TRIMATRIX LABORATORIES

SECTION - I

INORGANIC – WET CHEMISTRY

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Individual sample results relate only to the sample tested.
5560 Corporate Exchange Court SE ♦ Grand Rapids, MI 49512 ♦ Phone: 616.975.4500 ♦ Fax: 616.942.7463 ♦ www.trimatrixlabs.com

STATEMENT OF DATA QUALIFICATIONS

Physical/Chemical Parameters by EPA/APHA/ASTM Methods

Qualification: The analyte concentration in the associated MB was greater than the MDL but less than the RL. The positive sample result, which was greater than 5 times the MB value, is not considered estimated.

Analysis:	ASTM D516-90 (02)	
Sample/Analyte:	1205072-01 106092	Sulfate
	1205073-01 106093	Sulfate
	1205085-01 106036	Sulfate
	1205085-02 106037	Sulfate
Analysis:	SM 2320 B 20th	
Sample/Analyte:	1205072-01 106092	Alkalinity, Bicarbonate
	1205072-01 106092	Alkalinity, Total
	1205073-01 106093	Alkalinity, Bicarbonate
	1205073-01 106093	Alkalinity, Total
	1205085-01 106036	Alkalinity, Bicarbonate
	1205085-01 106036	Alkalinity, Total
	1205085-02 106037	Alkalinity, Bicarbonate
	1205085-02 106037	Alkalinity, Total
Analysis:	SM 4500-Cl E 20th	
Sample/Analyte:	1205072-01 106092	Chloride
	1205073-01 106093	Chloride
	1205085-01 106036	Chloride
	1205085-02 106037	Chloride

TriMatrix Laboratories, Inc.

TechLaw

Project: KNM

SDG: KNM050112

ASTM D516-90 (02)

SAMPLE ID SUMMARY

ASTM D516-90 (02)

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

SDG: KNM050112

Project: KNM

Client Sample Id:	Lab Sample Id:
106092	1205072-01
106093	1205073-01
106036	1205085-01
106037	1205085-02

INORGANIC ANALYSIS DATA SHEET
ASTM D516-90 (02)

106092

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Matrix: Water
Sampled: 05/01/12 15:22
Solids: 0.00
QC Batch: 1205796

SDG: KNM050112
Project: KNM
Laboratory ID: 1205072-01
Prepared: 05/08/12 07:00
Preparation: General Inorganic Prep
Initial/Final: 10 mL / 10 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
14808-79-8	Sulfate	2	47	mg/L	0.70	10		05/08/12 10:24

INORGANIC ANALYSIS DATA SHEET
ASTM D516-90 (02)

106093

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Matrix: Water
Sampled: 05/01/12 11:16
Solids: 0.00
QC Batch: 1205796

SDG: KNM050112
Project: KNM
Laboratory ID: 1205073-01
Prepared: 05/08/12 07:00
Preparation: General Inorganic Prep
Initial/Final: 10 mL / 10 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
14808-79-8	Sulfate	1	28	mg/L	0.35	5.0		05/08/12 09:47

INORGANIC ANALYSIS DATA SHEET
ASTM D516-90 (02)

106036

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Matrix: Water
Sampled: 05/02/12 13:18
Solids: 0.00
QC Batch: 1205796

SDG: KNM050112
Project: KNM
Laboratory ID: 1205085-01
Prepared: 05/08/12 07:00
Preparation: General Inorganic Prep
Initial/Final: 10 mL / 10 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
14808-79-8	Sulfate	2	68	mg/L	0.70	10		05/08/12 10:27

INORGANIC ANALYSIS DATA SHEET
ASTM D516-90 (02)

106037

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Matrix: Water
Sampled: 05/02/12 10:44
Solids: 0.00
QC Batch: 1205796

SDG: KNM050112
Project: KNM
Laboratory ID: 1205085-02
Prepared: 05/08/12 07:00
Preparation: General Inorganic Prep
Initial/Final: 10 mL / 10 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
14808-79-8	Sulfate	2	42	mg/L	0.70	10		05/08/12 10:28

ANALYSIS BATCH (SEQUENCE) SUMMARY
ASTM D516-90 (02)

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Sequence: 2E15031

SDG: KNM050112
Project: KNM
Calibration: 2E15015
Instrument: 298

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Cal Standard	2E15031-CAL1	050812so4-001	05/08/12 07:58
Cal Standard	2E15031-CAL2	050812so4-002	05/08/12 07:58
Cal Standard	2E15031-CAL3	050812so4-003	05/08/12 07:58
Cal Standard	2E15031-CAL4	050812so4-004	05/08/12 07:58
Cal Standard	2E15031-CAL5	050812so4-005	05/08/12 07:58
Cal Standard	2E15031-CAL6	050812so4-006	05/08/12 07:58
Cal Standard	2E15031-CAL7	050812so4-007	05/08/12 07:58
Cal Standard	2E15031-CAL8	050812so4-008	05/08/12 07:58
Calibration Check	2E15031-CCV1	050812so4-009	05/08/12 08:12
Calibration Blank	2E15031-CCB1	050812so4-010	05/08/12 08:12
Instrument RL Check	2E15031-CRL1	050812so4-011	05/08/12 08:12
Secondary Cal Check	2E15031-SCV1	050812so4-012	05/08/12 08:12
Calibration Check	2E15031-CCV2	050812so4-015	05/08/12 08:18
Calibration Blank	2E15031-CCB2	050812so4-016	05/08/12 08:18
Blank	1205796-BLK1	050812so4-085	05/08/12 09:44
LCS	1205796-BS1	050812so4-086	05/08/12 09:44
106093	1205073-01	050812so4-089	05/08/12 09:47
Calibration Check	2E15031-CCV3	050812so4-090	05/08/12 09:49
Calibration Blank	2E15031-CCB3	050812so4-091	05/08/12 09:50
106092	1205072-01	050812so4-124	05/08/12 10:24
Calibration Check	2E15031-CCV4	050812so4-125	05/08/12 10:24
Calibration Blank	2E15031-CCB4	050812so4-126	05/08/12 10:24
106036	1205085-01	050812so4-127	05/08/12 10:27
106037	1205085-02	050812so4-128	05/08/12 10:28
106037	1205796-MS1	050812so4-129	05/08/12 10:28
106037	1205796-MSD1	050812so4-130	05/08/12 10:28
Calibration Check	2E15031-CCV5	050812so4-131	05/08/12 10:28
Calibration Blank	2E15031-CCB5	050812so4-132	05/08/12 10:28

INITIAL AND CONTINUING CALIBRATION CHECK

ASTM D516-90 (02)

Laboratory: TriMatrix Laboratories, Inc.
SDG: KNM050112
Client: TechLaw
Project: KNM
Sequence: 2E15031
Calibration: 2E15015
Control Limt: +/- 15.00%
Instrument ID: 298

Lab Sample ID	Analyte	True	Found	%R	Units	Analyzed
2E15031-CCV1	Sulfate	10.0	10.2	102	mg/L	05/08/12 08:12
2E15031-CCV2	Sulfate	10.0	10.1	101	mg/L	05/08/12 08:18
2E15031-CCV3	Sulfate	20.0	19.3	97	mg/L	05/08/12 09:49
2E15031-CCV4	Sulfate	15.0	14.6	98	mg/L	05/08/12 10:24
2E15031-CCV5	Sulfate	15.0	14.5	97	mg/L	05/08/12 10:28

* Values outside of QC limits

SECOND-SOURCE CALIBRATION VERIFICATION

ASTM D516-90 (02)

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Laboratory ID: 2E15031-SCV1
Sequence: 2E15031

SDG: KNM050112
Project: KNM
Instrument: 298
Calibration: 2E15015

Analyte	Expected	Found	% R	QC Limit	Units
Sulfate	20.0	19.3	97	85-115	mg/L

* Values outside of QC limits

CRDL STANDARD

ASTM D516-90 (02)

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Sequence: 2E15031

SDG: KNM050112

Project: KNM

Calibration: 2E15015

Instrument ID: 298

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
2E15031-CRL1	Sulfate	5.00	4.87	97	mg/L	50 - 150

* Values outside of QC limits

01000

BLANKS
ASTM D516-90 (02)

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Sequence: 2E15031

SDG: KNM050112
Project: KNM
Calibration: 2E15015
Instrument ID: 298

Lab Sample ID	Analyte	Found	Unit	MDL	MRL	C	Analyzed
2E15031-CCB1	Sulfate	0.12	mg/L	0.35	1.0	U	05/08/12 08:12
2E15031-CCB2	Sulfate	0.13	mg/L	0.35	1.0	U	05/08/12 08:18
2E15031-CCB3	Sulfate	0.32	mg/L	0.35	1.0	U	05/08/12 09:50
2E15031-CCB4	Sulfate	0.17	mg/L	0.35	1.0	U	05/08/12 10:24
2E15031-CCB5	Sulfate	0.18	mg/L	0.35	1.0	U	05/08/12 10:28

* Values outside of QC limits

QC BATCH SUMMARY
ASTM D516-90 (02)

Laboratory: TriMatrix Laboratories, Inc.

SDG: KNM050112

Client: TechLaw

Project: KNM

QC Batch: 1205796 QC Batch Matrix: Water

Preparation: General Inorganic Prep

Sample Name	Lab Sample ID	Date Prepared	Observations
106092	1205072-01	05/08/12 07:00	must report at 1mg/L
106093	1205073-01	05/08/12 07:00	must report at 1mg/L
106036	1205085-01	05/08/12 07:00	must report at 1mg/L
106037	1205085-02	05/08/12 07:00	must report at 1mg/L
Blank	1205796-BLK1	05/08/12 07:00	
LCS	1205796-BS1	05/08/12 07:00	
106037	1205796-MS1	05/08/12 07:00	
106037	1205796-MSD1	05/08/12 07:00	

METHOD BLANK DATA SHEET
ASTM D516-90 (02)

Laboratory: TriMatrix Laboratories, Inc.
SDG: KNM050112
Client: TechLaw
Project: KNM
Matrix: Water
Laboratory ID: 1205796-BLK1
File ID: 050812so4-085
Prepared: 05/08/12 07:00
Analyzed: 05/08/12 09:44
Preparation: General Inorganic Prep
Initial/Final: 10 mL / 10 mL
QC Batch: 1205796
Sequence: 2E15031
Calibration: 2E15015
Instrument: 298

CAS No.	Analyte	Concentration	Unit	MDL	MRL	Q
14808-79-8	Sulfate	0.44	mg/L	0.35	1.0	J

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

106037

ASTM D516-90 (02)

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Matrix: Water

QC Batch: 1205796

SDG: KNM050112

Project: KNM

Laboratory ID: 1205796-MS1

Preparation: General Inorganic Prep

Initial/Final: 10 mL / 10 mL

Analyte	Spike Added	Sample Conc.	MS Conc.	MS % Rec. #	QC Limits Rec.	Units
Sulfate	20.0	41.5	59.8	91	55 - 151	mg/L

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

ASTM D516-90 (02)

106037

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Matrix: Water

QC Batch: 1205796

SDG: KNM050112

Project: KNM

Laboratory ID: 1205796-MSD1

Preparation: General Inorganic Prep

Initial/Final: 10 mL / 10 mL

Analyte	Spike Added	MSD Conc.	MSD % Rec. #	% RPD #	QC Limits RPD	QC Limits Rec.	Units
Sulfate	20.0	60.1	93	0.6	20	55 - 151	mg/L

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

LCS / LCS DUPLICATE RECOVERY

ASTM D516-90 (02)

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Matrix: Water

QC Batch: 1205796

SDG: KNM050112

Project: KNM

Laboratory ID: 1205796-BS1

Preparation: General Inorganic Prep

Initial/Final: 10 mL / 10 mL

Sequence: 2E15031

Analyte	Spike Added	LCS Conc.	LCS % Rec. #	QC Limits Rec.	Units
Sulfate	20.0	19.8	99	88 - 116	mg/L

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

HOLDING TIME SUMMARY
ASTM D516-90 (02)

Laboratory: TriMatrix Laboratories, Inc.

SDG: KNM050112

Client: TechLaw

Project: KNM

Analyte: Sulfate

Sample Name	Date Collected	Date Received	Date Leached	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
106092	05/01/12	05/02/12		05/08/12	7	NA	05/08/12	7	28	
106093	05/01/12	05/02/12		05/08/12	7	NA	05/08/12	7	28	
106036	05/02/12	05/03/12		05/08/12	6	NA	05/08/12	6	28	
106037	05/02/12	05/03/12		05/08/12	6	NA	05/08/12	6	28	

Inorganic - Wet Chemistry, Water, May-08-12

Instrument = 298, Calibration = 2E15015

Sequence Analyses:
Sulfate ASTM D516-90 (Low Level)

Lab Number	*Analysis*	*Contain*	*STD ID*	*ISTD ID*	*Client / QC Type*	*Extraction Comments*
2E15031-CAL1	QC		2050030		CAL STANDARD	
2E15031-CAL2	QC		2050027		CAL STANDARD	
2E15031-CAL3	QC		2050026		CAL STANDARD	
2E15031-CAL4	QC		2050025		CAL STANDARD	
2E15031-CAL5	QC		2050024		CAL STANDARD	
2E15031-CAL6	QC		2050023		CAL STANDARD	
2E15031-CAL7	QC		2050022		CAL STANDARD	
2E15031-CAL8	QC		2050021		CAL STANDARD	
2E15031-CCV1	QC		2050026		CALIBRATION CHECK	
2E15031-CCB1	QC		2050030		CALIBRATION BLANK	
2E15031-CRL1	QC		2050027		INSTRUMENT RL CHECK	
2E15031-SCV1	QC		2040483		SECONDARY CAL CHECK	
2E15031-CCV2	QC		2050026		CALIBRATION CHECK	
2E15031-CCB2	QC		2050030		CALIBRATION BLANK	
1205796-BLK1	QC				BLANK	
1205796-BS1	QC				LCS	
1205073-01	Sulfate ASTM D516-90 (Low Level)	J			TechLaw	must report at 1mg/L
2E15031-CCV3	QC		2050024		CALIBRATION CHECK	
2E15031-CCB3	QC		2050030		CALIBRATION BLANK	
1205072-01	Sulfate ASTM D516-90 (Low Level)	J			TechLaw	must report at 1mg/L
2E15031-CCV4	QC		2050025		CALIBRATION CHECK	
2E15031-CCB4	QC		2050030		CALIBRATION BLANK	
1205085-01	Sulfate ASTM D516-90 (Low Level)	J			TechLaw	must report at 1mg/L
1205085-02	Sulfate ASTM D516-90 (Low Level)	T			TechLaw	must report at 1mg/L
1205796-MS1	QC				MATRIX SPIKE	
1205796-MSD1	QC				MATRIX SPIKE DUP	
2E15031-CCV5	QC		2050025		CALIBRATION CHECK	
2E15031-CCB5	QC		2050030		CALIBRATION BLANK	

5/17/12

Comments:

Analyst Initials:

seq_TriMatrix.rpt

due 05/15/12

TriMatrix Laboratories, Inc.

PREPARATION BATCH **1205796** Page 1 of 1

Printed: 5/8/2012 2:02:29PM

4MD

Inorganic - Wet Chemistry, Water, General Inorganic Prep

(No Surrogate)

Batch Comments: (none)

Standard	Description	Solvent	LotNum
2040982	Konelab Sulfate Reagent	di H2O	varies
2050015	Sulfate 10000 ppm	di h20	K19623(E#1090032)

Work Order	Analysis	Work Order	Analysis	Work Order	Analysis
1205072	Sulfate ASTM D516-90 (Low Level)	1205073	Sulfate ASTM D516-90 (Low Level)	1205085	Sulfate ASTM D516-90 (Low Level)

Balance ID: _____ **pH Meter:** _____

Lab Number	Contain	Prepared	By	Initial (mL)	Final (mL)	uL Surrogate	Source ID	Spike ID	uL Spike	Client / QC Type	Extraction Comments
1205796-BLK1		May-08-12 07:00	LMA	10	10					BLANK	
1205796-BS1		May-08-12 07:00	LMA	10	10			2050015	20	LCS	
1205796-MS1		May-08-12 07:00	LMA	10	10		1205085-02	2050015	20	MATRIX SPIKE	
1205796-MSD1		May-08-12 07:00	LMA	10	10		1205085-02	2050015	20	MATRIX SPIKE DUP	
1205072-01	J	May-08-12 07:00	LMA	10	10					TechLaw	must report at 1mg/L
1205073-01	J	May-08-12 07:00	LMA	10	10					TechLaw	must report at 1mg/L
1205085-01	J	May-08-12 07:00	LMA	10	10					TechLaw	must report at 1mg/L
1205085-02	T	May-08-12 07:00	LMA	10	10					TechLaw	must report at 1mg/L

Comments:

Analyst Initials:

5/17/12

bch_TriMatrix.rpt

00016

Calibration results Aquakem 7.2AQ1 Page: 1

TriMatrix Laboratories Inst #298
Konelab User

5/8/2012 7:58

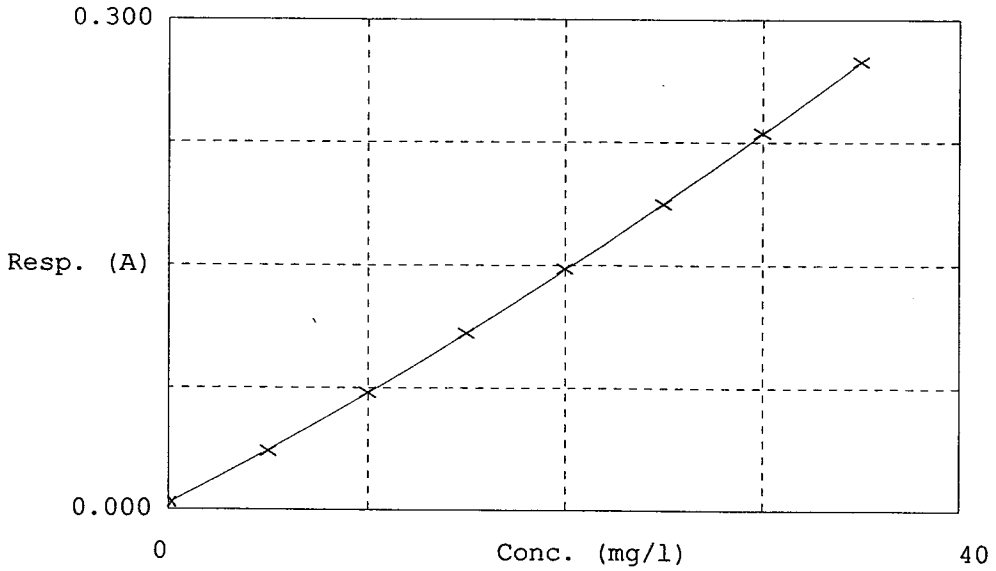
Test SO4 HIGH

Accepted 5/8/2012 7:58

Resp. = A * Conc. ^ 2 + B * Conc. + C
A = 0.00004
B = 0.00642
C = 0.00370

Coeff. of det. 0.999970

Errors



	Calibrator	Response	Calc. con.	Conc.	Errors
1	SO4-0	0.00413	0.06666	0.00000	
2	SO4- 5	0.03588	4.87584	5.00000	
3	SO4-10	0.07194	10.04313	10.00000	
4	SO4-15	0.10832	14.98691	15.00000	
5	SO4-20	0.14767	20.07472	20.00000	
6	SO4-25	0.18699	24.92515	25.00000	
7	SO4-30	0.23041	30.04331	30.00000	
8	SO4-35	0.27418	34.98425	35.00000	

5/10/12

01010

Result Report Aquakem 7.2AQ1 Page: 1

TriMatrix Laboratories Inst #298
Konelab User

Date : 5/8/2012
Time : 14:09

Test SO4 HIGH
Unit mg/l

Sample ID:	Result	Resp.	Date and Time	Dilut	Man.dilut
SO4 CCV 1	10.1536	0.073	5/8/2012 8:12		
SO4 CCB	0.1203	0.004	5/8/2012 8:12		
crl 5.0.	4.8695	0.036	5/8/2012 8:12		
scv	19.2764	0.141	5/8/2012 8:12		
blk 1	0.1782	0.005	5/8/2012 8:12		
bs 1	19.4881	0.143	5/8/2012 8:12		
SO4 CCV	10.0593	0.072	5/8/2012 8:18		
SO4 CCB 2	0.1311	0.005	5/8/2012 8:18		
40 1+1	38.3597	0.141	5/8/2012 8:18	1+1.0	
100 1+4	98.4929	0.145	5/8/2012 8:18	1+4.0	
200 1+9	198.0989	0.146	5/8/2012 8:18	1+9.0	
500 1+24	493.1682	0.145	5/8/2012 8:18	1+24.0	
SO4 CCV	9.9892	0.072	5/8/2012 8:24		
SO4 CCB	0.1562	0.005	5/8/2012 8:24		
1000 1+49	1e+003	0.149	5/8/2012 8:24	1+49.0	
SO4 CCV	10.1438	0.073	5/8/2012 8:34		
SO4 CCB	0.1348	0.005	5/8/2012 8:34		
SO4 CCV	24.9718	0.187	5/8/2012 9:02		
SO4 CCB	0.1555	0.005	5/8/2012 9:02		
1204527-01	_____	2.515	- Dilute		
1204527-02	_____	1.638	- ↓		
1204527-03	1.5862	0.014	5/8/2012 9:02		
1204527-04	0.0208	0.004	5/8/2012 9:02		
SO4 CCV	25.1686	0.189	5/8/2012 9:05		
SO4 CCB	0.1932	0.005	5/8/2012 9:05		
1204527-05	-0.2694	0.002	5/8/2012 9:05		
1204527-06	_____	-	- Dilute		
1204527-06ms	_____	-	- ↓		
1204527-06msd	_____	-	-		
SO4 CCV	24.2912	0.182	5/8/2012 9:08		
SO4 CCB	0.2077	0.005	5/8/2012 9:08		
1204527-07	0.1264	0.005	5/8/2012 9:08		
1205008-01	-0.1371	0.003	5/8/2012 9:08		
1205008-02	_____	1.917	- Dilute		
1205008-03	1.2560	0.012	5/8/2012 9:08		
SO4 CCV	24.5807	0.184	5/8/2012 9:11		
SO4 CCB	0.1450	0.005	5/8/2012 9:11		
1205008-04	_____	1.845	- Dilute		
1205008-05	1.2691	0.012	5/8/2012 9:11		
1205008-10	0.0625	0.004	5/8/2012 9:11		
1205008-11	_____	1.468	- Dilute		
SO4 CCV	24.4547	0.183	5/8/2012 9:14		
SO4 CCB	0.2444	0.005	5/8/2012 9:14		
blk splp	0.2116	0.005	5/8/2012 9:14		
bs splp	19.1167	0.140	5/8/2012 9:14		
1204525-01	0.5450	0.007	5/8/2012 9:14		
1204525-02	0.2579	0.005	5/8/2012 9:14		
SO4 CCV	24.3926	0.183	5/8/2012 9:17		
SO4 CCB	0.1658	0.005	5/8/2012 9:17		
1204525-03	4.4689	0.033	5/8/2012 9:17		
1204526-01	0.8125	0.009	5/8/2012 9:17		
1204526-01ms	20.1166	0.148	5/8/2012 9:17		
1204526-01msd	20.2469	0.149	5/8/2012 9:17		

5/10/12

TriMatrix Laboratories Inst #298
Konelab User

Date : 5/8/2012
Time : 14:09

Test SO4 HIGH
Unit mg/l

Sample ID:	Result	Resp.	Date and Time	Dilut	Man.dilut
SO4 CCV	24.4754	0.183	5/8/2012 9:20		
SO4 CCB	0.1524	0.005	5/8/2012 9:20		
1204526-02	0.4034	0.006	5/8/2012 9:20		
1204526-03	0.6913	0.008	5/8/2012 9:20		
1204526-05	6.4268	0.046	5/8/2012 9:20		
1204526-06	27.8665	0.212	5/8/2012 9:20		
SO4 CCV	24.4148	0.183	5/8/2012 9:23		
SO4 CCB	0.1699	0.005	5/8/2012 9:23		
1204526-07	4.0102	0.030	5/8/2012 9:23		
blk 2	0.1338	0.005	5/8/2012 9:23		
bs 2	19.2697	0.141	5/8/2012 9:23		
1205019-01		0.376	- Dilute		
SO4 CCV	24.5925	0.184	5/8/2012 9:26		
SO4 CCB	0.1727	0.005	5/8/2012 9:26		
1205077-01	13.5723	0.098	5/8/2012 9:26		
1205077-02	13.8593	0.100	5/8/2012 9:26		
1205077-03		1.283	- Dilute		
1205077-04		1.201	-		
SO4 CCV	24.3905	0.183	5/8/2012 9:29		
SO4 CCB	0.1798	0.005	5/8/2012 9:29		
1205077-05		1.202	- Dilute		
1205077-06		1.637	-		
1205077-08		0.571	-		
1205090-01		0.521	-		
SO4 CCV	24.3675	0.182	5/8/2012 9:32		
SO4 CCB	0.2004	0.005	5/8/2012 9:32		
1205090-01ms		0.673	- Dilute		
1205090-01msd		0.662	-		
blk 3	0.3337	0.006	5/8/2012 9:32		
bs 3	19.6451	0.144	5/8/2012 9:32		
SO4 CCV	24.3605	0.182	5/8/2012 9:35		
SO4 CCB	0.1930	0.005	5/8/2012 9:35		
1205090-03		0.911	- Dilute		
1205090-03ms		0.997	-		
1205090-03msd		0.984	-		
1205090-04		0.878	-		
SO4 CCV	24.1442	0.181	5/8/2012 9:38		
SO4 CCB	0.1786	0.005	5/8/2012 9:38		
1205090-05		0.794	- Dilute		
1205090-06		0.833	-		
1205090-07		1.294	-		
1205090-08	9.5124	0.068	5/8/2012 9:38		
SO4 CCV	24.0958	0.180	5/8/2012 9:41		
SO4 CCB	0.1385	0.005	5/8/2012 9:41		
1205090-09		0.681	- Dilute		
1205090-10		1.076	-		
1205115-01		1.541	-		
1205115-02		0.893	-		
SO4 CCV	24.0127	0.179	5/8/2012 9:44		
SO4 CCB	0.1777	0.005	5/8/2012 9:44		
1205115-04	0.1572	0.005	5/8/2012 9:44		
1205115-05		0.788	- Dilute		
blk 4	0.4405	0.007	5/8/2012 9:44		

5/11/12

TriMatrix Laboratories Inst #298
Konelab User

Date : 5/8/2012
Time : 14:09

Test SO4 HIGH
Unit mg/l

Sample ID:	Result	Resp.	Date and Time	Dilut	Man.dilut
bs 4	19.8053	0.146	5/8/2012 9:44		
SO4 CCV	24.3232	0.182	5/8/2012 9:47		
SO4 CCB	0.1937	0.005	5/8/2012 9:47		
1205072-01	_____	0.395	- Dilute		
1205073-01	28.0611	0.213	5/8/2012 9:47		
1205085-01	_____	0.562	- Dilute		
1205085-02	_____	0.346	- ↓		
SO4 CCV	19.3096	0.142	5/8/2012 9:49		
SO4 CCB 3	0.3243	0.006	5/8/2012 9:50		
1205085-02ms	_____	0.503	- Dilute		
1205085-02msd	_____	0.504	-		
1205077-07	_____	1.737	- ↓		
SO4 CCV	19.5205	0.143	5/8/2012 9:52		
SO4 CCB	0.2463	0.005	5/8/2012 9:52		
1204527-01	994.0199	0.146	5/8/2012 9:56	1+49.0	
1204527-02	_____	0.049	- Dilute	1+49.0	
1204527-06	_____	-	-	1+49.0	
1204527-06ms	_____	-	- ↓	1+49.0	
SO4 CCV	19.3526	0.142	5/8/2012 9:56		
SO4 CCB	0.2668	0.005	5/8/2012 9:56		
1204527-06msd	_____	-	- Dilute	1+49.0	
1205008-02	_____	0.070	-	1+49.0	
1205008-04	_____	0.060	-	1+49.0	
1205008-11	_____	0.079	- ↓	1+24.0	
SO4 CCV	19.4954	0.143	5/8/2012 10:00		
SO4 CCB	0.1934	0.005	5/8/2012 10:00		
1205019-01	45.3684	0.169	5/8/2012 10:03	1+1.0	
1205077-03	_____	0.060	- Dilute	1+24.0	
1205077-04	_____	0.051	-	1+24.0	
1205077-05	_____	0.050	- ↓	1+24.0	
SO4 CCV	19.2499	0.141	5/8/2012 10:03		
SO4 CCB	0.2245	0.005	5/8/2012 10:03		
1205077-06	_____	0.045	- Dilute	1+49.0	
SO4 CCV	19.2374	0.141	5/8/2012 10:06		
SO4 CCB	0.2074	0.005	5/8/2012 10:06		
1205077-08	67.4690	0.263	5/8/2012 10:09	1+1.0	
SO4 CCV	19.4753	0.143	5/8/2012 10:09		
SO4 CCB	0.2269	0.005	5/8/2012 10:09		
1205090-01	60.8682	0.234	5/8/2012 10:13	1+1.0	
1205090-01ms	82.6650	0.120	5/8/2012 10:13	1+4.0	
1205090-01msd	81.0266	0.118	5/8/2012 10:13	1+4.0	
1205090-03	131.7068	0.095	5/8/2012 10:13	1+9.0	
SO4 CCV	19.3133	0.142	5/8/2012 10:13		
SO4 CCB	0.1907	0.005	5/8/2012 10:13		
1205090-03ms	151.7816	0.110	5/8/2012 10:16	1+9.0	
1205090-03msd	151.3415	0.109	5/8/2012 10:16	1+9.0	
1205090-04	126.7875	0.091	5/8/2012 10:16	1+9.0	
1205090-05	_____	0.078	- Dilute	1+9.0	
SO4 CCV	19.4690	0.143	5/8/2012 10:16		
SO4 CCB	0.1702	0.005	5/8/2012 10:16		
1205090-06	_____	0.082	- Dilute	1+9.0	
1205090-07	_____	0.065	- ↓	1+24.0	
1205090-09	89.5278	0.131	5/8/2012 10:20	1+4.0	

TriMatrix Laboratories Inst #298
Konelab User

Date : 5/8/2012
Time : 14:09

Test SO4 HIGH
Unit mg/l

Sample ID:	Result	Resp.	Date and Time	Dilut	Man.dilut
1205090-10	157.8159	0.114	5/8/2012 10:20	1+9.0	
SO4 CCV	19.0706	0.140	5/8/2012 10:20		
SO4 CCB	0.1872	0.005	5/8/2012 10:20		
1205115-01		0.040	- Dilute	1+49.0	
1205115-02	116.7798	0.174	5/8/2012 10:24	1+4.0	
1205115-05	108.4938	0.161	5/8/2012 10:24	1+4.0	
1205072-01	47.2284	0.176	5/8/2012 10:24	1+1.0	
SO4 CCV 4	14.6301	0.106	5/8/2012 10:24		
SO4 CCB	0.1682	0.005	5/8/2012 10:24		
1205085-01	67.9057	0.265	5/8/2012 10:27	1+1.0	
1205085-02	41.5149	0.153	5/8/2012 10:28	1+1.0	
1205085-02ms	59.7589	0.229	5/8/2012 10:28	1+1.0	
1205085-02msd	60.1203	0.231	5/8/2012 10:28	1+1.0	
SO4 CCV	14.4951	0.105	5/8/2012 10:28		
SO4 CCB 5	0.1801	0.005	5/8/2012 10:28		
1204527-02		0.091	- Dilute	1+24.0	
1205008-02	478.3364	0.140	5/8/2012 10:31	1+24.0	
1205008-04	420.6557	0.122	5/8/2012 10:31	1+24.0	
1205077-07		0.052	- Dilute	1+49.0	
SO4 CCV	14.5458	0.105	5/8/2012 10:31		
SO4 CCB	0.1789	0.005	5/8/2012 10:31		
1205008-11	279.0611	0.212	5/8/2012 10:35	1+9.0	
1205077-03	213.5456	0.158	5/8/2012 10:35	1+9.0	
1205077-04	177.2412	0.129	5/8/2012 10:35	1+9.0	
1205077-05	176.3740	0.129	5/8/2012 10:35	1+9.0	
SO4 CCV	14.6614	0.106	5/8/2012 10:35		
SO4 CCB	0.2077	0.005	5/8/2012 10:35		
1205077-06		0.093	- Dilute	1+24.0	
1205090-05	107.8771	0.160	5/8/2012 10:37	1+4.0	
SO4 CCV	14.3392	0.103	5/8/2012 10:39		
SO4 CCB	0.1400	0.005	5/8/2012 10:39		
1205090-06	112.8903	0.168	5/8/2012 10:41	1+4.0	
1205090-07	225.1918	0.167	5/8/2012 10:41	1+9.0	
SO4 CCV	14.4775	0.104	5/8/2012 10:42		
SO4 CCB	0.1221	0.004	5/8/2012 10:42		
1204527-02	319.5424	0.247	5/8/2012 10:45	1+9.0	
1205115-01	290.8645	0.222	5/8/2012 10:45	1+9.0	
1205077-07		0.280	- Dilute	1+9.0	
SO4 CCV	14.3934	0.104	5/8/2012 10:47		
SO4 CCB	0.1517	0.005	5/8/2012 10:47		
1204527-06 100x	2e+003	0.132	5/8/2012 10:49		1+99.0
1204527-06ms100x		0.292	- Dilute		1+99.0
1204527-06msd100		0.292	-		1+99.0
1205077-06	317.0186	0.245	5/8/2012 10:51	1+9.0	
SO4 CCV	14.4689	0.104	5/8/2012 10:53		
SO4 CCB	0.1521	0.005	5/8/2012 10:53		
1205077-07	353.8592	0.102	5/8/2012 11:45	1+24.0	
1204527-06ms100x	4e+003	0.128	5/8/2012 11:45	1+1.0	1+99.0
1204527-06msd100	4e+003	0.128	5/8/2012 11:45	1+1.0	1+99.0
SO4 CCV	14.4224	0.104	5/8/2012 11:56		
SO4 CCB	0.1735	0.005	5/8/2012 11:56		
SO4 CCV	18.8426	0.138	5/8/2012 12:40		
SO4 CCB	0.2303	0.005	5/8/2012 12:40		

TriMatrix Laboratories Inst #298
Konelab User

Date : 5/8/2012
Time : 14:09

Test SO4 HIGH
Unit mg/l

Sample ID:	Result	Resp.	Date and Time	Dilut	Man.dilut
blk 5	0.1503	0.005	5/8/2012 12:40		
bs 5	19.0188	0.139	5/8/2012 12:40		
1205132-04	_____	0.591	- Dilute		
1205132-04ms	_____	0.727	-		
SO4 CCV	19.4693	0.143	5/8/2012 12:43		
SO4 CCB	0.1837	0.005	5/8/2012 12:43		
1205132-04msd	_____	0.715	- Dilute		
1205132-05	31.1975	0.240	5/8/2012 12:43		
1205132-09	_____	1.103	- Dilute		
1205132-10	_____	1.595	-		
SO4 CCV	19.2883	0.141	5/8/2012 12:46		
SO4 CCB	0.2694	0.005	5/8/2012 12:46		
1205132-15	_____	1.088	- Dilute		
1205132-17	_____	0.984	-		
1205132-19	_____	1.438	-		
1205132-22	_____	0.781	-		
SO4 CCV	19.2214	0.141	5/8/2012 12:49		
SO4 CCB	0.2182	0.005	5/8/2012 12:49		
1205132-23	_____	0.789	- Dilute		
1205132-24	24.1830	0.181	5/8/2012 12:49		
1205132-25	_____	0.678	- Dilute		
1205132-26	_____	0.592	-		
SO4 CCV	19.0465	0.140	5/8/2012 12:52		
SO4 CCB	0.2858	0.006	5/8/2012 12:52		
1205132-27	_____	0.746	- Dilute		
1205132-28	_____	0.703	-		
SO4 CCV	19.1976	0.141	5/8/2012 12:53		
SO4 CCB	0.2474	0.005	5/8/2012 12:53		
SO4 CCV	19.2949	0.142	5/8/2012 13:19		
SO4 CCB	0.1979	0.005	5/8/2012 13:19		
1205132-04	72.2579	0.104	5/8/2012 13:19	1+4.0	
1205132-04ms	90.5548	0.132	5/8/2012 13:19	1+4.0	
1205132-04msd	91.8888	0.134	5/8/2012 13:19	1+4.0	
1205132-09	155.9764	0.113	5/8/2012 13:19	1+9.0	
SO4 CCV	19.2204	0.141	5/8/2012 13:22		
SO4 CCB	0.1708	0.005	5/8/2012 13:23		
1205132-10	297.9001	0.228	5/8/2012 13:23	1+9.0	
1205132-15	158.7765	0.115	5/8/2012 13:23	1+9.0	
1205132-17	136.1947	0.098	5/8/2012 13:23	1+9.0	
1205132-19	245.1528	0.184	5/8/2012 13:23	1+9.0	
SO4 CCV	19.2467	0.141	5/8/2012 13:26		
SO4 CCB	0.2134	0.005	5/8/2012 13:26		
1205132-22	98.1831	0.144	5/8/2012 13:26	1+4.0	
1205132-23	101.0499	0.149	5/8/2012 13:26	1+4.0	
1205132-25	84.4072	0.123	5/8/2012 13:26	1+4.0	
SO4 CCV	19.0671	0.140	5/8/2012 13:28		
SO4 CCB	0.2574	0.005	5/8/2012 13:28		
1205132-26	71.3427	0.103	5/8/2012 13:31	1+4.0	
1205132-27	100.5982	0.148	5/8/2012 13:31	1+4.0	
1205132-28	91.4252	0.134	5/8/2012 13:32	1+4.0	
SO4 CCV	19.1220	0.140	5/8/2012 13:55		
SO4 CCB	0.2121	0.005	5/8/2012 13:55		

TriMatrix Laboratories, Inc.

TechLaw

Project: KNM

SDG: KNM050112

SM 2320 B 20th

01016

SAMPLE ID SUMMARY

SM 2320 B 20th

Laboratory: TriMatrix Laboratories, Inc.

SDG: KNM050112

Client: TechLaw

Project: KNM

Client Sample Id:	Lab Sample Id:
106092	1205072-01
106093	1205073-01
106036	1205085-01
106037	1205085-02

INORGANIC ANALYSIS DATA SHEET

SM 2320 B 20th

106092

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Matrix: Water
Sampled: 05/01/12 15:22
Solids: 0.00
QC Batch: 1205747

SDG: KNM050112
Project: KNM
Laboratory ID: 1205072-01
Prepared: 05/08/12 07:55
Preparation: Method-Specific Preparation
Initial/Final: 50 mL / 50 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
	Alkalinity, Bicarbonate	1	130	mg/L	0.50	20		05/08/12 11:58

INORGANIC ANALYSIS DATA SHEET

SM 2320 B 20th

106092

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Matrix: Water
Sampled: 05/01/12 15:22
Solids: 0.00
QC Batch: 1205750

SDG: KNM050112
Project: KNM
Laboratory ID: 1205072-01
Prepared: 05/08/12 08:02
Preparation: Method-Specific Preparation
Initial/Final: 50 mL / 50 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
	Alkalinity, Total	1	130	mg/L	0.50	20		05/08/12 11:58

INORGANIC ANALYSIS DATA SHEET
SM 2320 B 20th

106093

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Matrix: Water
Sampled: 05/01/12 11:16
Solids: 0.00
QC Batch: 1205747

SDG: KNM050112
Project: KNM
Laboratory ID: 1205073-01
Prepared: 05/08/12 07:55
Preparation: Method-Specific Preparation
Initial/Final: 50 mL / 50 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
	Alkalinity, Bicarbonate	1	110	mg/L	0.50	20		05/08/12 11:58

INORGANIC ANALYSIS DATA SHEET

SM 2320 B 20th

106093

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Matrix: Water
Sampled: 05/01/12 11:16
Solids: 0.00
QC Batch: 1205750

SDG: KNM050112
Project: KNM
Laboratory ID: 1205073-01
Prepared: 05/08/12 08:02
Preparation: Method-Specific Preparation
Initial/Final: 50 mL / 50 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
	Alkalinity, Total	1	110	mg/L	0.50	20		05/08/12 11:58

INORGANIC ANALYSIS DATA SHEET
SM 2320 B 20th

106036

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Matrix: Water
Sampled: 05/02/12 13:18
Solids: 0.00
QC Batch: 1205747

SDG: KNM050112
Project: KNM
Laboratory ID: 1205085-01
Prepared: 05/08/12 07:55
Preparation: Method-Specific Preparation
Initial/Final: 50 mL / 50 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
	Alkalinity, Bicarbonate	1	130	mg/L	0.50	20		05/08/12 11:58

INORGANIC ANALYSIS DATA SHEET

SM 2320 B 20th

106036

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Matrix: Water
Sampled: 05/02/12 13:18
Solids: 0.00
QC Batch: 1205750

SDG: KNM050112
Project: KNM
Laboratory ID: 1205085-01
Prepared: 05/08/12 08:02
Preparation: Method-Specific Preparation
Initial/Final: 50 mL / 50 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
	Alkalinity, Total	1	130	mg/L	0.50	20		05/08/12 11:58

INORGANIC ANALYSIS DATA SHEET
SM 2320 B 20th

106037

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Matrix: Water
Sampled: 05/02/12 10:44
Solids: 0.00
QC Batch: 1205747

SDG: KNM050112
Project: KNM
Laboratory ID: 1205085-02
Prepared: 05/08/12 07:55
Preparation: Method-Specific Preparation
Initial/Final: 50 mL / 50 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
	Alkalinity, Bicarbonate	1	110	mg/L	0.50	20		05/08/12 11:58

INORGANIC ANALYSIS DATA SHEET

SM 2320 B 20th

106037

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Matrix: Water
Sampled: 05/02/12 10:44
Solids: 0.00
QC Batch: 1205750

SDG: KNM050112
Project: KNM
Laboratory ID: 1205085-02
Prepared: 05/08/12 08:02
Preparation: Method-Specific Preparation
Initial/Final: 50 mL / 50 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
	Alkalinity, Total	1	110	mg/L	0.50	20		05/08/12 11:58

ANALYSIS BATCH (SEQUENCE) SUMMARY
SM 2320 B 20th

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Sequence: 2E08056

SDG: KNM050112
Project: KNM
Calibration: UNASSIGNED
Instrument: 309

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Check	2E08056-CCV1		05/08/12 11:58
Blank	1205747-BLK1		05/08/12 11:58
LCS	1205747-BS1		05/08/12 11:58
Secondary Cal Check	2E08056-SCV1		05/08/12 11:58
106092	1205072-01		05/08/12 11:58
106093	1205073-01		05/08/12 11:58
106036	1205085-01		05/08/12 11:58
106037	1205085-02		05/08/12 11:58
106037	1205747-DUP1		05/08/12 11:58
106037	1205747-MS1		05/08/12 11:58
Calibration Check	2E08056-CCV2		05/08/12 11:58

ANALYSIS BATCH (SEQUENCE) SUMMARY
SM 2320 B 20th

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Sequence: 2E08057

SDG: KNM050112
Project: KNM
Calibration: UNASSIGNED
Instrument: 309

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Check	2E08057-CCV1		05/08/12 11:58
Blank	1205750-BLK1		05/08/12 11:58
LCS	1205750-BS1		05/08/12 11:58
Secondary Cal Check	2E08057-SCV1		05/08/12 11:58
106092	1205072-01		05/08/12 11:58
106093	1205073-01		05/08/12 11:58
106036	1205085-01		05/08/12 11:58
106037	1205085-02		05/08/12 11:58
106037	1205750-DUP1		05/08/12 11:58
Calibration Check	2E08057-CCV2		05/08/12 11:58
106037	1205750-MS1		05/08/12 11:58
Calibration Check	2E08057-CCV3		05/08/12 11:58

INITIAL AND CONTINUING CALIBRATION CHECK

SM 2320 B 20th

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Sequence: 2E08056
Control Limt: +/- 15.00%

SDG: KNM050112
Project: KNM
Calibration: UNASSIGNED
Instrument ID: 309

Lab Sample ID	Analyte	True	Found	%R	Units	Analyzed
2E08056-CCV1	Alkalinity, Bicarbonate	238	238	100	mg/L	05/08/12 11:58
2E08056-CCV2	Alkalinity, Bicarbonate	238	238	100	mg/L	05/08/12 11:58

* Values outside of QC limits

INITIAL AND CONTINUING CALIBRATION CHECK

SM 2320 B 20th

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Sequence: 2E08057
Control Limt: +/- 15.00%

SDG: KNM050112
Project: KNM
Calibration: UNASSIGNED
Instrument ID: 309

Lab Sample ID	Analyte	True	Found	%R	Units	Analyzed
2E08057-CCV1	Alkalinity, Total	238	238	100	mg/L	05/08/12 11:58
2E08057-CCV2	Alkalinity, Total	238	238	100	mg/L	05/08/12 11:58
2E08057-CCV3	Alkalinity, Total	238	238	100	mg/L	05/08/12 11:58

* Values outside of QC limits

SECOND-SOURCE CALIBRATION VERIFICATION

SM 2320 B 20th

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Laboratory ID: 2E08056-SCV1
Sequence: 2E08056

SDG: KNM050112
Project: KNM
Instrument: 309
Calibration: UNASSIGNED

Analyte	Expected	Found	% R	QC Limit	Units
Alkalinity, Bicarbonate	238	238	100	92-108	mg/L

* Values outside of QC limits

SECOND-SOURCE CALIBRATION VERIFICATION

SM 2320 B 20th

Laboratory: TriMatrix Laboratories, Inc.
SDG: KNM050112
Client: TechLaw
Project: KNM
Laboratory ID: 2E08057-SCV1
Instrument: 309
Sequence: 2E08057
Calibration: UNASSIGNED

Analyte	Expected	Found	% R	QC Limit	Units
Alkalinity, Total	238	238	100	89-111	mg/L

* Values outside of QC limits

QC BATCH SUMMARY

SM 2320 B 20th

Laboratory: TriMatrix Laboratories, Inc.

