	0900	237 03/04/09	1248 LAT
Zinc	BDL	0.010	mg/l	200.8	03/03/09	0900	237 03/04/09	1248 LAT
Mercury	BDL	0.00020	mg/l	245.1	03/03/09	0757	429 03/04/09	1618 MAM

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

March 10, 2009

Date Received : 03/02/09 15:25  
Description : TVAWCF GYPSUM POND SPILL  
Sample ID : TN 117-SW-320-20090302  
Collected By : MG/WP  
Collection Date : 03/02/09 09:02

ESC Sample # : L390606-05

Site ID :

Project # : TVAWCF GYPSUM SPILL

Parameter	Result	Det. Limit	Units	Method	Prep	PID	Analyzed	AID
Aluminum	0.32	0.10	mg/l	200.7	03/03/09 0903	237	03/04/09 0540	LRL
Barium	0.027	0.0050	mg/l	200.7	03/03/09 0903	237	03/04/09 0540	LRL
Calcium	23.	0.50	mg/l	200.7	03/03/09 0903	237	03/04/09 0540	LRL
Iron	0.22	0.10	mg/l	200.7	03/03/09 0903	237	03/04/09 0540	LRL
Magnesium	6.1	0.10	mg/l	200.7	03/03/09 0903	237	03/04/09 0540	LRL
Manganese	0.040	0.010	mg/l	200.7	03/03/09 0903	237	03/04/09 0540	LRL
Potassium	1.6	0.50	mg/l	200.7	03/03/09 0903	237	03/04/09 0540	LRL
Sodium	9.0	0.50	mg/l	200.7	03/03/09 0903	237	03/04/09 0540	LRL
Vanadium	BDL	0.010	mg/l	200.7	03/03/09 0903	237	03/04/09 0540	LRL

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

March 10, 2009

Date Received : 03/02/09 15:25  
Description : TVAWCF GYPSUM POND SPILL  
Sample ID : TNSL-MD-321-20090302  
Collected By : MG/WP  
Collection Date : 03/02/09 09:46

ESC Sample # : L390606-06

Site ID :

Project # : TVAWCF GYPSUM SPILL

Parameter	Result	Det. Limit	Units	Method	Prep	PID	Analyzed	AID
Nitrate	0.26	0.10	mg/l	300.0	03/03/09	1103	245 03/03/09	1642 RBS
Sulfate	19.	5.0	mg/l	300.0	03/03/09	1103	245 03/03/09	1642 RBS
Alkalinity	72.	20.	mg/l	2320B	02/27/09	1811	234 03/03/09	1553 MCG
COD	27.	20.	mg/l	410.4	03/03/09	1709	234 03/04/09	1414 BSD
Ammonia Nitrogen	BDL	0.10	mg/l	350.1	03/05/09	1506	234 03/06/09	1450 LEM
pH	8.0		su	4500H-B	03/03/09	0821	476 03/03/09	1110 TWF
Nitrate-Nitrite	0.22	0.10	mg/l	353.2	03/09/09	1628	236 03/10/09	0241 NJM
Oil & Grease (Hexane Extr)	BDL	5.6	mg/l	1664A	03/05/09	0849	78 03/06/09	1113 TLB
Phosphorus, Total	BDL	0.10	mg/l	365.1	03/03/09	1708	234 03/05/09	0301 LEM
Kjeldahl Nitrogen, TKN	0.48	0.10	mg/l	351.2	03/04/09	1407	234 03/05/09	1626 DTH
TOC (Total Organic Carbon)	2.2	1.0	mg/l	5310B	03/03/09	1822	162 03/05/09	0610 ADH
Dissolved Solids	120	10.	mg/l	2540C	03/03/09	1449	193 03/06/09	1512 AMS
Suspended Solids	8.9	1.0	mg/l	2540D	03/03/09	1453	193 03/04/09	1038 AMS
Antimony	BDL	0.0010	mg/l	200.8	03/03/09	0900	237 03/04/09	1251 LAT
Arsenic	BDL	0.0010	mg/l	200.8	03/03/09	0900	237 03/04/09	1251 LAT
Cadmium	BDL	0.00050	mg/l	200.8	03/03/09	0900	237 03/04/09	1251 LAT
Beryllium	BDL	0.0010	mg/l	200.8	03/03/09	0900	237 03/04/09	1251 LAT
Chromium	BDL	0.0010	mg/l	200.8	03/03/09	0900	237 03/04/09	1251 LAT
Cobalt	BDL	0.0010	mg/l	200.8	03/03/09	0900	237 03/04/09	1251 LAT
Copper	0.0022	0.0010	mg/l	200.8	03/03/09	0900	237 03/04/09	1251 LAT
Lead	BDL	0.0010	mg/l	200.8	03/03/09	0900	237 03/04/09	1251 LAT
Nickel	0.0024	0.0010	mg/l	200.8	03/03/09	0900	237 03/04/09	1251 LAT
Selenium	BDL	0.0010	mg/l	200.8	03/03/09	0900	237 03/04/09	1251 LAT
Silver	0.00057	0.00050	mg/l	200.8	03/03/09	0900	237 03/04/09	1251 LAT
Thallium	BDL	0.0010	mg/l	200.8	03/03/09	0900	237 03/04/09	1251 LAT
Zinc	BDL	0.010	mg/l	200.8	03/03/09	0900	237 03/04/09	1251 LAT
Mercury	BDL	0.00020	mg/l	245.1	03/03/09	0757	429 03/04/09	1621 MAM

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

March 10, 2009

Date Received : 03/02/09 15:25  
Description : TVAWCF GYPSUM POND SPILL  
Sample ID : TNSL-MD-321-20090302  
Collected By : MG/WP  
Collection Date : 03/02/09 09:46

ESC Sample # : L390606-06

Site ID :

Project # : TVAWCF GYPSUM SPILL

Parameter	Result	Det. Limit	Units	Method	Prep	PID	Analyzed	AID
Aluminum	0.51	0.10	mg/l	200.7	03/03/09 0903	237	03/04/09 0543	LRL
Barium	0.027	0.0050	mg/l	200.7	03/03/09 0903	237	03/04/09 0543	LRL
Calcium	27.	0.50	mg/l	200.7	03/03/09 0903	237	03/04/09 0543	LRL
Iron	0.38	0.10	mg/l	200.7	03/03/09 0903	237	03/04/09 0543	LRL
Magnesium	5.7	0.10	mg/l	200.7	03/03/09 0903	237	03/04/09 0543	LRL
Manganese	0.046	0.010	mg/l	200.7	03/03/09 0903	237	03/04/09 0543	LRL
Potassium	1.4	0.50	mg/l	200.7	03/03/09 0903	237	03/04/09 0543	LRL
Sodium	6.4	0.50	mg/l	200.7	03/03/09 0903	237	03/04/09 0543	LRL
Vanadium	BDL	0.010	mg/l	200.7	03/03/09 0903	237	03/04/09 0543	LRL

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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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

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

March 10, 2009

Date Received : 03/02/09 15:25  
Description : TVAWCF GYPSUM POND SPILL  
Sample ID : TNSL-SW-322-20090302  
Collected By : MG/WP  
Collection Date : 03/02/09 09:40

ESC Sample # : L390606-07

Site ID :

Project # : TVAWCF GYPSUM SPILL

Parameter	Result	Det. Limit	Units	Method	Prep	PID	Analyzed	AID
Nitrate	0.25	0.10	mg/l	300.0	03/03/09	1103	245 03/03/09	1959 RBS
Sulfate	21.	5.0	mg/l	300.0	03/03/09	1103	245 03/03/09	1959 RBS
Alkalinity	74.	20.	mg/l	2320B	02/27/09	1811	234 03/03/09	1553 MCG
COD	BDL	20.	mg/l	410.4	03/03/09	1709	234 03/04/09	1415 BSD
Ammonia Nitrogen	BDL	0.10	mg/l	350.1	03/06/09	0848	234 03/10/09	0846 NJM
pH	7.9		su	4500H-B	03/03/09	0821	476 03/03/09	1110 TWF
Nitrate-Nitrite	0.20	0.10	mg/l	353.2	03/09/09	1628	236 03/10/09	0242 NJM
Oil & Grease (Hexane Extr)	BDL	5.6	mg/l	1664A	03/05/09	0849	78 03/06/09	1107 TLB
Phosphorus, Total	BDL	0.10	mg/l	365.1	03/03/09	1708	234 03/05/09	0302 LEM
Kjeldahl Nitrogen, TKN	0.47	0.10	mg/l	351.2	03/04/09	1407	234 03/05/09	1627 DTH
TOC (Total Organic Carbon)	2.1	1.0	mg/l	5310B	03/03/09	1822	162 03/05/09	0621 ADH
Dissolved Solids	120	10.	mg/l	2540C	03/03/09	1449	193 03/06/09	1513 AMS
Suspended Solids	9.1	1.0	mg/l	2540D	03/03/09	1453	193 03/04/09	1038 AMS
Antimony	BDL	0.0010	mg/l	200.8	03/03/09	0900	237 03/04/09	1255 LAT
Arsenic	BDL	0.0010	mg/l	200.8	03/03/09	0900	237 03/04/09	1255 LAT
Cadmium	BDL	0.00050	mg/l	200.8	03/03/09	0900	237 03/04/09	1255 LAT
Beryllium	BDL	0.0010	mg/l	200.8	03/03/09	0900	237 03/04/09	1255 LAT
Chromium	BDL	0.0010	mg/l	200.8	03/03/09	0900	237 03/04/09	1255 LAT
Cobalt	BDL	0.0010	mg/l	200.8	03/03/09	0900	237 03/04/09	1255 LAT
Copper	0.0015	0.0010	mg/l	200.8	03/03/09	0900	237 03/04/09	1255 LAT
Lead	BDL	0.0010	mg/l	200.8	03/03/09	0900	237 03/04/09	1255 LAT
Nickel	0.0016	0.0010	mg/l	200.8	03/03/09	0900	237 03/04/09	1255 LAT
Selenium	BDL	0.0010	mg/l	200.8	03/03/09	0900	237 03/04/09	1255 LAT
Silver	BDL	0.00050	mg/l	200.8	03/03/09	0900	237 03/04/09	1255 LAT
Thallium	BDL	0.0010	mg/l	200.8	03/03/09	0900	237 03/04/09	1255 LAT
Zinc	BDL	0.010	mg/l	200.8	03/03/09	0900	237 03/04/09	1255 LAT
Mercury	BDL	0.00020	mg/l	245.1	03/03/09	0757	429 03/04/09	1553 MAM