SDG: KNM050112

Client: TechLaw

Project: KNM

QC Batch: 1205747

QC Batch Matrix: Water

Preparation: Method-Specific Preparation

Sample Name	Lab Sample ID	Date Prepared	Observations
106092	1205072-01	05/08/12 07:55	
106093	1205073-01	05/08/12 07:55	
106036	1205085-01	05/08/12 07:55	
106037	1205085-02	05/08/12 07:55	
Blank	1205747-BLK1	05/08/12 07:55	
LCS	1205747-BS1	05/08/12 07:55	
106037	1205747-DUP1	05/08/12 07:55	
106037	1205747-MS1	05/08/12 07:55	

QC BATCH SUMMARY

SM 2320 B 20th

Laboratory: TriMatrix Laboratories, Inc.

SDG: KNM050112

Client: TechLaw

Project: KNM

QC Batch: 1205750 QC Batch Matrix: Water

Preparation: Method-Specific Preparation

Sample Name	Lab Sample ID	Date Prepared	Observations
106092	1205072-01	05/08/12 08:02	
106093	1205073-01	05/08/12 08:02	
106036	1205085-01	05/08/12 08:02	
106037	1205085-02	05/08/12 08:02	
Blank	1205750-BLK1	05/08/12 08:02	
LCS	1205750-BS1	05/08/12 08:02	
106037	1205750-DUP1	05/08/12 08:02	
106037	1205750-MS1	05/08/12 08:02	

METHOD BLANK DATA SHEET
SM 2320 B 20th

Laboratory: TriMatrix Laboratories, Inc.

SDG: KNM050112

Client: TechLaw

Project: KNM

Matrix: Water

Laboratory ID: 1205747-BLK1

File ID:

Prepared: 05/08/12 07:55

Analyzed: 05/08/12 11:58

Preparation: Method-Specific Preparat

Initial/Final: 100 mL / 100 mL

QC Batch: 1205747

Sequence: 2E08056

Calibration: UNASSIGNE

Instrument: 309

CAS No.	Analyte	Concentration	Unit	MDL	MRL	Q
	Alkalinity, Bicarbonate	1.4	mg/L	0.50	20	J

METHOD BLANK DATA SHEET
SM 2320 B 20th

Laboratory: TriMatrix Laboratories, Inc. SDG: KNM050112

Client: TechLaw Project: KNM

Matrix: Water Laboratory ID: 1205750-BLK1 File ID:

Prepared: 05/08/12 08:02 Analyzed: 05/08/12 11:58

Preparation: Method-Specific Preparat Initial/Final: 100 mL / 100 mL

QC Batch: 1205750 Sequence: 2E08057 Calibration: UNASSIGNE Instrument: 309

CAS No.	Analyte	Concentration	Unit	MDL	MRL	Q
	Alkalinity, Total	1.4	mg/L	0.50	20	J

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

106037

SM 2320 B 20th

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Matrix: Water

QC Batch: 1205747

SDG: KNM050112

Project: KNM

Laboratory ID: 1205747-MS1

Preparation: Method-Specific Preparation

Initial/Final: 50 mL / 50 mL

Analyte	Spike Added	Sample Conc.	MS Conc.	MS % Rec. #	QC Limits Rec.	Units
Alkalinity, Bicarbonate	238	112	351	101	78 - 117	mg/L

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

106037

SM 2320 B 20th

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Matrix: Water

QC Batch: 1205750

SDG: KNM050112

Project: KNM

Laboratory ID: 1205750-MS1

Preparation: Method-Specific Preparation

Initial/Final: 50 mL / 50 mL

Analyte	Spike Added	Sample Conc.	MS Conc.	MS % Rec. #	QC Limits Rec.	Units
Alkalinity, Total	238	112	351	101	82 - 121	mg/L

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

DUPLICATES
SM 2320 B 20th

106037

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Matrix: Water
Lab Source ID: 1205085-02
% Solids:
QC Batch: 1205747

SDG: KNM050112
Project: KNM
Laboratory ID: 1205747-DUP1
Source Sample Name: 106037
Preparation: Method-Specific Preparation
Initial/Final: 50 mL / 50 mL

Analyte	Control Limit	Sample Conc.	C	Dup. Conc.	C	RPD %	Q	Method	Units
Alkalinity, Bicarbonate	20	112		111		0.9		SM 2320 B 20th	mg/L

* Values outside of QC limits

DUPLICATES
SM 2320 B 20th

106037

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Matrix: Water
Lab Source ID: 1205085-02
% Solids:
QC Batch: 1205750

SDG: KNM050112
Project: KNM
Laboratory ID: 1205750-DUP1
Source Sample Name: 106037
Preparation: Method-Specific Preparation
Initial/Final: 50 mL / 50 mL

Analyte	Control Limit	Sample Conc.	C	Dup. Conc.	C	RPD %	Q	Method	Units
Alkalinity, Total	20	112		111		0.9		SM 2320 B 20th	mg/L

* Values outside of QC limits

LCS / LCS DUPLICATE RECOVERY

SM 2320 B 20th

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Matrix: Water

QC Batch: 1205747

SDG: KNM050112

Project: KNM

Laboratory ID: 1205747-BS1

Preparation: Method-Specific Preparation

Initial/Final: 50 mL / 50 mL

Sequence: 2E08056

Analyte	Spike Added	LCS Conc.	LCS % Rec. #	QC Limits Rec.	Units
Alkalinity, Bicarbonate	238	239	101	74 - 123	mg/L

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

LCS / LCS DUPLICATE RECOVERY

SM 2320 B 20th

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Matrix: Water

QC Batch: 1205750

SDG: KNM050112

Project: KNM

Laboratory ID: 1205750-BS1

Preparation: Method-Specific Preparation

Initial/Final: 50 mL / 50 mL

Sequence: 2E08057

Analyte	Spike Added	LCS Conc.	LCS % Rec. #	QC Limits Rec.	Units
Alkalinity, Total	238	239	101	91 - 110	mg/L

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

HOLDING TIME SUMMARY
SM 2320 B 20th

Laboratory: TriMatrix Laboratories, Inc.

SDG: KNM050112

Client: TechLaw

Project: KNM

Analyte: Alkalinity, Bicarbonate

Sample Name	Date Collected	Date Received	Date Leached	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
106092	05/01/12	05/02/12		05/08/12	7	NA	05/08/12	7	14	
106093	05/01/12	05/02/12		05/08/12	7	NA	05/08/12	7	14	
106036	05/02/12	05/03/12		05/08/12	6	NA	05/08/12	6	14	
106037	05/02/12	05/03/12		05/08/12	6	NA	05/08/12	6	14	

HOLDING TIME SUMMARY
SM 2320 B 20th

Laboratory: TriMatrix Laboratories, Inc.

SDG: KNM050112

Client: TechLaw

Project: KNM

Analyte: Alkalinity, Total

Sample Name	Date Collected	Date Received	Date Leached	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
106092	05/01/12	05/02/12		05/08/12	7	NA	05/08/12	7	14	
106093	05/01/12	05/02/12		05/08/12	7	NA	05/08/12	7	14	
106036	05/02/12	05/03/12		05/08/12	6	NA	05/08/12	6	14	
106037	05/02/12	05/03/12		05/08/12	6	NA	05/08/12	6	14	

Inorganic - Wet Chemistry, Water, May-08-12

Instrument = 309, Calibration = UNASSIGNED

Sequence Analyses:
Alkalinity, Bicarbonate 2320 B

Lab Number	*Analysis*	*Contain*	*STD ID*	*ISTD ID*	*Client / QC Type*	*Extraction Comments*
2E08056-CCV1	QC		2040811		CALIBRATION CHECK	
1205747-BLK1	QC				BLANK	
1205747-BS1	QC				LCS	
2E08056-SCV1	QC		2040812		SECONDARY CAL CHECK	
1205072-01	Alkalinity, Bicarbonate 2320 B	J			TechLaw	
1205073-01	Alkalinity, Bicarbonate 2320 B	J			TechLaw	
1205085-01	Alkalinity, Bicarbonate 2320 B	J			TechLaw	
1205085-02	Alkalinity, Bicarbonate 2320 B	T			TechLaw	
1205747-DUP1	QC				DUPLICATE	
1205747-MS1	QC				MATRIX SPIKE	
2E08056-CCV2	QC		2040811		CALIBRATION CHECK	

5/8/12

Comments:

Analyst Initials:

TriMatrix Laboratories, Inc.

PREPARATION BATCH 1205747

Printed: 5/8/2012 7:58:39AM

Inorganic - Wet Chemistry, Water, Method-Specific Preparation

(No Surrogate)

Batch Comments: (none)

Due 5/15/12
Level 4

010115

Standard	Description	Solvent	LotNum
2030101	Alkalinity BS 1190 mg/L	DI H20	081495

Work Order	Analysis	Work Order	Analysis	Work Order	Analysis
1205072	Alkalinity, Bicarbonate 2320 B	1205073	Alkalinity, Bicarbonate 2320 B	1205085	Alkalinity, Bicarbonate 2320 B

Balance ID: _____ **pH Meter:** _____

Lab Number	Contain	Prepared	By	Initial (mL)	Final (mL)	uL Surrogate	Source ID	Spike ID	uL Spike	Client / QC Type	Extraction Comments
1205747-BLK1		May-08-12 07:55	SKA	100	100					BLANK	
1205747-DUP1		May-08-12 07:55	SKA	50	50		1205085-02			DUPLICATE	
1205747-BS1		May-08-12 07:55	SKA	50	50			2030101	10000	LCS	
1205747-MS1		May-08-12 07:55	SKA	50	50		1205085-02	2030101	10000	MATRIX SPIKE	
1205072-01	J	May-08-12 07:55	SKA	50	50					TechLaw	
1205073-01	J	May-08-12 07:55	SKA	50	50					TechLaw	
1205085-01	J	May-08-12 07:55	SKA	50	50					TechLaw	
1205085-02	T	May-08-12 07:55	SKA	50	50					TechLaw	

5/17/12

Comments:	Analyst Initials:

INORGANIC BENCHSHEET -- ALKALINITY

Instrument: 309 | Est. Analytical hrs: 6.4 | Benchsheet ID:

Alkalinity: bicarbonate | ODL: 2.0 | Actual Analytical hrs: | Batch Owner: SKA

Method: ALK/TITRI/WTR | Default Units: mg/L | Samples in Batch: | Batch Open Date: 5/15/12

Reference Citation: 310.1/SM 2320 B | Due: 05/15/12 | Stock Standards ID: | Supervisor: HLB

Batch: 1205747 | Run Date: 05/08/12 | Results Approved by: | Date Approved: 5/17/12

Comments: Med Cal 4-7-10 Slope: 99.4 Start: 11:58am End: 1:02pm

V1 = mL of titrant C to pH 8.3

V2 = mL of titrant C to pH 4.5

pH 4 = 2030566
pH 7 = 1121044
pH 10 = 2030567

$$\text{Normality} = \frac{A*B}{53.00*C}$$

Normality = #DIV/0!

where: A = Sodium Carbonate weighted into a 1 L volumetric flask (grams)
B = Sodium Carbonate solution titrated (mL)
C = Acid titrant used to Inflection Point (mL)

A (gm) = 2.6500
B (mL) = 10.0
C (mL) = 25.06

Standards ID for A: 9110986 | Standards ID for B: 2030690 | Standards ID for C: 2050317

Sample ID	QC Type	Initial Sample pH	C_{V1} (mL)	V_2 (mL)	C_{V2} (mL)	Sample Volume (mL)		Bicarbonate Alkalinity Result (mg/L)	S E Q	QC Conc. (mg/L)	QC Result (mg/L)
	CCV1	8.3	—	11.95	0.000	50	238.43	#DIV/0!		238	#DIV/0!
	BLK	5.52	—	0.14	0.000	100	1.40	#DIV/0!		238	#DIV/0!
	BS	8.3	—	12.00	0.000	50	239.42	#DIV/0!		238	#DIV/0!
	SCV	8.3	—	11.95	0.000	50	238.43	#DIV/0!		238	#DIV/0!
1205072-01	S	7.47	—	6.55	0.000	50	130.69	#DIV/0!			#DIV/0!
1205073-01	S	7.80	—	5.55	0.000	50	110.73	#DIV/0!			#DIV/0!
1205085-01	S	7.62	—	6.35	0.000	50	126.70	#DIV/0!			#DIV/0!
1205085-02	S	7.73	—	5.60	0.000	50	111.73	#DIV/0!			#DIV/0!
1205085-02	DUP	7.73	—	5.55	0.000	50	110.73	#DIV/0!			#DIV/0!

DUP Control Limits: UCL = 20 % RPD LCS Control Limits: 89 % recovery to 111% SPK Control Limits: 81% recovery to 111%
CCV Control Limits (pH): ±0.05

Calibration Buffer 4.0: | Calibration Buffer 7.0:

5/17/12

INORGANIC BENCHSHEET -- ALKALINITY

Test #: 467. 1- 21 **Instrument:** 309 **Est. Analytical hrs:** 6.4 **Benchsheet ID:** 0
Alkalinity: bicarbonate **ODL:** 2.0 **Actual Analytical hrs:** 0 **Batch Owner:** SKA
Method: ALK/TITRI/WTR **Default Units:** mg/L **Samples in Batch:** 0 **Batch Open Date:** 01/00/00
Reference Citation: 310.1/SM 2320 B **Due:** 05/15/12 **Stock Standards ID:** 0 **Supervisor:** DEK
Batch: 1205747 **Run Date:** 05/08/12 **Results Approved by:** **Date Approved:** 01/00/00

Comments: Med Cal 4-7-10 Slope: 99.4 Start: 11:58am End: 1:02 pm

V1 = mL of titrant C to pH 8.3
V2 = mL of titrant C to pH 4.5

$$\text{Normality} = \frac{A*B}{53.00*C}$$

where: A = Sodium Carbonate weighted into a 1 L volumetric flask (grams)
B = Sodium Carbonate solution titrated (mL)
C = Acid titrant used to Inflection Point (mL)

A (gm) = 2.65
B (mL) = 10
C (mL) = ~~0~~ 25.06

pH 4 = 2030566
pH 7 = 1121044
pH 10 = 2030567

Normality = #DIV/0!

Standards ID for A: 9110986 **Standards ID for B:** 2030690 **Standards ID for C:** 2050317

Sample ID	QC Type	pH	C_{V1} (mL)	V_2 (mL)	C_{V2} (mL)	Sample Volume (mL)		Bicarbonate Alkalinity Result (mg/L)	S E Q	QC Conc. (mg/L)	QC Result (mg/L)
1205085-02	MS	8.02	—	17.60	0.0000	50	351.16	#DIV/0!			#DIV/0!
	CCV2	8.3	—	11.95	0.0000	50	238.43	#DIV/0!			#DIV/0!
					0.0000			#DIV/0!			#DIV/0!
					0.0000			#DIV/0!			#DIV/0!
					0.0000			#DIV/0!			#DIV/0!
					0.0000			#DIV/0!			#DIV/0!
					0.0000			#DIV/0!			#DIV/0!
					0.0000			#DIV/0!			#DIV/0!
					0.0000			#DIV/0!			#DIV/0!

DUP Control Limits: UCL = 20 % RPD LCS Control Limits: 89 % recovery to 111% SPK Control Limits: 81% recovery to 111%
CCV Control Limits: ±0.05

Calibration Buffer 4.0: 0 Calibration Buffer 7.0: 0

5/17/12

INORGANIC BENCHSHEET -- ALKALINITY

Instrument: 309
Est. Analytical hrs: 6.4
Benchsheet ID:
Alkalinity: bicarbonate
ODL: 2.0
Actual Analytical hrs: –
Batch Owner: SKA
Method: ALK/TITRI/WTR
Default Units: mg/L
Samples in Batch:
Batch Open Date: 5/8/12
Reference Citation: 310.1/SM 2320 B
Due: 05/15/12
Stock Standards ID:
Supervisor: HZB
Batch: 1205747
Run Date: 05/08/12
Results Approved by:
Date Approved: 5/17/12

Comments: Med Cal 4-7-10 Slope: 99.4 Start: 11.58am End: 1.02pm

V1 = mL of titrant C to pH 8.3

V2 = mL of titrant C to pH 4.5

pH4 = 2030566
pH7 = 1121044
pH10 = 2030567

$$\text{Normality} = \frac{A*B}{53.00*C}$$

where: A = Sodium Carbonate weighted into a 1 L volumetric flask (grams)
B = Sodium Carbonate solution titrated (mL)
C = Acid titrant used to Inflection Point (mL)

A (gm) = 2.6500
B (mL) = 10.0
C (mL) = 25.06

Normality = 0.019952115

Standards ID for A: 9110986
Standards ID for B: 2030690
Standards ID for C: 2050317

Sample ID	QC Type	Initial Sample pH	C_{V1} (mL)	V_2 (mL)	C_{V2} (mL)	Sample Volume (mL)		Bicarbonate Alkalinity Result (mg/L)	S E Q	QC Conc. (mg/L)	QC Result (mg/L)
	CCV1	8.30		11.95	11.950	50		238.43		238	FALSE
	BLK	5.52		0.14	0.140	100		1.40		238	FALSE
	BS	8.30		12.00	12.000	50		239.43		238	FALSE
	SCV	8.30		11.95	11.950	50		238.43		238	FALSE
1205072-01	S	7.47		6.55	6.550	50		130.69			FALSE
1205073-01	S	7.80		5.55	5.550	50		110.73			FALSE
1205085-01	S	7.62		6.35	6.350	50		126.70			FALSE
1205085-02	S	7.73		5.60	5.600	50		111.73			FALSE
1205085-02	DUP	7.73		5.55	5.550	50		110.73			FALSE

DUP Control Limits: UCL = 20 % RPD LCS Control Limits: 89 % recovery to 111% SPK Control Limits: 81% recovery to 111%
CCV Control Limits (pH): ±0.05

5/17/12

Calibration Buffer 4.0:

Calibration Buffer 7.0:

INORGANIC BENCHSHEET -- ALKALINITY

Test #: 467. 1- 21 **Instrument:** 309 **Est. Analytical hrs:** 6.4 **Benchsheet ID:** 0

Alkalinity: bicarbonate **ODL:** 2.0 **Actual Analytical hrs:** 0 **Batch Owner:** SKA

Method: ALK/TITRI/WTR **Default Units:** mg/L **Samples in Batch:** 0 **Batch Open Date:** 01/00/00

Reference Citation: 310.1/SM 2320 B **Due:** 05/15/12 **Stock Standards ID:** 0 **Supervisor:** DEK

Batch: 1205747 **Run Date:** 05/08/12 **Results Approved by:** [signature] **Date Approved:** ~~01/00/00~~ 5/17/12

Comments: Med Cal 4-7-10 Slope: 99.4 Start: 11.58am End: 1.02pm

V1 = mL of titrant C to pH 8.3

V2 = mL of titrant C to pH 4.5

pH 4 = 2030566
pH 7 = 1121044
pH 10 = 2030567

$$\text{Normality} = \frac{A*B}{53.00*C}$$

Normality = 0.019952115

where: A = Sodium Carbonate weighted into a 1 L volumetric flask (grams)
B = Sodium Carbonate solution titrated (mL)
C = Acid titrant used to Inflection Point (mL)

A (gm) = 2.65
B (mL) = 10
C (mL) = 25.06

Standards ID for A: 9110986 **Standards ID for B:** 2030690 **Standards ID for C:** 2050317

Sample ID	QC Type	pH	C_{V1} (mL)	V_2 (mL)	C_{V2} (mL)	Sample Volume (mL)		Bicarbonate Alkalinity Result (mg/L)	S E Q	QC Conc. (mg/L)	QC Result (mg/L)
1205085-02	MS	8.02		17.60	17.6000	50		351.16			FALSE
	CCV2	8.30		11.95	11.9500	50		238.43			FALSE
					0.0000			#DIV/0!			#DIV/0!
					0.0000			#DIV/0!			#DIV/0!
					0.0000			#DIV/0!			#DIV/0!
					0.0000			#DIV/0!			#DIV/0!
					0.0000			#DIV/0!			#DIV/0!
					0.0000			#DIV/0!			#DIV/0!
					0.0000			#DIV/0!			#DIV/0!

DUP Control Limits: UCL = 20 % RPD LCS Control Limits: 89 % recovery to 111% SPK Control Limits: 81% recovery to 111%
CCV Control Limits: ±0.05

Calibration Buffer 4.0: 0 Calibration Buffer 7.0: 0

5/17/12

Inorganic - Wet Chemistry, Water, May-08-12

Instrument = 309, Calibration = UNASSIGNED

Sequence Analyses:
Alkalinity, Total 2320 B

Lab Number	*Analysis*	*Contain*	*STD ID*	*ISTD ID*	*Client / QC Type*	*Extraction Comments*
2E08057-CCV1	QC		2040811		CALIBRATION CHECK	
1205750-BLK1	QC				BLANK	
1205750-BS1	QC				LCS	
2E08057-SCV1	QC		2040812		SECONDARY CAL CHECK	
1204454-01	Alkalinity, Total 2320 B	J			TechLaw	
1204454-02	Alkalinity, Total 2320 B	J			TechLaw	
1205072-01	Alkalinity, Total 2320 B	J			TechLaw	
1205073-01	Alkalinity, Total 2320 B	J			TechLaw	
1205085-01	Alkalinity, Total 2320 B	J			TechLaw	
1205085-02	Alkalinity, Total 2320 B	T			TechLaw	
1205750-DUP1	QC				DUPLICATE	
2E08057-CCV2	QC		2040811		CALIBRATION CHECK	
1205750-MS1	QC				MATRIX SPIKE	
2E08057-CCV3	QC		2040811		CALIBRATION CHECK	

Comments:	Analyst Initials:

TriMatrix Laboratories, Inc.

NLB 5-9-12

PREPARATION BATCH 1205750

Printed: 5/8/2012 8:07:07AM

Inorganic - Wet Chemistry, Water, Method-Specific Preparation

(No Surrogate)

Batch Comments: (none)

Due 5/8/12

level 4

01051

Standard	Description	Solvent	LotNum
2030101	Alkalinity BS 1190 mg/L	DI H20	081495

Work Order	Analysis	Work Order	Analysis	Work Order	Analysis
1204454	Alkalinity, Total 2320 B	1205072	Alkalinity, Total 2320 B	1205073	Alkalinity, Total 2320 B
1205085	Alkalinity, Total 2320 B				

Balance ID: _____ **pH Meter:** _____

Lab Number	Contain	Prepared	By	Initial (mL)	Final (mL)	uL Surrogate	Source ID	Spike ID	uL Spike	Client/QC Type	Extraction Comments
1205750-BLK1		May-08-12 08:02	SKA	100	100					BLANK	
1205750-DUP1		May-08-12 08:02	SKA	50	50		1205085-02			DUPLICATE	
1205750-BS1		May-08-12 08:02	SKA	50	50			2030101	10000	LCS	
1205750-MS1		May-08-12 08:02	SKA	50	50		1205085-02	2030101	10000	MATRIX SPIKE	
1204454-01	J	May-08-12 08:02	SKA	50	50					TechLaw	
1204454-02	J	May-08-12 08:02	SKA	50	50					TechLaw	
1205072-01	J	May-08-12 08:02	SKA	50	50					TechLaw	
1205073-01	J	May-08-12 08:02	SKA	50	50					TechLaw	
1205085-01	J	May-08-12 08:02	SKA	50	50					TechLaw	
1205085-02	T	May-08-12 08:02	SKA	50	50					TechLaw	

Comments:

Analyst Initials:

INORGANIC BENCHSHEET -- ALKALINITY

Instrument: 309 | Est. Analytical hrs: 6.4 | Benchsheet ID:

Alkalinity: total | ODL: 2.0 | Actual Analytical hrs: | Batch Owner: SKA

Method: ALK/TITRI/WTR | Default Units: mg/L | Samples in Batch: | Batch Open Date:

Reference Citation: 310.1/SM 2320 B | Due: 05/08/12 | Stock Standards ID: | Supervisor:

Batch: 1205750 | Run Date: 05/08/12 | Results Approved by: | Date Approved:

Comments: Med Cal 4-7-10 Slope: 99.4 Start: 11.58am End: 1.02pm

V1 = mL of titrant C to pH 8.3

V2 = mL of titrant C to pH 4.5

$$\text{Normality} = \frac{A*B}{53.00*C}$$

where: A = Sodium Carbonate weighted into a 1 L volumetric flask (grams)
B = Sodium Carbonate solution titrated (mL)
C = Acid titrant used to Inflection Point (mL)

A (gm) = 2.6500
B (mL) = 10.0
C (mL) = 25.06

Normality = 0.019952115

Standards ID for A: 9110986 Standards ID for B: 2030690 Standards ID for C: 2050317

Sample ID	QC Type	Initial Sample pH	C_{V1} (mL)	V_2 (mL)	C_{V2} (mL)	Sample Volume (mL)	Total Alkalinity Result (mg/L)		S E Q	QC Conc. (mg/L)	QC Result (mg/L)
	CCV1	8.30		11.95	11.950	50	238.43			238	238.4
	BLK	5.52		0.14	0.140	100	1.40			238	1.4
	BS	8.30		12.00	12.000	50	239.43			238	239.4
	SCV	8.30		11.95	11.950	50	238.43			238	238.4
1204454-01	S	7.70		5.00	5.000	50	99.76				99.76
1204454-02	S	7.73		5.20	5.200	50	103.75				103.75
1205072-01	S	7.47		6.55	6.550	50	130.69				130.69
1205073-01	S	7.80		5.55	5.550	50	110.73				110.73
1205085-01	S	7.62		6.35	6.350	50	126.70				126.70

DUP Control Limits: UCL = 20 % RPD LCS Control Limits: 89 % recovery to 111% SPK Control Limits: 81% recovery to 111%
CCV Control Limits (pH): ±0.05

Calibration Buffer 4.0: Calibration Buffer 7.0:

01852

INORGANIC BENCHSHEET -- ALKALINITY

Test #: 467. 1- 21 **Instrument:** 309 **Est. Analytical hrs:** 6.4 **Benchsheet ID:** 0
Alkalinity: total **ODL:** 2.0 **Actual Analytical hrs:** 0 **Batch Owner:** SKA
Method: ALK/TITRI/WTR **Default Units:** mg/L **Samples in Batch:** 0 **Batch Open Date:** 01/00/00
Reference Citation: 310.1/SM 2320 B **Due:** 05/08/12 **Stock Standards ID:** 0 **Supervisor:** DEK
Batch: 1205750 **Run Date:** 05/08/12 **Results Approved by:** **Date Approved:** 01/00/00
Comments: Med Cal 4-7-10 Slope: 99.4 Start: 11.58am End: 1.02pm

V1 = mL of titrant C to pH 8.3
V2 = mL of titrant C to pH 4.5

$$\text{Normality} = \frac{A*B}{53.00*C}$$

where: A = Sodium Carbonate weighted into a 1 L volumetric flask (grams)
B = Sodium Carbonate solution titrated (mL)
C = Acid titrant used to Inflection Point (mL)

A (gm) = 2.65
B (mL) = 10
C (mL) = 25.06

Normality = 0.019952115

Standards ID for A: 9110986 **Standards ID for B:** 2030690 **Standards ID for C:** 2050317

Sample ID	QC Type	pH	C_{V1} (mL)	V_2 (mL)	C_{V2} (mL)	Sample Volume (mL)	Total Alkalinity Result (mg/L)		S E Q	QC Conc. (mg/L)	QC Result (mg/L)
1205085-02	S	7.73		5.60	5.6000	50	111.73				111.7
1205085-02	DUP	7.73		5.55	5.5500	50	110.73				110.7
	CCV2	8.30		11.95	11.9500	50	238.43				238.4
1205085-02	MS	8.02		17.60	17.6000	50	351.16				351.2
	CCV3	8.30		11.95	11.9500	50	238.43				238.4
					0.0000		#DIV/0!				#DIV/0!
					0.0000		#DIV/0!				#DIV/0!
					0.0000		#DIV/0!				#DIV/0!
					0.0000		#DIV/0!				#DIV/0!

DUP Control Limits: UCL = 20 % RPD LCS Control Limits: 89 % recovery to 111% SPK Control Limits: 81% recovery to 111%
CCV Control Limits: ±0.05

Calibration Buffer 4.0: 0 Calibration Buffer 7.0: 0

1328.18

INORGANIC BENCHSHEET -- ALKALINITY

Alkalinity: ~~bicarbonate~~ Total
Method: ALK/TITRI/WTR
Reference Citation: 310.1/SM 2320 B Due: 05/08/12
Batch: 1205750 Run Date: 05/08/12

Instrument: 309
ODL: 2.0
Default Units: mg/L

Est. Analytical hrs: 6.4
Actual Analytical hrs:
Samples in Batch:
Stock Standards ID:
Results Approved by:

Benchsheet ID:
Batch Owner: SKA
Batch Open Date:
Supervisor:
Date Approved:

Comments: Med Cal 4-7-10 Slope: 99.4 Start: 11:58am End: 1:02pm

V1 = mL of titrant C to pH 8.3
V2 = mL of titrant C to pH 4.5

$$\text{Normality} = \frac{A*B}{53.00*C}$$

Normality = #DIV/0! 0.019852

where: A = Sodium Carbonate weighted into a 1 L volumetric flask (grams)
B = Sodium Carbonate solution titrated (mL)
C = Acid titrant used to Inflection Point (mL)

A (gm) = 2.6500
B (mL) = 10.0
C (mL) = 25.06

Standards ID for A: 9110986 Standards ID for B: 2030690 Standards ID for C: 2050317

Sample ID	QC Type	Initial Sample pH	C_{V1} (mL)	V_2 (mL)	C_{V2} (mL)	Sample Volume (mL)		Bicarbonate Alkalinity Result (mg/L)	S E Q	QC Conc. (mg/L)	QC Result (mg/L)
	CCV1	8.3	—	11.95	0.000	50	238.43	#DIV/0! 4.50		238	#DIV/0!
	BLK	5.52	—	0.14	0.000	100	1.40	#DIV/0! 4.41		238	#DIV/0!
	BS	8.3	—	12.00	0.000	50	239.42	#DIV/0! 4.41		238	#DIV/0!
	SCV	8.3	—	11.95	0.000	50	238.43	#DIV/0! 4.47		238	#DIV/0!
1204454-01	S	7.70	—	5.00	0.000	50	99.76	#DIV/0! 4.44			#DIV/0!
1204454-02	S	7.73	—	5.20	0.000	50	103.75	#DIV/0! 4.48			#DIV/0!
1205072-01	S	7.47	—	6.55	0.000	50	130.69	#DIV/0! 4.46			#DIV/0!
1205073-01	S	7.80	—	5.55	0.000	50	110.73	#DIV/0! 4.44			#DIV/0!
1205085-01	S	7.62	—	6.35	0.000	50	126.70	#DIV/0! 4.42			#DIV/0!

DUP Control Limits: UCL = 20 % RPD LCS Control Limits: 89 % recovery to 111% SPK Control Limits: 81% recovery to 111%
CCV Control Limits (pH): ±0.05

Calibration Buffer 4.0: Calibration Buffer 7.0:

INORGANIC BENCHSHEET -- ALKALINITY

Test #: 467. 1- 21
Alkalinity: ~~bicarbonate~~ Total
Method: ALK/TITRI/WTR
Reference Citation: 310.1/SM 2320 B **Due:** 05/08/12
Batch: 1205750 **Run Date:** 05/08/12

Instrument: 309
ODL: 2.0
Default Units: mg/L

Est. Analytical hrs: 6.4
Actual Analytical hrs: 0
Samples in Batch: 0
Stock Standards ID: 0
Results Approved by:

Benchsheet ID: 0
Batch Owner: SKA
Batch Open Date: 01/00/00
Supervisor: DEK
Date Approved: 01/00/00

Comments: Med Cal 4-7-10 Slope: 99.4 Start: 11:58am End: 1:08pm

V1 = mL of titrant C to pH 8.3
V2 = mL of titrant C to pH 4.5

Normality = $\frac{A*B}{53.00*C}$

Normality = #DIV/0! 0.01952

where: A = Sodium Carbonate weighted into a 1 L volumetric flask (grams)
B = Sodium Carbonate solution titrated (mL)
C = Acid titrant used to Inflection Point (mL)

A (gm) = 2.65
B (mL) = 10
C (mL) = ~~0~~ 25.06

Standards ID for A: 9110986 **Standards ID for B:** 2030690 **Standards ID for C:** 2050317

Sample ID	QC Type	pH	C_{V1} (mL)	V_2 (mL)	C_{V2} (mL)	Sample Volume (mL)		Bicarbonate Alkalinity Result (mg/L)	S E Q	QC Conc. (mg/L)	QC Result (mg/L)
1205085-02	S	7.73	—	5.60	0.0000	50	111.73	#DIV/0! 6.45			#DIV/0!
1205085-02	DUP	7.73	—	5.55	0.0000	50	110.73	#DIV/0! 4.46			#DIV/0!
	CCV2	8.3	—	11.95	0.0000	50	238.43	#DIV/0! 4.50			#DIV/0!
1205085-02	MS	8.02	—	17.60	0.0000	50	351.16	#DIV/0! 4.50			#DIV/0!
	CCV3	8.3	—	11.95	0.0000	50	238.43	#DIV/0!			#DIV/0!
					0.0000			#DIV/0!			#DIV/0!
					0.0000			#DIV/0!			#DIV/0!
					0.0000			#DIV/0!			#DIV/0!
					0.0000			#DIV/0!			#DIV/0!

DUP Control Limits: UCL = 20 % RPD LCS Control Limits: 89 % recovery to 111% SPK Control Limits: 81% recovery to 111%
CCV Control Limits: ±0.05

Calibration Buffer 4.0: 0 Calibration Buffer 7.0: 0

TriMatrix Laboratories, Inc.

TechLaw

Project: KNM

SDG: KNM050112

SM 4500-Cl E 20th

SAMPLE ID SUMMARY

SM 4500-Cl E 20th

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

SDG: KNM050112

Project: KNM

Client Sample Id:	Lab Sample Id:
106092	1205072-01
106093	1205073-01
106036	1205085-01
106037	1205085-02

INORGANIC ANALYSIS DATA SHEET

SM 4500-Cl E 20th

106092

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Matrix: Water
Sampled: 05/01/12 15:22
Solids: 0.00
QC Batch: 1205879

SDG: KNM050112
Project: KNM
Laboratory ID: 1205072-01
Prepared: 05/09/12 07:30
Preparation: General Inorganic Prep
Initial/Final: 10 mL / 10 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
16887-00-6	Chloride	1	35	mg/L	0.24	1.0		05/09/12 08:48

INORGANIC ANALYSIS DATA SHEET

SM 4500-Cl E 20th

106093

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Matrix: Water
Sampled: 05/01/12 11:16
Solids: 0.00
QC Batch: 1205879

SDG: KNM050112
Project: KNM
Laboratory ID: 1205073-01
Prepared: 05/09/12 07:30
Preparation: General Inorganic Prep
Initial/Final: 10 mL / 10 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
16887-00-6	Chloride	1	6.8	mg/L	0.24	1.0		05/09/12 08:48

INORGANIC ANALYSIS DATA SHEET

SM 4500-Cl E 20th

106036

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Matrix: Water
Sampled: 05/02/12 13:18
Solids: 0.00
QC Batch: 1205879

SDG: KNM050112
Project: KNM
Laboratory ID: 1205085-01
Prepared: 05/09/12 07:30
Preparation: General Inorganic Prep
Initial/Final: 10 mL / 10 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
16887-00-6	Chloride	1	47	mg/L	0.24	1.0		05/09/12 08:48

INORGANIC ANALYSIS DATA SHEET

SM 4500-Cl E 20th

106037

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Matrix: Water
Sampled: 05/02/12 10:44
Solids: 0.00
QC Batch: 1205879

SDG: KNM050112
Project: KNM
Laboratory ID: 1205085-02
Prepared: 05/09/12 07:30
Preparation: General Inorganic Prep
Initial/Final: 10 mL / 10 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
16887-00-6	Chloride	1	17	mg/L	0.24	1.0		05/09/12 08:48

ANALYSIS BATCH (SEQUENCE) SUMMARY

SM 4500-Cl E 20th

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Sequence: 2E15040

SDG: KNM050112

Project: KNM

Calibration: 2E15020

Instrument: 298

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Cal Standard	2E15040-CAL1	050912CL-001	05/09/12 08:01
Cal Standard	2E15040-CAL2	050912CL-002	05/09/12 08:01
Cal Standard	2E15040-CAL3	050912CL-003	05/09/12 08:01
Cal Standard	2E15040-CAL4	050912CL-004	05/09/12 08:01
Cal Standard	2E15040-CAL5	050912CL-005	05/09/12 08:01
Cal Standard	2E15040-CAL6	050912CL-006	05/09/12 08:01
Cal Standard	2E15040-CAL7	050912CL-007	05/09/12 08:01
Cal Standard	2E15040-CAL8	050912CL-008	05/09/12 08:01
Calibration Check	2E15040-CCV1	050912CL-009	05/09/12 08:13
Calibration Blank	2E15040-CCB1	050912CL-010	05/09/12 08:13
Low Cal Check	2E15040-LCV1	050912CL-011	05/09/12 08:13
High Cal Check	2E15040-HCV1	050912CL-012	05/09/12 08:13
Instrument RL Check	2E15040-CRL1	050912CL-013	05/09/12 08:13
Secondary Cal Check	2E15040-SCV1	050912CL-014	05/09/12 08:13
Blank	1205879-BLK1	050912CL-015	05/09/12 08:13
LCS	1205879-BS1	050912CL-016	05/09/12 08:13
Calibration Check	2E15040-CCV2	050912CL-021	05/09/12 08:16
Calibration Blank	2E15040-CCB2	050912CL-022	05/09/12 08:16
106092	1205072-01	050912CL-028	05/09/12 08:48
106093	1205073-01	050912CL-029	05/09/12 08:48
106036	1205085-01	050912CL-030	05/09/12 08:48
106037	1205085-02	050912CL-031	05/09/12 08:48
106037	1205879-MS1	050912CL-032	05/09/12 08:48
106037	1205879-MSD1	050912CL-033	05/09/12 08:48
Calibration Check	2E15040-CCV3	050912CL-038	05/09/12 08:51
Calibration Blank	2E15040-CCB3	050912CL-039	05/09/12 08:51
Low Cal Check	2E15040-LCV2	050912CL-118	05/09/12 09:40
High Cal Check	2E15040-HCV2	050912CL-119	05/09/12 09:40
Calibration Check	2E15040-CCV4	050912CL-120	05/09/12 09:45
Calibration Blank	2E15040-CCB4	050912CL-121	05/09/12 09:45

INITIAL AND CONTINUING CALIBRATION CHECK

SM 4500-Cl E 20th

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Sequence: 2E15040
Control Limt: +/- 15.00%

SDG: KNM050112
Project: KNM
Calibration: 2E15020
Instrument ID: 298

Lab Sample ID	Analyte	True	Found	%R	Units	Analyzed
2E15040-CCV1	Chloride	40.0	40.2	100	mg/L	05/09/12 08:13
2E15040-CCV2	Chloride	40.0	41.1	103	mg/L	05/09/12 08:16
2E15040-CCV3	Chloride	40.0	40.4	101	mg/L	05/09/12 08:51
2E15040-CCV4	Chloride	40.0	40.3	101	mg/L	05/09/12 09:45

* Values outside of QC limits

LOW-CONCENTRATION CALIBRATION VERIFICATION

SM 4500-Cl E 20th

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Laboratory ID: 2E15040-LCV1
Sequence: 2E15040

SDG: KNM050112
Project: KNM
Instrument: 298
Calibration: 2E15020

Analyte	Expected	Found	% Drift	QC Limit	Units
Chloride	20.0	19.7	-1.6		mg/L

* Values outside of QC limits

LOW-CONCENTRATION CALIBRATION VERIFICATION

SM 4500-Cl E 20th

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Laboratory ID: 2E15040-LCV2
Sequence: 2E15040

SDG: KNM050112
Project: KNM
Instrument: 298
Calibration: 2E15020

Analyte	Expected	Found	% Drift	QC Limit	Units
Chloride	20.0	19.9	-0.7		mg/L

* Values outside of QC limits

HIGH-CONCENTRATION CALIBRATION VERIFICATION

SM 4500-Cl E 20th

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Laboratory ID: 2E15040-HCV1
Sequence: 2E15040

SDG: KNM050112
Project: KNM
Instrument: 298
Calibration: 2E15020

Analyte	Expected	Found	% Drift	QC Limit	Units
Chloride	75.0	74.8	-0.3		mg/L

* Values outside of QC limits

HIGH-CONCENTRATION CALIBRATION VERIFICATION

SM 4500-Cl E 20th

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Laboratory ID: 2E15040-HCV2
Sequence: 2E15040

SDG: KNM050112
Project: KNM
Instrument: 298
Calibration: 2E15020

Analyte	Expected	Found	% Drift	QC Limit	Units
Chloride	75.0	75.5	0.7		mg/L

* Values outside of QC limits

SECOND-SOURCE CALIBRATION VERIFICATION

SM 4500-Cl E 20th

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Laboratory ID: 2E15040-SCV1
Sequence: 2E15040

SDG: KNM050112
Project: KNM
Instrument: 298
Calibration: 2E15020

Analyte	Expected	Found	% R	QC Limit	Units
Chloride	50.0	49.9	100	90-110	mg/L

* Values outside of QC limits

CRDL STANDARD

SM 4500-Cl E 20th

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Sequence: 2E15040

SDG: KNM050112

Project: KNM

Calibration: 2E15020

Instrument ID: 298

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
2E15040-CRL1	Chloride	1.00	1.10	110	mg/L	50 - 150

* Values outside of QC limits

BLANKS
SM 4500-Cl E 20th

Laboratory: TriMatrix Laboratories, Inc.
SDG: KNM050112
Client: TechLaw
Project: KNM
Sequence: 2E15040
Calibration: 2E15020
Instrument ID: 298

Lab Sample ID	Analyte	Found	Unit	MDL	MRL	C	Analyzed
2E15040-CCB1	Chloride	0.49	mg/L	0.24	1.0	J	05/09/12 08:13
2E15040-CCB2	Chloride	0.37	mg/L	0.24	1.0	J	05/09/12 08:16
2E15040-CCB3	Chloride	0.59	mg/L	0.24	1.0	J	05/09/12 08:51
2E15040-CCB4	Chloride	0.39	mg/L	0.24	1.0	J	05/09/12 09:45

* Values outside of QC limits

QC BATCH SUMMARY

SM 4500-Cl E 20th

Laboratory: TriMatrix Laboratories, Inc.

SDG: KNM050112

Client: TechLaw

Project: KNM

QC Batch: 1205879

QC Batch Matrix: Water

Preparation: General Inorganic Prep

Sample Name	Lab Sample ID	Date Prepared	Observations
106092	1205072-01	05/09/12 07:30	
106093	1205073-01	05/09/12 07:30	
106036	1205085-01	05/09/12 07:30	
106037	1205085-02	05/09/12 07:30	
Blank	1205879-BLK1	05/09/12 07:30	
LCS	1205879-BS1	05/09/12 07:30	
106037	1205879-MS1	05/09/12 07:30	
106037	1205879-MSD1	05/09/12 07:30	

METHOD BLANK DATA SHEET
SM 4500-Cl E 20th

Laboratory: TriMatrix Laboratories, Inc.
SDG: KNM050112
Client: TechLaw
Project: KNM
Matrix: Water
Laboratory ID: 1205879-BLK1
File ID: 050912CL-015
Prepared: 05/09/12 07:30
Analyzed: 05/09/12 08:13
Preparation: General Inorganic Prep
Initial/Final: 10 mL / 10 mL
QC Batch: 1205879
Sequence: 2E15040
Calibration: 2E15020
Instrument: 298

CAS No.	Analyte	Concentration	Unit	MDL	MRL	Q
16887-00-6	Chloride	0.57	mg/L	0.24	1.0	J

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

106037

SM 4500-Cl E 20th

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Matrix: Water

QC Batch: 1205879

SDG: KNM050112

Project: KNM

Laboratory ID: 1205879-MS1

Preparation: General Inorganic Prep

Initial/Final: 10 mL / 10 mL

Analyte	Spike Added	Sample Conc.	MS Conc.	MS % Rec. #	QC Limits Rec.	Units
Chloride	50.0	16.9	67.7	102	72 - 123	mg/L

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

106037

SM 4500-Cl E 20th

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Matrix: Water

QC Batch: 1205879

SDG: KNM050112

Project: KNM

Laboratory ID: 1205879-MSD1

Preparation: General Inorganic Prep

Initial/Final: 10 mL / 10 mL

Analyte	Spike Added	MSD Conc.	MSD % Rec. #	% RPD #	QC Limits RPD	QC Limits Rec.	Units
Chloride	50.0	66.8	100	1	20	72 - 123	mg/L

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

LCS / LCS DUPLICATE RECOVERY

SM 4500-Cl E 20th

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Matrix: Water

SDG: KNM050112

Project: KNM

Laboratory ID: 1205879-BS1

Preparation: General Inorganic Prep

Initial/Final: 10 mL / 10 mL

QC Batch: 1205879

Sequence: 2E15040

Analyte	Spike Added	LCS Conc.	LCS % Rec. #	QC Limits Rec.	Units
Chloride	50.0	49.0	98	90 - 106	mg/L

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

HOLDING TIME SUMMARY
SM 4500-Cl E 20th

Laboratory: TriMatrix Laboratories, Inc.

SDG: KNM050112

Client: TechLaw

Project: KNM

Analyte: Chloride

Sample Name	Date Collected	Date Received	Date Leached	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
106092	05/01/12	05/02/12		05/09/12	8	NA	05/09/12	8	28	
106093	05/01/12	05/02/12		05/09/12	8	NA	05/09/12	8	28	
106036	05/02/12	05/03/12		05/09/12	7	NA	05/09/12	7	28	
106037	05/02/12	05/03/12		05/09/12	7	NA	05/09/12	7	28	

Inorganic - Wet Chemistry, Water, May-09-12

Instrument = 298, Calibration = 2E15020

Sequence Analyses:
Chloride 4500-Cl E

Lab Number	*Analysis*	*Contain*	*STD ID*	*ISTD ID*	*Client / QC Type*	*Extraction Comments*
2E15040-CAL1	QC		2050014		CAL STANDARD	
2E15040-CAL2	QC		2050013		CAL STANDARD	
2E15040-CAL3	QC		2050012		CAL STANDARD	
2E15040-CAL4	QC		2050011		CAL STANDARD	
2E15040-CAL5	QC		2050009		CAL STANDARD	
2E15040-CAL6	QC		2050008		CAL STANDARD	
2E15040-CAL7	QC		2050010		CAL STANDARD	
2E15040-CAL8	QC		2050007		CAL STANDARD	
2E15040-CCV1	QC		2050008		CALIBRATION CHECK	
2E15040-CCB1	QC		2050014		CALIBRATION BLANK	
2E15040-LCV1	QC		2050009		LOW CAL CHECK	
2E15040-HCV1	QC		2050010		HIGH CAL CHECK	
2E15040-CRL1	QC		2050013		INSTRUMENT RL CHECK	
2E15040-SCV1	QC		2040480		SECONDARY CAL CHECK	
1205879-BLK1	QC				BLANK	
1205879-BS1	QC				LCS	
2E15040-CCV2	QC		2050008		CALIBRATION CHECK	
2E15040-CCB2	QC		2050014		CALIBRATION BLANK	
1205072-01	Chloride 4500-Cl E	J			TechLaw	
1205073-01	Chloride 4500-Cl E	J			TechLaw	
1205085-01	Chloride 4500-Cl E	J			TechLaw	
1205085-02	Chloride 4500-Cl E	T			TechLaw	
1205879-MS1	QC				MATRIX SPIKE	
1205879-MSD1	QC				MATRIX SPIKE DUP	
2E15040-CCV3	QC		2050008		CALIBRATION CHECK	
2E15040-CCB3	QC		2050014		CALIBRATION BLANK	
2E15040-LCV2	QC		2050009		LOW CAL CHECK	
2E15040-HCV2	QC		2050010		HIGH CAL CHECK	
2E15040-CCV4	QC		2050008		CALIBRATION CHECK	
2E15040-CCB4	QC		2050014		CALIBRATION BLANK	

5/9/12

Comments:	Analyst Initials:

due 05/15/12

TriMatrix Laboratories, Inc.

PREPARATION BATCH **1205879** Page 1 of 1

Printed: 5/9/2012 2:46:27PM

4MD

Inorganic - Wet Chemistry, Water, General Inorganic Prep

(No Surrogate)

Batch Comments: (none)

01078

Standard	Description	Solvent	LotNum
2050003	Chloride 10000 ppm	di h20	E#1080815
2050422	Konelab Chloride Color Reagent	di H2O	varies

Work Order	Analysis	Work Order	Analysis	Work Order	Analysis
1205072	Chloride 4500-Cl E	1205073	Chloride 4500-Cl E	1205085	Chloride 4500-Cl E

Balance ID: _____ **pH Meter:** _____

Lab Number	*Contain*	*Prepared*	*By*	*Initial (mL)*	*Final (mL)*	*uL Surrogate*	*Source ID*	*Spike ID*	*uL Spike*	*Client / QC Type*	*Extraction Comments*
1205879-BLK1		May-09-12 07:30	LMA	10	10					BLANK	
1205879-BS1		May-09-12 07:30	LMA	10	10			2050003	50	LCS	
1205879-MS1		May-09-12 07:30	LMA	10	10		1205085-02	2050003	50	MATRIX SPIKE	
1205879-MSD1		May-09-12 07:30	LMA	10	10		1205085-02	2050003	50	MATRIX SPIKE DUP	
1205072-01	J	May-09-12 07:30	LMA	10	10					TechLaw	
1205073-01	J	May-09-12 07:30	LMA	10	10					TechLaw	
1205085-01	J	May-09-12 07:30	LMA	10	10					TechLaw	
1205085-02	T	May-09-12 07:30	LMA	10	10					TechLaw	

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Comments:	Analyst Initials:

Calibration results Aquakem 7.2AQ1 Page: 1

TriMatrix Laboratories Inst #298
Konelab User

5/9/2012 8:01

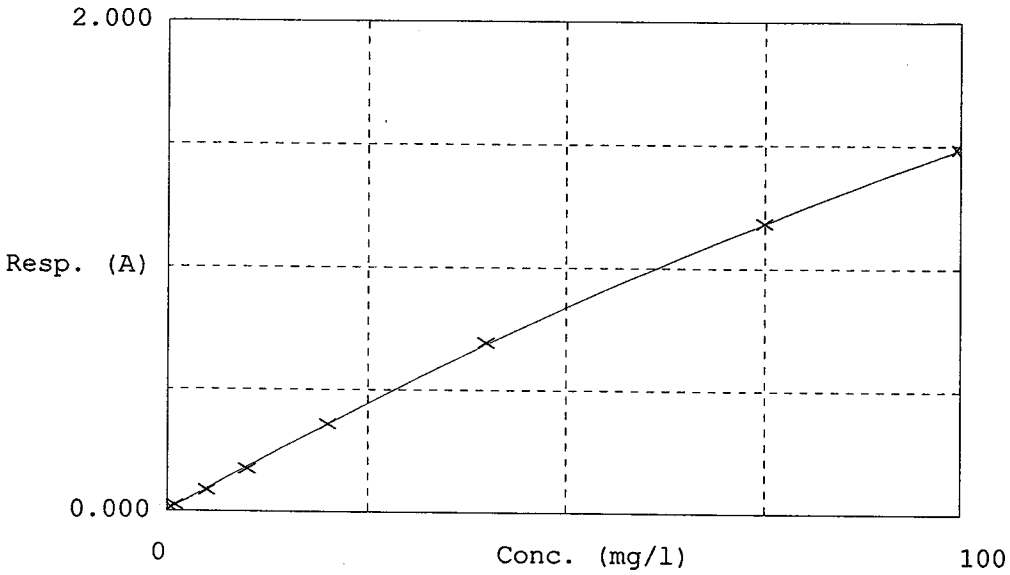
Test Chloride

Accepted 5/9/2012 8:01

Resp. = A * Conc. ^ 2 + B * Conc. + C
A = -0.00004
B = 0.01865
C = 0.00159

Coeff. of det. 0.999855

Errors



	Calibrator	Response	Calc. con.	Conc.	Errors
1	Cl-0	0.01160	0.53739	0.00000	
2	Cl-1	0.02443	1.22794	1.00000	
3	Cl-5	0.08578	4.55747	5.00000	
4	Cl-10	0.17396	9.42560	10.00000	
5	Cl-20	0.35827	19.94267	20.00000	
6	Cl-40	0.69211	40.37333	40.00000	
7	Cl-75	1.18508	75.01234	75.00000	
8	Cl-100	1.48279	99.92198	100.00000	

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Result Report Aquakem 7.2AQ1 Page: 1

TriMatrix Laboratories Inst #298
Konelab User

Date : 5/9/2012
Time : 13:45

Test Chloride
Unit mg/l

Sample ID:	Result	Resp.	Date and Time	Dilut	Man.dilut
Cl CCV 1	40.1966	0.689	5/9/2012 8:13		
Cl CCB	0.4872	0.011	5/9/2012 8:13		
cl 20	19.6752	0.354	5/9/2012 8:13		
cl 75	74.7686	1.182	5/9/2012 8:13		
cl crl	1.0975	0.022	5/9/2012 8:13		
cl scv	49.9222	0.837	5/9/2012 8:13		
blk 1	0.5709	0.012	5/9/2012 8:13		
bs 1	48.9715	0.823	5/9/2012 8:13		
100 1+1	97.7461	0.822	5/9/2012 8:16	1+1.0	
250 1+4	244.6963	0.823	5/9/2012 8:16	1+4.0	
500 1+9	498.7038	0.836	5/9/2012 8:16	1+9.0	
1000 1+24/+49	995.8846	0.684	5/9/2012 8:16	1+24.0	
Cl CCV 2	41.1482	0.704	5/9/2012 8:16		
Cl CCB	0.3670	0.008	5/9/2012 8:16		
1000 1+24/+49	960.3007	0.346	5/9/2012 8:16	1+49.0	
Cl CCV	40.1767	0.689	5/9/2012 8:22		
Cl CCB	0.4220	0.009	5/9/2012 8:22		
Cl CCV	40.1508	0.689	5/9/2012 8:48		
Cl CCB	0.5892	0.013	5/9/2012 8:48		
1205072-01	34.8515	0.605	5/9/2012 8:48		
1205073-01	6.8056	0.127	5/9/2012 8:48		
1205085-01	46.9441	0.793	5/9/2012 8:48		
1205085-02	16.8908	0.306	5/9/2012 8:48		
1205085-02ms	67.7033	1.089	5/9/2012 8:48		
1205085-02msd	66.7590	1.076	5/9/2012 8:48		
blk 2	0.8623	0.018	5/9/2012 8:48		
bs 2	50.2995	0.843	5/9/2012 8:48		
1205019-01	2.8264	0.054	5/9/2012 8:48		
1205077-01	84.4866	1.304	5/9/2012 8:49		
Cl CCV 3	40.3689	0.692	5/9/2012 8:51		
Cl CCB	0.5944	0.013	5/9/2012 8:51		
1205077-02	32.5811	0.569	5/9/2012 8:51		
1205077-03	28.8676	0.508	5/9/2012 8:51		
1205077-04	_____	1.880	- Dilute		
1205077-05	_____	1.871	-		
1205077-06	_____	1.477	-		
1205077-07	48.2469	0.812	5/9/2012 8:51		
1205077-08	3.7258	0.071	5/9/2012 8:52		
1205090-01	_____	2.705	- Dilute		
1205090-01ms	_____	2.998	-		
1205090-01msd	_____	2.993	-		
Cl CCV	40.3785	0.692	5/9/2012 8:59		
Cl CCB	0.6011	0.013	5/9/2012 8:59		
blk 3	0.5063	0.011	5/9/2012 8:59		
bs 3	50.0277	0.839	5/9/2012 8:59		
1205090-03	_____	2.124	- Dilute		
1205090-03ms	_____	2.477	-		
1205090-03msd	_____	2.477	-		
1205090-04	_____	2.439	-		
1205090-05	_____	2.557	-		
1205090-06	_____	2.560	-		
1205090-07	22.9430	0.409	5/9/2012 8:59		
1205090-08	13.3024	0.243	5/9/2012 8:59		

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TriMatrix Laboratories Inst #298
Konelab User

Date : 5/9/2012
Time : 13:45

Test Chloride
Unit mg/l

Sample ID:	Result	Resp.	Date and Time	Dilut	Man.dilut
Cl CCV	40.4917	0.694	5/9/2012 9:02		
Cl CCB	0.6264	0.013	5/9/2012 9:02		
1205090-09	12.3717	0.226	5/9/2012 9:02		
1205090-10	28.0545	0.495	5/9/2012 9:02		
1205115-01	92.3034	1.397	5/9/2012 9:02		
1205115-02	39.1743	0.673	5/9/2012 9:02		
1205115-04	0.7302	0.015	5/9/2012 9:02		
1205115-05	_____	1.983	- Dilute		
blk 4	0.9231	0.019	5/9/2012 9:02		
bs 4	51.7009	0.863	5/9/2012 9:02		
1205074-01	1.3784	0.027	5/9/2012 9:02		
1205074-02	0.7923	0.016	5/9/2012 9:02		
Cl CCV	40.3803	0.692	5/9/2012 9:09		
Cl CCB	0.6754	0.014	5/9/2012 9:09		
1205075-01	0.9528	0.019	5/9/2012 9:09		
1205075-02	0.7114	0.015	5/9/2012 9:09		
1205075-03	0.8568	0.018	5/9/2012 9:09		
1205075-03ms	51.4000	0.859	5/9/2012 9:09		
1205075-03msd	50.2189	0.842	5/9/2012 9:09		
1205075-04	1.0665	0.021	5/9/2012 9:09		
1205075-05	1.0706	0.022	5/9/2012 9:09		
1205075-06	1.0268	0.021	5/9/2012 9:09		
1205087-01	1.3072	0.026	5/9/2012 9:09		
1205087-02	0.8529	0.017	5/9/2012 9:09		
Cl CCV	40.4763	0.694	5/9/2012 9:12		
Cl CCB	0.6709	0.014	5/9/2012 9:12		
1205087-03	0.9780	0.020	5/9/2012 9:12		
1205087-04	0.8121	0.017	5/9/2012 9:12		
1205087-05	0.9327	0.019	5/9/2012 9:12		
1205087-06	0.9652	0.020	5/9/2012 9:12		
1205087-07	1.2388	0.025	5/9/2012 9:12		
1205087-08	1.0654	0.021	5/9/2012 9:12		
1205087-09	1.2644	0.025	5/9/2012 9:12		
1205087-10	1.1105	0.022	5/9/2012 9:12		
1205087-11	1.6139	0.032	5/9/2012 9:12		
1205087-11ms	51.8931	0.866	5/9/2012 9:12		
Cl CCV	40.4882	0.694	5/9/2012 9:19		
Cl CCB	0.6790	0.014	5/9/2012 9:19		
1205087-11msd	49.8637	0.836	5/9/2012 9:19		
1205087-12	0.7263	0.015	5/9/2012 9:19		
blk ww	0.5985	0.013	5/9/2012 9:19		
bs ww	51.2574	0.857	5/9/2012 9:19		
1205155-01	_____	3.776	- Dilute		
1205157-01	1.8106	0.035	5/9/2012 9:19		
1205157-01ms	51.0062	0.853	5/9/2012 9:19		
1205157-01msd	52.1413	0.870	5/9/2012 9:19		
1205158-01	1.6850	0.033	5/9/2012 9:19		
1205175-01	_____	2.398	- Dilute		
Cl CCV	40.2005	0.689	5/9/2012 9:22		
Cl CCB	0.5663	0.012	5/9/2012 9:22		
1205077-04	136.8828	1.099	5/9/2012 9:22	1+1.0	
1205077-05	136.4128	1.095	5/9/2012 9:22	1+1.0	
1205090-01	247.4695	0.831	5/9/2012 9:22	1+4.0	

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TriMatrix Laboratories Inst #298
Konelab User

Date : 5/9/2012
Time : 13:45

Test Chloride
Unit mg/l

Sample ID:	Result	Resp.	Date and Time	Dilut	Man.dilut
1205090-01ms	293.6580	0.965	5/9/2012 9:22	1+4.0	
1205077-06	95.7645	0.807	5/9/2012 9:30	1+1.0	
1205090-01msd	293.2294	0.964	5/9/2012 9:30	1+4.0	
1205090-03ms	213.9896	0.730	5/9/2012 9:30	1+4.0	
1205090-03msd	214.2889	0.731	5/9/2012 9:30	1+4.0	
1205090-04	209.8065	0.717	5/9/2012 9:30	1+4.0	
1205090-05	223.1125	0.758	5/9/2012 9:30	1+4.0	
Cl CCV	40.2509	0.690	5/9/2012 9:32		
Cl CCB	0.4427	0.010	5/9/2012 9:32		
1205090-03	164.2803	1.275	5/9/2012 9:32	1+1.0	
1205090-06	226.7835	0.769	5/9/2012 9:32	1+4.0	
1205115-05	146.0992	1.160	5/9/2012 9:32	1+1.0	
Cl CCV	40.2016	0.689	5/9/2012 9:37		
Cl CCB	0.4108	0.009	5/9/2012 9:37		
1205155-01	432.7155	1.329	5/9/2012 9:39	1+4.0	
1205175-01	199.1792	0.684	5/9/2012 9:39	1+4.0	
Cl CCV	40.3999	0.693	5/9/2012 9:39		
Cl CCB	0.4395	0.010	5/9/2012 9:39		
cl 20	19.8512	0.357	5/9/2012 9:40		
cl 75	75.4964	1.191	5/9/2012 9:40		
Cl CCV 4	40.2762	0.691	5/9/2012 9:45		
Cl CCB	0.3862	0.009	5/9/2012 9:45		
Cl CCV	40.5607	0.695	5/9/2012 11:24		
Cl CCB	0.5755	0.012	5/9/2012 11:24		
blk a	0.5506	0.012	5/9/2012 11:24		
bs a	49.8979	0.837	5/9/2012 11:24		
1205078-01	3.7621	0.071	5/9/2012 11:24		
1205078-02	52.9385	0.882	5/9/2012 11:24		
1205078-03	_____	3.466	- Dilute		
1205092-01	32.5516	0.568	5/9/2012 11:24		
1205092-02	77.3181	1.215	5/9/2012 11:24		
1205092-03	61.9887	1.011	5/9/2012 11:24		
1205092-04	1.6068	0.031	5/9/2012 11:24		
1205092-04ms	51.1012	0.855	5/9/2012 11:24		
Cl CCV	40.6480	0.696	5/9/2012 11:27		
Cl CCB	0.5817	0.012	5/9/2012 11:27		
1205092-04msd	50.4485	0.845	5/9/2012 11:27		
1205092-05	2.4778	0.048	5/9/2012 11:27		
1205092-06	47.3030	0.798	5/9/2012 11:27		
1205092-07	47.3549	0.799	5/9/2012 11:27		
1205092-08	2.2115	0.043	5/9/2012 11:27		
1205092-09	3.3247	0.063	5/9/2012 11:27		
1205092-11 100x	2e+003	0.428	5/9/2012 11:27		1+99.0
1205092-13	1.8134	0.035	5/9/2012 11:27		
1205092-14	_____	4.217	- Dilute		
1205114-01	0.6311	0.013	5/9/2012 11:34		
Cl CCV	40.7227	0.698	5/9/2012 11:34		
Cl CCB	0.6138	0.013	5/9/2012 11:34		
1205121-01	26.6147	0.471	5/9/2012 11:34		
1205121-02	10.7082	0.197	5/9/2012 11:34		
1205121-03	1.2107	0.024	5/9/2012 11:34		
blk b	0.7358	0.015	5/9/2012 11:34		
bs b	50.4049	0.844	5/9/2012 11:34		

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TriMatrix Laboratories Inst #298
Konelab User

Date : 5/9/2012
Time : 13:45

Test Chloride
Unit mg/l

Sample ID:	Result	Resp.	Date and Time	Dilut	Man.dilut
1205098-01		4.347	- Dilute		
1205100-01	24.4483	0.435	5/9/2012 11:34		
1205101-01		9.716	- Dilute		
1205120-01	3.9076	0.074	5/9/2012 11:36		
1205120-01ms	54.3267	0.902	5/9/2012 11:36		
Cl CCV	41.0718	0.703	5/9/2012 11:36		
Cl CCB	0.7162	0.015	5/9/2012 11:36		
1205120-01msd	55.1222	0.913	5/9/2012 11:37		
1205120-02	3.3656	0.064	5/9/2012 11:37		
1205120-03	2.2116	0.043	5/9/2012 11:37		
1205120-04	3.7156	0.070	5/9/2012 11:37		
1205120-05	21.1808	0.379	5/9/2012 11:37		
1205120-06		1.539	- Dilute		
1205120-07		2.576	-		
1205120-08	2.5579	0.049	5/9/2012 11:43		
1205120-11	1.4042	0.028	5/9/2012 11:43		
1205120-12	5.8446	0.109	5/9/2012 11:43		
Cl CCV	41.1284	0.704	5/9/2012 11:43		
Cl CCB	0.7866	0.016	5/9/2012 11:43		
1205120-13	9.4554	0.174	5/9/2012 11:43		
1205120-14	2.0703	0.040	5/9/2012 11:43		
1205120-15	4.3044	0.081	5/9/2012 11:43		
blk c	0.5822	0.012	5/9/2012 11:43		
bs c	50.2027	0.841	5/9/2012 11:46		
1205122-01	43.4246	0.739	5/9/2012 11:46		
1205128-01	23.8980	0.425	5/9/2012 11:46		
1205128-01ms	74.1352	1.174	5/9/2012 11:46		
1205128-01msd	74.1944	1.174	5/9/2012 11:46		
1205128-03	2.0071	0.039	5/9/2012 11:46		
Cl CCV	41.3275	0.707	5/9/2012 11:46		
Cl CCB	0.9938	0.020	5/9/2012 11:46		
1205128-05	39.1744	0.673	5/9/2012 11:46		
1205128-07	16.9010	0.306	5/9/2012 11:46		
1205128-10	1.9655	0.038	5/9/2012 11:46		
1205147-01	1.8894	0.037	5/9/2012 11:46		
1205147-03	11.7168	0.215	5/9/2012 11:53		
1205147-03ms	62.9542	1.024	5/9/2012 11:53		
1205147-03msd	62.3936	1.016	5/9/2012 11:53		
1205150-01	14.2327	0.259	5/9/2012 11:53		
1205150-02	20.5585	0.369	5/9/2012 11:53		
1205150-03	74.4157	1.177	5/9/2012 11:53		
Cl CCV	41.1725	0.705	5/9/2012 11:53		
Cl CCB	0.6534	0.014	5/9/2012 11:53		
1205150-04	13.1240	0.240	5/9/2012 11:54		
1205150-05	0.9201	0.019	5/9/2012 11:54		
1205164-01	5.8257	0.109	5/9/2012 11:54		
1205164-02	8.1370	0.151	5/9/2012 11:54		
1205164-03	0.6393	0.013	5/9/2012 11:54		
1205172-01	8.8282	0.163	5/9/2012 11:54		
1205078-03	374.6620	1.184	5/9/2012 11:56	1+4.0	
1205092-14		1.557	- Dilute	1+4.0	
1205092-12	1e+003	0.449	5/9/2012 11:56	1+49.0	
Cl CCV	40.4770	0.694	5/9/2012 12:01		

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TriMatrix Laboratories Inst #298
Konelab User

Date : 5/9/2012
Time : 13:46

Test Chloride
Unit mg/l

Sample ID:	Result	Resp.	Date and Time	Dilut	Man.dilut
Cl CCB	0.4251	0.010	5/9/2012 12:01		
Cl CCV	40.6723	0.697	5/9/2012 12:14		
Cl CCB	0.6002	0.013	5/9/2012 12:14		
cl 20	20.6391	0.370	5/9/2012 12:14		
cl 75	77.4228	1.216	5/9/2012 12:14		
1205092-14	543.0782	0.901	5/9/2012 12:17	1+9.0	
1205098-01	_____	1.577	- Dilute	1+4.0	
1205101-01	1e+003	0.802	5/9/2012 12:17	1+24.0	
1205120-06	103.1251	0.861	5/9/2012 12:17	1+1.0	
1205120-07	228.5140	0.774	5/9/2012 12:17	1+4.0	
Cl CCV	40.6893	0.697	5/9/2012 12:17		
Cl CCB	0.4023	0.009	5/9/2012 12:18		
1205098-01	540.0805	0.897	5/9/2012 12:26	1+9.0	
Cl CCV	40.6696	0.697	5/9/2012 12:27		
Cl CCB	0.5058	0.011	5/9/2012 12:27		
blk d	0.4054	0.009	5/9/2012 12:37		
bs d	50.1975	0.841	5/9/2012 12:37		
1205148-01	39.2318	0.674	5/9/2012 12:37		
1205148-02	3.6975	0.070	5/9/2012 12:37		
1205148-02ms	53.5864	0.891	5/9/2012 12:37		
1205148-02msd	53.8477	0.895	5/9/2012 12:37		
1205148-03	15.4036	0.280	5/9/2012 12:37		
1205148-04	_____	3.749	- Dilute		
1205148-05	_____	1.995	-		
1205148-06	_____	1.983	-		
Cl CCV	41.6218	0.711	5/9/2012 12:37		
Cl CCB	0.9255	0.019	5/9/2012 12:37		
1205148-07	0.2084	0.005	5/9/2012 12:38		
Cl CCV	40.6537	0.696	5/9/2012 12:39		
Cl CCB	0.3963	0.009	5/9/2012 12:39		
Cl CCV	40.7749	0.698	5/9/2012 12:55		
Cl CCB	0.5952	0.013	5/9/2012 12:55		
cl 20	20.7710	0.372	5/9/2012 12:55		
cl 75	77.7083	1.220	5/9/2012 12:55		
1205148-04	432.5871	1.328	5/9/2012 12:57	1+4.0	
1205148-05	146.9739	1.165	5/9/2012 12:57	1+1.0	
1205148-06	145.3368	1.155	5/9/2012 12:57	1+1.0	
Cl CCV	40.5938	0.696	5/9/2012 12:58		
Cl CCB	0.3633	0.008	5/9/2012 12:58		

5/10/12

TriMatrix Laboratories, Inc.

TechLaw

Project: KNM

SDG: KNM050112

SM 4500-NH3 G 20th

SAMPLE ID SUMMARY

SM 4500-NH3 G 20th

Laboratory: TriMatrix Laboratories, Inc.

SDG: KNM050112

Client: TechLaw

Project: KNM

Client Sample Id:	Lab Sample Id:
106092	1205072-01
106093	1205073-01
106036	1205085-01
106037	1205085-02

INORGANIC ANALYSIS DATA SHEET

SM 4500-NH3 G 20th

106092

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Matrix: Water
Sampled: 05/01/12 15:22
Solids: 0.00
QC Batch: 1205695

SDG: KNM050112
Project: KNM
Laboratory ID: 1205072-01
Prepared: 05/07/12 09:00
Preparation: Method-Specific Preparation
Initial/Final: 10 mL / 10 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
7664-41-7	Nitrogen, Ammonia	1	0.050	mg/L	0.0049	0.050	U	05/07/12 10:40

01087

INORGANIC ANALYSIS DATA SHEET

SM 4500-NH3 G 20th

106093

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Matrix: Water
Sampled: 05/01/12 11:16
Solids: 0.00
QC Batch: 1205695

SDG: KNM050112
Project: KNM
Laboratory ID: 1205073-01
Prepared: 05/07/12 09:00
Preparation: Method-Specific Preparation
Initial/Final: 10 mL / 10 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
7664-41-7	Nitrogen, Ammonia	1	0.012	mg/L	0.0049	0.050	J	05/07/12 10:40

INORGANIC ANALYSIS DATA SHEET

SM 4500-NH3 G 20th

106036

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Matrix: Water
Sampled: 05/02/12 13:18
Solids: 0.00
QC Batch: 1205701

SDG: KNM050112
Project: KNM
Laboratory ID: 1205085-01
Prepared: 05/07/12 09:00
Preparation: Method-Specific Preparation
Initial/Final: 10 mL / 10 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
7664-41-7	Nitrogen, Ammonia	1	0.050	mg/L	0.0049	0.050	U	05/07/12 13:44

INORGANIC ANALYSIS DATA SHEET

SM 4500-NH3 G 20th

106037

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Matrix: Water
Sampled: 05/02/12 10:44
Solids: 0.00
QC Batch: 1205701

SDG: KNM050112
Project: KNM
Laboratory ID: 1205085-02
Prepared: 05/07/12 09:00
Preparation: Method-Specific Preparation
Initial/Final: 10 mL / 10 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
7664-41-7	Nitrogen, Ammonia	1	0.050	mg/L	0.0049	0.050	U	05/07/12 13:44

ANALYSIS BATCH (SEQUENCE) SUMMARY
SM 4500-NH3 G 20th

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Sequence: 2E12012

SDG: KNM050112
Project: KNM
Calibration: 2E12001
Instrument: 303

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Cal Standard	2E12012-CAL1	050712nh3m-001	05/07/12 09:04
Cal Standard	2E12012-CAL2	050712nh3m-002	05/07/12 09:04
Cal Standard	2E12012-CAL3	050712nh3m-003	05/07/12 09:04
Cal Standard	2E12012-CAL4	050712nh3m-004	05/07/12 09:04
Cal Standard	2E12012-CAL5	050712nh3m-005	05/07/12 09:04
Cal Standard	2E12012-CAL6	050712nh3m-006	05/07/12 09:04
Cal Standard	2E12012-CAL7	050712nh3m-007	05/07/12 09:04
Calibration Check	2E12012-CCV1	050712nh3m-008	05/07/12 09:33
Calibration Blank	2E12012-CCB1	050712nh3m-009	05/07/12 09:33
Instrument RL Check	2E12012-CRL1	050712nh3m-010	05/07/12 09:33
Secondary Cal Check	2E12012-SCV1	050712nh3m-011	05/07/12 09:33
Blank	1205695-BLK1	050712nh3m-012	05/07/12 09:33
LCS	1205695-BS1	050712nh3m-016	05/07/12 09:34
Calibration Check	2E12012-CCV2	050712nh3m-027	05/07/12 09:47
Calibration Blank	2E12012-CCB2	050712nh3m-028	05/07/12 09:47
106092	1205072-01	050712nh3m-031	05/07/12 10:40
106092	1205695-MS1	050712nh3m-032	05/07/12 10:40
106092	1205695-MSD1	050712nh3m-033	05/07/12 10:40
106093	1205073-01	050712nh3m-034	05/07/12 10:40
Calibration Check	2E12012-CCV3	050712nh3m-041	05/07/12 10:50
Calibration Blank	2E12012-CCB3	050712nh3m-042	05/07/12 10:50

ANALYSIS BATCH (SEQUENCE) SUMMARY
SM 4500-NH3 G 20th

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Sequence: 2E12017

SDG: KNM050112
Project: KNM
Calibration: 2E12001
Instrument: 303

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Cal Standard	2E12017-CAL1	050712nh3m-001	05/07/12 09:04
Cal Standard	2E12017-CAL2	050712nh3m-002	05/07/12 09:04
Cal Standard	2E12017-CAL3	050712nh3m-003	05/07/12 09:04
Cal Standard	2E12017-CAL4	050712nh3m-004	05/07/12 09:04
Cal Standard	2E12017-CAL5	050712nh3m-005	05/07/12 09:04
Cal Standard	2E12017-CAL6	050712nh3m-006	05/07/12 09:04
Cal Standard	2E12017-CAL7	050712nh3m-007	05/07/12 09:04
Calibration Check	2E12017-CCV1	050712nh3m-008	05/07/12 09:33
Calibration Blank	2E12017-CCB1	050712nh3m-009	05/07/12 09:33
Instrument RL Check	2E12017-CRL1	050712nh3m-010	05/07/12 09:33
Secondary Cal Check	2E12017-SCV1	050712nh3m-011	05/07/12 09:33
Blank	1205701-BLK1	050712nh3m-012	05/07/12 09:33
LCS	1205701-BS1	050712nh3m-016	05/07/12 09:34
Calibration Check	2E12017-CCV2	050712nh3m-020	05/07/12 09:42
Calibration Blank	2E12017-CCB2	050712nh3m-021	05/07/12 09:42
Calibration Check	2E12017-CCV3	050712nh3m-102	05/07/12 13:09
Calibration Blank	2E12017-CCB3	050712nh3m-103	05/07/12 13:09
106037	1205701-MS1	050712nh3m-104	05/07/12 13:09
106037	1205701-MSD1	050712nh3m-105	05/07/12 13:09
106036	1205085-01	050712nh3m-139	05/07/12 13:44
106037	1205085-02	050712nh3m-140	05/07/12 13:44
Calibration Check	2E12017-CCV4	050712nh3m-141	05/07/12 13:49
Calibration Blank	2E12017-CCB4	050712nh3m-142	05/07/12 13:49

INITIAL AND CONTINUING CALIBRATION CHECK

SM 4500-NH3 G 20th

Laboratory: TriMatrix Laboratories, Inc.
SDG: KNM050112
Client: TechLaw
Project: KNM
Sequence: 2E12012
Calibration: 2E12001
Control Limt: +/- 10.00%
Instrument ID: 303

Lab Sample ID	Analyte	True	Found	%R	Units	Analyzed
2E12012-CCV1	Nitrogen, Ammonia	1.00	0.953	95	mg/L	05/07/12 09:33
2E12012-CCV2	Nitrogen, Ammonia	1.00	0.992	99	mg/L	05/07/12 09:47
2E12012-CCV3	Nitrogen, Ammonia	1.00	0.960	96	mg/L	05/07/12 10:50

* Values outside of QC limits

INITIAL AND CONTINUING CALIBRATION CHECK

SM 4500-NH3 G 20th

Laboratory: TriMatrix Laboratories, Inc.
SDG: KNM050112
Client: TechLaw
Project: KNM
Sequence: 2E12017
Calibration: 2E12001
Control Limt: +/- 10.00%
Instrument ID: 303

Lab Sample ID	Analyte	True	Found	%R	Units	Analyzed
2E12017-CCV1	Nitrogen, Ammonia	1.00	0.953	95	mg/L	05/07/12 09:33
2E12017-CCV2	Nitrogen, Ammonia	1.00	0.987	99	mg/L	05/07/12 09:42
2E12017-CCV3	Nitrogen, Ammonia	1.00	0.971	97	mg/L	05/07/12 13:09
2E12017-CCV4	Nitrogen, Ammonia	1.00	0.993	99	mg/L	05/07/12 13:49

* Values outside of QC limits

SECOND-SOURCE CALIBRATION VERIFICATION

SM 4500-NH3 G 20th

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Laboratory ID: 2E12012-SCV1
Sequence: 2E12012

SDG: KNM050112
Project: KNM
Instrument: 303
Calibration: 2E12001

Analyte	Expected	Found	% R	QC Limit	Units
Nitrogen, Ammonia	1.00	1.05	105	90-110	mg/L

* Values outside of QC limits

SECOND-SOURCE CALIBRATION VERIFICATION

SM 4500-NH3 G 20th

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Laboratory ID: 2E12017-SCV1
Sequence: 2E12017

SDG: KNM050112
Project: KNM
Instrument: 303
Calibration: 2E12001

Analyte	Expected	Found	% R	QC Limit	Units
Nitrogen, Ammonia	1.00	1.05	105	90-110	mg/L

* Values outside of QC limits

CRDL STANDARD

SM 4500-NH3 G 20th

Laboratory: TriMatrix Laboratories, Inc.

SDG: KNM050112

Client: TechLaw

Project: KNM

Sequence: 2E12012

Calibration: 2E12001

Instrument ID: 303

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
2E12012-CRL1	Nitrogen, Ammonia	0.0100	0.0147	147	mg/L	50 - 150

* Values outside of QC limits

CRDL STANDARD

SM 4500-NH3 G 20th

Laboratory: TriMatrix Laboratories, Inc.

SDG: KNM050112

Client: TechLaw

Project: KNM

Sequence: 2E12017

Calibration: 2E12001

Instrument ID: 303

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
2E12017-CRL1	Nitrogen, Ammonia	0.0100	0.0147	147	mg/L	50 - 150

* Values outside of QC limits

BLANKS
SM 4500-NH3 G 20th

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Sequence: 2E12012

SDG: KNM050112
Project: KNM
Calibration: 2E12001
Instrument ID: 303

Lab Sample ID	Analyte	Found	Unit	MDL	MRL	C	Analyzed
2E12012-CCB1	Nitrogen, Ammonia	-0.0055	mg/L	0.0049	0.050	J	05/07/12 09:33
2E12012-CCB2	Nitrogen, Ammonia	-0.0097	mg/L	0.0049	0.050	J	05/07/12 09:47
2E12012-CCB3	Nitrogen, Ammonia	-0.0092	mg/L	0.0049	0.050	J	05/07/12 10:50

* Values outside of QC limits

BLANKS
SM 4500-NH3 G 20th

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Sequence: 2E12017

SDG: KNM050112
Project: KNM
Calibration: 2E12001
Instrument ID: 303

Lab Sample ID	Analyte	Found	Unit	MDL	MRL	C	Analyzed
2E12017-CCB1	Nitrogen, Ammonia	-0.0055	mg/L	0.0049	0.050	J	05/07/12 09:33
2E12017-CCB2	Nitrogen, Ammonia	-0.0072	mg/L	0.0049	0.050	J	05/07/12 09:42
2E12017-CCB3	Nitrogen, Ammonia	-0.0068	mg/L	0.0049	0.050	J	05/07/12 13:09
2E12017-CCB4	Nitrogen, Ammonia	-0.0046	mg/L	0.0049	0.050	U	05/07/12 13:49

* Values outside of QC limits

QC BATCH SUMMARY

SM 4500-NH3 G 20th

Laboratory: TriMatrix Laboratories, Inc.

SDG: KNM050112

Client: TechLaw

Project: KNM

QC Batch: 1205695

QC Batch Matrix: Water

Preparation: Method-Specific Preparation

Sample Name	Lab Sample ID	Date Prepared	Observations
106092	1205072-01	05/07/12 09:00	
106093	1205073-01	05/07/12 09:00	
Blank	1205695-BLK1	05/07/12 09:00	
LCS	1205695-BS1	05/07/12 09:00	
106092	1205695-MS1	05/07/12 09:00	
106092	1205695-MSD1	05/07/12 09:00	

QC BATCH SUMMARY

SM 4500-NH3 G 20th

Laboratory: TriMatrix Laboratories, Inc.