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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L390606-07 (PH) - 7.9@18.3c



**ENVIRONMENTAL  
SCIENCE CORP.**

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Mt. Juliet, TN 37122  
(615) 758-5858  
1-800-767-5859  
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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

March 10, 2009

Date Received : 03/02/09 15:25  
Description : TVAWCF GYPSUM POND SPILL  
Sample ID : TNSL-SW-322-20090302  
Collected By : MG/WP  
Collection Date : 03/02/09 09:40

ESC Sample # : L390606-07

Site ID :

Project # : TVAWCF GYPSUM SPILL

Parameter	Result	Det. Limit	Units	Method	Prep	PID	Analyzed	AID
Aluminum	0.46	0.10	mg/l	200.7	03/03/09 0903	237	03/04/09 0435	LRL
Barium	0.028	0.0050	mg/l	200.7	03/03/09 0903	237	03/04/09 0435	LRL
Calcium	28.	0.50	mg/l	200.7	03/03/09 0903	237	03/04/09 0435	LRL
Iron	0.35	0.10	mg/l	200.7	03/03/09 0903	237	03/04/09 0435	LRL
Magnesium	5.7	0.10	mg/l	200.7	03/03/09 0903	237	03/04/09 0435	LRL
Manganese	0.044	0.010	mg/l	200.7	03/03/09 0903	237	03/04/09 0435	LRL
Potassium	1.4	0.50	mg/l	200.7	03/03/09 0903	237	03/04/09 0435	LRL
Sodium	6.6	0.50	mg/l	200.7	03/03/09 0903	237	03/04/09 0435	LRL
Vanadium	BDL	0.010	mg/l	200.7	03/03/09 0903	237	03/04/09 0435	LRL

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: 03/10/09 16:29 Printed: 03/10/09 16:30

L390606-07 (PH) - 7.9@18.3c

Attachment A  
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L390606-01	WG410201	SAMP	Kjeldahl Nitrogen, TKN	R660068	J3
	WG410047	SAMP	pH	R657289	T8
L390606-02	WG410047	SAMP	pH	R657289	T8
L390606-03	WG411043	SAMP	Nitrate-Nitrite	R665826	J5
	WG410047	SAMP	pH	R657289	T8
L390606-04	WG410047	SAMP	pH	R657289	T8
L390606-05	WG410047	SAMP	pH	R657289	T8
L390606-06	WG410047	SAMP	pH	R657289	T8
L390606-07	WG410047	SAMP	pH	R657289	T8

Attachment B  
Explanation of QC Qualifier Codes

Qualifier	Meaning
J3	The associated batch QC was outside the established quality control range for precision.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high
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  
03/10/09 at 16:30:18

TSR Signing Reports: 400  
RX - Priority Rush

Must have cooler receipt form-LC

Sample: L390606-01 Account: TVAWCF Received: 03/02/09 15:25 Due Date: 03/10/09 00:00 RPT Date: 03/10/09 16:29  
Sample: L390606-02 Account: TVAWCF Received: 03/02/09 15:25 Due Date: 03/10/09 00:00 RPT Date: 03/10/09 16:29  
Sample: L390606-03 Account: TVAWCF Received: 03/02/09 15:25 Due Date: 03/10/09 00:00 RPT Date: 03/10/09 16:29  
Sample: L390606-04 Account: TVAWCF Received: 03/02/09 15:25 Due Date: 03/10/09 00:00 RPT Date: 03/10/09 16:29  
Sample: L390606-05 Account: TVAWCF Received: 03/02/09 15:25 Due Date: 03/10/09 00:00 RPT Date: 03/10/09 16:29  
Sample: L390606-06 Account: TVAWCF Received: 03/02/09 15:25 Due Date: 03/10/09 00:00 RPT Date: 03/10/09 16:29  
Sample: L390606-07 Account: TVAWCF Received: 03/02/09 15:25 Due Date: 03/10/09 00:00 RPT Date: 03/10/09 16:29