SDG: KNM050112

Client: TechLaw

Project: KNM

QC Batch: 1205701 QC Batch Matrix: Water

Preparation: Method-Specific Preparation

Sample Name	Lab Sample ID	Date Prepared	Observations
106036	1205085-01	05/07/12 09:00	
106037	1205085-02	05/07/12 09:00	
Blank	1205701-BLK1	05/07/12 09:00	
LCS	1205701-BS1	05/07/12 09:00	
106037	1205701-MS1	05/07/12 09:00	
106037	1205701-MSD1	05/07/12 09:00	

01102

METHOD BLANK DATA SHEET
SM 4500-NH3 G 20th

Laboratory: TriMatrix Laboratories, Inc.
SDG: KNM050112
Client: TechLaw
Project: KNM
Matrix: Water
Laboratory ID: 1205695-BLK1
File ID: 050712nh3m-012
Prepared: 05/07/12 09:00
Analyzed: 05/07/12 09:33
Preparation: Method-Specific Preparat
Initial/Final: 10 mL / 10 mL
QC Batch: 1205695
Sequence: 2E12012
Calibration: 2E12001
Instrument: 303

CAS No.	Analyte	Concentration	Unit	MDL	MRL	Q
7664-41-7	Nitrogen, Ammonia	0.050	mg/L	0.0049	0.050	U

METHOD BLANK DATA SHEET
SM 4500-NH3 G 20th

Laboratory: TriMatrix Laboratories, Inc.
SDG: KNM050112
Client: TechLaw
Project: KNM
Matrix: Water
Laboratory ID: 1205701-BLK1
File ID: 050712nh3m-012
Prepared: 05/07/12 09:00
Analyzed: 05/07/12 09:33
Preparation: Method-Specific Preparat
Initial/Final: 10 mL / 10 mL
QC Batch: 1205701
Sequence: 2E12017
Calibration: 2E12001
Instrument: 303

CAS No.	Analyte	Concentration	Unit	MDL	MRL	Q
7664-41-7	Nitrogen, Ammonia	0.050	mg/L	0.0049	0.050	U

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

106092

SM 4500-NH3 G 20th

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Matrix: Water

QC Batch: 1205695

SDG: KNM050112

Project: KNM

Laboratory ID: 1205695-MS1

Preparation: Method-Specific Preparation

Initial/Final: 20 mL / 20 mL

Analyte	Spike Added	Sample Conc.	MS Conc.	MS % Rec. #	QC Limits Rec.	Units
Nitrogen, Ammonia	0.500	ND	0.474	95	90 - 110	mg/L

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

106092

SM 4500-NH3 G 20th

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Matrix: Water

QC Batch: 1205695

SDG: KNM050112

Project: KNM

Laboratory ID: 1205695-MSD1

Preparation: Method-Specific Preparation

Initial/Final: 20 mL / 20 mL

Analyte	Spike Added	MSD Conc.	MSD % Rec. #	% RPD #	QC Limits RPD	QC Limits Rec.	Units
Nitrogen, Ammonia	0.500	0.485	97	2	20	90 - 110	mg/L

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

106037

SM 4500-NH3 G 20th

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Matrix: Water

QC Batch: 1205701

SDG: KNM050112

Project: KNM

Laboratory ID: 1205701-MS1

Preparation: Method-Specific Preparation

Initial/Final: 20 mL / 20 mL

Analyte	Spike Added	Sample Conc.	MS Conc.	MS % Rec. #	QC Limits Rec.	Units
Nitrogen, Ammonia	0.500	ND	0.482	96	90 - 110	mg/L

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

106037

SM 4500-NH3 G 20th

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Matrix: Water

QC Batch: 1205701

SDG: KNM050112

Project: KNM

Laboratory ID: 1205701-MSD1

Preparation: Method-Specific Preparation

Initial/Final: 20 mL / 20 mL

Analyte	Spike Added	MSD Conc.	MSD % Rec. #	% RPD #	QC Limits RPD	QC Limits Rec.	Units
Nitrogen, Ammonia	0.500	0.500	100	4	20	90 - 110	mg/L

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

LCS / LCS DUPLICATE RECOVERY

SM 4500-NH3 G 20th

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Matrix: Water

QC Batch: 1205695

SDG: KNM050112

Project: KNM

Laboratory ID: 1205695-BS1

Preparation: Method-Specific Preparation

Initial/Final: 20 mL / 20 mL

Sequence: 2E12012

Analyte	Spike Added	LCS Conc.	LCS % Rec. #	QC Limits Rec.	Units
Nitrogen, Ammonia	0.500	0.475	95	90 - 110	mg/L

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

LCS / LCS DUPLICATE RECOVERY

SM 4500-NH3 G 20th

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Matrix: Water

QC Batch: 1205701

SDG: KNM050112

Project: KNM

Laboratory ID: 1205701-BS1

Preparation: Method-Specific Preparation

Initial/Final: 20 mL / 20 mL

Sequence: 2E12017

Analyte	Spike Added	LCS Conc.	LCS % Rec. #	QC Limits Rec.	Units
Nitrogen, Ammonia	0.500	0.475	95	90 - 110	mg/L

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

HOLDING TIME SUMMARY
SM 4500-NH3 G 20th

Laboratory: TriMatrix Laboratories, Inc.

SDG: KNM050112

Client: TechLaw

Project: KNM

Analyte: Nitrogen, Ammonia

Sample Name	Date Collected	Date Received	Date Leached	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
106092	05/01/12	05/02/12		05/07/12	6	NA	05/07/12	6	28	
106093	05/01/12	05/02/12		05/07/12	6	NA	05/07/12	6	28	
106036	05/02/12	05/03/12		05/07/12	5	NA	05/07/12	5	28	
106037	05/02/12	05/03/12		05/07/12	5	NA	05/07/12	5	28	

Inorganic - Wet Chemistry, Water, May-07-12

Instrument = 303, Calibration = 2E12001

Sequence Analyses:
Nitrogen, Ammonia 4500-NH3 G

Lab Number	*Analysis*	*Contain*	*STD ID*	*ISTD ID*	*Client / QC Type*	*Extraction Comments*
2E12012-CAL1	QC		2050138		CAL STANDARD	
2E12012-CAL2	QC		2050148		CAL STANDARD	
2E12012-CAL3	QC		2050147		CAL STANDARD	
2E12012-CAL4	QC		2050146		CAL STANDARD	
2E12012-CAL5	QC		2050145		CAL STANDARD	
2E12012-CAL6	QC		2050144		CAL STANDARD	
2E12012-CAL7	QC		2050143		CAL STANDARD	
2E12012-CCV1	QC		2050144		CALIBRATION CHECK	
2E12012-CCB1	QC				CALIBRATION BLANK	
2E12012-CRL1	QC		2050148		INSTRUMENT RL CHECK	
2E12012-SCV1	QC		2050558		SECONDARY CAL CHECK	
1205695-BLK1	QC				BLANK	
1205695-BS1	QC				LCS	
2E12012-CCV2	QC		2050144		CALIBRATION CHECK	
2E12012-CCB2	QC				CALIBRATION BLANK	
1205072-01	Nitrogen, Ammonia 4500-NH3 G	K			TechLaw	
1205695-MS1	QC				MATRIX SPIKE	
1205695-MSD1	QC				MATRIX SPIKE DUP	
1205073-01	Nitrogen, Ammonia 4500-NH3 G	K			TechLaw	
2E12012-CCV3	QC		2050144		CALIBRATION CHECK	
2E12012-CCB3	QC		2020381		CALIBRATION BLANK	

Comments:	Analyst Initials:

TriMatrix Laboratories, Inc.

PREPARATION BATCH 1205695

Printed: 5/12/2012 3:24:44PM

NLB 5-14-12

Inorganic - Wet Chemistry, Water, Method-Specific Preparation

(No Surrogate)

Batch Comments: (none)

due 5-15-12 LVY

01113

Standard	Description	Solvent	LotNum
2041111	Ammonia-Sodium Nitroprusside	DI H2O	104219
2041183	Ammonia-1M NAOH	na	na
2041184	Ammonia-Buffer	na	na
2050130	Ammonia-Sodium Phenolate	DI H2O	na
2050137	Ammonia-Carrier 0.038M H2SO4	diH2O	116298
2050139	Ammonia 100mg/L	2050137	K39628
2050268	Ammonia-Bleach Reagent	DI H2O	K38505

Work Order	Analysis	Work Order	Analysis	Work Order	Analysis
1205072	Nitrogen, Ammonia 4500-NH3 G	1205073	Nitrogen, Ammonia 4500-NH3 G		

Balance ID: _____ **pH Meter:** _____

Lab Number	Contain	Prepared	By	Initial (mL)	Final (mL)	uL Surrogate	Source ID	Spike ID	uL Spike	Client / QC Type	Extraction Comments
1205695-BLK1		May-07-12 09:00	CLB	10	10					BLANK	
1205695-BS1		May-07-12 09:00	CLB	20	20			2050139	100	LCS	
1205695-MS1		May-07-12 09:00	CLB	20	20		1205072-01	2050139	100	MATRIX SPIKE	
1205695-MSD1		May-07-12 09:00	CLB	20	20		1205072-01	2050139	100	MATRIX SPIKE DUP	
1205072-01	K	May-07-12 09:00	CLB	10	10					TechLaw	
1205073-01	K	May-07-12 09:00	CLB	10	10					TechLaw	

Comments:

Analyst Initials:

Laboratory inst#303
Konelab User

07.05.2012 09:13

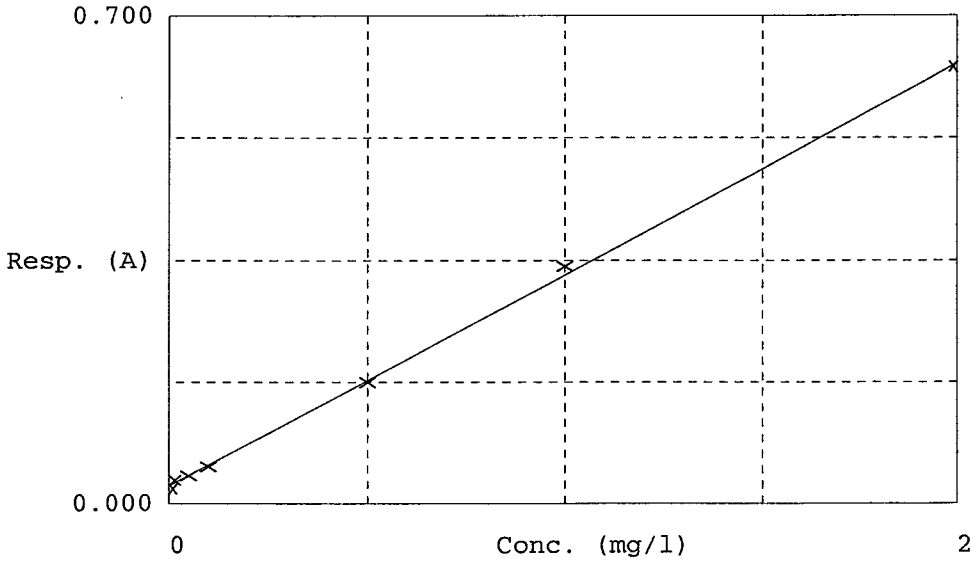
Test Ammonia

Accepted 07.05.2012 09:13

Factor 3.301
Bias 0.026

Coeff. of det. 0.999192

Errors



	Calibrator	Response	Calc. con.	Conc.	Errors
1	NH3- 0	0.021	-0.01584	0.00000	
2	NH3- .01	0.034	0.02560	0.01000	
3	NH3- .05	0.040	0.04671	0.05000	
4	NH3- .1	0.054	0.09004	0.10000	
5	NH3- .5	0.175	0.48986	0.50000	
6	NH3- 1	0.342	1.04115	1.00000	
7	NH3- 2	0.627	1.98246	2.00000	

Result Report AquaKem 6.5 Page: 1

Laboratory inst#303
Konelab User

Date : 2012-05-08
Time : 11.34

Test Ammonia
Unit mg/l

Sample ID:	Result	Resp.	Date and Time	Dilut	Man.dilut
NH3 CCV 1	0.9531	0.315	2012-05-07 09.33		
NH3 CCB 1	-0.0055	0.025	2012-05-07 09.33		
crdl	0.0147	0.031	2012-05-07 09.33		
scv	1.0475	0.344	2012-05-07 09.33		
blk 1	-0.0114	0.023	2012-05-07 09.33		
blk 2	-0.0144	0.022	2012-05-07 09.33		
blk 3	-0.0135	0.022	2012-05-07 09.33		
blk 4	-0.0186	0.021	2012-05-07 09.34		
bs 1	0.4751	0.170	2012-05-07 09.34		
bs 2	0.4697	0.169	2012-05-07 09.34		
bs 3	0.4624	0.166	2012-05-07 09.34		
bs 4	0.4635	0.167	2012-05-07 09.34		
NH3 CCV	0.9868	0.325	2012-05-07 09.42		
NH3 CCB	-0.0072	0.024	2012-05-07 09.42		
25 ppm 1+49	23.6562	0.170	2012-05-07 09.42	1+49.0	
25 ppm 1+49	24.1881	0.319	2012-05-07 09.42	1+24.0	
10 ppm 1+9	9.8267	0.324	2012-05-07 09.42	1+9.0	
5 ppm 1+4	1.8471	0.138	2012-05-07 09.42	1+4.0	
5 ppm 1+4	1.9205	0.317	2012-05-07 09.46	1+1.0	
NH3 CCV 2	0.9924	0.327	2012-05-07 09.47		
NH3 CCB 2	-0.0097	0.023	2012-05-07 09.47		
NH3 CCV	0.9838	0.324	2012-05-07 10.40		
NH3 CCB	-0.0073	0.024	2012-05-07 10.40		
1205072-01	-0.0018	0.026	2012-05-07 10.40		
1205072-01 ms	0.4736	0.170	2012-05-07 10.40		
1205072-01 msd	0.4849	0.173	2012-05-07 10.40		
1205073-01	0.0115	0.030	2012-05-07 10.40		
1205058-01	0.1998	0.087	2012-05-07 10.40		
1205058-01 ms	0.6426	0.221	2012-05-07 10.40		
1205058-01 msd	0.6333	0.218	2012-05-07 10.40		
1205058-02	0.0006	0.026	2012-05-07 10.40		
1205058-03	0.0050	0.028	2012-05-07 10.40		
1205058-04	-0.0053	0.025	2012-05-07 10.40		
NH3 CCV 3	0.9596	0.317	2012-05-07 10.50		
NH3 CCB 3	-0.0092	0.024	2012-05-07 10.50		
1205058-05	0.0041	0.028	2012-05-07 10.50		
1205058-06	-0.0002	0.026	2012-05-07 10.50		
1205058-07	0.0083	0.029	2012-05-07 10.50		
1205058-08	0.0084	0.029	2012-05-07 10.50		
1205058-09	0.0269	0.034	2012-05-07 10.50		
1205058-10	0.0000	0.026	2012-05-07 10.50		
1205078-01	0.1307	0.066	2012-05-07 10.50		
1205078-02	0.0785	0.050	2012-05-07 10.50		
1205078-03	0.0315	0.036	2012-05-07 10.50		
1205087-01	0.0247	0.034	2012-05-07 10.50		
NH3 CCV	0.9552	0.316	2012-05-07 10.59		
NH3 CCB	-0.0070	0.024	2012-05-07 10.59		
1205087-02	-0.0028	0.025	2012-05-07 10.59		
1205087-03	0.0091	0.029	2012-05-07 10.59		
1205087-04	0.0046	0.028	2012-05-07 10.59		
1205087-05	0.0233	0.033	2012-05-07 10.59		
1205087-06	0.0000	0.026	2012-05-07 10.59		
1205087-07	0.0189	0.032	2012-05-07 10.59		

Laboratory inst#303
Konelab User

Date : 2012-05-08
Time : 11.34

Test Ammonia
Unit mg/l

Sample ID:	Result	Resp.	Date and Time	Dilut	Man.dilut
1205087-08	0.0104	0.029	2012-05-07 10.59		
1205087-09	-0.0039	0.025	2012-05-07 10.59		
1205087-10	-0.0064	0.024	2012-05-07 10.59		
1205087-11	0.0105	0.029	2012-05-07 10.59		
NH3 CCV	0.9579	0.316	2012-05-07 11.08		
NH3 CCB	-0.0082	0.024	2012-05-07 11.08		
1205087-11 ms	0.4789	0.171	2012-05-07 11.08		
1205087-11 msd	0.4838	0.173	2012-05-07 11.08		
1205087-12	0.0069	0.028	2012-05-07 11.08		
1205090-01	0.3524	0.133	2012-05-07 11.08		
1205090-01 ms	0.8424	0.281	2012-05-07 11.08		
1205090-01 msd	0.8332	0.279	2012-05-07 11.08		
1205090-03	0.0259	0.034	2012-05-07 11.08		
1205090-03 ms	0.4762	0.171	2012-05-07 11.08		
1205090-03 msd	0.4942	0.176	2012-05-07 11.08		
1205090-04	0.0338	0.037	2012-05-07 11.08		
NH3 CCV	0.9583	0.317	2012-05-07 11.17		
NH3 CCB	-0.0075	0.024	2012-05-07 11.17		
1205090-05	0.1085	0.059	2012-05-07 11.17		
1205090-06	0.1077	0.059	2012-05-07 11.17		
1205090-07	0.0162	0.031	2012-05-07 11.17		
1205090-08	0.1535	0.073	2012-05-07 11.17		
1205090-09	0.0050	0.028	2012-05-07 11.17		
1205090-10	0.2897	0.114	2012-05-07 11.17		
1205086-01	-0.0091	0.024	2012-05-07 11.17		
1205086-02	-0.0105	0.023	2012-05-07 11.17		
1205086-03	-0.0121	0.023	2012-05-07 11.17		
1205086-04	-0.0160	0.021	2012-05-07 11.17		
NH3 CCV	0.9646	0.318	2012-05-07 11.26		
NH3 CCB	-0.0066	0.024	2012-05-07 11.26		
1205086-04 ms	0.4914	0.175	2012-05-07 11.26		
1205086-04 msd	0.4956	0.176	2012-05-07 11.26		
1205086-05	-0.0033	0.025	2012-05-07 11.26		
1205086-06	0.0051	0.028	2012-05-07 11.26		
1205086-07	0.0229	0.033	2012-05-07 11.26		
1205086-08	0.0363	0.037	2012-05-07 11.26		
1205086-09	0.0366	0.037	2012-05-07 11.26		
1205086-10	0.0711	0.048	2012-05-07 11.26		
1205086-11	-0.0170	0.021	2012-05-07 11.26		
NH3 CCV	0.9992	0.329	2012-05-07 11.30		
NH3 CCB	-0.0057	0.025	2012-05-07 11.30		
NH3 CCV	0.9712	0.320	2012-05-07 13.09		
NH3 CCB	-0.0068	0.024	2012-05-07 13.09		
1205085-02 ms	0.4817	0.172	2012-05-07 13.09		
1205085-02 msd	0.4997	0.178	2012-05-07 13.09		
1205077-01	0.0167	0.031	2012-05-07 13.09		
1205077-01 ms	0.4976	0.177	2012-05-07 13.09		
1205077-01 msd	0.4971	0.177	2012-05-07 13.09		
1205092-07	0.0131	0.030	2012-05-07 13.09		
1205092-08	0.5048	0.179	2012-05-07 13.09		
1205092-09	0.1801	0.081	2012-05-07 13.09		
1205092-13	0.0192	0.032	2012-05-07 13.09		
1205092-14	0.0005	0.026	2012-05-07 13.09		

Laboratory inst#303
Konelab User

Date : 2012-05-08
Time : 11.34

Test Ammonia
Unit mg/l

Sample ID:	Result	Resp.	Date and Time	Dilut	Man.dilut
NH3 CCV	0.9635	0.318	2012-05-07 13.18		
NH3 CCB	0.0045	0.028	2012-05-07 13.18		
1205077-03	0.0800	0.051	2012-05-07 13.18		
1205077-04	0.1477	0.071	2012-05-07 13.18		
1205077-05	0.1413	0.069	2012-05-07 13.18		
1205077-06	0.0108	0.030	2012-05-07 13.18		
1205077-07	0.2013	0.087	2012-05-07 13.18		
1205077-08	0.0057	0.028	2012-05-07 13.18		
1205075-01	0.0023	0.027	2012-05-07 13.18		
1205075-02	0.0015	0.027	2012-05-07 13.18		
1205075-03	0.0035	0.027	2012-05-07 13.18		
NH3 CCV	0.9742	0.321	2012-05-07 13.27		
NH3 CCB	-0.0017	0.026	2012-05-07 13.27		
blk ww	0.0256	0.034	2012-05-07 13.36		
bs ww	0.9479	0.313	2012-05-07 13.36		
bsd ww	1.0593	0.347	2012-05-07 13.36		
1205081-01	0.1032	0.058	2012-05-07 13.36		
1205092-04 msd	0.5716	0.199	2012-05-07 13.36		
1205092-05	0.0747	0.049	2012-05-07 13.36		
1205092-06	0.0257	0.034	2012-05-07 13.36		
NH3 CCV	0.9826	0.324	2012-05-07 13.44		
NH3 CCB	-0.0041	0.025	2012-05-07 13.44		
1205081-01 msd	0.9852	0.325	2012-05-07 13.44		
blk 4	-0.0167	0.021	2012-05-07 13.44		
b s4	0.4840	0.173	2012-05-07 13.44		
1205085-01	-0.0101	0.023	2012-05-07 13.44		
1205085-02	0.0040	0.027	2012-05-07 13.44		
NH3 CCV	0.9930	0.327	2012-05-07 13.49		
NH3 CCB	-0.0046	0.025	2012-05-07 13.49		
NH3 CCV	0.9957	0.328	2012-05-07 14.37		
NH3 CCB	0.0023	0.027	2012-05-07 14.37		
NH3 CCV	0.9978	0.329	2012-05-07 14.51		
NH3 CCB	-0.0039	0.025	2012-05-07 14.51		
NH3 CCV	0.9593	0.317	2012-05-07 15.22		
NH3 CCB	-0.0030	0.025	2012-05-07 15.22		
1205075-03 ms	0.4876	0.174	2012-05-07 15.22		
1205075-03 msd	0.4850	0.173	2012-05-07 15.22		
1205075-04	0.1650	0.076	2012-05-07 15.22		
1205075-05	0.1486	0.071	2012-05-07 15.22		
1205075-06	0.0238	0.033	2012-05-07 15.22		
1205092-01	0.0567	0.043	2012-05-07 15.22		
1205092-02	0.0244	0.034	2012-05-07 15.22		
1205092-03	0.0095	0.029	2012-05-07 15.22		
1205092-04	0.0956	0.055	2012-05-07 15.22		
1205092-04 ms	0.5272	0.186	2012-05-07 15.22		
NH3 CCV	0.9850	0.325	2012-05-07 15.29		
NH3 CCB	0.0021	0.027	2012-05-07 15.29		
1205081-01 ms	0.9417	0.312	2012-05-07 15.29		
1205077-02	19.4510	0.616	2012-05-07 15.32	1+9.0	
NH3 CCV	0.9972	0.328	2012-05-07 15.35		
NH3 CCB	-0.0033	0.025	2012-05-07 15.35		
1205092-12 10 x	168.1276	0.230	2012-05-07 16.02	1+24.0	1+9.0
1205101-01 10 x	377.4298	0.484	2012-05-07 16.03	1+24.0	1+9.0

Laboratory inst#303
Konelab User

Date : 2012-05-08
Time : 11.34

Test Ammonia
Unit mg/l

Sample ID:	Result	Resp.	Date and Time	Dilut	Man.dilut
NH3 CCV	0.9992	0.329	2012-05-07 16.05		
NH3 CCB	-0.0002	0.026	2012-05-07 16.06		
NH3 CCV	1.0038	0.330	2012-05-07 16.24		
NH3 CCB	-0.0039	0.025	2012-05-07 16.24		
1205092-11 10 x	772.2139	0.494	2012-05-07 16.24	1+49.0	1+9.0
NH3 CCV	1.0069	0.331	2012-05-07 16.27		
NH3 CCB	-0.0034	0.025	2012-05-07 16.27		
NH3 CCV	1.0287	0.338	2012-05-08 10.27		
NH3 CCB	-0.0109	0.023	2012-05-08 10.27		
scv	1.0559	0.346	2012-05-08 10.27		
1205091-01 100x	156.8793	0.502	2012-05-08 10.27		1+99.0
NH3 CCV	1.0476	0.344	2012-05-08 10.30		
NH3 CCB	-0.0099	0.023	2012-05-08 10.30		
NH3 CCV	1.0410	0.342	2012-05-08 11.26		
NH3 CCB	-0.0109	0.023	2012-05-08 11.26		
crdl	0.0113	0.030	2012-05-08 11.26		
NH3 CCV	1.0364	0.340	2012-05-08 11.29		
NH3 CCB	-0.0072	0.024	2012-05-08 11.29		

Inorganic - Wet Chemistry, Water, May-07-12

Instrument = 303, Calibration = 2E12001

Sequence Analyses:
Nitrogen, Ammonia 4500-NH3 G

Lab Number	*Analysis*	*Contain*	*STD ID*	*ISTD ID*	*Client / QC Type*	*Extraction Comments*
2E12017-CAL1	QC		2050138		CAL STANDARD	
2E12017-CAL2	QC		2050148		CAL STANDARD	
2E12017-CAL3	QC		2050147		CAL STANDARD	
2E12017-CAL4	QC		2050146		CAL STANDARD	
2E12017-CAL5	QC		2050145		CAL STANDARD	
2E12017-CAL6	QC		2050144		CAL STANDARD	
2E12017-CAL7	QC		2050143		CAL STANDARD	
2E12017-CCV1	QC		2050144		CALIBRATION CHECK	
2E12017-CCB1	QC				CALIBRATION BLANK	
2E12017-CRL1	QC		2050148		INSTRUMENT RL CHECK	
2E12017-SCV1	QC		2050362		SECONDARY CAL CHECK	
1205701-BLK1	QC				BLANK	
1205701-BS1	QC				LCS	
2E12017-CCV2	QC		2050144		CALIBRATION CHECK	
2E12017-CCB2	QC				CALIBRATION BLANK	
2E12017-CCV3	QC		2050144		CALIBRATION CHECK	
2E12017-CCB3	QC		2020381		CALIBRATION BLANK	
1205701-MS1	QC				MATRIX SPIKE	
1205701-MSD1	QC				MATRIX SPIKE DUP	
1205085-01	Nitrogen, Ammonia 4500-NH3 G	K			TechLaw	
1205085-02	Nitrogen, Ammonia 4500-NH3 G	U			TechLaw	
2E12017-CCV4	QC		2050144		CALIBRATION CHECK	
2E12017-CCB4	QC		2020188		CALIBRATION BLANK	

Comments:	Analyst Initials:

PREPARATION BATCH 1205701

Printed: 5/12/2012 4:12:36PM

HLB 5-14-12

Inorganic - Wet Chemistry, Water, Method-Specific Preparation

(No Surrogate)

Batch Comments: (none)

due 5-16-12 LVY

Standard	Description	Solvent	LotNum
2041111	Ammonia-Sodium Nitroprusside	DI H2O	104219
2041183	Ammonia-1M NAOH	na	na
2041184	Ammonia-Buffer	na	na
2050130	Ammonia-Sodium Phenolate	DI H2O	na
2050137	Ammonia-Carrier 0.038M H2SO4	diH2O	116298
2050139	Ammonia 100mg/L	2050137	K39628
2050268	Ammonia-Bleach Reagent	DI H2O	K38505

Work Order	Analysis	Work Order	Analysis	Work Order	Analysis
1205085	Nitrogen, Ammonia 4500-NH3 G				

Balance ID: _____ **pH Meter:** _____

Lab Number	Contain	Prepared	By	Initial (mL)	Final (mL)	uL Surrogate	Source ID	Spike ID	uL Spike	Client / QC Type	Extraction Comments
1205701-BLK1		May-07-12 09:00	CLB	10	10					BLANK	
1205701-BS1		May-07-12 09:00	CLB	20	20			2050139	100	LCS	
1205701-MS1		May-07-12 09:00	CLB	20	20		1205085-02	2050139	100	MATRIX SPIKE	
1205701-MSD1		May-07-12 09:00	CLB	20	20		1205085-02	2050139	100	MATRIX SPIKE DUP	
1205085-01	K	May-07-12 09:00	CLB	10	10					TechLaw	
1205085-02	U	May-07-12 09:00	CLB	10	10					TechLaw	

Comments:

Analyst Initials:

Laboratory inst#303
Konelab User

07.05.2012 09:13

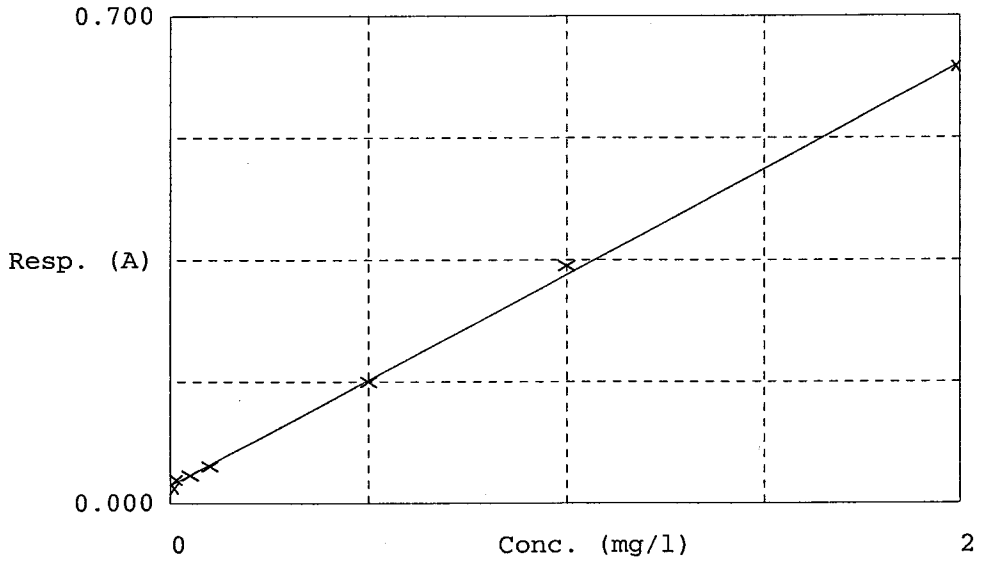
Test Ammonia

Accepted 07.05.2012 09:13

Factor 3.301
Bias 0.026

Coeff. of det. 0.999192

Errors



	Calibrator	Response	Calc. con.	Conc.	Errors
1	NH3- 0	0.021	-0.01584	0.00000	
2	NH3- .01	0.034	0.02560	0.01000	
3	NH3- .05	0.040	0.04671	0.05000	
4	NH3- .1	0.054	0.09004	0.10000	
5	NH3- .5	0.175	0.48986	0.50000	
6	NH3- 1	0.342	1.04115	1.00000	
7	NH3- 2	0.627	1.98246	2.00000	

Result Report AquaKem 6.5 Page: 1

Laboratory inst#303
Konelab User

Date : 2012-05-08
Time : 11.34

Test Ammonia
Unit mg/l

Sample ID:	Result	Resp.	Date and Time	Dilut	Man.dilut
NH3 CCV 1	0.9531	0.315	2012-05-07 09.33		
NH3 CCB 1	-0.0055	0.025	2012-05-07 09.33		
crdl	0.0147	0.031	2012-05-07 09.33		
scv	1.0475	0.344	2012-05-07 09.33		
blk 1	-0.0114	0.023	2012-05-07 09.33		
blk 2	-0.0144	0.022	2012-05-07 09.33		
blk 3	-0.0135	0.022	2012-05-07 09.33		
blk 4	-0.0186	0.021	2012-05-07 09.34		
bs 1	0.4751	0.170	2012-05-07 09.34		
bs 2	0.4697	0.169	2012-05-07 09.34		
bs 3	0.4624	0.166	2012-05-07 09.34		
bs 4	0.4635	0.167	2012-05-07 09.34		
NH3 CCV 2	0.9868	0.325	2012-05-07 09.42		
NH3 CCB 2	-0.0072	0.024	2012-05-07 09.42		
25 ppm 1+49	23.6562	0.170	2012-05-07 09.42	1+49.0	
25 ppm 1+49	24.1881	0.319	2012-05-07 09.42	1+24.0	
10 ppm 1+9	9.8267	0.324	2012-05-07 09.42	1+9.0	
5 ppm 1+4	1.8471	0.138	2012-05-07 09.42	1+4.0	
5 ppm 1+4	1.9205	0.317	2012-05-07 09.46	1+1.0	
NH3 CCV	0.9924	0.327	2012-05-07 09.47		
NH3 CCB	-0.0097	0.023	2012-05-07 09.47		
NH3 CCV	0.9838	0.324	2012-05-07 10.40		
NH3 CCB	-0.0073	0.024	2012-05-07 10.40		
1205072-01	-0.0018	0.026	2012-05-07 10.40		
1205072-01 ms	0.4736	0.170	2012-05-07 10.40		
1205072-01 msd	0.4849	0.173	2012-05-07 10.40		
1205073-01	0.0115	0.030	2012-05-07 10.40		
1205058-01	0.1998	0.087	2012-05-07 10.40		
1205058-01 ms	0.6426	0.221	2012-05-07 10.40		
1205058-01 msd	0.6333	0.218	2012-05-07 10.40		
1205058-02	0.0006	0.026	2012-05-07 10.40		
1205058-03	0.0050	0.028	2012-05-07 10.40		
1205058-04	-0.0053	0.025	2012-05-07 10.40		
NH3 CCV	0.9596	0.317	2012-05-07 10.50		
NH3 CCB	-0.0092	0.024	2012-05-07 10.50		
1205058-05	0.0041	0.028	2012-05-07 10.50		
1205058-06	-0.0002	0.026	2012-05-07 10.50		
1205058-07	0.0083	0.029	2012-05-07 10.50		
1205058-08	0.0084	0.029	2012-05-07 10.50		
1205058-09	0.0269	0.034	2012-05-07 10.50		
1205058-10	0.0000	0.026	2012-05-07 10.50		
1205078-01	0.1307	0.066	2012-05-07 10.50		
1205078-02	0.0785	0.050	2012-05-07 10.50		
1205078-03	0.0315	0.036	2012-05-07 10.50		
1205087-01	0.0247	0.034	2012-05-07 10.50		
NH3 CCV	0.9552	0.316	2012-05-07 10.59		
NH3 CCB	-0.0070	0.024	2012-05-07 10.59		
1205087-02	-0.0028	0.025	2012-05-07 10.59		
1205087-03	0.0091	0.029	2012-05-07 10.59		
1205087-04	0.0046	0.028	2012-05-07 10.59		
1205087-05	0.0233	0.033	2012-05-07 10.59		
1205087-06	0.0000	0.026	2012-05-07 10.59		
1205087-07	0.0189	0.032	2012-05-07 10.59		

Laboratory inst#303
Konelab User

Date : 2012-05-08
Time : 11.34

Test Ammonia
Unit mg/l

Sample ID:	Result	Resp.	Date and Time	Dilut	Man.dilut
1205087-08	0.0104	0.029	2012-05-07 10.59		
1205087-09	-0.0039	0.025	2012-05-07 10.59		
1205087-10	-0.0064	0.024	2012-05-07 10.59		
1205087-11	0.0105	0.029	2012-05-07 10.59		
NH3 CCV	0.9579	0.316	2012-05-07 11.08		
NH3 CCB	-0.0082	0.024	2012-05-07 11.08		
1205087-11 ms	0.4789	0.171	2012-05-07 11.08		
1205087-11 msd	0.4838	0.173	2012-05-07 11.08		
1205087-12	0.0069	0.028	2012-05-07 11.08		
1205090-01	0.3524	0.133	2012-05-07 11.08		
1205090-01 ms	0.8424	0.281	2012-05-07 11.08		
1205090-01 msd	0.8332	0.279	2012-05-07 11.08		
1205090-03	0.0259	0.034	2012-05-07 11.08		
1205090-03 ms	0.4762	0.171	2012-05-07 11.08		
1205090-03 msd	0.4942	0.176	2012-05-07 11.08		
1205090-04	0.0338	0.037	2012-05-07 11.08		
NH3 CCV	0.9583	0.317	2012-05-07 11.17		
NH3 CCB	-0.0075	0.024	2012-05-07 11.17		
1205090-05	0.1085	0.059	2012-05-07 11.17		
1205090-06	0.1077	0.059	2012-05-07 11.17		
1205090-07	0.0162	0.031	2012-05-07 11.17		
1205090-08	0.1535	0.073	2012-05-07 11.17		
1205090-09	0.0050	0.028	2012-05-07 11.17		
1205090-10	0.2897	0.114	2012-05-07 11.17		
1205086-01	-0.0091	0.024	2012-05-07 11.17		
1205086-02	-0.0105	0.023	2012-05-07 11.17		
1205086-03	-0.0121	0.023	2012-05-07 11.17		
1205086-04	-0.0160	0.021	2012-05-07 11.17		
NH3 CCV	0.9646	0.318	2012-05-07 11.26		
NH3 CCB	-0.0066	0.024	2012-05-07 11.26		
1205086-04 ms	0.4914	0.175	2012-05-07 11.26		
1205086-04 msd	0.4956	0.176	2012-05-07 11.26		
1205086-05	-0.0033	0.025	2012-05-07 11.26		
1205086-06	0.0051	0.028	2012-05-07 11.26		
1205086-07	0.0229	0.033	2012-05-07 11.26		
1205086-08	0.0363	0.037	2012-05-07 11.26		
1205086-09	0.0366	0.037	2012-05-07 11.26		
1205086-10	0.0711	0.048	2012-05-07 11.26		
1205086-11	-0.0170	0.021	2012-05-07 11.26		
NH3 CCV	0.9992	0.329	2012-05-07 11.30		
NH3 CCB	-0.0057	0.025	2012-05-07 11.30		
NH3 CCV	0.9712	0.320	2012-05-07 13.09		
NH3 CCB 3	-0.0068	0.024	2012-05-07 13.09		
1205085-02 ms	0.4817	0.172	2012-05-07 13.09		
1205085-02 msd	0.4997	0.178	2012-05-07 13.09		
1205077-01	0.0167	0.031	2012-05-07 13.09		
1205077-01 ms	0.4976	0.177	2012-05-07 13.09		
1205077-01 msd	0.4971	0.177	2012-05-07 13.09		
1205092-07	0.0131	0.030	2012-05-07 13.09		
1205092-08	0.5048	0.179	2012-05-07 13.09		
1205092-09	0.1801	0.081	2012-05-07 13.09		
1205092-13	0.0192	0.032	2012-05-07 13.09		
1205092-14	0.0005	0.026	2012-05-07 13.09		

Laboratory inst#303
Konelab User

Date : 2012-05-08
Time : 11.34

Test Ammonia
Unit mg/l

Sample ID:	Result	Resp.	Date and Time	Dilut	Man.dilut
NH3 CCV	0.9635	0.318	2012-05-07 13.18		
NH3 CCB	0.0045	0.028	2012-05-07 13.18		
1205077-03	0.0800	0.051	2012-05-07 13.18		
1205077-04	0.1477	0.071	2012-05-07 13.18		
1205077-05	0.1413	0.069	2012-05-07 13.18		
1205077-06	0.0108	0.030	2012-05-07 13.18		
1205077-07	0.2013	0.087	2012-05-07 13.18		
1205077-08	0.0057	0.028	2012-05-07 13.18		
1205075-01	0.0023	0.027	2012-05-07 13.18		
1205075-02	0.0015	0.027	2012-05-07 13.18		
1205075-03	0.0035	0.027	2012-05-07 13.18		
NH3 CCV	0.9742	0.321	2012-05-07 13.27		
NH3 CCB	-0.0017	0.026	2012-05-07 13.27		
blk ww	0.0256	0.034	2012-05-07 13.36		
bs ww	0.9479	0.313	2012-05-07 13.36		
bsd ww	1.0593	0.347	2012-05-07 13.36		
1205081-01	0.1032	0.058	2012-05-07 13.36		
1205092-04 msd	0.5716	0.199	2012-05-07 13.36		
1205092-05	0.0747	0.049	2012-05-07 13.36		
1205092-06	0.0257	0.034	2012-05-07 13.36		
NH3 CCV	0.9826	0.324	2012-05-07 13.44		
NH3 CCB	-0.0041	0.025	2012-05-07 13.44		
1205081-01 msd	0.9852	0.325	2012-05-07 13.44		
blk 4	-0.0167	0.021	2012-05-07 13.44		
b s4	0.4840	0.173	2012-05-07 13.44		
1205085-01	-0.0101	0.023	2012-05-07 13.44		
1205085-02	0.0040	0.027	2012-05-07 13.44		
NH3 CCV	0.9930	0.327	2012-05-07 13.49		
NH3 CCB 4	-0.0046	0.025	2012-05-07 13.49		
NH3 CCV	0.9957	0.328	2012-05-07 14.37		
NH3 CCB	0.0023	0.027	2012-05-07 14.37		
NH3 CCV	0.9978	0.329	2012-05-07 14.51		
NH3 CCB	-0.0039	0.025	2012-05-07 14.51		
NH3 CCV	0.9593	0.317	2012-05-07 15.22		
NH3 CCB	-0.0030	0.025	2012-05-07 15.22		
1205075-03 ms	0.4876	0.174	2012-05-07 15.22		
1205075-03 msd	0.4850	0.173	2012-05-07 15.22		
1205075-04	0.1650	0.076	2012-05-07 15.22		
1205075-05	0.1486	0.071	2012-05-07 15.22		
1205075-06	0.0238	0.033	2012-05-07 15.22		
1205092-01	0.0567	0.043	2012-05-07 15.22		
1205092-02	0.0244	0.034	2012-05-07 15.22		
1205092-03	0.0095	0.029	2012-05-07 15.22		
1205092-04	0.0956	0.055	2012-05-07 15.22		
1205092-04 ms	0.5272	0.186	2012-05-07 15.22		
NH3 CCV	0.9850	0.325	2012-05-07 15.29		
NH3 CCB	0.0021	0.027	2012-05-07 15.29		
1205081-01 ms	0.9417	0.312	2012-05-07 15.29		
1205077-02	19.4510	0.616	2012-05-07 15.32	1+9.0	
NH3 CCV	0.9972	0.328	2012-05-07 15.35		
NH3 CCB	-0.0033	0.025	2012-05-07 15.35		
1205092-12 10 x	168.1276	0.230	2012-05-07 16.02	1+24.0	1+9.0
1205101-01 10 x	377.4298	0.484	2012-05-07 16.03	1+24.0	1+9.0

Laboratory inst#303
Konelab User

Date : 2012-05-08
Time : 11.34

Test Ammonia
Unit mg/l

Sample ID:	Result	Resp.	Date and Time	Dilut	Man.dilut
NH3 CCV	0.9992	0.329	2012-05-07 16.05		
NH3 CCB	-0.0002	0.026	2012-05-07 16.06		
NH3 CCV	1.0038	0.330	2012-05-07 16.24		
NH3 CCB	-0.0039	0.025	2012-05-07 16.24		
1205092-11 10 x	772.2139	0.494	2012-05-07 16.24	1+49.0	1+9.0
NH3 CCV	1.0069	0.331	2012-05-07 16.27		
NH3 CCB	-0.0034	0.025	2012-05-07 16.27		
NH3 CCV	1.0287	0.338	2012-05-08 10.27		
NH3 CCB	-0.0109	0.023	2012-05-08 10.27		
scv	1.0559	0.346	2012-05-08 10.27		
1205091-01 100x	156.8793	0.502	2012-05-08 10.27		1+99.0
NH3 CCV	1.0476	0.344	2012-05-08 10.30		
NH3 CCB	-0.0099	0.023	2012-05-08 10.30		
NH3 CCV	1.0410	0.342	2012-05-08 11.26		
NH3 CCB	-0.0109	0.023	2012-05-08 11.26		
crdl	0.0113	0.030	2012-05-08 11.26		
NH3 CCV	1.0364	0.340	2012-05-08 11.29		
NH3 CCB	-0.0072	0.024	2012-05-08 11.29		

TriMatrix Laboratories, Inc.

TechLaw

Project: KNM

SDG: KNM050112

SM 4500-NO3 F 20th

SAMPLE ID SUMMARY

SM 4500-NO3 F 20th

Laboratory: TriMatrix Laboratories, Inc.

SDG: KNM050112

Client: TechLaw

Project: KNM

Client Sample Id:	Lab Sample Id:
106092	1205072-01
106093	1205073-01
106036	1205085-01
106037	1205085-02

INORGANIC ANALYSIS DATA SHEET

SM 4500-NO3 F 20th

106092

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Matrix: Water
Sampled: 05/01/12 15:22
Solids: 0.00
QC Batch: 1206049

SDG: KNM050112
Project: KNM
Laboratory ID: 1205072-01
Prepared: 05/11/12 10:28
Preparation: General Inorganic Prep
Initial/Final: 10 mL / 10 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
14797-55-8	Nitrogen, Nitrate+Nitrite	1	0.050	mg/L	0.0097	0.050	U	05/11/12 13:49

INORGANIC ANALYSIS DATA SHEET

SM 4500-NO3 F 20th

106093

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Matrix: Water
Sampled: 05/01/12 11:16
Solids: 0.00
QC Batch: 1206049

SDG: KNM050112
Project: KNM
Laboratory ID: 1205073-01
Prepared: 05/11/12 10:28
Preparation: General Inorganic Prep
Initial/Final: 10 mL / 10 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
14797-55-8	Nitrogen, Nitrate+Nitrite	1	0.046	mg/L	0.0097	0.050	J	05/11/12 13:50

INORGANIC ANALYSIS DATA SHEET

SM 4500-NO3 F 20th

106036

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Matrix: Water
Sampled: 05/02/12 13:18
Solids: 0.00
QC Batch: 1206049

SDG: KNM050112
Project: KNM
Laboratory ID: 1205085-01
Prepared: 05/11/12 10:28
Preparation: General Inorganic Prep
Initial/Final: 10 mL / 10 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
14797-55-8	Nitrogen, Nitrate+Nitrite	1	0.79	mg/L	0.0097	0.050		05/11/12 13:51

INORGANIC ANALYSIS DATA SHEET

SM 4500-NO3 F 20th

106037

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Matrix: Water
Sampled: 05/02/12 10:44
Solids: 0.00
QC Batch: 1206049

SDG: KNM050112
Project: KNM
Laboratory ID: 1205085-02
Prepared: 05/11/12 10:28
Preparation: General Inorganic Prep
Initial/Final: 10 mL / 10 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
14797-55-8	Nitrogen, Nitrate+Nitrite	1	0.31	mg/L	0.0097	0.050		05/11/12 13:52

ANALYSIS BATCH (SEQUENCE) SUMMARY
SM 4500-NO3 F 20th

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Sequence: 2E17061

SDG: KNM050112
Project: KNM
Calibration: 2E17020
Instrument: 189

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Cal Standard	2E17061-CAL1	05111231-001	05/11/12 10:28
Cal Standard	2E17061-CAL2	05111231-002	05/11/12 10:29
Cal Standard	2E17061-CAL3	05111231-003	05/11/12 10:30
Cal Standard	2E17061-CAL4	05111231-004	05/11/12 10:32
Cal Standard	2E17061-CAL5	05111231-005	05/11/12 10:33
Cal Standard	2E17061-CAL6	05111231-006	05/11/12 10:34
Cal Standard	2E17061-CAL7	05111231-007	05/11/12 10:35
Calibration Check	2E17061-CCV1	05111232-001	05/11/12 10:38
Calibration Blank	2E17061-CCB1	05111232-002	05/11/12 10:39
Secondary Cal Check	2E17061-SCV1	05111232-005	05/11/12 10:42
Instrument RL Check	2E17061-CRL1	05111232-006	05/11/12 10:44
Calibration Check	2E17061-CCV2	05111232-013	05/11/12 10:52
Calibration Blank	2E17061-CCB2	05111232-014	05/11/12 10:53
Calibration Check	2E17061-CCV3	05111233-001	05/11/12 13:32
Calibration Blank	2E17061-CCB3	05111233-002	05/11/12 13:33
Blank	1206049-BLK1	05111233-003	05/11/12 13:34
LCS	1206049-BS1	05111233-007	05/11/12 13:39
Calibration Check	2E17061-CCV4	05111233-013	05/11/12 13:45
Calibration Blank	2E17061-CCB4	05111233-014	05/11/12 13:47
106092	1205072-01	05111233-016	05/11/12 13:49
106093	1205073-01	05111233-017	05/11/12 13:50
106036	1205085-01	05111233-018	05/11/12 13:51
106037	1205085-02	05111233-019	05/11/12 13:52
106037	1206049-MS1	05111233-020	05/11/12 13:53
106037	1206049-MSD1	05111233-021	05/11/12 13:54
Calibration Check	2E17061-CCV5	05111233-025	05/11/12 13:59
Calibration Blank	2E17061-CCB5	05111233-026	05/11/12 14:00

INITIAL AND CONTINUING CALIBRATION CHECK

SM 4500-NO3 F 20th

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Sequence: 2E17061
Control Limt: +/- 10.00%

SDG: KNM050112
Project: KNM
Calibration: 2E17020
Instrument ID: 189

Lab Sample ID	Analyte	True	Found	%R	Units	Analyzed
2E17061-CCV1	Nitrogen, Nitrate+Nitrite	0.500	0.515	103	mg/L	05/11/12 10:38
2E17061-CCV2	Nitrogen, Nitrate+Nitrite	0.500	0.494	99	mg/L	05/11/12 10:52
2E17061-CCV3	Nitrogen, Nitrate+Nitrite	0.500	0.525	105	mg/L	05/11/12 13:32
2E17061-CCV4	Nitrogen, Nitrate+Nitrite	0.500	0.514	103	mg/L	05/11/12 13:45
2E17061-CCV5	Nitrogen, Nitrate+Nitrite	0.500	0.481	96	mg/L	05/11/12 13:59

* Values outside of QC limits

SECOND-SOURCE CALIBRATION VERIFICATION

SM 4500-NO3 F 20th

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Laboratory ID: 2E17061-SCV1
Sequence: 2E17061

SDG: KNM050112
Project: KNM
Instrument: 189
Calibration: 2E17020

Analyte	Expected	Found	% R	QC Limit	Units
Nitrogen, Nitrate+Nitrite	0.500	0.484	97	90-110	mg/L

* Values outside of QC limits

CRDL STANDARD

SM 4500-NO3 F 20th

Laboratory: TriMatrix Laboratories, Inc.

SDG: KNM050112

Client: TechLaw

Project: KNM

Sequence: 2E17061

Calibration: 2E17020

Instrument ID: 189

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
2E17061-CRL1	Nitrogen, Nitrate+Nitrite	0.0100	0.00804	80	mg/L	50 - 150

* Values outside of QC limits

BLANKS
SM 4500-NO3 F 20th

Laboratory: TriMatrix Laboratories, Inc.
SDG: KNM050112
Client: TechLaw
Project: KNM
Sequence: 2E17061
Calibration: 2E17020
Instrument ID: 189

Lab Sample ID	Analyte	Found	Unit	MDL	MRL	C	Analyzed
2E17061-CCB1	Nitrogen, Nitrate+Nitrite	0.0036	mg/L	0.0097	0.050	U	05/11/12 10:39
2E17061-CCB2	Nitrogen, Nitrate+Nitrite	-0.00087	mg/L	0.0097	0.050	U	05/11/12 10:53
2E17061-CCB3	Nitrogen, Nitrate+Nitrite	-0.0032	mg/L	0.0097	0.050	U	05/11/12 13:33
2E17061-CCB4	Nitrogen, Nitrate+Nitrite	0.00085	mg/L	0.0097	0.050	U	05/11/12 13:47
2E17061-CCB5	Nitrogen, Nitrate+Nitrite	-0.0032	mg/L	0.0097	0.050	U	05/11/12 14:00

* Values outside of QC limits

QC BATCH SUMMARY

SM 4500-NO3 F 20th

Laboratory: TriMatrix Laboratories, Inc.

SDG: KNM050112

Client: TechLaw

Project: KNM

QC Batch: 1206049 QC Batch Matrix: Water

Preparation: General Inorganic Prep

Sample Name	Lab Sample ID	Date Prepared	Observations
106092	1205072-01	05/11/12 10:28	
106093	1205073-01	05/11/12 10:28	
106036	1205085-01	05/11/12 10:28	
106037	1205085-02	05/11/12 10:28	
Blank	1206049-BLK1	05/11/12 10:28	
LCS	1206049-BS1	05/11/12 10:28	
106037	1206049-MS1	05/11/12 10:28	
106037	1206049-MSD1	05/11/12 10:28	

METHOD BLANK DATA SHEET
SM 4500-NO3 F 20th

Laboratory: TriMatrix Laboratories, Inc.
SDG: KNM050112
Client: TechLaw
Project: KNM
Matrix: Water
Laboratory ID: 1206049-BLK1
File ID: 05111233-003
Prepared: 05/11/12 10:28
Analyzed: 05/11/12 13:34
Preparation: General Inorganic Prep
Initial/Final: 10 mL / 10 mL
QC Batch: 1206049
Sequence: 2E17061
Calibration: 2E17020
Instrument: 189

CAS No.	Analyte	Concentration	Unit	MDL	MRL	Q
14797-55-8	Nitrogen, Nitrate+Nitrite	0.050	mg/L	0.0097	0.050	U

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

106037

SM 4500-NO3 F 20th

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Matrix: Water

QC Batch: 1206049

SDG: KNM050112

Project: KNM

Laboratory ID: 1206049-MS1

Preparation: General Inorganic Prep

Initial/Final: 10 mL / 10 mL

Analyte	Spike Added	Sample Conc.	MS Conc.	MS % Rec. #	QC Limits Rec.	Units
Nitrogen, Nitrate+Nitrite	0.500	0.315	0.818	101	90 - 110	mg/L

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

106037

SM 4500-NO3 F 20th

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Matrix: Water

QC Batch: 1206049

SDG: KNM050112

Project: KNM

Laboratory ID: 1206049-MSD1

Preparation: General Inorganic Prep

Initial/Final: 10 mL / 10 mL

Analyte	Spike Added	MSD Conc.	MSD % Rec. #	% RPD #	QC Limits RPD	QC Limits Rec.	Units
Nitrogen, Nitrate+Nitrite	0.500	0.846	106	3	20	90 - 110	mg/L

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

LCS / LCS DUPLICATE RECOVERY

SM 4500-NO3 F 20th

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Matrix: Water

QC Batch: 1206049

SDG: KNM050112

Project: KNM

Laboratory ID: 1206049-BS1

Preparation: General Inorganic Prep

Initial/Final: 10 mL / 10 mL

Sequence: 2E17061

Analyte	Spike Added	LCS Conc.	LCS % Rec. #	QC Limits Rec.	Units
Nitrogen, Nitrate+Nitrite	0.500	0.490	98	90 - 110	mg/L

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

HOLDING TIME SUMMARY
SM 4500-NO3 F 20th

Laboratory: TriMatrix Laboratories, Inc.

SDG: KNM050112

Client: TechLaw

Project: KNM

Analyte: Nitrogen, Nitrate+Nitrite

Sample Name	Date Collected	Date Received	Date Leached	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
106092	05/01/12	05/02/12		05/11/12	10	NA	05/11/12	10	28	
106093	05/01/12	05/02/12		05/11/12	10	NA	05/11/12	10	28	
106036	05/02/12	05/03/12		05/11/12	9	NA	05/11/12	9	28	
106037	05/02/12	05/03/12		05/11/12	9	NA	05/11/12	9	28	

Inorganic - Wet Chemistry, Water, May-11-12

Instrument = 189, Calibration = 2E17020

Sequence Analyses:
Nitrogen, NO3+NO2 4500-NO3 F

Lab Number	*Analysis*	*Contain*	*STD ID*	*ISTD ID*	*Client / QC Type*	*Extraction Comments*
2E17061-CAL1	QC		2050404		CAL STANDARD	
2E17061-CAL2	QC		2050405		CAL STANDARD	
2E17061-CAL3	QC		2050406		CAL STANDARD	
2E17061-CAL4	QC		2050407		CAL STANDARD	
2E17061-CAL5	QC		2050408		CAL STANDARD	
2E17061-CAL6	QC		2050409		CAL STANDARD	
2E17061-CAL7	QC		2050410		CAL STANDARD	
2E17061-CCV1	QC		2050405		CALIBRATION CHECK	
2E17061-CCV2	QC		2050405		CALIBRATION CHECK	
2E17061-CCB1	QC		2050410		CALIBRATION BLANK	
2E17061-CCB2	QC		2050410		CALIBRATION BLANK	
2E17061-SCV1	QC		2050411		SECONDARY CAL CHECK	
2E17061-CRL1	QC		2050409		INSTRUMENT RL CHECK	
2E17061-CCV3	QC		2050405		CALIBRATION CHECK	
2E17061-CCV4	QC		2050405		CALIBRATION CHECK	
2E17061-CCV5	QC		2050405		CALIBRATION CHECK	
2E17061-CCB3	QC		2050410		CALIBRATION BLANK	
2E17061-CCB4	QC		2050410		CALIBRATION BLANK	
2E17061-CCB5	QC		2050410		CALIBRATION BLANK	
1206049-BLK1	QC				BLANK	
1206049-BS1	QC				LCS	
1205072-01	Nitrogen, NO3+NO2 4500-NO3 F	K			TechLaw	
1205073-01	Nitrogen, NO3+NO2 4500-NO3 F	K			TechLaw	
1205085-01	Nitrogen, NO3+NO2 4500-NO3 F	K			TechLaw	
1205085-02	Nitrogen, NO3+NO2 4500-NO3 F	U			TechLaw	
1206049-MS1	QC				MATRIX SPIKE	
1206049-MSD1	QC				MATRIX SPIKE DUP	
1205226-01	Nitrogen, NO3+NO2 4500-NO3 F	K			TechLaw	
1205226-02	Nitrogen, NO3+NO2 4500-NO3 F	K			TechLaw	

Comments:	Analyst Initials:

Due: 5-15-12

TriMatrix Laboratories, Inc.

PREPARATION BATCH **1206049** Page 1 of 1

Printed: 5/13/2012 8:40:02AM

level 4

AMB 5-18-12

Inorganic - Wet Chemistry, Water, General Inorganic Prep

(No Surrogate)

Batch Comments: (none)

Standard	Description	Solvent	LotNum
2030137	NO3 100 mg/L	H2O	066134
2050201	Sulfanilamide Reagent	n/a	n/a
2050202	Ammonium Chloride Buffer	DI H2O	n/a

Work Order	Analysis	Work Order	Analysis	Work Order	Analysis
1205072	Nitrogen, NO3+NO2 4500-NO3 F	1205073	Nitrogen, NO3+NO2 4500-NO3 F	1205085	Nitrogen, NO3+NO2 4500-NO3 F
1205226	Nitrogen, NO3+NO2 4500-NO3 F				

Balance ID: _____ **pH Meter:** _____

Lab Number	Contain	Prepared	By	Initial (mL)	Final (mL)	uL Surrogate	Source ID	Spike ID	uL Spike	Client / QC Type	Extraction Comments
1206049-BLK1		May-11-12 10:28	CAC	10	10					BLANK	
1206049-BS1		May-11-12 10:28	CAC	10	10			2030137	50	LCS	
1206049-MS1		May-11-12 10:28	CAC	10	10		1205085-02	2030137	50	MATRIX SPIKE	
1206049-MSD1		May-11-12 10:28	CAC	10	10		1205085-02	2030137	50	MATRIX SPIKE DUP	
1205072-01	K	May-11-12 10:28	CAC	10	10					TechLaw	
1205073-01	K	May-11-12 10:28	CAC	10	10					TechLaw	
1205085-01	K	May-11-12 10:28	CAC	10	10					TechLaw	
1205085-02	U	May-11-12 10:28	CAC	10	10					TechLaw	
1205226-01	K	May-11-12 10:28	CAC	10	10					TechLaw	
1205226-02	K	May-11-12 10:28	CAC	10	10					TechLaw	

Comments:	Analyst Initials:

Creator: cac
Creation Date: May 11, 2012 10:28:31
Last Modified: May 11, 2012 10:28:31
Description: None

2050201
2050202

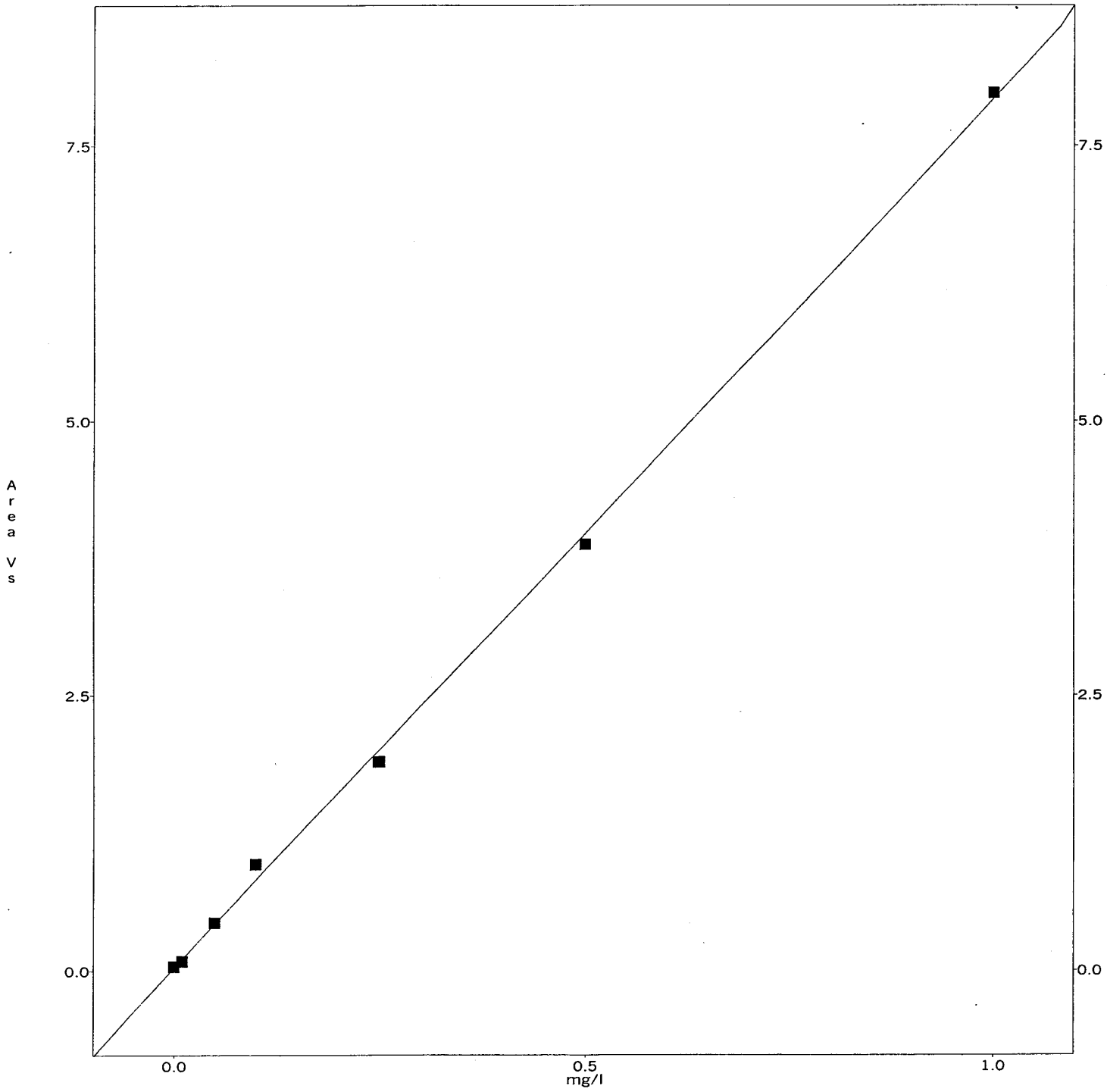
Cup #	Sample ID	Manual Dilution	Sample Type	
1	NO3 1.0	1.0000	CalStd	
2	NO3 0.5	1.0000	CalStd	
3	NO3 0.25	1.0000	CalStd	
4	NO3 0.10	1.0000	CalStd	
5	NO3 0.05	1.0000	CalStd	
6	NO3 0.01	1.0000	CalStd	
7	NO3 0.0	1.0000	CalStd	

NO3+NO2

Lvl	Area	mg/l	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Replic STD	Replic % RSD	Residual 1st Poly
1	7982237	1.00	7982237					0.0	0.0	-0.7
2	3881789	0.50	3881789					0.0	0.0	2.4
3	1894538	0.25	1894538					0.0	0.0	5.4
4	956090	0.10	956090					0.0	0.0	-17.7
5	432000	0.05	432000					0.0	0.0	-2.8
6	85744	0.01	85744					0.0	0.0	23.9
7	40478	0.00	40478					0.0	0.0	

1st Order Poly
Conc = 1.265e-007 Area - 3.242e-003
r = 0.9996

Scaling: None · Weighting: None



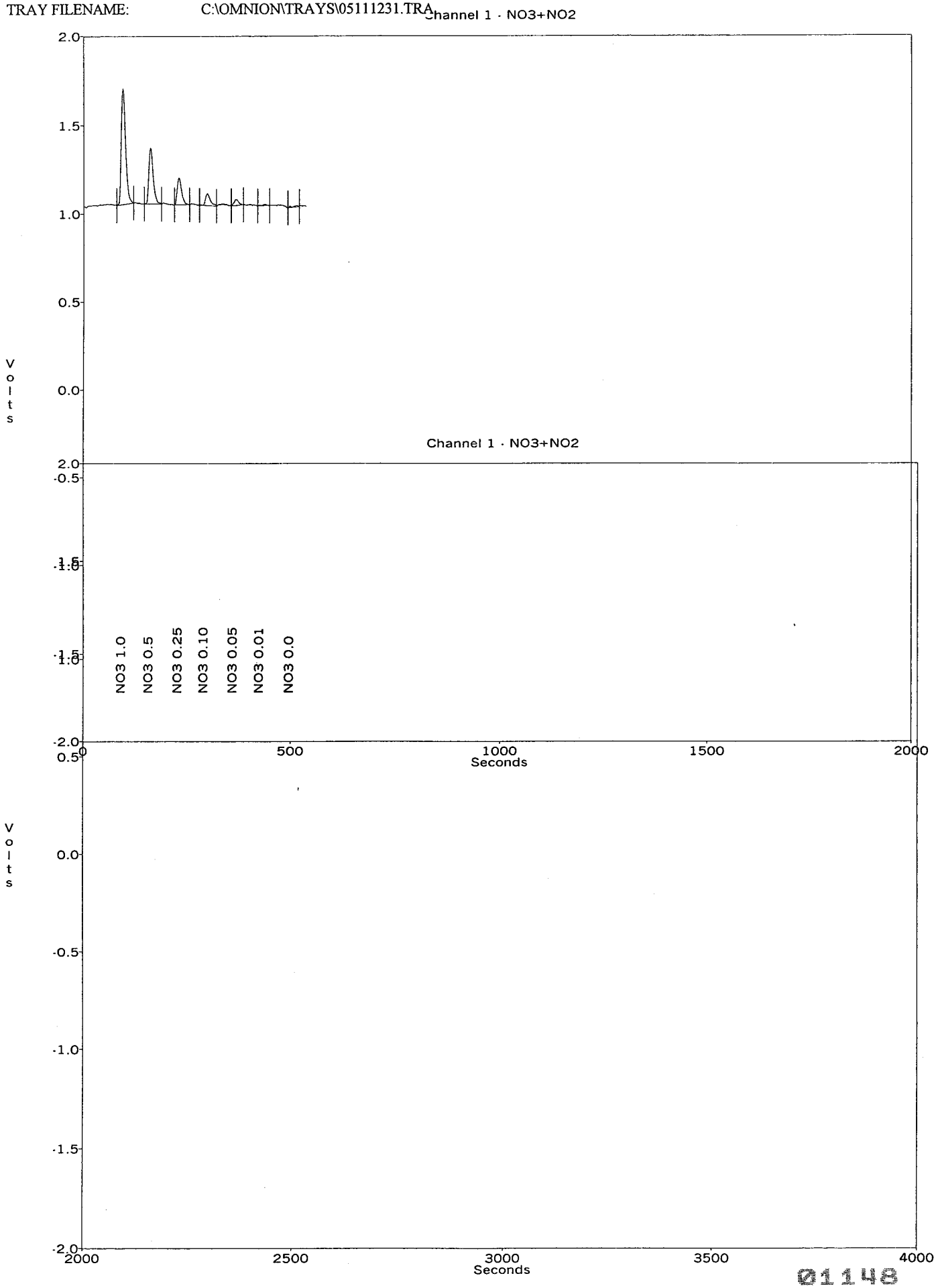
Printed: Friday, May 11, 2012 - 10:37 AM

OPERATOR: cac
ACQ. TIME: May 11, 2012 10:28:39
DATA FILENAME: C:\OMNION\DATA\05111231.FDT
METHOD FILENAME: C:\OMNION\METHODS\NO3LOW.MET
TRAY FILENAME: C:\OMNION\TRAYS\05111231.TRA

Multi-Channel Table
Type: Calibration Standards
Channel Range: 1 to 8 -- Cup Range: 1 to 50

Cup	Sample ID	Sampling Date	Sampling Time	# of Reps	NO3+NO2 (uv-s)	Auto Dil Factor
1	NO3 1.0	11 May 2012	10:28:41	1	7982237.000	1.00
2	NO3 0.5	11 May 2012	10:29:48	1	3881789.000	1.00
3	NO3 0.25	11 May 2012	10:30:56	1	1894538.000	1.00
4	NO3 0.10	11 May 2012	10:32:04	1	956090.000	1.00
5	NO3 0.05	11 May 2012	10:33:13	1	432000.000	1.00
6	NO3 0.01	11 May 2012	10:34:21	1	85744.000	1.00
7	NO3 0.0	11 May 2012	10:35:31	1	40478.000	1.00

OPERATOR: cac
ACQ. TIME: May 11, 2012 10:28:39
DATA FILENAME: C:\OMNION\DATA\05111231.FDT
METHOD FILENAME: C:\OMNION\METHODS\NO3LOW.MET
TRAY FILENAME: C:\OMNION\TRAYS\05111231.TRA



01148

INSTRUMENT: FIA
TRAY: 05111231.TRA METHOD: NO3LOW.MET DATAFILE: 05111231.FDT
DATE/TIME: Fri May 11 10:28:39 2012 OPERATOR: cac

*** Begin Calibration ***
Cup# 1 Sample: NO3 1.0 Type: CalStd Level: 1 Rep# 1/1
Ch 1: NO3+NO2 Peak Area = 7982237.0 µv-s
Cup# 2 Sample: NO3 0.5 Type: CalStd Level: 2 Rep# 1/1
Ch 1: NO3+NO2 Peak Area = 3881789.0 µv-s
Cup# 3 Sample: NO3 0.25 Type: CalStd Level: 3 Rep# 1/1
Ch 1: NO3+NO2 Peak Area = 1894538.0 µv-s
Cup# 4 Sample: NO3 0.10 Type: CalStd Level: 4 Rep# 1/1
Ch 1: NO3+NO2 Peak Area = 956090.0 µv-s
Cup# 5 Sample: NO3 0.05 Type: CalStd Level: 5 Rep# 1/1
Ch 1: NO3+NO2 Peak Area = 432000.0 µv-s
Cup# 6 Sample: NO3 0.01 Type: CalStd Level: 6 Rep# 1/1
Ch 1: NO3+NO2 Peak Area = 85744.0 µv-s
Cup# 7 Sample: NO3 0.0 Type: CalStd Level: 7 Rep# 1/1
Ch 1: NO3+NO2 Peak Area = 40478.0 µv-s
*** Updated Calibration ***
Ch 1: NO3+NO2
** 1st Order Poly Calibration **
C[0] = 1.26544e-007
C[1] = -0.00324233
r = 0.9996
*** End Calibration Block ***
*** Calibration Passed ***
******* Tray Run Complete *******

Creator: cac
Creation Date: May 11, 2012 10:34:09
Last Modified: May 11, 2012 10:34:09
Description: None

Cup #	Sample ID	Manual Dilution	Sample Type	
1	blk	1.0000	Unknown	
2	bs	1.0000	Unknown	
3	scv	1.0000	Unknown	
4	crl	1.0000	Unknown	
5	no2 0.5 check	1.0000	Unknown	
6	well25	1.0000	Unknown	
7	well25 ms	1.0000	Unknown	
8	well25 msd	1.0000	Unknown	
9	well28	1.0000	Unknown	
10	well36	1.0000	Unknown	
11	well31ar	1.0000	Unknown	
12	well20	1.0000	Unknown	
13	1204360-06(4/100)	25.0000	Unknown	
14	1204360-06dup(4/100)	25.0000	Unknown	

OPERATOR: cac
ACQ. TIME: May 11, 2012 10:38:15
DATA FILENAME: C:\OMNION\DATA\05111232.FDT
METHOD FILENAME: C:\OMNION\METHODS\NO3LOW.MET
TRAY FILENAME: C:\OMNION\TRAYS\05111232.TRA

Multi-Channel Table
Type: DQM
Channel Range: 1 to 8 -- Cup Range: 1 to 8

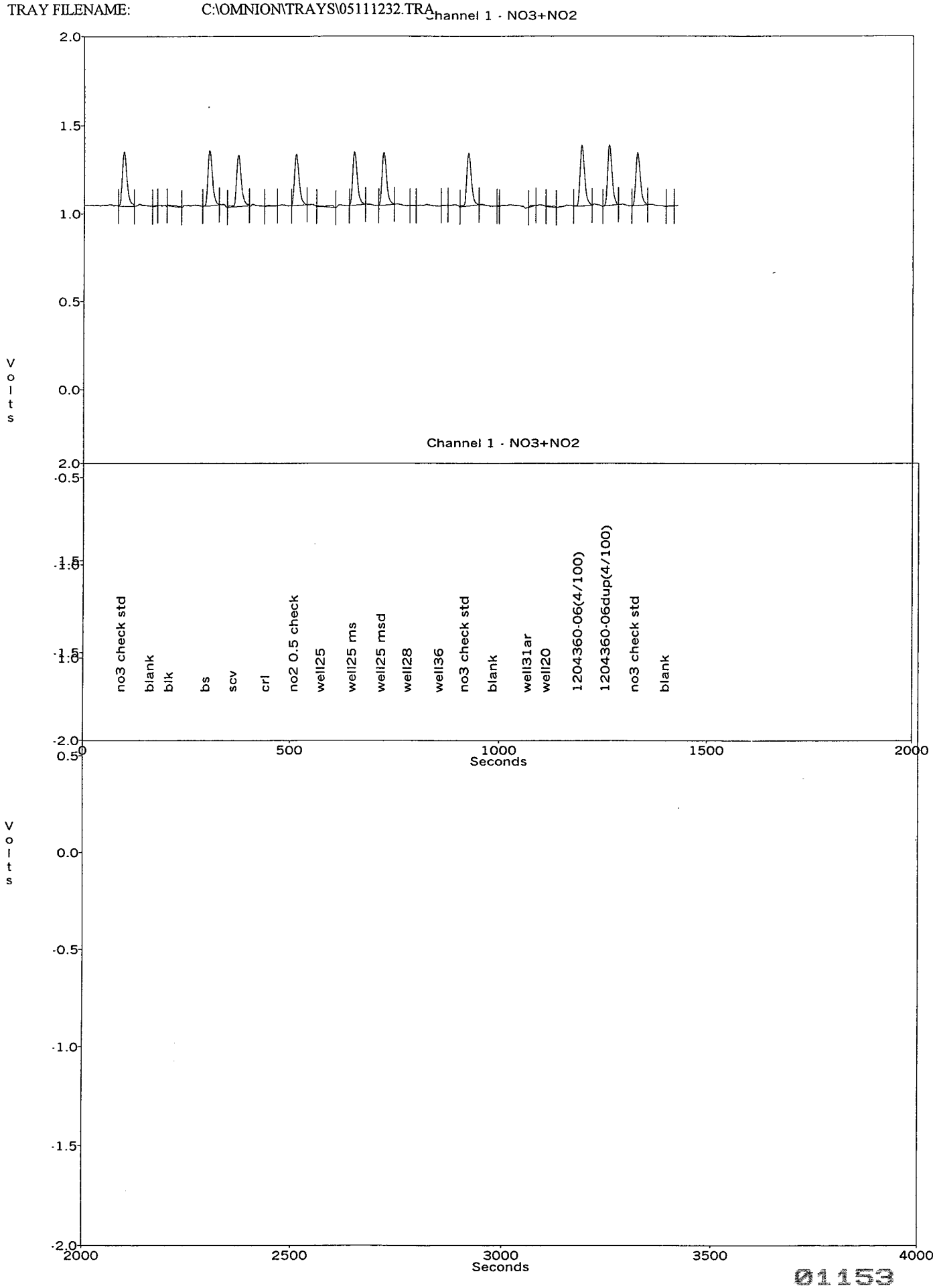
Cup	Sample ID	Sample Type	Sampling Date	Sampling Time	# of Reps	NO3+NO2 (mg/l)	Auto Dil Factor
2	no3 check st	RelChkStd	11 May 2012	10:38:17	1	0.515	1.00 CCV1
				Known Concentration:		0.500	
				% Difference:		2.904	
2	no3 check st	RelChkStd	11 May 2012	10:52:04	1	0.494	1.00 CCV2
				Known Concentration:		0.500	
				% Difference:		-1.257	
2	no3 check st	RelChkStd	11 May 2012	10:58:51	1	0.482	1.00
				Known Concentration:		0.500	
				% Difference:		-3.532	
7	blank	Blank	11 May 2012	10:39:26	1	0.004	1.00 CCB1
7	blank	Blank	11 May 2012	10:53:13	1	-0.001	1.00 CCB2
7	blank	Blank	11 May 2012	11:00:00	1	0.005	1.00

OPERATOR: cac
ACQ. TIME: May 11, 2012 10:38:15
DATA FILENAME: C:\OMNION\DATA\05111232.FDT

Multi-Channel Table
Type: Unknowns
Channel Range: 1 to 8 -- Cup Range: 1 to 25

Cup	Sample ID	Sampling Date	Sampling Time	# of Reps	NO3+NO2 (mg/l)	Man Dil Factor
1	blk	11 May 2012	10:40:35	1	0.002	1.0
2	bs	11 May 2012	10:41:45	1	0.503	1.0
3	scv	11 May 2012	10:42:55	1	0.484	1.0
4	crl	11 May 2012	10:44:04	1	0.008	1.0
5	no2 0.5 check	11 May 2012	10:45:13	1	0.467	1.0
6	well25	11 May 2012	10:46:22	1	0.019	1.0
7	well25 ms	11 May 2012	10:47:30	1	0.488	1.0
8	well25 msd	11 May 2012	10:48:39	1	0.482	1.0
9	well28	11 May 2012	10:49:48	1	0.002	1.0
10	well36	11 May 2012	10:50:57	1	-0.001	1.0
11	well31ar	11 May 2012	10:54:21	1	0.007	1.0
12	well20	11 May 2012	10:55:28	1	0.005	1.0
13	1204360-06(4/10	11 May 2012	10:56:36	1	14.030	25.0
14	1204360-06dup(4	11 May 2012	10:57:44	1	13.576	25.0

OPERATOR: cac
ACQ. TIME: May 11, 2012 10:38:15
DATA FILENAME: C:\OMNION\DATA\05111232.FDT
METHOD FILENAME: C:\OMNION\METHODS\NO3LOW.MET
TRAY FILENAME: C:\OMNION\TRAYS\05111232.TRA



01153

INSTRUMENT: FIA
TRAY: 05111232.TRA METHOD: NO3LOW.MET DATAFILE: 05111232.FDT
DATE/TIME: Fri May 11 10:38:15 2012 OPERATOR: cac

***** Auto DQM Begin *****
*** Starting DQM Set Check Std ***
Cup# 2 Sample: no3 check std Type: RelChkStd Rep# 1/1
Ch 1: NO3+NO2 = 0.5145 mg/l
DQM Sample Results: no3 check std
Ch 1: NO3+NO2 = 0.5145 mg/l
Known Conc = 0.5000 mg/L - %Diff from Known = 2.9042%
Test 1: Passed
Cup# 7 Sample: blank Type: Blank Rep# 1/1
Ch 1: NO3+NO2 = 0.0036 mg/l
DQM Sample Results: blank
Ch 1: NO3+NO2
Determined Conc = 0.0036 mg/l
Test 1: Passed
*** End of DQM Set Check Std - Set Passed ***
Cup# 1 Sample: blk Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.0022 mg/l
Cup# 2 Sample: bs Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.5028 mg/l
Cup# 3 Sample: scv Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.4842 mg/l
Cup# 4 Sample: crl Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.0080 mg/l
Cup# 5 Sample: no2 0.5 check Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.4665 mg/l
Cup# 6 Sample: well25 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.0193 mg/l
Cup# 7 Sample: well25 ms Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.4882 mg/l
Cup# 8 Sample: well25 msd Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.4823 mg/l
Cup# 9 Sample: well28 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.0018 mg/l
Cup# 10 Sample: well36 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = -0.0011 mg/l
***** Auto DQM Begin *****
*** Starting DQM Set Check Std ***
Cup# 2 Sample: no3 check std Type: RelChkStd Rep# 1/1 Repeat# 1
Ch 1: NO3+NO2 = 0.4937 mg/l
DQM Sample Results: no3 check std
Ch 1: NO3+NO2 = 0.4937 mg/l
Known Conc = 0.5000 mg/L - %Diff from Known = -1.2571%
Test 1: Passed
Cup# 7 Sample: blank Type: Blank Rep# 1/1 Repeat# 1
Ch 1: NO3+NO2 = -0.0009 mg/l
DQM Sample Results: blank
Ch 1: NO3+NO2
Determined Conc = -0.0009 mg/l
Test 1: Passed
*** End of DQM Set Check Std - Set Passed ***
Cup# 11 Sample: well31ar Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.0067 mg/l
Cup# 12 Sample: well20 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.0046 mg/l
Cup# 13 Sample: 1204360-06(4/100) Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.5612 mg/l
Cup# 14 Sample: 1204360-06dup(4/100) Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.5430 mg/l
***** Auto DQM Begin *****
*** Starting DQM Set Check Std ***
Cup# 2 Sample: no3 check std Type: RelChkStd Rep# 1/1 Repeat# 2
Ch 1: NO3+NO2 = 0.4823 mg/l
DQM Sample Results: no3 check std
Ch 1: NO3+NO2 = 0.4823 mg/l

Known Conc = 0.5000 mg/L - %Diff from Known = -3.5322%
Test 1: Passed
Cup# 7 Sample: blank Type: Blank Rep# 1/1 Repeat# 2
Ch 1: NO3+NO2 = 0.0050 mg/l
DQM Sample Results: blank
Ch 1: NO3+NO2
Determined Conc = 0.0050 mg/l
Test 1: Passed
*** End of DQM Set Check Std - Set Passed ***
******* Tray Run Complete *******

OPERATOR: cac
ACQ. TIME: May 11, 2012 10:38:15
DATA FILENAME: C:\OMNION\DATA\05111232.FDT
METHOD FILENAME: C:\OMNION\METHODS\NO3LOW.MET
TRAY FILENAME: C:\OMNION\TRAYS\05111232.TRA

Multi-Channel Table
Type: DQM
Channel Range: 1 to 8 -- Cup Range: 1 to 8

Cup	Sample ID	Sample Type	Sampling Date	Sampling Time	# of Reps	NO3+NO2 (uv-s)	Auto Dil Factor
2	no3 check st	RelChkStd	11 May 2012	10:38:17	1	4091555.000	1.00
				Known Concentration:		0.500	
				% Difference:		2.904	
2	no3 check st	RelChkStd	11 May 2012	10:52:04	1	3927136.000	1.00
				Known Concentration:		0.500	
				% Difference:		-1.257	
2	no3 check st	RelChkStd	11 May 2012	10:58:51	1	3837242.000	1.00
				Known Concentration:		0.500	
				% Difference:		-3.532	
7	blank	Blank	11 May 2012	10:39:26	1	54440.000	1.00
7	blank	Blank	11 May 2012	10:53:13	1	18770.000	1.00
7	blank	Blank	11 May 2012	11:00:00	1	65024.000	1.00

OPERATOR: cac
ACQ. TIME: May 11, 2012 10:38:15
DATA FILENAME: C:\OMNION\DATA\05111232.FDT

Multi-Channel Table
Type: Unknowns
Channel Range: 1 to 8 -- Cup Range: 1 to 25

Cup	Sample ID	Sampling Date	Sampling Time	# of Reps	NO3+NO2 (uv-s)	Man Dil Factor
1	blk	11 May 2012	10:40:35	1	43109.000	1.0
2	bs	11 May 2012	10:41:45	1	3999069.000	1.0
3	scv	11 May 2012	10:42:55	1	3851991.000	1.0
4	crl	11 May 2012	10:44:04	1	89150.000	1.0
5	no2 0.5 check	11 May 2012	10:45:13	1	3712087.000	1.0
6	well25	11 May 2012	10:46:22	1	178080.000	1.0
7	well25 ms	11 May 2012	10:47:30	1	3883949.000	1.0
8	well25 msd	11 May 2012	10:48:39	1	3837200.000	1.0
9	well28	11 May 2012	10:49:48	1	40061.000	1.0
10	well36	11 May 2012	10:50:57	1	16954.000	1.0
11	well31ar	11 May 2012	10:54:21	1	78267.000	1.0
12	well20	11 May 2012	10:55:28	1	61689.000	1.0
13	1204360-06(4/10	11 May 2012	10:56:36	1	4460288.000	25.0
14	1204360-06dup(4	11 May 2012	10:57:44	1	4316916.000	25.0

Creator: cac
Creation Date: May 11, 2012 13:31:37
Last Modified: May 11, 2012 15:36:07
Description: None

Cup #	Sample ID	Manual Dilution	Sample Type	
1	blk2	1.0000	Unknown	
2	blk3	1.0000	Unknown	
3	blk4	1.0000	Unknown	
4	blk5	1.0000	Unknown	
5	bs2	1.0000	Unknown	
6	bs3	1.0000	Unknown	
7	bs4	1.0000	Unknown	
8	bs5	1.0000	Unknown	
9	1205053-02	1.0000	Unknown	
10	1205053-02 ms	1.0000	Unknown	
11	1205053-02 msd	1.0000	Unknown	
12	1205072-01	1.0000	Unknown	
13	1205073-01	1.0000	Unknown	
14	1205085-01	1.0000	Unknown	
15	1205085-02	1.0000	Unknown	
16	1205085-02 ms	1.0000	Unknown	
17	1205085-02 msd	1.0000	Unknown	
18	1205226-01	1.0000	Unknown	
19	1205226-02	1.0000	Unknown	
20	1205122-01	1.0000	Unknown	
21	1205122-01 ms	1.0000	Unknown	
22	1205122-01 msd	1.0000	Unknown	
23	1205150-01	1.0000	Unknown	
24	1205150-02	1.0000	Unknown	
25	1205150-03	1.0000	Unknown	
26	1205150-04	1.0000	Unknown	
27	1205150-05	1.0000	Unknown	
28	1205164-01	1.0000	Unknown	
29	1205164-02	1.0000	Unknown	
30	1205164-03	1.0000	Unknown	
31	1205172-01	1.0000	Unknown	
32	1205212-01	1.0000	Unknown	
33	1205212-02	1.0000	Unknown	
34	1205212-03	1.0000	Unknown	
35	1205053-01	1.0000	Unknown	
36	1205132-04	1.0000	Unknown	
37	1205132-04 ms	1.0000	Unknown	
38	1205132-04 msd	1.0000	Unknown	
39	1205132-05	1.0000	Unknown	
40	1205132-09	1.0000	Unknown	
41	1205132-10	1.0000	Unknown	
42	1205132-15	1.0000	Unknown	

Cup #	Sample ID	Manual Dilution	Sample Type	
43	1205132-17	1.0000	Unknown	
44	1205132-18	1.0000	Unknown	
45	1205132-19	1.0000	Unknown	
46	1205132-22	1.0000	Unknown	
47	1205132-23	1.0000	Unknown	
48	1205132-24	1.0000	Unknown	
49	1205132-25	1.0000	Unknown	
50	1205132-26	1.0000	Unknown	
51	1205132-27	1.0000	Unknown	
52	1205132-28	1.0000	Unknown	
53	mw3s92	1.0000	Unknown	
54	mw3s92 ms	1.0000	Unknown	
55	mw3s92 msd	1.0000	Unknown	
56	mw4s92	1.0000	Unknown	
57	mw592	1.0000	Unknown	
58	mw992	1.0000	Unknown	
59	mw1092	1.0000	Unknown	
60	mw1192	1.0000	Unknown	
61	mw1292	1.0000	Unknown	
62	scs4	1.0000	Unknown	
63	scs5	1.0000	Unknown	
64	scs9	1.0000	Unknown	
65	pcs1	1.0000	Unknown	
66	sw1	1.0000	Unknown	
67	sw2	1.0000	Unknown	
68	mw201	1.0000	Unknown	
69	mw201 ms	1.0000	Unknown	
70	mw201 msd	1.0000	Unknown	
71	mw212	1.0000	Unknown	
72	mw106a	1.0000	Unknown	
73	mw206a	1.0000	Unknown	
74	mw207a	1.0000	Unknown	
75	mw208b	1.0000	Unknown	
76	mw209	1.0000	Unknown	
77	mw210	1.0000	Unknown	
78	mw305	1.0000	Unknown	
79	mw302	1.0000	Unknown	
80	mw213	1.0000	Unknown	
81	mw301	1.0000	Unknown	
82	mw203	1.0000	Unknown	
83	mw101	1.0000	Unknown	
84	leachate	1.0000	Unknown	
85	d1a	1.0000	Unknown	
86	d2	1.0000	Unknown	
87	u1	1.0000	Unknown	
88	u2	1.0000	Unknown	
3	blk4	1.0000	Unknown	
90	1205150-03(5/50)	10.0000	Unknown	

Cup #	Sample ID	Manual Dilution	Sample Type	
91	1205150-04(2/10)	5.0000	Unknown	
92	1205132-10(2/10)	5.0000	Unknown	
93	1205132-19(1/10)	10.0000	Unknown	
94	1205132-22(1/10)	10.0000	Unknown	
95	1205132-23(1/10)	10.0000	Unknown	
96	1205132-25(1/10)	10.0000	Unknown	
97	1205132-26(1/10)	10.0000	Unknown	
98	1205132-28(4/100)	25.0000	Unknown	
99	d2(5/10)	5.0000	Unknown	
3	blk	1.0000	Unknown	

OPERATOR: cac
ACQ. TIME: May 11, 2012 13:32:18
DATA FILENAME: C:\OMNION\DATA\05111233.FDT
METHOD FILENAME: C:\OMNION\METHODS\NO3LOW.MET
TRAY FILENAME: C:\OMNION\TRAYS\05111233.TRA

Multi-Channel Table
Type: DQM
Channel Range: 1 to 8 -- Cup Range: 1 to 2

Cup	Sample ID	Sample Type	Sampling Date	Sampling Time	# of Reps	NO3+NO2 (mg/l)	Auto Dil Factor
2	no3 check st	RelChkStd	11 May 2012	13:32:20	1	0.525	1.00 CW3
				Known Concentration:		0.500	
				% Difference:		4.924	
2	no3 check st	RelChkStd	11 May 2012	13:45:56	1	0.514	1.00 CW4
				Known Concentration:		0.500	
				% Difference:		2.760	
2	no3 check st	RelChkStd	11 May 2012	13:59:30	1	0.481	1.00 CW5
				Known Concentration:		0.500	
				% Difference:		-3.806	
2	no3 check st	RelChkStd	11 May 2012	14:13:00	1	0.488	1.00
				Known Concentration:		0.500	
				% Difference:		-2.349	
2	no3 check st	RelChkStd	11 May 2012	14:26:40	1	0.490	1.00
				Known Concentration:		0.500	
				% Difference:		-1.971	
2	no3 check st	RelChkStd	11 May 2012	14:40:17	1	0.493	1.00
				Known Concentration:		0.500	
				% Difference:		-1.444	
2	no3 check st	RelChkStd	11 May 2012	14:53:50	1	0.482	1.00
				Known Concentration:		0.500	
				% Difference:		-3.697	
2	no3 check st	RelChkStd	11 May 2012	15:07:32	1	0.489	1.00
				Known Concentration:		0.500	
				% Difference:		-2.243	
2	no3 check st	RelChkStd	11 May 2012	15:21:12	1	0.482	1.00
				Known Concentration:		0.500	
				% Difference:		-3.589	
2	no3 check st	RelChkStd	11 May 2012	15:34:49	1	0.475	1.00
				Known Concentration:		0.500	
				% Difference:		-4.932	
2	no3 check st	RelChkStd	11 May 2012	15:48:36	1	0.491	1.00
				Known Concentration:		0.500	
				% Difference:		-1.814	

OPERATOR: cac
ACQ. TIME: May 11, 2012 13:32:18
DATA FILENAME: C:\OMNION\DATA\05111233.FDT
METHOD FILENAME: C:\OMNION\METHODS\NO3LOW.MET
TRAY FILENAME: C:\OMNION\TRAYS\05111233.TRA

Multi-Channel Table
Type: DQM
Channel Range: 1 to 8 -- Cup Range: 7 to 7

Cup	Sample ID	Sample Type	Sampling Date	Sampling Time	# of Reps	NO3+NO2 (mg/l)	Auto Dil Factor
7	blank	Blank	11 May 2012	13:33:30	1	-0.003	1.00 CUB3
7	blank	Blank	11 May 2012	13:47:05	1	0.001	1.00 CUB4
7	blank	Blank	11 May 2012	14:00:39	1	-0.003	1.00 CUB5
7	blank	Blank	11 May 2012	14:14:09	1	-0.003	1.00
7	blank	Blank	11 May 2012	14:27:49	1	-0.003	1.00
7	blank	Blank	11 May 2012	14:41:26	1	-0.003	1.00
7	blank	Blank	11 May 2012	14:54:59	1	-0.002	1.00
7	blank	Blank	11 May 2012	15:08:41	1	0.006	1.00
7	blank	Blank	11 May 2012	15:22:21	1	-0.003	1.00
7	blank	Blank	11 May 2012	15:35:58	1	-0.003	1.00
7	blank	Blank	11 May 2012	15:49:45	1	0.001	1.00

OPERATOR: cac
ACQ. TIME: May 11, 2012 13:32:18
DATA FILENAME: C:\OMNION\DATA\05111233.FDT

Multi-Channel Table
Type: Unknowns
Channel Range: 1 to 8 -- Cup Range: 1 to 25

Cup	Sample ID	Sampling Date	Sampling Time	# of Reps	NO3+NO2 (mg/l)	Man Dil Factor
1	blk2	11 May 2012	13:34:38	1	-0.001	1.0
2	blk3	11 May 2012	13:35:46	1	0.003	1.0
3	blk4	11 May 2012	13:36:55	1	0.018	1.0
3	blk4	11 May 2012	15:32:35	1	0.013	1.0
3	blk	11 May 2012	15:47:30	1	0.005	1.0
4	blk5	11 May 2012	13:38:03	1	0.007	1.0
5	bs2	11 May 2012	13:39:10	1	0.490	1.0
6	bs3	11 May 2012	13:40:18	1	0.515	1.0
7	bs4	11 May 2012	13:41:26	1	0.499	1.0
8	bs5	11 May 2012	13:42:34	1	0.508	1.0
9	1205053-02	11 May 2012	13:43:41	1	0.028	1.0
10	1205053-02 ms	11 May 2012	13:44:49	1	0.508	1.0
11	1205053-02 msd	11 May 2012	13:48:12	1	0.496	1.0
12	1205072-01	11 May 2012	13:49:19	1	0.010	1.0
13	1205073-01	11 May 2012	13:50:27	1	0.046	1.0
14	1205085-01	11 May 2012	13:51:33	1	0.785	1.0
15	1205085-02	11 May 2012	13:52:40	1	0.315	1.0
16	1205085-02 ms	11 May 2012	13:53:49	1	0.818	1.0
17	1205085-02 msd	11 May 2012	13:54:58	1	0.846	1.0
18	1205226-01	11 May 2012	13:56:07	1	0.001	1.0
19	1205226-02	11 May 2012	13:57:16	1	0.010	1.0
20	1205122-01	11 May 2012	13:58:24	1	0.014	1.0
21	1205122-01 ms	11 May 2012	14:01:47	1	0.503	1.0
22	1205122-01 msd	11 May 2012	14:02:55	1	0.464	1.0
23	1205150-01	11 May 2012	14:04:03	1	0.006	1.0
24	1205150-02	11 May 2012	14:05:11	1	0.194	1.0
25	1205150-03	11 May 2012	14:06:18	1	4.255	1.0

OPERATOR: cac
ACQ. TIME: May 11, 2012 13:32:18
DATA FILENAME: C:\OMNION\DATA\05111233.FDT

Multi-Channel Table
Type: Unknowns
Channel Range: 1 to 8 -- Cup Range: 26 to 50

Cup	Sample ID	Sampling Date	Sampling Time	# of Reps	NO3+NO2 (mg/l)	Man Dil Factor	Auto Dil Factor
26	1205150-04	11 May 2012	14:07:26	1	1.402	1.0	1.00
27	1205150-05	11 May 2012	14:08:33	1	0.011	1.0	1.00
28	1205164-01	11 May 2012	14:09:40	1	0.012	1.0	1.00
29	1205164-02	11 May 2012	14:10:47	1	0.009	1.0	1.00
30	1205164-03	11 May 2012	14:11:53	1	0.004	1.0	1.00
31	1205172-01	11 May 2012	14:15:18	1	0.093	1.0	1.00
32	1205212-01	11 May 2012	14:16:27	1	0.000	1.0	1.00
33	1205212-02	11 May 2012	14:17:36	1	0.013	1.0	1.00
34	1205212-03	11 May 2012	14:18:45	1	0.020	1.0	1.00
35	1205053-01	11 May 2012	14:19:53	1	0.012	1.0	1.00
36	1205132-04	11 May 2012	14:21:01	1	0.002	1.0	1.00
37	1205132-04 ms	11 May 2012	14:22:09	1	0.505	1.0	1.00
38	1205132-04 msd	11 May 2012	14:23:17	1	0.510	1.0	1.00
39	1205132-05	11 May 2012	14:24:25	1	0.883	1.0	1.00
40	1205132-09	11 May 2012	14:25:32	1	0.676	1.0	1.00
41	1205132-10	11 May 2012	14:28:56	1	1.157	1.0	1.00
42	1205132-15	11 May 2012	14:30:04	1	0.588	1.0	1.00
43	1205132-17	11 May 2012	14:31:11	1	0.447	1.0	1.00
44	1205132-18	11 May 2012	14:32:18	1	0.369	1.0	1.00
45	1205132-19	11 May 2012	14:33:25	1	3.391	1.0	1.00
46	1205132-22	11 May 2012	14:34:34	1	3.990	1.0	1.00
47	1205132-23	11 May 2012	14:35:43	1	4.563	1.0	1.00
48	1205132-24	11 May 2012	14:36:52	1	0.013	1.0	1.00
49	1205132-25	11 May 2012	14:38:00	1	5.335	1.0	1.00
50	1205132-26	11 May 2012	14:39:09	1	6.626	1.0	1.00

OPERATOR: cac
ACQ. TIME: May 11, 2012 13:32:18
DATA FILENAME: C:\OMNION\DATA\05111233.FDT

Multi-Channel Table
Type: Unknowns
Channel Range: 1 to 8 -- Cup Range: 51 to 75

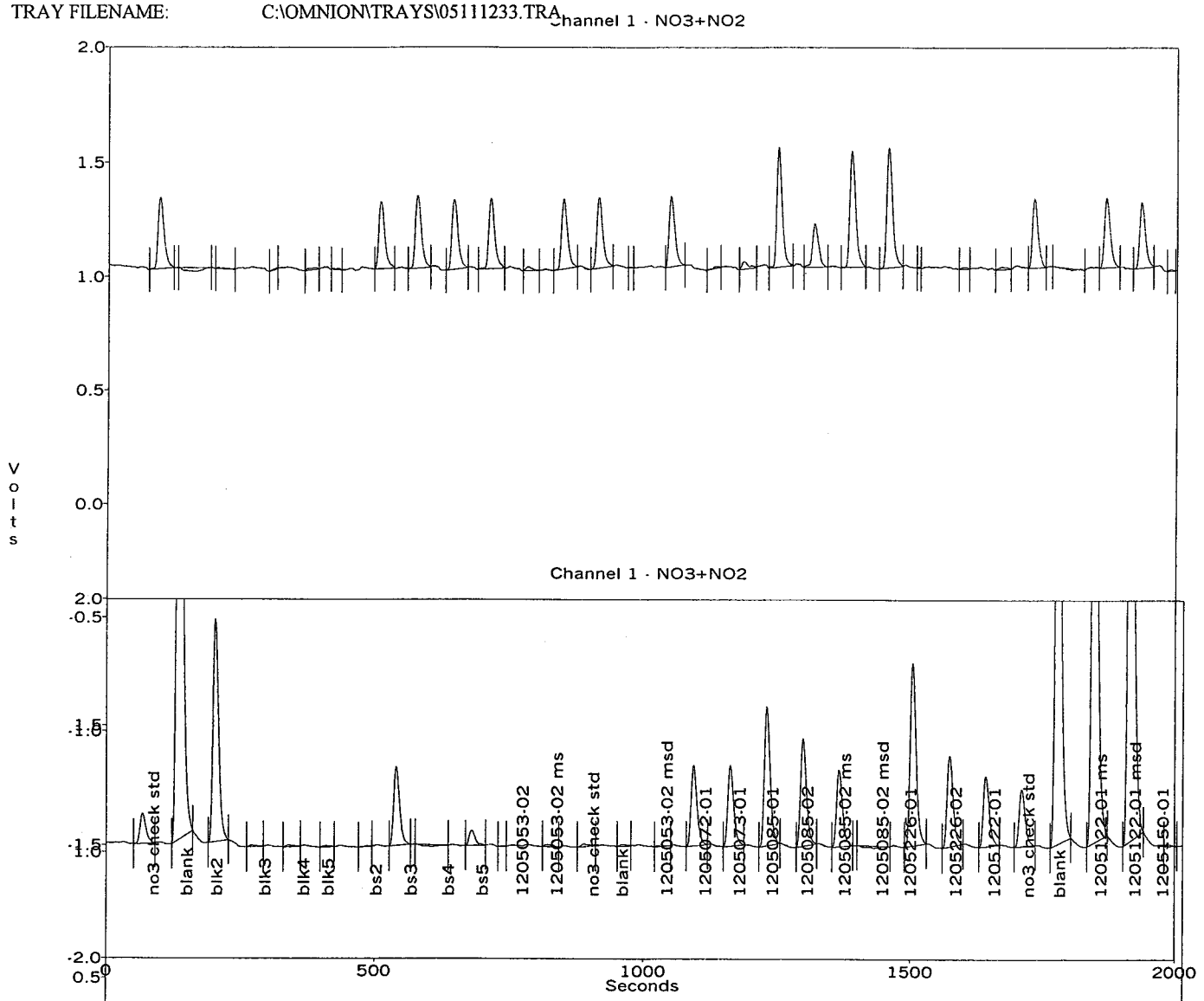
Cup	Sample ID	Sampling Date	Sampling Time	# of Reps	NO3+NO2 (mg/l)	Man Dil Factor	Auto Dil Factor
51	1205132-27	11 May 2012	14:42:34	1	0.007	1.0	1.00
52	1205132-28	11 May 2012	14:43:42	1	7.422	1.0	1.00
53	mw3s92	11 May 2012	14:44:50	1	0.196	1.0	1.00
54	mw3s92 ms	11 May 2012	14:45:57	1	0.682	1.0	1.00
55	mw3s92 msd	11 May 2012	14:47:05	1	0.714	1.0	1.00
56	mw4s92	11 May 2012	14:48:13	1	0.033	1.0	1.00
57	mw592	11 May 2012	14:49:21	1	0.021	1.0	1.00
58	mw992	11 May 2012	14:50:28	1	0.007	1.0	1.00
59	mw1092	11 May 2012	14:51:36	1	0.039	1.0	1.00
60	mw1192	11 May 2012	14:52:43	1	0.035	1.0	1.00
61	mw1292	11 May 2012	14:56:08	1	-0.002	1.0	1.00
62	scs4	11 May 2012	14:57:17	1	0.002	1.0	1.00
63	scs5	11 May 2012	14:58:26	1	0.038	1.0	1.00
64	scs9	11 May 2012	14:59:34	1	0.277	1.0	1.00
65	pcs1	11 May 2012	15:00:43	1	0.831	1.0	1.00
66	sw1	11 May 2012	15:01:52	1	0.260	1.0	1.00
67	sw2	11 May 2012	15:03:01	1	0.211	1.0	1.00
68	mw201	11 May 2012	15:04:10	1	0.031	1.0	1.00
69	mw201 ms	11 May 2012	15:05:17	1	0.545	1.0	1.00
70	mw201 msd	11 May 2012	15:06:25	1	0.538	1.0	1.00
71	mw212	11 May 2012	15:09:49	1	0.014	1.0	1.00
72	mw106a	11 May 2012	15:10:57	1	0.005	1.0	1.00
73	mw206a	11 May 2012	15:12:04	1	0.005	1.0	1.00
74	mw207a	11 May 2012	15:13:12	1	0.006	1.0	1.00
75	mw208b	11 May 2012	15:14:20	1	0.002	1.0	1.00

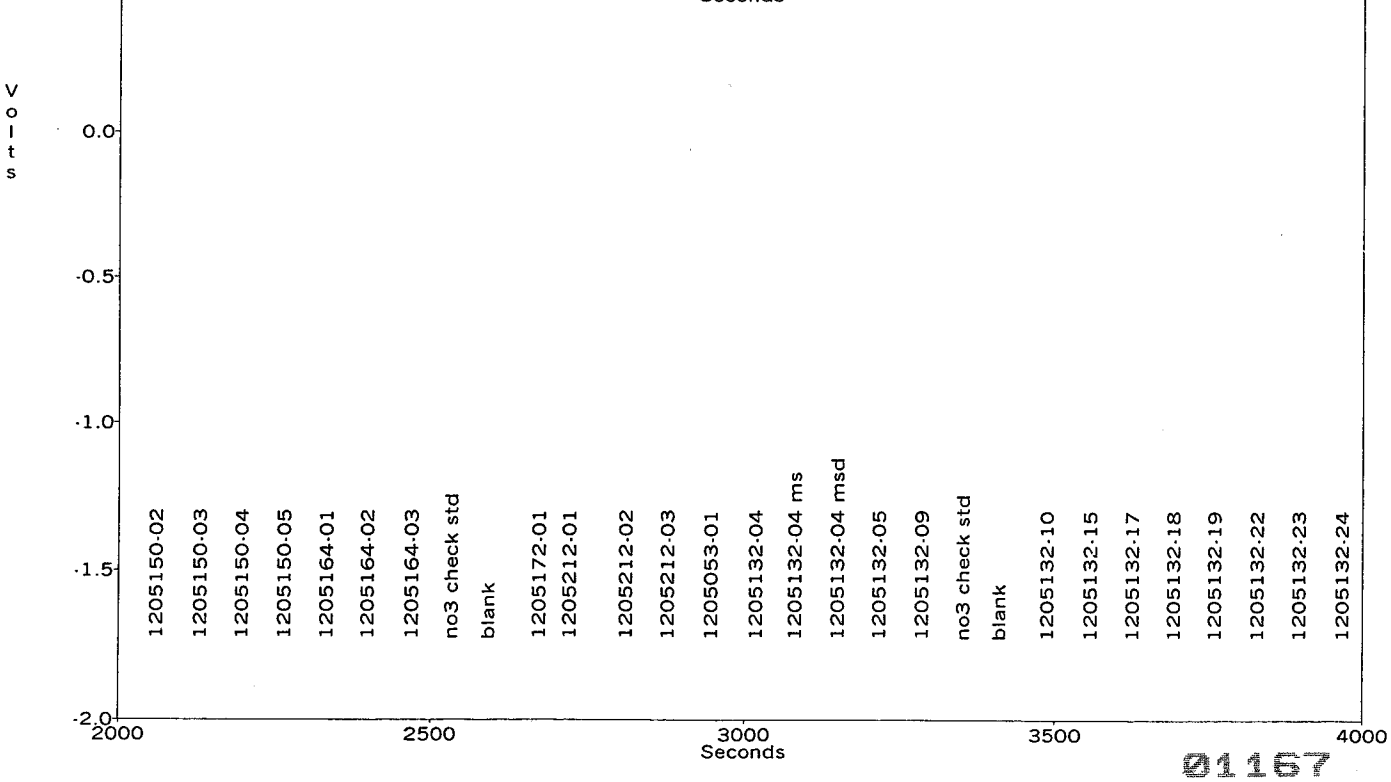
OPERATOR: cac
ACQ. TIME: May 11, 2012 13:32:18
DATA FILENAME: C:\OMNION\DATA\05111233.FDT

Multi-Channel Table
Type: Unknowns
Channel Range: 1 to 8 -- Cup Range: 76 to 100

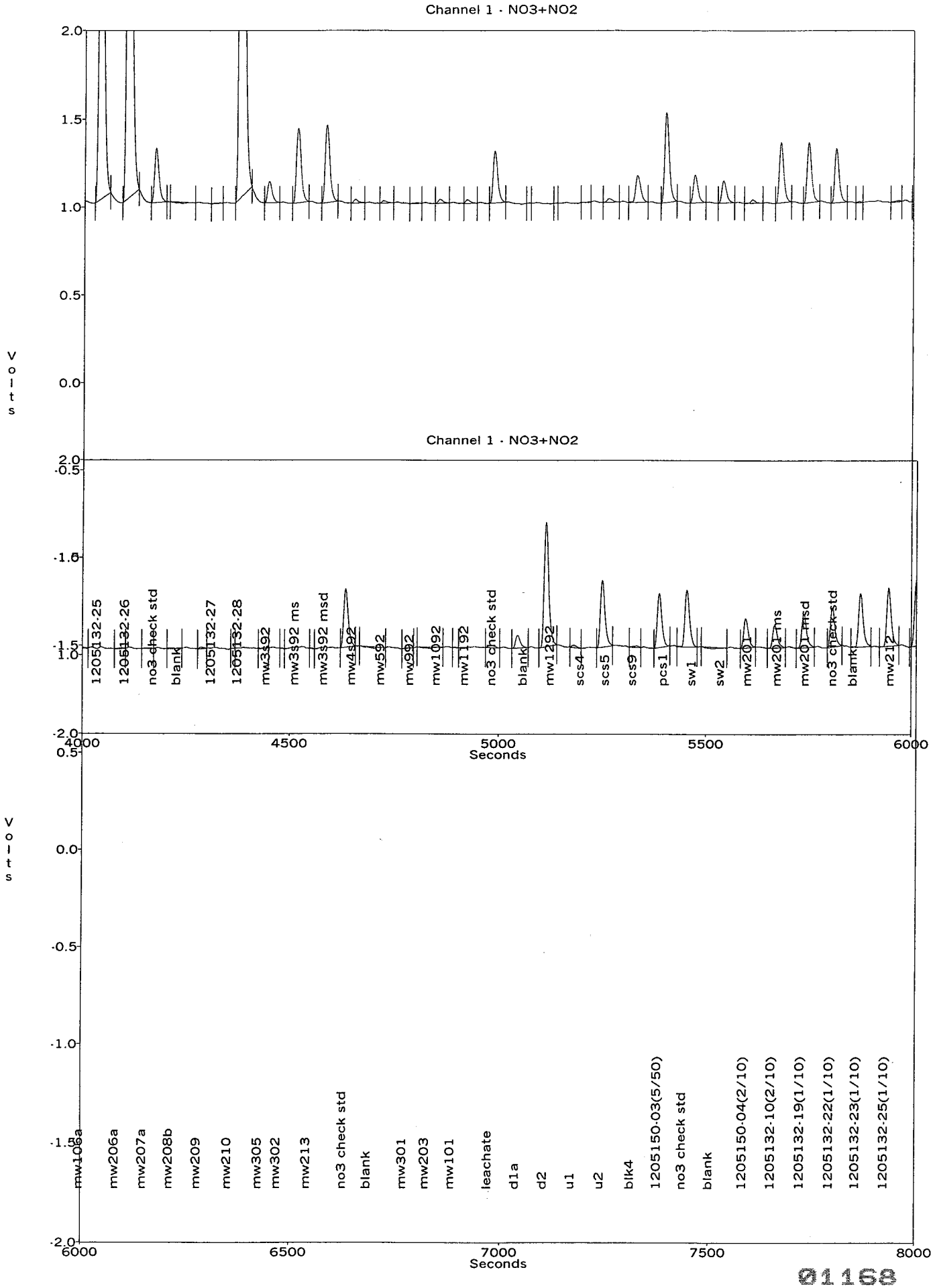
Cup	Sample ID	Sampling Date	# of Reps	NO3+NO2 (mg/l)	Auto Dil Factor
76	mw209	11 May 2012	1	0.009	1.00
77	mw210	11 May 2012	1	-0.001	1.00
78	mw305	11 May 2012	1	0.005	1.00
79	mw302	11 May 2012	1	0.000	1.00
80	mw213	11 May 2012	1	0.000	1.00
81	mw301	11 May 2012	1	0.004	1.00
82	mw203	11 May 2012	1	-0.003	1.00
83	mw101	11 May 2012	1	0.001	1.00
84	leachate	11 May 2012	1	0.027	1.00
85	d1a	11 May 2012	1	0.105	1.00
86	d2	11 May 2012	1	1.018	1.00
87	u1	11 May 2012	1	0.018	1.00
88	u2	11 May 2012	1	0.557	1.00
90	1205150-03(5/50	11 May 2012	1	4.431	1.00
91	1205150-04(2/10	11 May 2012	1	1.236	1.00
92	1205132-10(2/10	11 May 2012	1	0.968	1.00
93	1205132-19(1/10	11 May 2012	1	2.918	1.00
94	1205132-22(1/10	11 May 2012	1	3.271	1.00
95	1205132-23(1/10	11 May 2012	1	4.558	1.00
96	1205132-25(1/10	11 May 2012	1	4.820	1.00
97	1205132-26(1/10	11 May 2012	1	5.450	1.00
98	1205132-28(4/10	11 May 2012	1	9.233	1.00
99	d2(5/10)	11 May 2012	1	1.528	1.00

OPERATOR: cac
ACQ. TIME: May 11, 2012 13:32:18
DATA FILENAME: C:\OMNION\DATA\05111233.FDT
METHOD FILENAME: C:\OMNION\METHODS\NO3LOW.MET
TRAY FILENAME: C:\OMNION\TRAYS\05111233.TRA



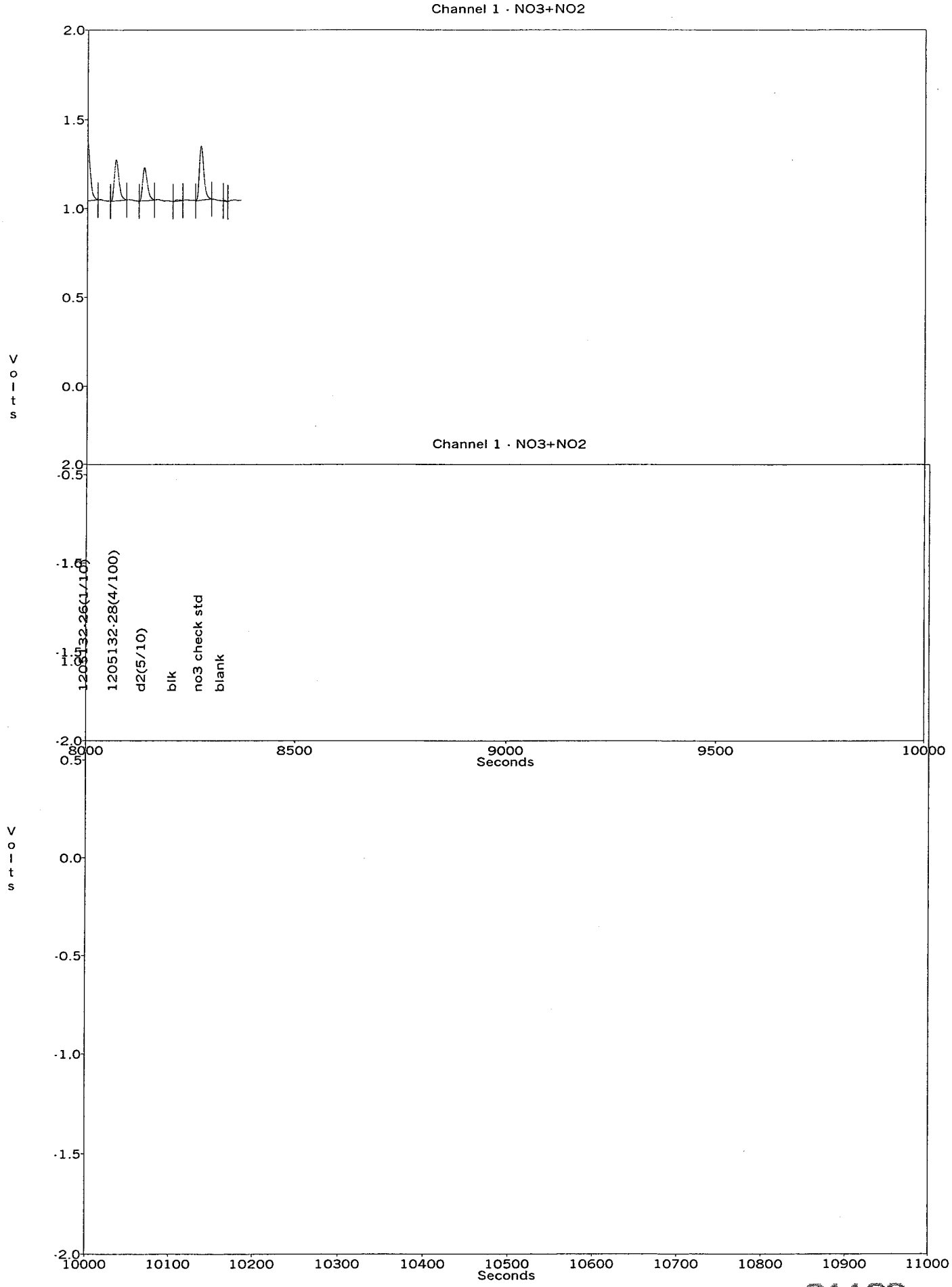


OPERATOR: cac
DATA FILENAME: C:\OMNION\DATA\05111233.FDT
TRAY FILENAME: C:\OMNION\TRAYS\05111233.TRA



01168

OPERATOR: cac
DATA FILENAME: C:\OMNION\DATA\05111233.FDT
TRAY FILENAME: C:\OMNION\TRAYS\05111233.TRA



01169

INSTRUMENT: FIA
TRAY: 05111233.TRA METHOD: NO3LOW.MET DATAFILE: 05111233.FDT
DATE/TIME: Fri May 11 13:32:18 2012 OPERATOR: cac

***** Auto DQM Begin *****
*** Starting DQM Set Check Std ***
Cup# 2 Sample: no3 check std Type: RelChkStd Rep# 1/1
Ch 1: NO3+NO2 = 0.5246 mg/l
DQM Sample Results: no3 check std
Ch 1: NO3+NO2 = 0.5246 mg/l
Known Conc = 0.5000 mg/L - %Diff from Known = 4.9244%
Test 1: Passed
Cup# 7 Sample: blank Type: Blank Rep# 1/1
Ch 1: NO3+NO2 = -0.0032 mg/l
DQM Sample Results: blank
Ch 1: NO3+NO2
Determined Conc = -0.0032 mg/l
Test 1: Passed
*** End of DQM Set Check Std - Set Passed ***
Cup# 1 Sample: blk2 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = -0.0008 mg/l
Cup# 2 Sample: blk3 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.0034 mg/l
Cup# 3 Sample: blk4 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.0182 mg/l
Cup# 4 Sample: blk5 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.0074 mg/l
Cup# 5 Sample: bs2 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.4904 mg/l
Cup# 6 Sample: bs3 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.5145 mg/l
Cup# 7 Sample: bs4 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.4986 mg/l
Cup# 8 Sample: bs5 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.5080 mg/l
Cup# 9 Sample: 1205053-02 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.0279 mg/l
Cup# 10 Sample: 1205053-02 ms Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.5083 mg/l
***** Auto DQM Begin *****
*** Starting DQM Set Check Std ***
Cup# 2 Sample: no3 check std Type: RelChkStd Rep# 1/1 Repeat# 1
Ch 1: NO3+NO2 = 0.5138 mg/l
DQM Sample Results: no3 check std
Ch 1: NO3+NO2 = 0.5138 mg/l
Known Conc = 0.5000 mg/L - %Diff from Known = 2.7597%
Test 1: Passed
Cup# 7 Sample: blank Type: Blank Rep# 1/1 Repeat# 1
Ch 1: NO3+NO2 = 0.0008 mg/l
DQM Sample Results: blank
Ch 1: NO3+NO2
Determined Conc = 0.0008 mg/l
Test 1: Passed
*** End of DQM Set Check Std - Set Passed ***
Cup# 11 Sample: 1205053-02 msd Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.4962 mg/l
Cup# 12 Sample: 1205072-01 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.0097 mg/l
Cup# 13 Sample: 1205073-01 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.0457 mg/l
Cup# 14 Sample: 1205085-01 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.7853 mg/l
Cup# 15 Sample: 1205085-02 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.3150 mg/l
Cup# 16 Sample: 1205085-02 ms Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.8180 mg/l
Cup# 17 Sample: 1205085-02 msd Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.8455 mg/l

Cup# 18 Sample: 1205226-01 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.0006 mg/l
Cup# 19 Sample: 1205226-02 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.0101 mg/l
Cup# 20 Sample: 1205122-01 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.0136 mg/l
***** Auto DQM Begin *****
*** Starting DQM Set Check Std ***
Cup# 2 Sample: no3 check std Type: RelChkStd Rep# 1/1 Repeat# 2
Ch 1: NO3+NO2 = 0.4810 mg/l
DQM Sample Results: no3 check std
Ch 1: NO3+NO2 = 0.4810 mg/l
Known Conc = 0.5000 mg/L - %Diff from Known = -3.8061%
Test 1: Passed
Cup# 7 Sample: blank Type: Blank Rep# 1/1 Repeat# 2
Ch 1: NO3+NO2 = -0.0032 mg/l
DQM Sample Results: blank
Ch 1: NO3+NO2
Determined Conc = -0.0032 mg/l
Test 1: Passed
*** End of DQM Set Check Std - Set Passed ***
Cup# 21 Sample: 1205122-01 ms Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.5032 mg/l
Cup# 22 Sample: 1205122-01 msd Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.4641 mg/l
Cup# 23 Sample: 1205150-01 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.0063 mg/l
Cup# 24 Sample: 1205150-02 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.1941 mg/l
Cup# 25 Sample: 1205150-03 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 4.2554 mg/l
Cup# 26 Sample: 1205150-04 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 1.4023 mg/l
Cup# 27 Sample: 1205150-05 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.0108 mg/l
Cup# 28 Sample: 1205164-01 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.0118 mg/l
Cup# 29 Sample: 1205164-02 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.0086 mg/l
Cup# 30 Sample: 1205164-03 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.0044 mg/l
***** Auto DQM Begin *****
*** Starting DQM Set Check Std ***
Cup# 2 Sample: no3 check std Type: RelChkStd Rep# 1/1 Repeat# 3
Ch 1: NO3+NO2 = 0.4883 mg/l
DQM Sample Results: no3 check std
Ch 1: NO3+NO2 = 0.4883 mg/l
Known Conc = 0.5000 mg/L - %Diff from Known = -2.3490%
Test 1: Passed
Cup# 7 Sample: blank Type: Blank Rep# 1/1 Repeat# 3
Ch 1: NO3+NO2 = -0.0032 mg/l
DQM Sample Results: blank
Ch 1: NO3+NO2
Determined Conc = -0.0032 mg/l
Test 1: Passed
*** End of DQM Set Check Std - Set Passed ***
Cup# 31 Sample: 1205172-01 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.0932 mg/l
Cup# 32 Sample: 1205212-01 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.0003 mg/l
Cup# 33 Sample: 1205212-02 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.0134 mg/l
Cup# 34 Sample: 1205212-03 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.0197 mg/l
Cup# 35 Sample: 1205053-01 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.0118 mg/l
Cup# 36 Sample: 1205132-04 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.0016 mg/l
Cup# 37 Sample: 1205132-04 ms Type: Unknown Rep# 1/1

Ch 1: NO3+NO2 = 0.5046 mg/l
Cup# 38 Sample: 1205132-04 msd Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.5099 mg/l
Cup# 39 Sample: 1205132-05 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.8833 mg/l
Cup# 40 Sample: 1205132-09 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.6759 mg/l
***** Auto DQM Begin *****
*** Starting DQM Set Check Std ***
Cup# 2 Sample: no3 check std Type: RelChkStd Rep# 1/1 Repeat# 4
Ch 1: NO3+NO2 = 0.4901 mg/l
DQM Sample Results: no3 check std
Ch 1: NO3+NO2 = 0.4901 mg/l
Known Conc = 0.5000 mg/L - %Diff from Known = -1.9714%
Test 1: Passed
Cup# 7 Sample: blank Type: Blank Rep# 1/1 Repeat# 4
Ch 1: NO3+NO2 = -0.0032 mg/l
DQM Sample Results: blank
Ch 1: NO3+NO2
Determined Conc = -0.0032 mg/l
Test 1: Passed
*** End of DQM Set Check Std - Set Passed ***
Cup# 41 Sample: 1205132-10 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 1.1567 mg/l
Cup# 42 Sample: 1205132-15 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.5883 mg/l
Cup# 43 Sample: 1205132-17 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.4472 mg/l
Cup# 44 Sample: 1205132-18 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.3688 mg/l
Cup# 45 Sample: 1205132-19 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 3.3906 mg/l
Cup# 46 Sample: 1205132-22 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 3.9895 mg/l
Cup# 47 Sample: 1205132-23 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 4.5627 mg/l
Cup# 48 Sample: 1205132-24 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.0128 mg/l
Cup# 49 Sample: 1205132-25 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 5.3351 mg/l
Cup# 50 Sample: 1205132-26 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 6.6261 mg/l
***** Auto DQM Begin *****
*** Starting DQM Set Check Std ***
Cup# 2 Sample: no3 check std Type: RelChkStd Rep# 1/1 Repeat# 5
Ch 1: NO3+NO2 = 0.4928 mg/l
DQM Sample Results: no3 check std
Ch 1: NO3+NO2 = 0.4928 mg/l
Known Conc = 0.5000 mg/L - %Diff from Known = -1.4438%
Test 1: Passed
Cup# 7 Sample: blank Type: Blank Rep# 1/1 Repeat# 5
Ch 1: NO3+NO2 = -0.0032 mg/l
DQM Sample Results: blank
Ch 1: NO3+NO2
Determined Conc = -0.0032 mg/l
Test 1: Passed
*** End of DQM Set Check Std - Set Passed ***
Cup# 51 Sample: 1205132-27 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.0068 mg/l
Cup# 52 Sample: 1205132-28 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 7.4217 mg/l
Cup# 53 Sample: mw3s92 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.1960 mg/l
Cup# 54 Sample: mw3s92 ms Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.6821 mg/l
Cup# 55 Sample: mw3s92 msd Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.7142 mg/l
Cup# 56 Sample: mw4s92 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.0329 mg/l

Cup# 57 Sample: mw592 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.0210 mg/l
Cup# 58 Sample: mw992 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.0070 mg/l
Cup# 59 Sample: mw1092 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.0393 mg/l
Cup# 60 Sample: mw1192 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.0346 mg/l
***** Auto DQM Begin *****
*** Starting DQM Set Check Std ***
Cup# 2 Sample: no3 check std Type: RelChkStd Rep# 1/1 Repeat# 6
Ch 1: NO3+NO2 = 0.4815 mg/l
DQM Sample Results: no3 check std
Ch 1: NO3+NO2 = 0.4815 mg/l
Known Conc = 0.5000 mg/L - %Diff from Known = -3.6965%
Test 1: Passed
Cup# 7 Sample: blank Type: Blank Rep# 1/1 Repeat# 6
Ch 1: NO3+NO2 = -0.0023 mg/l
DQM Sample Results: blank
Ch 1: NO3+NO2
Determined Conc = -0.0023 mg/l
Test 1: Passed
*** End of DQM Set Check Std - Set Passed ***
Cup# 61 Sample: mw1292 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = -0.0018 mg/l
Cup# 62 Sample: scs4 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.0025 mg/l
Cup# 63 Sample: scs5 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.0375 mg/l
Cup# 64 Sample: scs9 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.2771 mg/l
Cup# 65 Sample: pcs1 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.8309 mg/l
Cup# 66 Sample: sw1 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.2603 mg/l
Cup# 67 Sample: sw2 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.2109 mg/l
Cup# 68 Sample: mw201 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.0309 mg/l
Cup# 69 Sample: mw201 ms Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.5455 mg/l
Cup# 70 Sample: mw201 msd Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.5385 mg/l
***** Auto DQM Begin *****
*** Starting DQM Set Check Std ***
Cup# 2 Sample: no3 check std Type: RelChkStd Rep# 1/1 Repeat# 7
Ch 1: NO3+NO2 = 0.4888 mg/l
DQM Sample Results: no3 check std
Ch 1: NO3+NO2 = 0.4888 mg/l
Known Conc = 0.5000 mg/L - %Diff from Known = -2.2425%
Test 1: Passed
Cup# 7 Sample: blank Type: Blank Rep# 1/1 Repeat# 7
Ch 1: NO3+NO2 = 0.0055 mg/l
DQM Sample Results: blank
Ch 1: NO3+NO2
Determined Conc = 0.0055 mg/l
Test 1: Passed
*** End of DQM Set Check Std - Set Passed ***
Cup# 71 Sample: mw212 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.0139 mg/l
Cup# 72 Sample: mw106a Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.0046 mg/l
Cup# 73 Sample: mw206a Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.0050 mg/l
Cup# 74 Sample: mw207a Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.0065 mg/l
Cup# 75 Sample: mw208b Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.0020 mg/l
Cup# 76 Sample: mw209 Type: Unknown Rep# 1/1

Ch 1: NO3+NO2 = 0.0092 mg/l
Cup# 77 Sample: mw210 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = -0.0014 mg/l
Cup# 78 Sample: mw305 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.0053 mg/l
Cup# 79 Sample: mw302 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.0002 mg/l
Cup# 80 Sample: mw213 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.0001 mg/l
***** Auto DQM Begin *****
*** Starting DQM Set Check Std ***
Cup# 2 Sample: no3 check std Type: RelChkStd Rep# 1/1 Repeat# 8
Ch 1: NO3+NO2 = 0.4821 mg/l
DQM Sample Results: no3 check std
Ch 1: NO3+NO2 = 0.4821 mg/l
Known Conc = 0.5000 mg/L - %Diff from Known = -3.5886%
Test 1: Passed
Cup# 7 Sample: blank Type: Blank Rep# 1/1 Repeat# 8
Ch 1: NO3+NO2 = -0.0032 mg/l
DQM Sample Results: blank
Ch 1: NO3+NO2
Determined Conc = -0.0032 mg/l
Test 1: Passed
*** End of DQM Set Check Std - Set Passed ***
Cup# 81 Sample: mw301 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.0035 mg/l
Cup# 82 Sample: mw203 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = -0.0032 mg/l
Cup# 83 Sample: mw101 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.0005 mg/l
Cup# 84 Sample: leachate Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.0268 mg/l
Cup# 85 Sample: d1a Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.1050 mg/l
Cup# 86 Sample: d2 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 1.0179 mg/l
Cup# 87 Sample: u1 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.0179 mg/l
Cup# 88 Sample: u2 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.5572 mg/l
Cup# 3 Sample: blk4 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.0128 mg/l
Cup# 90 Sample: 1205150-03(5/50) Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.4431 mg/l
***** Auto DQM Begin *****
*** Starting DQM Set Check Std ***
Cup# 2 Sample: no3 check std Type: RelChkStd Rep# 1/1 Repeat# 9
Ch 1: NO3+NO2 = 0.4753 mg/l
DQM Sample Results: no3 check std
Ch 1: NO3+NO2 = 0.4753 mg/l
Known Conc = 0.5000 mg/L - %Diff from Known = -4.9325%
Test 1: Passed
Cup# 7 Sample: blank Type: Blank Rep# 1/1 Repeat# 9
Ch 1: NO3+NO2 = -0.0032 mg/l
DQM Sample Results: blank
Ch 1: NO3+NO2
Determined Conc = -0.0032 mg/l
Test 1: Passed
*** End of DQM Set Check Std - Set Passed ***
Cup# 91 Sample: 1205150-04(2/10) Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.2472 mg/l
Cup# 92 Sample: 1205132-10(2/10) Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.1937 mg/l
Cup# 93 Sample: 1205132-19(1/10) Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.2918 mg/l
Cup# 94 Sample: 1205132-22(1/10) Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.3271 mg/l
Cup# 95 Sample: 1205132-23(1/10) Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.4558 mg/l

Cup# 96 Sample: 1205132-25(1/10) Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.4820 mg/l
Cup# 97 Sample: 1205132-26(1/10) Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.5450 mg/l
Cup# 98 Sample: 1205132-28(4/100) Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.3693 mg/l
Cup# 99 Sample: d2(5/10) Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.3057 mg/l
Cup# 3 Sample: blk Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.0047 mg/l
***** Auto DQM Begin *****
*** Starting DQM Set Check Std ***
Cup# 2 Sample: no3 check std Type: RelChkStd Rep# 1/1 Repeat# 10
Ch 1: NO3+NO2 = 0.4909 mg/l
DQM Sample Results: no3 check std
Ch 1: NO3+NO2 = 0.4909 mg/l
Known Conc = 0.5000 mg/L - %Diff from Known = -1.8139%
Test 1: Passed
Cup# 7 Sample: blank Type: Blank Rep# 1/1 Repeat# 10
Ch 1: NO3+NO2 = 0.0015 mg/l
DQM Sample Results: blank
Ch 1: NO3+NO2
Determined Conc = 0.0015 mg/l
Test 1: Passed
*** End of DQM Set Check Std - Set Passed ***
******* Tray Run Complete *******

OPERATOR: cac
ACQ. TIME: May 11, 2012 13:32:18
DATA FILENAME: C:\OMNION\DATA\05111233.FDT
METHOD FILENAME: C:\OMNION\METHODS\NO3LOW.MET
TRAY FILENAME: C:\OMNION\TRAYS\05111233.TRA

Multi-Channel Table
Type: DQM
Channel Range: 1 to 8 -- Cup Range: 1 to 2

Cup	Sample ID	Sample Type	Sampling Date	Sampling Time	# of Reps	NO3+NO2 (uv-s)	Auto Dil Factor
2	no3 check st	RelChkStd	11 May 2012	13:32:20	1	4171376.000	1.00
				Known Concentration:		0.500	
				% Difference:		4.924	
2	no3 check st	RelChkStd	11 May 2012	13:45:56	1	4085847.000	1.00
				Known Concentration:		0.500	
				% Difference:		2.760	
2	no3 check st	RelChkStd	11 May 2012	13:59:30	1	3826419.000	1.00
				Known Concentration:		0.500	
				% Difference:		-3.806	
2	no3 check st	RelChkStd	11 May 2012	14:13:00	1	3883994.000	1.00
				Known Concentration:		0.500	
				% Difference:		-2.349	
2	no3 check st	RelChkStd	11 May 2012	14:26:40	1	3898912.000	1.00
				Known Concentration:		0.500	
				% Difference:		-1.971	
2	no3 check st	RelChkStd	11 May 2012	14:40:17	1	3919760.000	1.00
				Known Concentration:		0.500	
				% Difference:		-1.444	
2	no3 check st	RelChkStd	11 May 2012	14:53:50	1	3830749.000	1.00
				Known Concentration:		0.500	
				% Difference:		-3.697	
2	no3 check st	RelChkStd	11 May 2012	15:07:32	1	3888199.000	1.00
				Known Concentration:		0.500	
				% Difference:		-2.243	
2	no3 check st	RelChkStd	11 May 2012	15:21:12	1	3835015.000	1.00
				Known Concentration:		0.500	
				% Difference:		-3.589	
2	no3 check st	RelChkStd	11 May 2012	15:34:49	1	3781914.000	1.00
				Known Concentration:		0.500	
				% Difference:		-4.932	
2	no3 check st	RelChkStd	11 May 2012	15:48:36	1	3905136.000	1.00
				Known Concentration:		0.500	
				% Difference:		-1.814	

OPERATOR: cac
ACQ. TIME: May 11, 2012 13:32:18
DATA FILENAME: C:\OMNION\DATA\05111233.FDT
METHOD FILENAME: C:\OMNION\METHODS\NO3LOW.MET
TRAY FILENAME: C:\OMNION\TRAYS\05111233.TRA

Multi-Channel Table
Type: DQM
Channel Range: 1 to 8 -- Cup Range: 7 to 7

Cup	Sample ID	Sample Type	Sampling Date	Sampling Time	# of Reps	NO3+NO2 (uv-s)	Auto Dil Factor
7	blank	Blank	11 May 2012	13:33:30	1	0.000	1.00
7	blank	Blank	11 May 2012	13:47:05	1	32315.000	1.00
7	blank	Blank	11 May 2012	14:00:39	1	0.000	1.00
7	blank	Blank	11 May 2012	14:14:09	1	0.000	1.00
7	blank	Blank	11 May 2012	14:27:49	1	0.000	1.00
7	blank	Blank	11 May 2012	14:41:26	1	0.000	1.00
7	blank	Blank	11 May 2012	14:54:59	1	7345.000	1.00
7	blank	Blank	11 May 2012	15:08:41	1	69445.000	1.00
7	blank	Blank	11 May 2012	15:22:21	1	0.000	1.00
7	blank	Blank	11 May 2012	15:35:58	1	0.000	1.00
7	blank	Blank	11 May 2012	15:49:45	1	37459.000	1.00

OPERATOR: cac
ACQ. TIME: May 11, 2012 13:32:18
DATA FILENAME: C:\OMNION\DATA\05111233.FDT

Multi-Channel Table
Type: Unknowns
Channel Range: 1 to 8 -- Cup Range: 1 to 25

Cup	Sample ID	Sampling Date	Sampling Time	# of Reps	NO3+NO2 (uv-s)	Man Dil Factor
1	blk2	11 May 2012	13:34:38	1	19304.000	1.0
2	blk3	11 May 2012	13:35:46	1	52885.000	1.0
3	blk4	11 May 2012	13:36:55	1	169157.000	1.0
3	blk4	11 May 2012	15:32:35	1	127011.000	1.0
3	blk	11 May 2012	15:47:30	1	62610.000	1.0
4	blk5	11 May 2012	13:38:03	1	84046.000	1.0
5	bs2	11 May 2012	13:39:10	1	3900759.000	1.0
6	bs3	11 May 2012	13:40:18	1	4091709.000	1.0
7	bs4	11 May 2012	13:41:26	1	3965591.000	1.0
8	bs5	11 May 2012	13:42:34	1	4039645.000	1.0
9	1205053-02	11 May 2012	13:43:41	1	246141.000	1.0
10	1205053-02 ms	11 May 2012	13:44:49	1	4042195.000	1.0
11	1205053-02 msd	11 May 2012	13:48:12	1	3946845.000	1.0
12	1205072-01	11 May 2012	13:49:19	1	102205.000	1.0
13	1205073-01	11 May 2012	13:50:27	1	386618.000	1.0
14	1205085-01	11 May 2012	13:51:33	1	6231604.000	1.0
15	1205085-02	11 May 2012	13:52:40	1	2514858.000	1.0
16	1205085-02 ms	11 May 2012	13:53:49	1	6489527.000	1.0
17	1205085-02 msd	11 May 2012	13:54:58	1	6707181.000	1.0
18	1205226-01	11 May 2012	13:56:07	1	30563.000	1.0
19	1205226-02	11 May 2012	13:57:16	1	105117.000	1.0
20	1205122-01	11 May 2012	13:58:24	1	132854.000	1.0
21	1205122-01 ms	11 May 2012	14:01:47	1	4002480.000	1.0
22	1205122-01 msd	11 May 2012	14:02:55	1	3693082.000	1.0
23	1205150-01	11 May 2012	14:04:03	1	75557.000	1.0
24	1205150-02	11 May 2012	14:05:11	1	1559299.000	1.0
25	1205150-03	11 May 2012	14:06:18	1	33653404.000	1.0

OPERATOR: cac
ACQ. TIME: May 11, 2012 13:32:18
DATA FILENAME: C:\OMNION\DATA\05111233.FDT

Multi-Channel Table
Type: Unknowns
Channel Range: 1 to 8 -- Cup Range: 26 to 50

Cup	Sample ID	Sampling Date	Sampling Time	# of Reps	NO3+NO2 (uv-s)	Man Dil Factor	Auto Dil Factor
26	1205150-04	11 May 2012	14:07:26	1	11106896.000	1.0	1.00
27	1205150-05	11 May 2012	14:08:33	1	111171.000	1.0	1.00
28	1205164-01	11 May 2012	14:09:40	1	118816.000	1.0	1.00
29	1205164-02	11 May 2012	14:10:47	1	93450.000	1.0	1.00
30	1205164-03	11 May 2012	14:11:53	1	60304.000	1.0	1.00
31	1205172-01	11 May 2012	14:15:18	1	761923.000	1.0	1.00
32	1205212-01	11 May 2012	14:16:27	1	27918.000	1.0	1.00
33	1205212-02	11 May 2012	14:17:36	1	131498.000	1.0	1.00
34	1205212-03	11 May 2012	14:18:45	1	181322.000	1.0	1.00
35	1205053-01	11 May 2012	14:19:53	1	118544.000	1.0	1.00
36	1205132-04	11 May 2012	14:21:01	1	38108.000	1.0	1.00
37	1205132-04 ms	11 May 2012	14:22:09	1	4013447.000	1.0	1.00
38	1205132-04 msd	11 May 2012	14:23:17	1	4054903.000	1.0	1.00
39	1205132-05	11 May 2012	14:24:25	1	7005556.000	1.0	1.00
40	1205132-09	11 May 2012	14:25:32	1	5366816.000	1.0	1.00
41	1205132-10	11 May 2012	14:28:56	1	9166643.000	1.0	1.00
42	1205132-15	11 May 2012	14:30:04	1	4674810.000	1.0	1.00
43	1205132-17	11 May 2012	14:31:11	1	3559651.000	1.0	1.00
44	1205132-18	11 May 2012	14:32:18	1	2940218.000	1.0	1.00
45	1205132-19	11 May 2012	14:33:25	1	26819712.000	1.0	1.00
46	1205132-22	11 May 2012	14:34:34	1	31552234.000	1.0	1.00
47	1205132-23	11 May 2012	14:35:43	1	36081876.000	1.0	1.00
48	1205132-24	11 May 2012	14:36:52	1	126990.000	1.0	1.00
49	1205132-25	11 May 2012	14:38:00	1	42185544.000	1.0	1.00
50	1205132-26	11 May 2012	14:39:09	1	52387824.000	1.0	1.00

OPERATOR: cac
ACQ. TIME: May 11, 2012 13:32:18
DATA FILENAME: C:\OMNION\DATA\05111233.FDT

Multi-Channel Table
Type: Unknowns
Channel Range: 1 to 8 -- Cup Range: 51 to 75

Cup	Sample ID	Sampling Date	Sampling Time	# of Reps	NO3+NO2 (uv-s)	Man Dil Factor	Auto Dil Factor
51	1205132-27	11 May 2012	14:42:34	1	79440.000	1.0	1.00
52	1205132-28	11 May 2012	14:43:42	1	58674828.000	1.0	1.00
53	mw3s92	11 May 2012	14:44:50	1	1574285.000	1.0	1.00
54	mw3s92 ms	11 May 2012	14:45:57	1	5416064.000	1.0	1.00
55	mw3s92 msd	11 May 2012	14:47:05	1	5669328.000	1.0	1.00
56	mw4s92	11 May 2012	14:48:13	1	285850.000	1.0	1.00
57	mw592	11 May 2012	14:49:21	1	191616.000	1.0	1.00
58	mw992	11 May 2012	14:50:28	1	81162.000	1.0	1.00
59	mw1092	11 May 2012	14:51:36	1	336518.000	1.0	1.00
60	mw1192	11 May 2012	14:52:43	1	299302.000	1.0	1.00
61	mw1292	11 May 2012	14:56:08	1	11330.000	1.0	1.00
62	scs4	11 May 2012	14:57:17	1	45184.000	1.0	1.00
63	scs5	11 May 2012	14:58:26	1	322054.000	1.0	1.00
64	scs9	11 May 2012	14:59:34	1	2215184.000	1.0	1.00
65	pcs1	11 May 2012	15:00:43	1	6591316.000	1.0	1.00
66	sw1	11 May 2012	15:01:52	1	2082298.000	1.0	1.00
67	sw2	11 May 2012	15:03:01	1	1692307.000	1.0	1.00
68	mw201	11 May 2012	15:04:10	1	270064.000	1.0	1.00
69	mw201 ms	11 May 2012	15:05:17	1	4336218.000	1.0	1.00
70	mw201 msd	11 May 2012	15:06:25	1	4280935.000	1.0	1.00
71	mw212	11 May 2012	15:09:49	1	135818.000	1.0	1.00
72	mw106a	11 May 2012	15:10:57	1	62162.000	1.0	1.00
73	mw206a	11 May 2012	15:12:04	1	65283.000	1.0	1.00
74	mw207a	11 May 2012	15:13:12	1	76797.000	1.0	1.00
75	mw208b	11 May 2012	15:14:20	1	41411.000	1.0	1.00

OPERATOR: cac
ACQ. TIME: May 11, 2012 13:32:18
DATA FILENAME: C:\OMNION\DATA\05111233.FDT

Multi-Channel Table
Type: Unknowns
Channel Range: 1 to 8 -- Cup Range: 76 to 100

Cup	Sample ID	Sampling Date	# of Reps	NO3+NO2 (uv-s)	Auto Dil Factor
76	mw209	11 May 2012	1	98232.000	1.00
77	mw210	11 May 2012	1	14773.000	1.00
78	mw305	11 May 2012	1	67136.000	1.00
79	mw302	11 May 2012	1	26956.000	1.00
80	mw213	11 May 2012	1	26088.000	1.00
81	mw301	11 May 2012	1	53482.000	1.00
82	mw203	11 May 2012	1	0.000	1.00
83	mw101	11 May 2012	1	29960.000	1.00
84	leachate	11 May 2012	1	237392.000	1.00
85	d1a	11 May 2012	1	855706.000	1.00
86	d2	11 May 2012	1	8069069.000	1.00
87	u1	11 May 2012	1	166691.000	1.00
88	u2	11 May 2012	1	4428544.000	1.00
90	1205150-03(5/50	11 May 2012	1	3526957.000	1.00
91	1205150-04(2/10	11 May 2012	1	1979030.000	1.00
92	1205132-10(2/10	11 May 2012	1	1555984.000	1.00
93	1205132-19(1/10	11 May 2012	1	2331389.000	1.00
94	1205132-22(1/10	11 May 2012	1	2610442.000	1.00
95	1205132-23(1/10	11 May 2012	1	3627763.000	1.00
96	1205132-25(1/10	11 May 2012	1	3834851.000	1.00
97	1205132-26(1/10	11 May 2012	1	4332244.000	1.00
98	1205132-28(4/10	11 May 2012	1	2944067.000	1.00
99	d2(5/10)	11 May 2012	1	2441363.000	1.00

TriMatrix Laboratories, Inc.

TechLaw

Project: KNM

SDG: KNM050112

SM 4500-S2 D 20th

SAMPLE ID SUMMARY

SM 4500-S2 D 20th

Laboratory: TriMatrix Laboratories, Inc.

SDG: KNM050112

Client: TechLaw

Project: KNM

Client Sample Id:	Lab Sample Id:
106092	1205072-01
106093	1205073-01
106036	1205085-01
106037	1205085-02

INORGANIC ANALYSIS DATA SHEET

SM 4500-S2 D 20th

106092

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Matrix: Water
Sampled: 05/01/12 15:22
Solids: 0.00
QC Batch: 1205821

SDG: KNM050112
Project: KNM
Laboratory ID: 1205072-01
Prepared: 05/07/12 14:00
Preparation: Method-Specific Preparation
Initial/Final: 7.5 mL / 7.5 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
18496-25-8	Sulfide, Total	1	0.018	mg/L	0.0052	0.020	J	05/07/12 18:54

INORGANIC ANALYSIS DATA SHEET

SM 4500-S2 D 20th

106093

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Matrix: Water
Sampled: 05/01/12 11:16
Solids: 0.00
QC Batch: 1205821

SDG: KNM050112
Project: KNM
Laboratory ID: 1205073-01
Prepared: 05/07/12 14:00
Preparation: Method-Specific Preparation
Initial/Final: 7.5 mL / 7.5 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
18496-25-8	Sulfide, Total	1	0.016	mg/L	0.0052	0.020	J	05/07/12 18:55

01185

INORGANIC ANALYSIS DATA SHEET

SM 4500-S2 D 20th

106036

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Matrix: Water
Sampled: 05/02/12 13:18
Solids: 0.00
QC Batch: 1205821

SDG: KNM050112
Project: KNM
Laboratory ID: 1205085-01
Prepared: 05/07/12 14:00
Preparation: Method-Specific Preparation
Initial/Final: 7.5 mL / 7.5 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
18496-25-8	Sulfide, Total	1	0.013	mg/L	0.0052	0.020	J	05/07/12 18:57

INORGANIC ANALYSIS DATA SHEET

SM 4500-S2 D 20th

106037

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Matrix: Water
Sampled: 05/02/12 10:44
Solids: 0.00
QC Batch: 1205821

SDG: KNM050112
Project: KNM
Laboratory ID: 1205085-02
Prepared: 05/07/12 14:00
Preparation: Method-Specific Preparation
Initial/Final: 7.5 mL / 7.5 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
18496-25-8	Sulfide, Total	1	0.023	mg/L	0.0052	0.020		05/07/12 18:58

ANALYSIS BATCH (SEQUENCE) SUMMARY
SM 4500-S2 D 20th

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Sequence: 2E11045

SDG: KNM050112
Project: KNM
Calibration: 2E11010
Instrument: 330

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Cal Standard	2E11045-CAL1		05/07/12 14:14
Cal Standard	2E11045-CAL2		05/07/12 14:15
Cal Standard	2E11045-CAL3		05/07/12 14:16
Cal Standard	2E11045-CAL4		05/07/12 14:16
Cal Standard	2E11045-CAL5		05/07/12 14:17
Cal Standard	2E11045-CAL6		05/07/12 14:17
Calibration Check	2E11045-CCV1		05/07/12 14:18
Calibration Blank	2E11045-CCB1		05/07/12 14:19
Secondary Cal Check	2E11045-SCV1		05/07/12 14:21
Instrument RL Check	2E11045-CRL1		05/07/12 14:21
Calibration Check	2E11045-CCV2		05/07/12 14:26
Calibration Blank	2E11045-CCB2		05/07/12 14:27
Calibration Check	2E11045-CCVD		05/07/12 18:50
Calibration Blank	2E11045-CCBD		05/07/12 18:50
Blank	1205821-BLK1		05/07/12 18:53
LCS	1205821-BS1		05/07/12 18:53
106092	1205072-01		05/07/12 18:54
106093	1205073-01		05/07/12 18:55
Calibration Check	2E11045-CCVE		05/07/12 18:56
Calibration Blank	2E11045-CCBE		05/07/12 18:57
106036	1205085-01		05/07/12 18:57
106037	1205085-02		05/07/12 18:58
106037	1205821-MS1		05/07/12 18:59
106037	1205821-MSD1		05/07/12 19:00
Calibration Check	2E11045-CCVF		05/07/12 19:01
Calibration Blank	2E11045-CCBF		05/07/12 19:02

INITIAL AND CONTINUING CALIBRATION CHECK

SM 4500-S2 D 20th

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Sequence: 2E11045
Control Limt: +/- 15.00%

SDG: KNM050112
Project: KNM
Calibration: 2E11010
Instrument ID: 330

Lab Sample ID	Analyte	True	Found	%R	Units	Analyzed
2E11045-CCV1	Sulfide, Total	0.226	0.224	99	mg/L	05/07/12 14:18
2E11045-CCV2	Sulfide, Total	0.226	0.223	99	mg/L	05/07/12 14:26
2E11045-CCVD	Sulfide, Total	0.226	0.214	95	mg/L	05/07/12 18:50
2E11045-CCVE	Sulfide, Total	0.226	0.214	95	mg/L	05/07/12 18:56
2E11045-CCVF	Sulfide, Total	0.226	0.214	95	mg/L	05/07/12 19:01

* Values outside of QC limits

SECOND-SOURCE CALIBRATION VERIFICATION

SM 4500-S2 D 20th

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Laboratory ID: 2E11045-SCV1

Sequence: 2E11045

SDG: KNM050112

Project: KNM

Instrument: 330

Calibration: 2E11010

Analyte	Expected	Found	% R	QC Limit	Units
Sulfide, Total	0.224	0.243	108	80-120	mg/L

* Values outside of QC limits

CRDL STANDARD

SM 4500-S2 D 20th

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Sequence: 2E11045

SDG: KNM050112

Project: KNM

Calibration: 2E11010

Instrument ID: 330

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
2E11045-CRL1	Sulfide, Total	0.0226	0.0221	98	mg/L	50 - 150

* Values outside of QC limits

BLANKS
SM 4500-S2 D 20th

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Sequence: 2E11045

SDG: KNM050112
Project: KNM
Calibration: 2E11010
Instrument ID: 330

Lab Sample ID	Analyte	Found	Unit	MDL	MRL	C	Analyzed
2E11045-CCB1	Sulfide, Total	-0.0018	mg/L	0.0052	0.020	U	05/07/12 14:19
2E11045-CCB2	Sulfide, Total	-0.00098	mg/L	0.0052	0.020	U	05/07/12 14:27
2E11045-CCBD	Sulfide, Total	0.00066	mg/L	0.0052	0.020	U	05/07/12 18:50
2E11045-CCBE	Sulfide, Total	0.00069	mg/L	0.0052	0.020	U	05/07/12 18:57
2E11045-CCBF	Sulfide, Total	0.00095	mg/L	0.0052	0.020	U	05/07/12 19:02

* Values outside of QC limits

QC BATCH SUMMARY
SM 4500-S2 D 20th

Laboratory: TriMatrix Laboratories, Inc. SDG: KNM050112

Client: TechLaw Project: KNM

QC Batch: 1205821 QC Batch Matrix: Water Preparation: Method-Specific Preparation

Sample Name	Lab Sample ID	Date Prepared	Observations
106092	1205072-01	05/07/12 14:00	
106093	1205073-01	05/07/12 14:00	
106036	1205085-01	05/07/12 14:00	
106037	1205085-02	05/07/12 14:00	
Blank	1205821-BLK1	05/07/12 14:00	
LCS	1205821-BS1	05/07/12 14:00	
106037	1205821-MS1	05/07/12 14:00	
106037	1205821-MSD1	05/07/12 14:00	

METHOD BLANK DATA SHEET
SM 4500-S2 D 20th

Laboratory: TriMatrix Laboratories, Inc. SDG: KNM050112

Client: TechLaw Project: KNM

Matrix: Water Laboratory ID: 1205821-BLK1 File ID:

Prepared: 05/07/12 14:00 Analyzed: 05/07/12 18:53

Preparation: Method-Specific Preparat Initial/Final: 7.5 mL / 7.5 mL

QC Batch: 1205821 Sequence: 2E11045 Calibration: 2E11010 Instrument: 330

CAS No.	Analyte	Concentration	Unit	MDL	MRL	Q
18496-25-8	Sulfide, Total	0.020	mg/L	0.0052	0.020	U

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

106037

SM 4500-S2 D 20th

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Matrix: Water

QC Batch: 1205821

SDG: KNM050112

Project: KNM

Laboratory ID: 1205821-MS1

Preparation: Method-Specific Preparation

Initial/Final: 7.5 mL / 7.5 mL

Analyte	Spike Added	Sample Conc.	MS Conc.	MS % Rec. #	QC Limits Rec.	Units
Sulfide, Total	0.301	0.0234	0.316	97	55 - 119	mg/L

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

106037

SM 4500-S2 D 20th

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Matrix: Water

QC Batch: 1205821

SDG: KNM050112

Project: KNM

Laboratory ID: 1205821-MSD1

Preparation: Method-Specific Preparation

Initial/Final: 7.5 mL / 7.5 mL

Analyte	Spike Added	MSD Conc.	MSD % Rec. #	% RPD #	QC Limits RPD	QC Limits Rec.	Units
Sulfide, Total	0.301	0.306	94	3	20	55 - 119	mg/L

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

01196

LCS / LCS DUPLICATE RECOVERY

SM 4500-S2 D 20th

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Matrix: Water

QC Batch: 1205821

SDG: KNM050112

Project: KNM

Laboratory ID: 1205821-BS1

Preparation: Method-Specific Preparation

Initial/Final: 7.5 mL / 7.5 mL

Sequence: 2E11045

Analyte	Spike Added	LCS Conc.	LCS % Rec. #	QC Limits Rec.	Units
Sulfide, Total	0.301	0.320	106	80 - 120	mg/L

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

HOLDING TIME SUMMARY
SM 4500-S2 D 20th

Laboratory: TriMatrix Laboratories, Inc.

SDG: KNM050112

Client: TechLaw

Project: KNM

Analyte: Sulfide, Total

Sample Name	Date Collected	Date Received	Date Leached	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
106092	05/01/12	05/02/12		05/07/12	6	NA	05/07/12	6	7	
106093	05/01/12	05/02/12		05/07/12	6	NA	05/07/12	6	7	
106036	05/02/12	05/03/12		05/07/12	5	NA	05/07/12	5	7	
106037	05/02/12	05/03/12		05/07/12	5	NA	05/07/12	5	7	

Inorganic - Wet Chemistry, Water, May-07-12

Instrument = 330, Calibration = 2E11010

Sequence Analyses:
Sulfide, Total 4500-S2 D

Lab Number	*Analysis*	*Contain*	*STD ID*	*ISTD ID*	*Client / QC Type*	*Extraction Comments*
2E11045-CAL1	QC		2050280		CAL STANDARD	
2E11045-CAL2	QC		2050279		CAL STANDARD	
2E11045-CAL3	QC		2050278		CAL STANDARD	
2E11045-CAL4	QC		2050277		CAL STANDARD	
2E11045-CAL5	QC		2050276		CAL STANDARD	
2E11045-CAL6	QC		2050275		CAL STANDARD	
2E11045-CCV1	QC		2050276		CALIBRATION CHECK	
2E11045-CCB1	QC		2050280		CALIBRATION BLANK	
2E11045-SCV1	QC		2050271		SECONDARY CAL CHECK	
2E11045-CRL1	QC		2050279		INSTRUMENT RL CHECK	
2E11045-CCV2	QC		2050276		CALIBRATION CHECK	
2E11045-CCB2	QC		2050280		CALIBRATION BLANK	
2E11045-CCVD	QC		2050276		CALIBRATION CHECK	
2E11045-CCBD	QC		2050280		CALIBRATION BLANK	
1205821-BLK1	QC				BLANK	
1205821-BS1	QC				LCS	
1205072-01	Sulfide, Total 4500-S2 D	M			TechLaw	
1205073-01	Sulfide, Total 4500-S2 D	M			TechLaw	
2E11045-CCVE	QC		2050276		CALIBRATION CHECK	
2E11045-CCBE	QC		2050280		CALIBRATION BLANK	
1205085-01	Sulfide, Total 4500-S2 D	M			TechLaw	
1205085-02	Sulfide, Total 4500-S2 D	W			TechLaw	
1205821-MS1	QC				MATRIX SPIKE	
1205821-MSD1	QC				MATRIX SPIKE DUP	
2E11045-CCVF	QC		2050276		CALIBRATION CHECK	
2E11045-CCBF	QC		2050280		CALIBRATION BLANK	

5/7/12

Comments:	Analyst Initials:

Due 5·15·12

TriMatrix Laboratories, Inc.

PREPARATION BATCH **1205821** Page 1 of 1

Printed: 5/8/2012 5:31:04PM

Lv 4 mD

Inorganic - Wet Chemistry, Water, Method-Specific Preparation

(No Surrogate)

Batch Comments: (none)

Standard	Description	Solvent	LotNum
2020077	1+1 Sulfuric Acid (sulfide)	Di H2O	113789
2030234	1+1 HCl (Sulide)	Di H2O	110306
2031045	Phenylarsine Oxide solution - 0.02	Water	2010612
2040667	IODINE TITRANT REAGENT	Di H2O	NA
2041202	STARCH INDICATOR	Di H2O	NA
2041216	AminoSulfuric Acid	Di H2O	NA
2041293	Diammonium Hydrogen Phosphat	Di H2O	NA
2041294	Ferric Chloride(sulfides)	Di H2O	NA
2050274	SULFIDE 4.52ppm	DI WATER	K17597
2050318	Diammonium Hydrogen Phosphat	Di H2O	NA

Work Order	Analysis	Work Order	Analysis	Work Order	Analysis
1205072	Sulfide, Total 4500-S2 D	1205073	Sulfide, Total 4500-S2 D	1205085	Sulfide, Total 4500-S2 D

Balance ID: _____ **pH Meter:** _____

Lab Number	Contain	Prepared	By	Initial (mL)	Final (mL)	uL Surrogate	Source ID	Spike ID	uL Spike	Client/QC Type	Extraction Comments
1205821-BLK1		May-07-12 14:00	KAR	7.5	7.5					BLANK	
1205821-BS1		May-07-12 14:00	KAR	7.5	7.5			2050274	500	LCS	
1205821-MS1		May-07-12 14:00	KAR	7.5	7.5		1205085-02	2050274	500	MATRIX SPIKE	
1205821-MSD1		May-07-12 14:00	KAR	7.5	7.5		1205085-02	2050274	500	MATRIX SPIKE DUP	
1205072-01	M	May-07-12 14:00	KAR	7.5	7.5					TechLaw	
1205073-01	M	May-07-12 14:00	KAR	7.5	7.5					TechLaw	
1205085-01	M	May-07-12 14:00	KAR	7.5	7.5					TechLaw	
1205085-02	W	May-07-12 14:00	KAR	7.5	7.5					TechLaw	

Comments:

Analyst Initials:

5/17/12

bch_TriMatrix.rpt

001209

LINEAR REGRESSION REPORT

Test#: 412.1-456.02
Parameter: SULFIDE(MTB)
Analyst: MSM

STANDARDS DATA

STANDARD IDENTIFICATION	ANALYST	DATE	Stock Standard Number		Standard Value (mg/L)	Standard ABS
Blank	KAR	05/07/12			0.0000	0.000
STANDARD 1	KAR	05/07/12			0.0226	0.021
STANDARD 2	KAR	05/07/12			0.0452	0.043
STANDARD 3	KAR	05/07/12			0.0904	0.085
STANDARD 4	KAR	05/07/12			0.2260	0.200
STANDARD 5	KAR	05/07/12			0.4520	0.403
STANDARD 6						

b = 0.00165993
m = 0.88726434

SAMPLE DATA

SAMPLE IDENTIFICATION	ANALYST	DATE	DILUTION VOL/VOL			DIL. FACTOR	Raw Background ABS	Raw Sample ABS	Corrected Sample ABS	Regressed Value (mg/L)	Regressed Value X Dil Factor (mg/L)	Final reported Conc. (mg/L)
1205085-02	KAR	05/07/12	1	/	1	1	0.0020	0.0244	0.0224	0.0234	0.0234	
1205085-02 MS	KAR	05/07/12	1	/	1	1	0.0020	0.2840	0.2820	0.3160	0.3160	
1205085-02 MSD	KAR	05/07/12	1	/	1	1	0.0020	0.2747	0.2727	0.3055	0.3055	
				/						#VALUE!		
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				/						#VALUE!		
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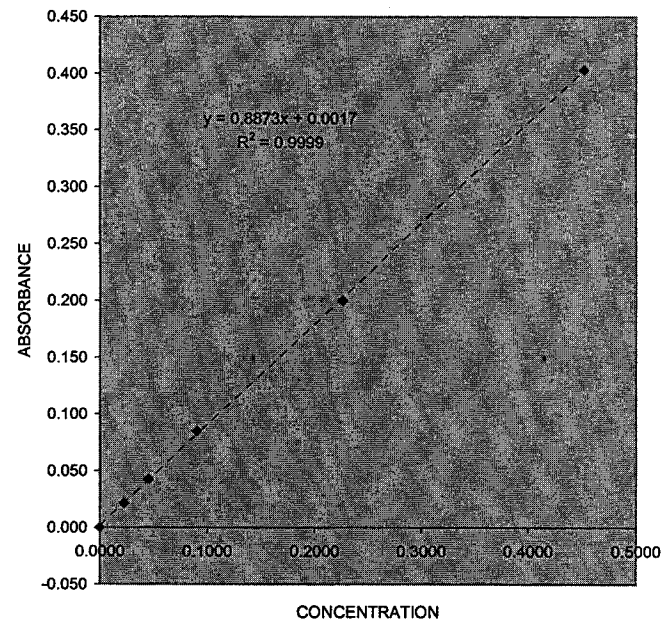

Standard Table Report

05/07/2012 07:02:23 PM

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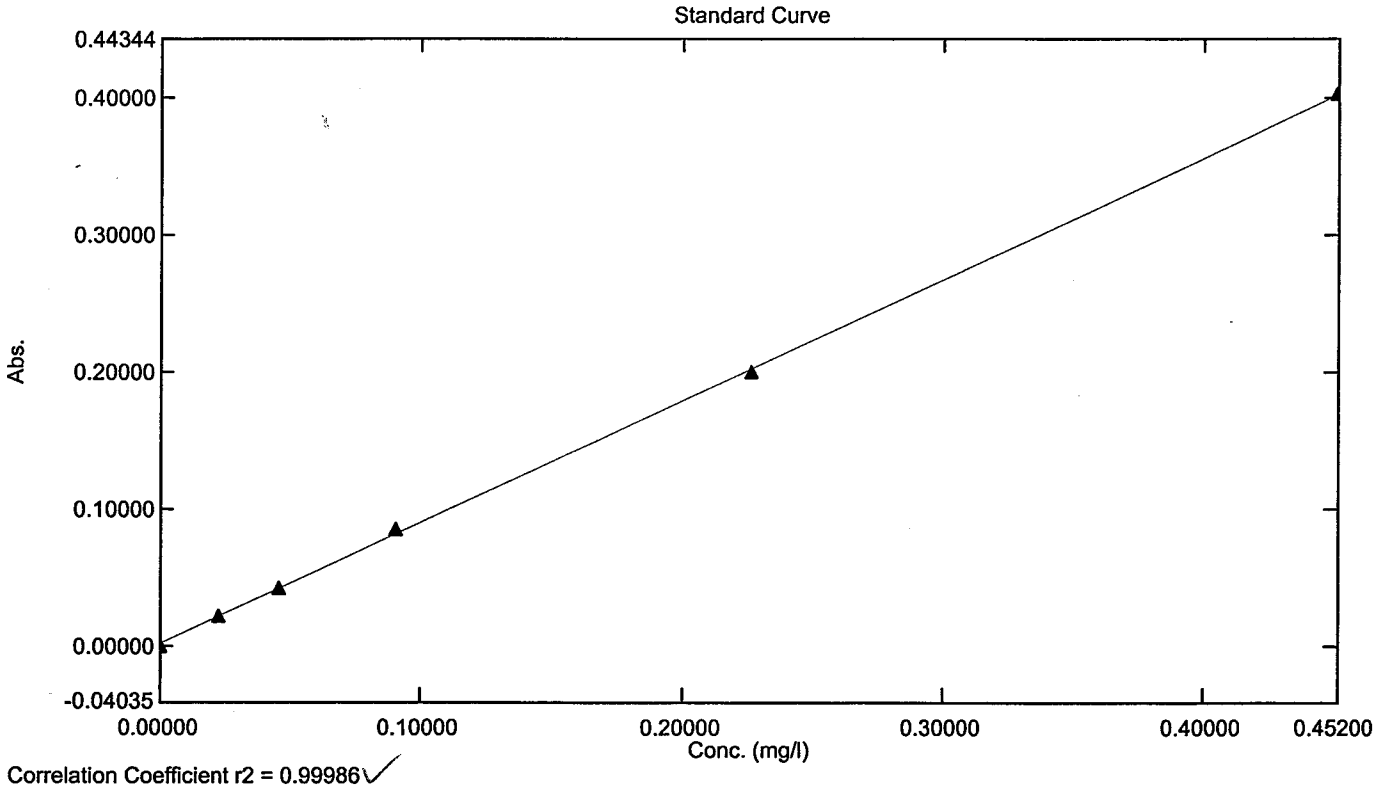

Correlation Coefficient r2 = 0.99986

Standard Table

	Sample ID	Type	Ex	Date	Time	Conc	WL664.0	Wgt.Factor	Comments
1	STD 1	Standar		05/07/2012	02:14:56 PM	0.00000	-0.00003	1.00000	
2	STD 2	Standar		05/07/2012	02:15:32 PM	0.02260	0.02118	1.00000	
3	STD 3	Standar		05/07/2012	02:16:06 PM	0.04520	0.04294	1.00000	
4	STD 4	Standar		05/07/2012	02:16:37 PM	0.09040	0.08461	1.00000	
5	STD 5	Standar		05/07/2012	02:17:09 PM	0.22600	0.20007	1.00000	
6	STD 6	Standar		05/07/2012	02:17:45 PM	0.45200	0.40312	1.00000	
7									

5/17/12

01202

Sample Table Report

05/07/2012 07:02:28 PM

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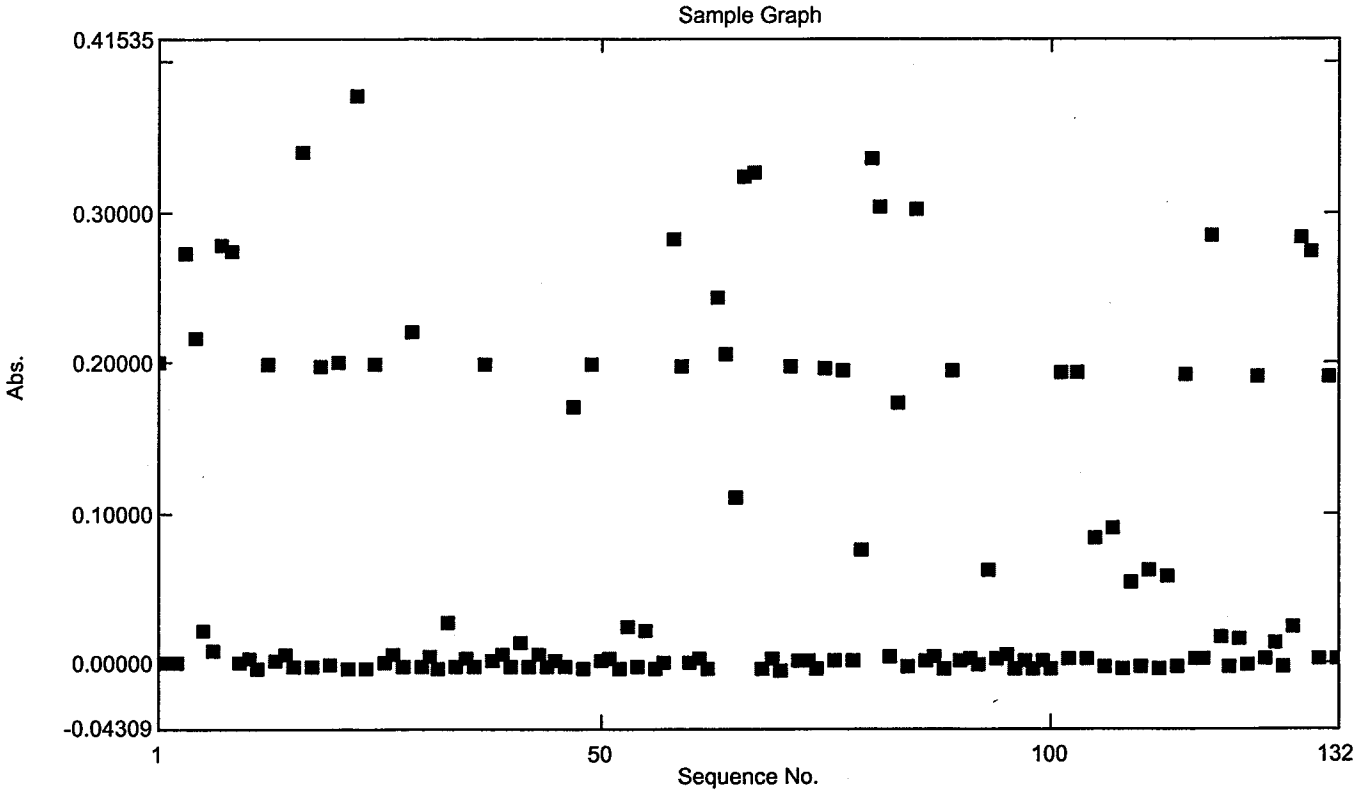

Sample Table

	Sample ID	Type	Ex	Date	Time	Conc	WL664.0	Comments
1	CCV1	Unknown		05/07/2012	02:18:41 PM	0.22434	0.20071	
2	CCB1	Unknown		05/07/2012	02:19:32 PM	-0.00182	0.00005	
3	~~BLK~~	Unknown		05/07/2012	02:19:35 PM	~~-0.00180~~	0.00006	
4	~~BS~~	Unknown		05/07/2012	02:20:12 PM	~~0.30634~~	0.27347	
5	SCV	Unknown		05/07/2012	02:21:11 PM	0.24275	0.21704	
6	CRDL	Unknown		05/07/2012	02:21:57 PM	0.02210	0.02127	
7	5018.01	Unknown		05/07/2012	02:22:59 PM	0.00742	0.00824	
8	5018.01 MS	Unknown		05/07/2012	02:23:33 PM	0.31197	0.27846	
9	5018.01 MSD	Unknown		05/07/2012	02:24:19 PM	0.30643	0.27354	
10	5018.01 BKG	Unknown		05/07/2012	02:25:04 PM	-0.00187	0.00000	
11	5018.02	Unknown		05/07/2012	02:25:40 PM	0.00066	0.00224	
12	5018.02 BKG	Unknown		05/07/2012	02:26:15 PM	-0.00662	-0.00421	
13	CCV2	Unknown		05/07/2012	02:26:54 PM	0.22285	0.19939	
14	CCB2	Unknown		05/07/2012	02:27:34 PM	-0.00098	0.00079	
15	5018.03	Unknown		05/07/2012	02:28:57 PM	0.00403	0.00523	
16	5018.03 BKG	Unknown		05/07/2012	02:29:37 PM	-0.00486	-0.00266	
17	5018.04	Unknown		05/07/2012	02:30:23 PM	0.38186	0.34047	
18	5018.04 BKG	Unknown		05/07/2012	02:31:01 PM	-0.00455	-0.00238	

01203

Sample Table Report

05/07/2012 07:02:28 PM

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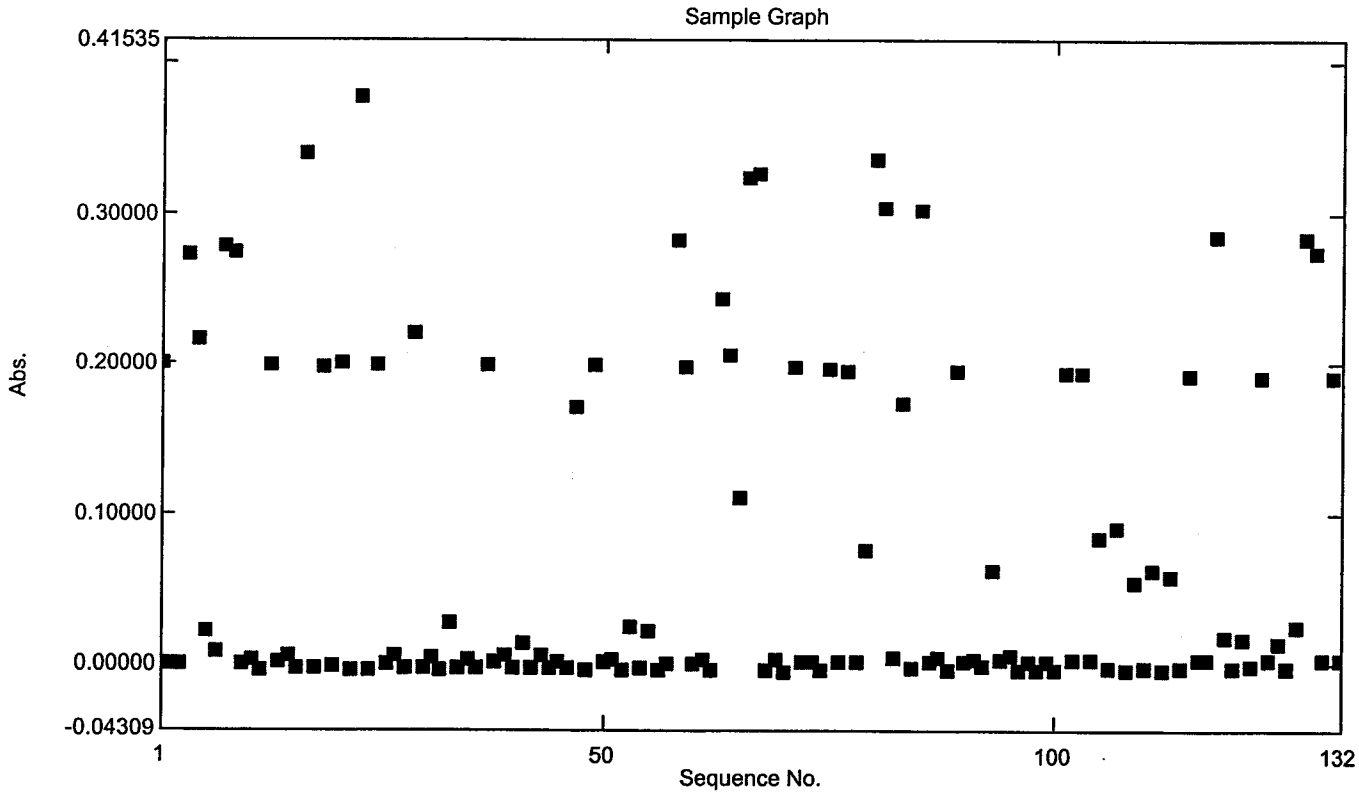


Sample Table

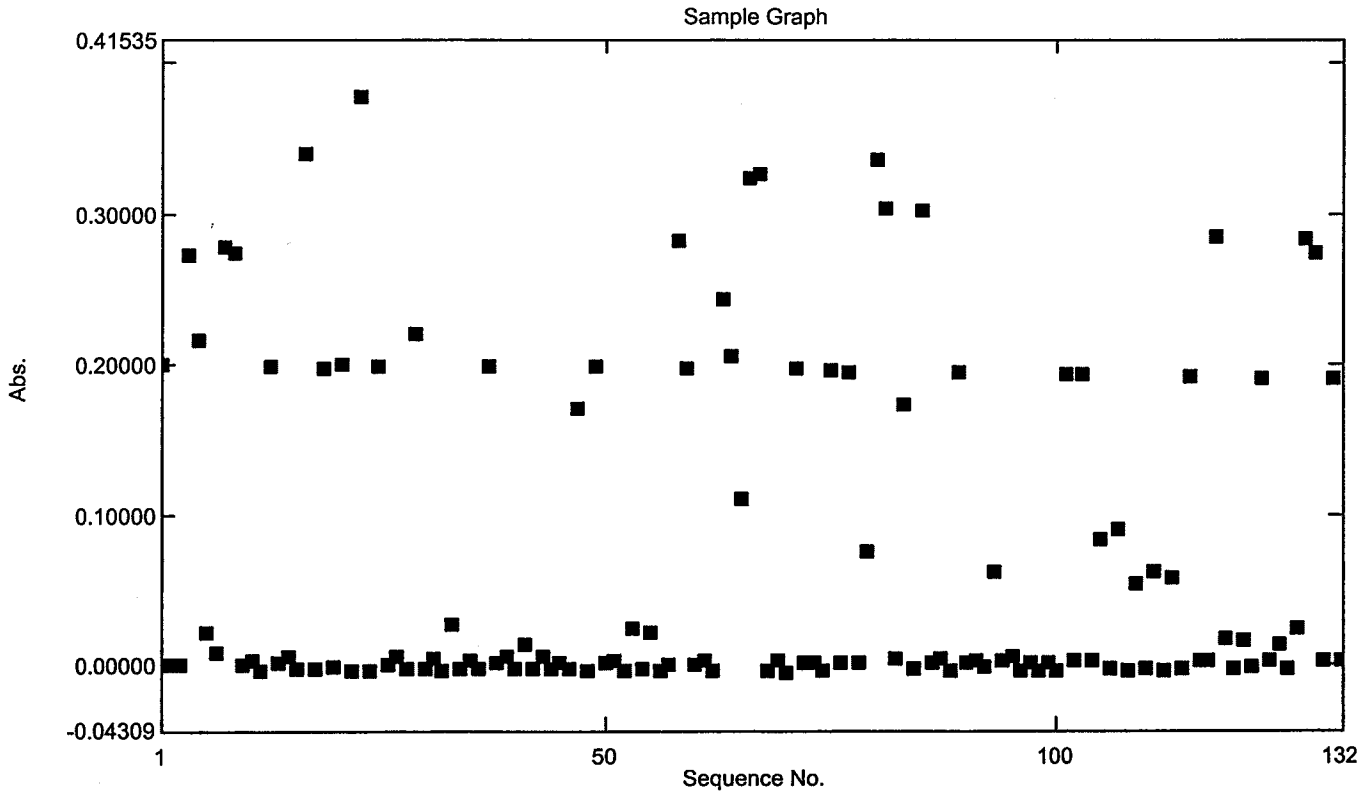
	Sample ID	Type	Ex	Date	Time	Conc	WL664.0	Comments
19	5018.05	Unknown		05/07/2012	02:31:46 PM	0.22125	0.19797	
20	5018.05 BKG	Unknown		05/07/2012	02:32:25 PM	-0.00333	-0.00130	
21	5018.06	Unknown		05/07/2012	02:33:13 PM	0.22383	0.20026	
22	5018.06 BKG	Unknown		05/07/2012	02:33:48 PM	-0.00619	-0.00383	
23	5018.07 10X	Unknown		05/07/2012	02:34:23 PM	0.42320	0.37715	
24	5018.07 10X BK	Unknown		05/07/2012	02:35:17 PM	-0.00655	-0.00415	
25	CCV3	Unknown		05/07/2012	02:35:52 PM	0.22214	0.19876	
26	CCB3	Unknown		05/07/2012	02:36:33 PM	-0.00147	0.00035	
27	5018.08	Unknown		05/07/2012	02:38:56 PM	0.00408	0.00528	
28	5018.08 BKG	Unknown		05/07/2012	02:39:29 PM	-0.00565	-0.00336	
29	5043.01	Unknown		05/07/2012	02:40:15 PM	0.24648	0.22035	
30	5043.01 BKG	Unknown		05/07/2012	02:40:49 PM	-0.00569	-0.00339	
31	5043.05	Unknown		05/07/2012	02:41:27 PM	0.00307	0.00438	
32	5043.05 BKG	Unknown		05/07/2012	02:42:05 PM	-0.00603	-0.00369	
33	5043.06	Unknown		05/07/2012	02:42:50 PM	0.02862	0.02705	
34	5043.06 BKG	Unknown		05/07/2012	02:43:26 PM	-0.00490	-0.00269	
35	5043.07	Unknown		05/07/2012	02:44:03 PM	0.00169	0.00316	
36	5043.07 BKG	Unknown		05/07/2012	02:45:01 PM	-0.00464	-0.00246	

01204

Sample Table Report

05/07/2012 07:02:29 PM

File Name: C:\Program Files\Shimadzu\UVProbe\Data\Old Data\Ver1 Data\Sulfide\050712.pho



Sample Table

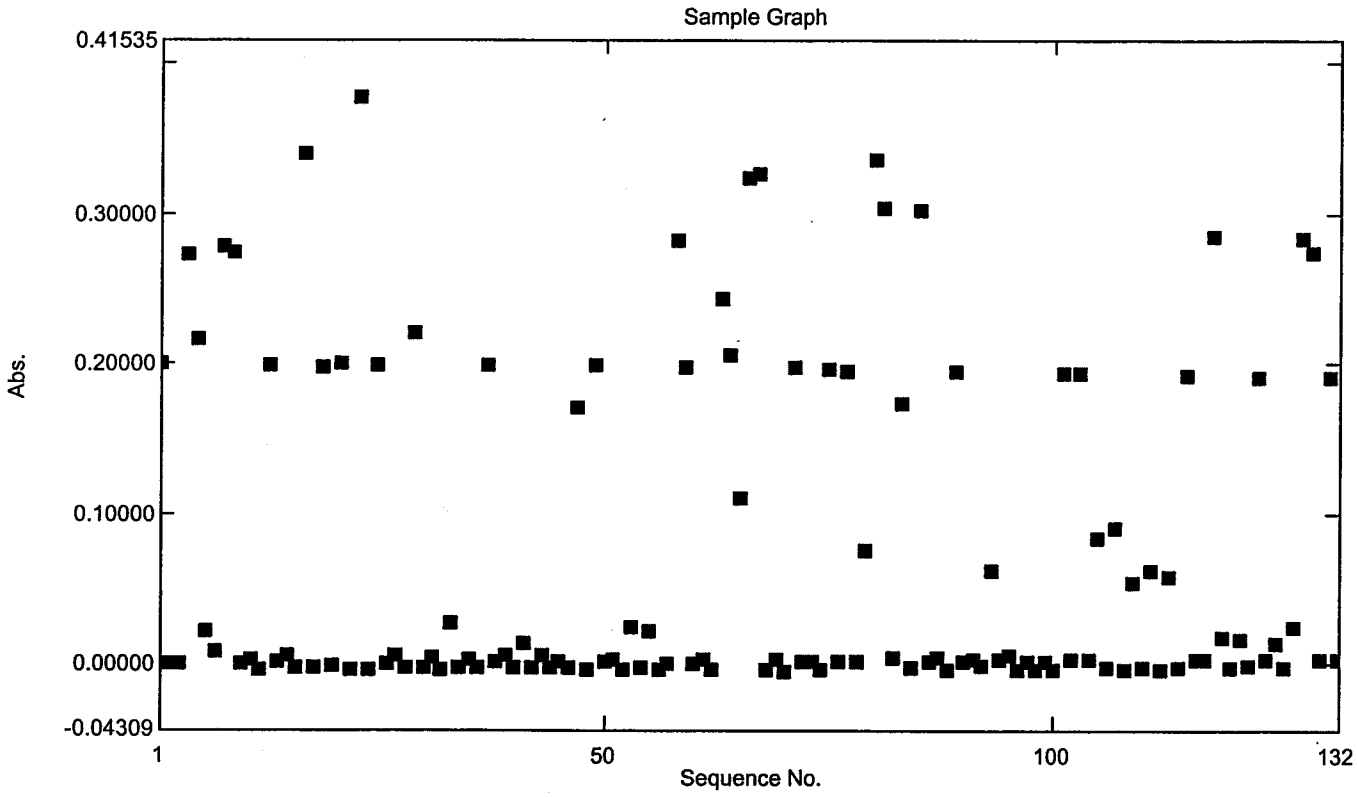
	Sample ID	Type	Ex	Date	Time	Conc	WL664.0	Comments
37	CCV4	Unknown		05/07/2012	02:45:56 PM	0.22194	0.19858	
38	CCB4	Unknown		05/07/2012	02:46:49 PM	-0.00104	0.00073	
39	5043.08	Unknown		05/07/2012	02:51:03 PM	0.00461	0.00575	
40	5043.08 BKG	Unknown		05/07/2012	02:51:37 PM	-0.00507	-0.00284	
41	5043.09	Unknown		05/07/2012	02:52:11 PM	0.01369	0.01381	
42	5043.09 BKG	Unknown		05/07/2012	02:52:46 PM	-0.00533	-0.00307	
43	5043.10	Unknown		05/07/2012	02:53:25 PM	0.00448	0.00563	
44	5043.10 BKG	Unknown		05/07/2012	02:53:57 PM	-0.00490	-0.00269	
45	5043.11	Unknown		05/07/2012	02:54:39 PM	0.00018	0.00182	
46	5043.11 BKG	Unknown		05/07/2012	02:55:16 PM	-0.00548	-0.00320	
47	5043.12	Unknown		05/07/2012	02:55:58 PM	0.18976	0.17003	
48	5043.12 BKG	Unknown		05/07/2012	02:56:32 PM	-0.00581	-0.00349	
49	~~CCV5~~	~~Unknown~~		~~05/07/2012~~	~~02:57:15 PM~~	~~0.22199~~	~~0.19862~~	KR
50	~~CCB5~~	~~Unknown~~		~~05/07/2012~~	~~02:57:59 PM~~	~~-0.00091~~	~~0.00085~~	5·10·12
51	5043.13	Unknown		05/07/2012	02:59:46 PM	0.00069	0.00227	
52	5043.13 BKG	Unknown		05/07/2012	03:00:32 PM	-0.00703	-0.00458	
53	5043.14	Unknown		05/07/2012	03:01:35 PM	0.02582	0.02457	
54	5043.14 BKG	Unknown		05/07/2012	03:02:20 PM	-0.00455	-0.00238	

01205

Sample Table Report

05/07/2012 07:02:29 PM

File Name: C:\Program Files\Shimadzu\UVProbe\Data\Old Data\Ver1 Data\Sulfide\050712.pho



Sample Table

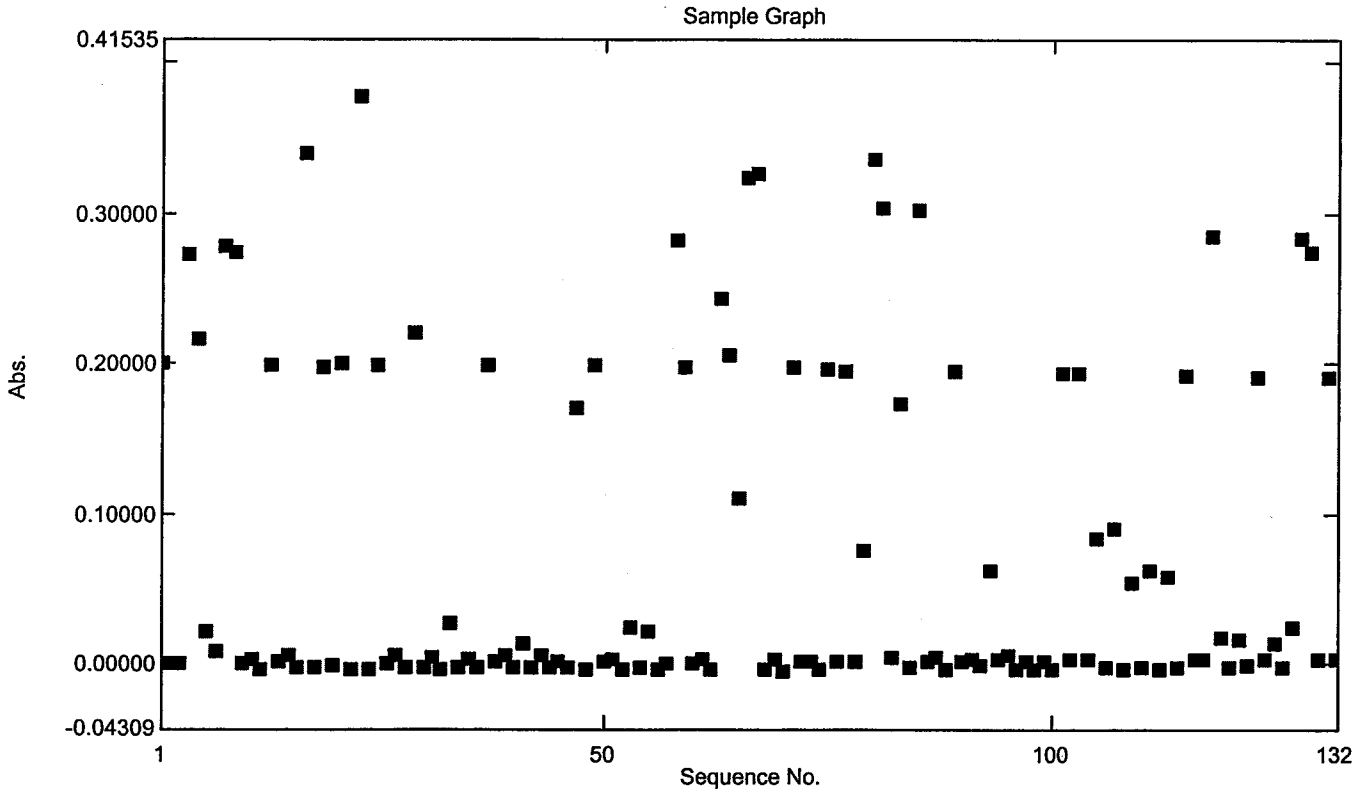
	Sample ID	Type	Ex	Date	Time	Conc	WL664.0	Comments
55	5043.15	Unknown		05/07/2012	03:03:04 PM	0.02176	0.02097	
56	5043.15 BKG	Unknown		05/07/2012	03:03:44 PM	-0.00689	-0.00446	
57	~~BLK2~~	~~Unknown~~		~~05/07/2012~~	~~03:04:25 PM~~	~~0.00165~~	~~0.00020~~	
58	~~BS2~~	~~Unknown~~		~~05/07/2012~~	~~03:05:01 PM~~	~~0.31596~~	~~0.28200~~	KJK
59	~~CCV6~~	~~Unknown~~		~~05/07/2012~~	~~03:05:54 PM~~	~~0.22120~~	~~0.19792~~	5-11-12
60	~~CCB6~~	~~Unknown~~		~~05/07/2012~~	~~03:06:35 PM~~	~~-0.00135~~	~~0.00046~~	
61	5057.01	Unknown		05/07/2012	03:11:21 PM	0.00183	0.00328	
62	5057.01 BKG	Unknown		05/07/2012	03:12:22 PM	-0.00632	-0.00395	
63	5057.02 5X	Unknown		05/07/2012	03:13:20 PM	0.27184	0.24286	
64	5057.02 5X BKG	Unknown		05/07/2012	03:14:20 PM	0.23021	0.20592	
65	5057.03	Unknown		05/07/2012	03:14:59 PM	0.12243	0.11029	
66	5057.03 MS	Unknown		05/07/2012	03:15:38 PM	0.36376	0.32442	
67	5057.03 MSD	Unknown		05/07/2012	03:16:19 PM	0.36555	0.32600	
68	5057.03 BKG	Unknown		05/07/2012	03:16:55 PM	-0.00626	-0.00389	
69	5057.04	Unknown		05/07/2012	03:17:48 PM	0.00043	0.00204	
70	5057.04 BKG	Unknown		05/07/2012	03:18:30 PM	-0.00737	-0.00488	
71	CCV7	Unknown		05/07/2012	03:19:05 PM	0.22073	0.19751	
72	CCB7	Unknown		05/07/2012	03:19:55 PM	-0.00027	0.00142	

01206

Sample Table Report

05/07/2012 07:02:29 PM

File Name: C:\Program Files\Shimadzu\UVProbe\Data\Old Data\Ver1 Data\Sulfide\050712.pho



Sample Table

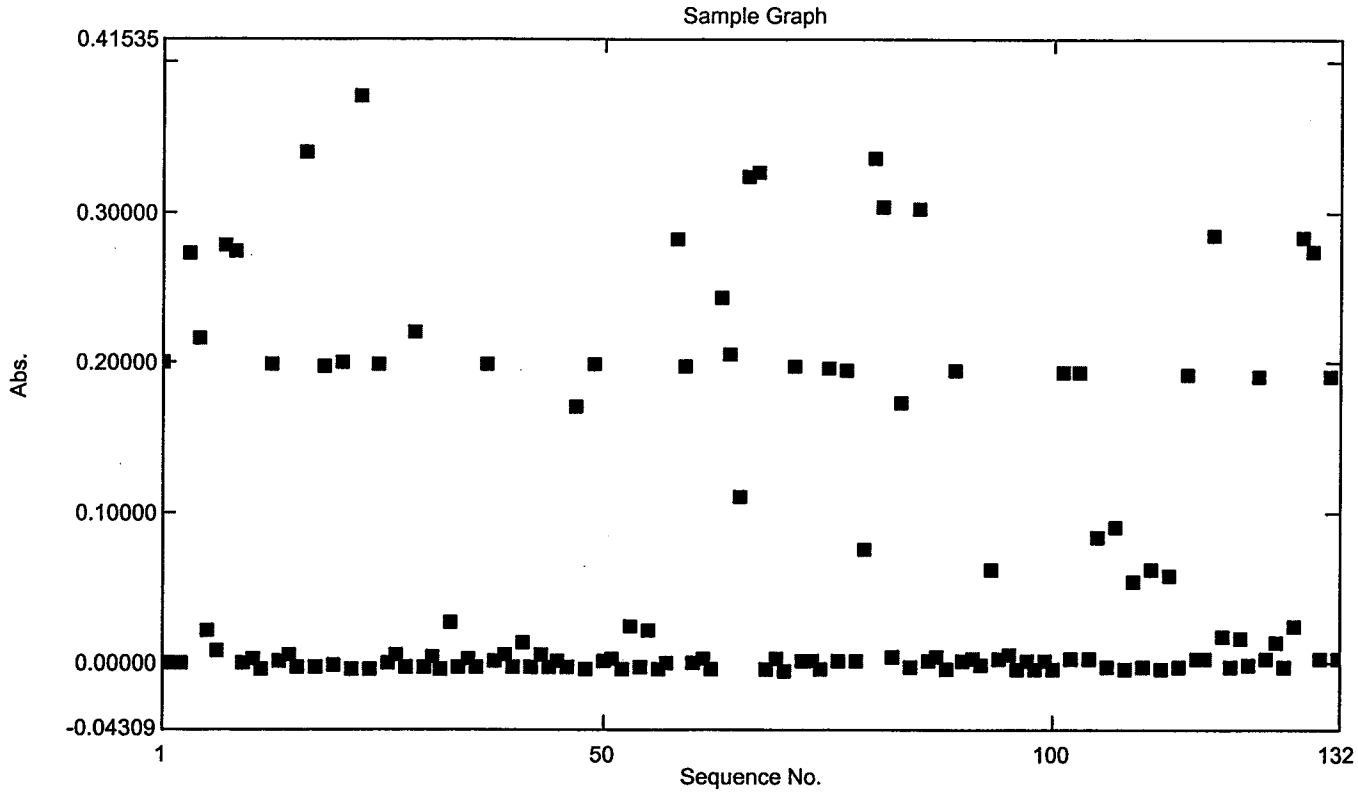
	Sample ID	Type	Ex	Date	Time	Conc	WL664.0	Comments
73	5057.05	Unknown		05/07/2012	03:21:31 PM	-0.00070	0.00104	
74	5057.05 BKG	Unknown		05/07/2012	03:22:09 PM	-0.00703	-0.00458	
75	CCV8	Unknown		05/07/2012	03:23:04 PM	0.21984	0.19672	
76	CCB8	Unknown		05/07/2012	03:23:51 PM	-0.00092	0.00084	
77	CCV9	Unknown		05/07/2012	05:29:52 PM	0.21826	0.19531	
78	CCB9	Unknown		05/07/2012	05:30:41 PM	-0.00037	0.00133	
79	5043.02 5X	Unknown		05/07/2012	05:33:39 PM	0.08333	0.07559	
80	5043.02 5X MS	Unknown		05/07/2012	05:34:24 PM	0.37692	0.33609	
81	5043.02 5X MSD	Unknown		05/07/2012	05:35:24 PM	0.34051	0.30379	
82	5043.02 5X BKG	Unknown		05/07/2012	05:36:02 PM	0.00319	0.00449	
83	5043.03	Unknown		05/07/2012	05:36:54 PM	0.19380	0.17361	
84	5043.03 BKG	Unknown		05/07/2012	05:37:28 PM	-0.00481	-0.00261	
85	5043.04 2X	Unknown		05/07/2012	05:38:09 PM	0.33964	0.30301	
86	5043.04 2X BKG	Unknown		05/07/2012	05:39:06 PM	0.00023	0.00186	
87	5043.16	Unknown		05/07/2012	05:39:48 PM	0.00184	0.00330	
88	5043.16 BKG	Unknown		05/07/2012	05:40:28 PM	-0.00672	-0.00430	
89	CCVA	Unknown		05/07/2012	05:42:14 PM	0.21733	0.19449	
90	CCBA	Unknown		05/07/2012	05:43:50 PM	0.00004	0.00169	

01207

Sample Table Report

05/07/2012 07:02:29 PM

File Name: C:\Program Files\Shimadzu\UVProbe\Data\Old Data\Ver1 Data\Sulfide\050712.pho



Sample Table

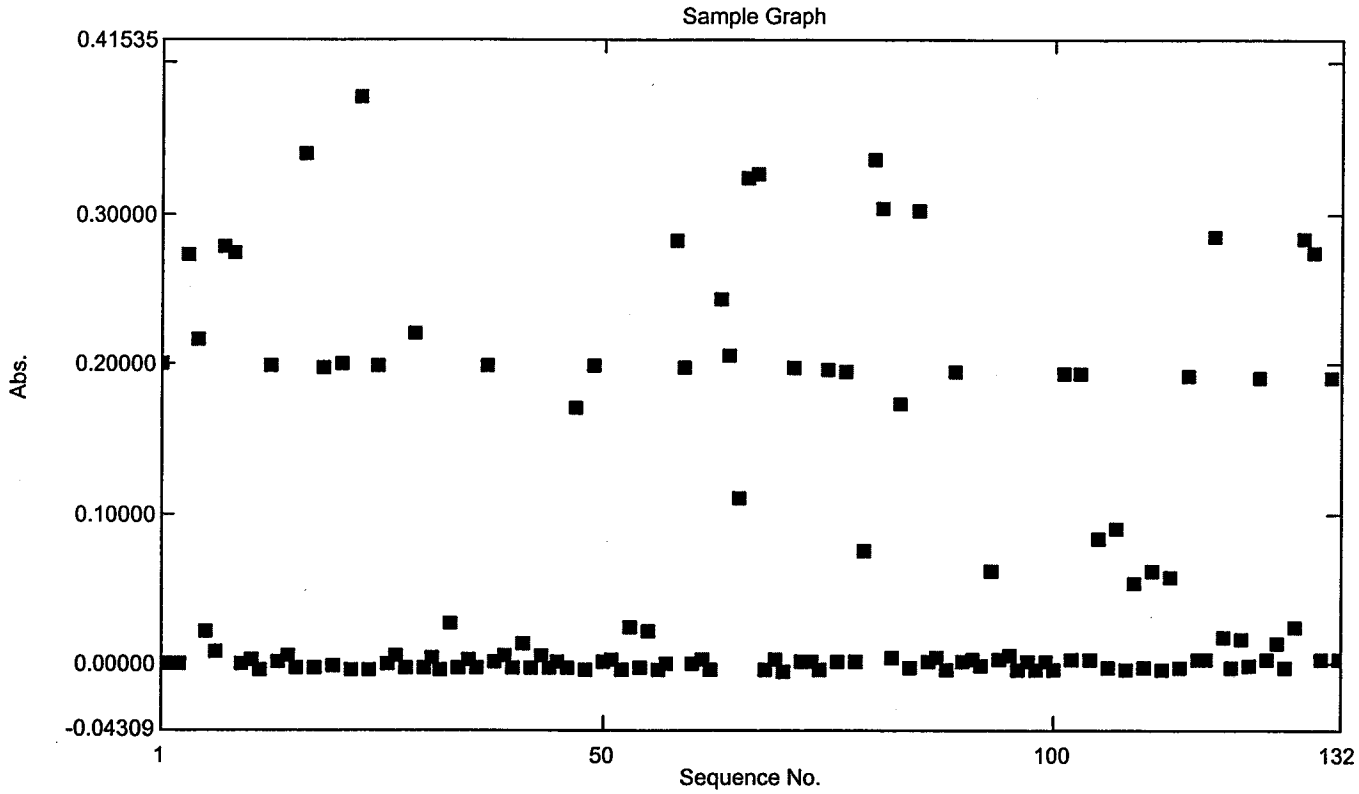
	Sample ID	Type	Ex	Date	Time	Conc	WL664.0	Comments
91	5043.17	Unknown		05/07/2012	05:47:07 PM	0.00080	0.00237	
92	5043.17 BKG	Unknown		05/07/2012	05:48:01 PM	-0.00333	-0.00130	
93	5043.18	Unknown		05/07/2012	05:48:33 PM	0.06847	0.06241	
94	5043.18 BKG	Unknown		05/07/2012	05:49:08 PM	0.00104	0.00258	
95	5043.19	Unknown		05/07/2012	05:49:46 PM	0.00477	0.00589	
96	5043.19 BKG	Unknown		05/07/2012	05:50:24 PM	-0.00643	-0.00404	
97	5043.20	Unknown		05/07/2012	05:50:58 PM	0.00006	0.00171	
98	5043.20 BKG	Unknown		05/07/2012	05:51:33 PM	-0.00686	-0.00443	
99	5043.21	Unknown		05/07/2012	05:52:06 PM	0.00007	0.00172	
100	5043.21 BKG	Unknown		05/07/2012	05:52:41 PM	-0.00650	-0.00410	
101	CCVB	Unknown		05/07/2012	05:53:17 PM	0.21609	0.19339	
102	CCBB	Unknown		05/07/2012	05:53:50 PM	0.00071	0.00229	
103	CCVC	Unknown		05/07/2012	06:41:40 PM	0.21551	0.19287	
104	CCBC	Unknown		05/07/2012	06:42:40 PM	0.00061	0.00220	
105	5043.22	Unknown		05/07/2012	06:44:30 PM	0.09220	0.08347	
106	5043.22 BKG	Unknown		05/07/2012	06:45:11 PM	-0.00546	-0.00319	
107	5043.23	Unknown		05/07/2012	06:45:43 PM	0.09922	0.08969	
108	5043.23 BKG	Unknown		05/07/2012	06:46:25 PM	-0.00619	-0.00383	

01208

Sample Table Report

05/07/2012 07:02:29 PM

File Name: C:\Program Files\Shimadzu\UVProbe\Data\Old Data\Ver1 Data\Sulfide\050712.pho



Sample Table

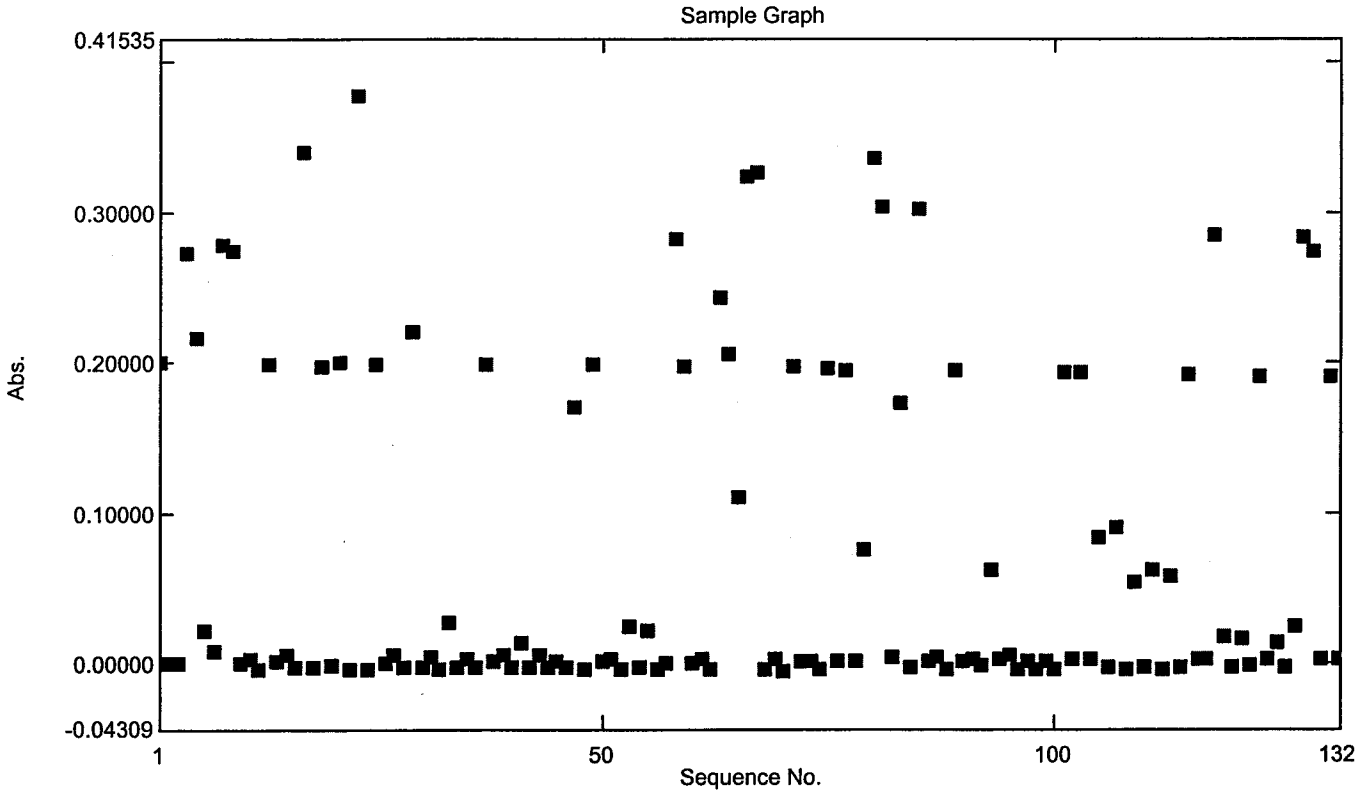
	Sample ID	Type	Ex	Date	Time	Conc	WL664.0	Comments
109	5084.01	Unknown		05/07/2012	06:46:55 PM	0.05896	0.05397	
110	5084.01 BKG	Unknown		05/07/2012	06:47:29 PM	-0.00565	-0.00336	
111	5084.02	Unknown		05/07/2012	06:48:01 PM	0.06723	0.06131	
112	5084.02 BKG	Unknown		05/07/2012	06:48:32 PM	-0.00712	-0.00465	
113	5084.03	Unknown		05/07/2012	06:49:07 PM	0.06314	0.05768	
114	5084.03 BKG	Unknown		05/07/2012	06:49:39 PM	-0.00497	-0.00275	
115	CCVD	Unknown		05/07/2012	06:50:14 PM	0.21401	0.19154	
116	CCBD	Unknown		05/07/2012	06:50:46 PM	0.00066	0.00224	
117	BLK3	Unknown		05/07/2012	06:53:25 PM	0.00073	0.00230	
118	BS3	Unknown		05/07/2012	06:53:55 PM	0.31967	0.28529	
119	5072.01	Unknown		05/07/2012	06:54:41 PM	0.01806	0.01768	
120	5072.01 BKG	Unknown		05/07/2012	06:55:11 PM	-0.00517	-0.00293	
121	5073.01	Unknown		05/07/2012	06:55:43 PM	0.01607	0.01591	
122	5073.01 BKG	Unknown		05/07/2012	06:56:13 PM	-0.00354	-0.00148	
123	CCVE	Unknown		05/07/2012	06:56:50 PM	0.21365	0.19122	
124	CCBE	Unknown		05/07/2012	06:57:24 PM	0.00069	0.00227	
125	5085.01	Unknown		05/07/2012	06:57:52 PM	0.01254	0.01279	
126	5085.01 BKG	Unknown		05/07/2012	06:58:22 PM	-0.00443	-0.00227	

01209

Sample Table Report

05/07/2012 07:02:29 PM

File Name: C:\Program Files\Shimadzu\UVProbe\Data\Old Data\Ver1 Data\Sulfide\050712.pho



Sample Table

	Sample ID	Type	Ex	Date	Time	Conc	WL664.0	Comments
127	5085.02	Unknown		05/07/2012	06:58:51 PM	0.02563	0.02440	See linear
128	5085.02 MS	Unknown		05/07/2012	06:59:26 PM	0.31823	0.28401	regression
129	5085.02 MSD	Unknown		05/07/2012	07:00:11 PM	0.30772	0.27469	
130	5085.02 BKG	Unknown		05/07/2012	07:00:51 PM	0.00035	0.00197	
131	CCVF	Unknown		05/07/2012	07:01:44 PM	0.21363	0.19121	
132	CCBF	Unknown		05/07/2012	07:02:14 PM	0.00095	0.00250	
133								

01210

TRIMATRIX LABORATORIES

General Information

ethod Reference:	4500-S2 D	SOP Reference:	GR-05-102 - total sulfides (colorimetric)	Matrix:	Water
Date:	05/07/12	Time:		Analyst:	KAR

Normality Checks

Normality of the I_2 solution

Added I_2, in mL: 10.00
PAO volume titrated, in mL: 9.90
PAO Normality: 0.025
I2 Normality: 0.02475

LCS (SCV) Spiking Solution Calculation

Added I_2, in mL: 10.00
PAO volume titrated, in mL: 4.30
PAO Normality: 0.025
Volume Titrated, in mL: 2.00
LCS (SCV) Concentration, in mg/L: 1120.0

2050269

LFB (BS/MS) Spiking Solution Concentration

Added I_2, in mL: 10.00
PAO volume titrated, in mL: 4.25
PAO Normality: 0.025
Volume Titrated, in mL: 2.00
LFB (BS) Concentration, in mg/L: 1130.0

PAO Buret Readings (mL)

initial	final
0.00	9.90
10.00	14.25
1.00	5.30

2050272

Concentrations of the LCS and LFB based on volume spiked into 100 mL Laboratory Reagent Water or Sample, in mg/L

Volume of Spiking Solution used: 2.00
LCS (SCV) Concentration, in mg/L: 22.40 2050270

Volume of Spiking Solution used: 2.00
LFB (BS) Concentration, in mg/L: 22.60 2050273

SAMPLE	Sample Volume Used (mL)	Initial I_2 Buret Volume (mL)	Final I_2 Buret Volume (mL)	Total Added I2 (mL)	Initial PAO Buret Volume (mL)	Final PAO Buret Volume (mL)	Total PAO titrated (mL)	RESULT (mg/L) 0.10	~~COMMENTS~~ Standards element #'s
0.224 ppm SCV = 1mL of 2050270 into 100mL								=	2050271
4.52 ppm = 20mL of 2050273 into 100mL								=	2050274
0.452 ppm = 10mL of 2050274 into 100mL								=	2050275
0.226 ppm = 5mL				"		"		" =	2050276
0.0904 ppm = 2mL				"	"		"	" =	2050277
0.0452 ppm = 10mL of 2050275 into 100mL								=	2050278
0.0226 ppm = 10mL of 2050276 into 100mL								=	2050279
	0 ppm								2050280

K-iodate/iodide ID: 2040667
Stock LCS(SCV): 2050223
Stock LFB/BS/MS Solution: 2050225
1:1 HCl: 2030234
Starch Indicator: 2041202

Zinc Acetate:
Formaldehyde Lot:
PAO Lot: 2010612
conc. H_2SO_4 Lot:

Aminosulfuric Acid: 2041216
1:1 H_2SO_4: 2020077
Ferric Chloride: 2041294
H_2SO_4(0.01N):
NaOH(0.25N):
Diammonium Hydrogen Phosphate: 2041293

TRIMATRIX LABORATORIES

General Information

ethod Reference:	4500-S2 D	SOP Reference:	GR-05-102 - total sulfides (colorimetric)	Matrix:	Water
Date:	05/07/12	Time:		Analyst:	KAR

Normality Checks

Normality of the I_2 solution		LCS (SCV) Spiking Solution Calculation		LFB (BS/MS) Spiking Solution Concentration		PAO Buret Readings (mL)	
						initial	final
Added I_2, in mL:	10.00	Added I_2, in mL:	10.00	Added I_2, in mL:	10.00		
PAO volume titrated, in mL:	9.90	PAO volume titrated, in mL:	4.3	PAO volume titrated, in mL:	4.25	0.0	9.90
PAO Normality:	0.025	PAO Normality:	0.025	PAO Normality:	0.025	10.0	14.25
I2 Normality:	0.00000	Volume Titrated, in mL:	2.00	Volume Titrated, in mL:	2.00	1.0	5.3
		LCS (SCV) Concentration, in mg/L:	0.0	LFB (BS) Concentration, in mg/L:	0.0		

Concentrations of the LCS and LFB based on volume spiked into 100 mL Laboratory Reagent Water or Sample, in mg/L

Volume of Spiking Solution used:	2.00	Volume of Spiking Solution used:	2.00
LCS (SCV) Concentration, in mg/L:	0.00	LFB (BS) Concentration, in mg/L:	0.00

SAMPLE	Sample Volume Used (mL)	Initial I_2 Buret Volume (mL)	Final I_2 Buret Volume (mL)	Total Added I2 (mL)	Initial PAO Buret Volume (mL)	Final PAO Buret Volume (mL)	Total PAO titrated (mL)	RESULT (mg/L) 0.10	COMMENTS

K-iodate/iodide ID: 2040667
LCS(SCV): _____
LFB/BS/MS Solution: _____
1:1 HCl: 2030334
Starch Indicator: 2041202

Zinc Acetate: _____
Formaldehyde Lot: _____
PAO Lot: 2010612
conc. H_2SO_4 Lot: _____

Aminosulfuric Acid: 2041216
1:1 H_2SO_4: 2020077
Ferric Chloride: 2041294
H_2SO_4(0.01N): _____
NaOH(0.25N): _____
Diammonium Hydrogen Phosphate: 2041293

01212

TRIMATRIX LABORATORIES

TechLaw
KNM

END OF REPORT

SDG: KNM050112

June 07, 2012

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