TRIMATRIX
LABORATORIES

SECTION - I

INORGANIC – WET CHEMISTRY

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Individual sample results relate only to the sample tested.

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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 less than 5 times the MB value, is considered estimated.	
Analysis:	SM 2320 B 20th	
Sample/Analyte:	1205358-01 1060SL	Alkalinity, Bicarbonate
	1205358-01 1060SL	Alkalinity, Total
Analysis:	SM 4500-Cl E 20th	
Sample/Analyte:	1205358-01 1060SL	Chloride
Analysis:	SM 4500-NO3 F 20th	
Sample/Analyte:	1205358-01 1060SL	Nitrogen, Nitrate+Nitrite
	1205374-01 106RCT	Nitrogen, Nitrate+Nitrite
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:	SM 2320 B 20th	
Sample/Analyte:	1205374-01 106RCT	Alkalinity, Bicarbonate
	1205374-01 106RCT	Alkalinity, Total
Analysis:	SM 4500-Cl E 20th	
Sample/Analyte:	1205226-01 106091	Chloride
	1205226-02 106191	Chloride
	1205374-01 106RCT	Chloride

TriMatrix Laboratories, Inc.

TechLaw

Project: KNM

SDG: KNM050712

ASTM D516-90 (02)

SAMPLE ID SUMMARY

ASTM D516-90 (02)

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

SDG: KNM050712

Project: KNM

Client Sample Id:	Lab Sample Id:
106091	1205226-01
106191	1205226-02
1060SL	1205358-01
106RCT	1205374-01

INORGANIC ANALYSIS DATA SHEET

ASTM D516-90 (02)

106091

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Matrix: Water
Sampled: 05/09/12 10:00
Solids: 0.00
QC Batch: 1206333

SDG: KNM050712
Project: KNM
Laboratory ID: 1205226-01
Prepared: 05/17/12 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	40	mg/L	0.70	10		05/17/12 10:05

INORGANIC ANALYSIS DATA SHEET

ASTM D516-90 (02)

106191

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Matrix: Water
Sampled: 05/09/12 13:00
Solids: 0.00
QC Batch: 1206333

SDG: KNM050712
Project: KNM
Laboratory ID: 1205226-02
Prepared: 05/17/12 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	40	mg/L	0.70	10		05/17/12 10:19

INORGANIC ANALYSIS DATA SHEET

ASTM D516-90 (02)

1060SL

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Matrix: Water
Sampled: 05/17/12 10:00
Solids: 0.00
QC Batch: 1206544

SDG: KNM050712
Project: KNM
Laboratory ID: 1205358-01
Prepared: 05/23/12 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	1.0	mg/L	0.35	1.0	U	05/23/12 08:36

INORGANIC ANALYSIS DATA SHEET

ASTM D516-90 (02)

106RCT

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Matrix: Water
Sampled: 05/18/12 09:30
Solids: 0.00
QC Batch: 1206545

SDG: KNM050712
Project: KNM
Laboratory ID: 1205374-01
Prepared: 05/23/12 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	30	mg/L	0.35	5.0		05/23/12 08:32

ANALYSIS BATCH (SEQUENCE) SUMMARY

ASTM D516-90 (02)

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Sequence: 2E21059

SDG: KNM050712

Project: KNM

Calibration: 2E21030

Instrument: 298

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Cal Standard	2E21059-CAL1	051712so4-001	05/17/12 07:38
Cal Standard	2E21059-CAL2	051712so4-002	05/17/12 07:38
Cal Standard	2E21059-CAL3	051712so4-003	05/17/12 07:38
Cal Standard	2E21059-CAL4	051712so4-004	05/17/12 07:38
Cal Standard	2E21059-CAL5	051712so4-005	05/17/12 07:38
Cal Standard	2E21059-CAL6	051712so4-006	05/17/12 07:38
Cal Standard	2E21059-CAL7	051712so4-007	05/17/12 07:38
Cal Standard	2E21059-CAL8	051712so4-008	05/17/12 07:38
Calibration Check	2E21059-CCV1	051712so4-009	05/17/12 08:02
Calibration Blank	2E21059-CCB1	051712so4-010	05/17/12 08:02
Instrument RL Check	2E21059-CRL1	051712so4-011	05/17/12 08:02
Secondary Cal Check	2E21059-SCV1	051712so4-012	05/17/12 08:03
Blank	1206333-BLK1	051712so4-013	05/17/12 08:03
LCS	1206333-BS1	051712so4-014	05/17/12 08:03
Calibration Check	2E21059-CCV2	051712so4-015	05/17/12 08:09
Calibration Blank	2E21059-CCB2	051712so4-016	05/17/12 08:09
106091	1205226-01	051712so4-073	05/17/12 10:05
106091	1206333-MS1	051712so4-074	05/17/12 10:05
106091	1206333-MSD1	051712so4-075	05/17/12 10:09
106191	1205226-02	051712so4-090	05/17/12 10:19
Calibration Check	2E21059-CCV3	051712so4-094	05/17/12 10:19
Calibration Blank	2E21059-CCB3	051712so4-095	05/17/12 10:19

ANALYSIS BATCH (SEQUENCE) SUMMARY

ASTM D516-90 (02)

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Sequence: 2E31044

SDG: KNM050712

Project: KNM

Calibration: 2E31011

Instrument: 298

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Cal Standard	2E31044-CAL1	052312so4-001	05/23/12 07:28
Cal Standard	2E31044-CAL2	052312so4-002	05/23/12 07:28
Cal Standard	2E31044-CAL3	052312so4-003	05/23/12 07:28
Cal Standard	2E31044-CAL4	052312so4-004	05/23/12 07:28
Cal Standard	2E31044-CAL5	052312so4-005	05/23/12 07:28
Cal Standard	2E31044-CAL6	052312so4-006	05/23/12 07:28
Cal Standard	2E31044-CAL7	052312so4-007	05/23/12 07:28
Cal Standard	2E31044-CAL8	052312so4-008	05/23/12 07:28
Calibration Check	2E31044-CCV1	052312so4-009	05/23/12 07:54
Calibration Blank	2E31044-CCB1	052312so4-010	05/23/12 07:54
Instrument RL Check	2E31044-CRL1	052312so4-011	05/23/12 07:54
Secondary Cal Check	2E31044-SCV1	052312so4-012	05/23/12 07:54
Blank	1206545-BLK1	052312so4-013	05/23/12 07:54
LCS	1206545-BS1	052312so4-014	05/23/12 07:54
Calibration Check	2E31044-CCV2	052312so4-015	05/23/12 08:00
Calibration Blank	2E31044-CCB2	052312so4-016	05/23/12 08:00
106RCT	1205374-01	052312so4-026	05/23/12 08:32
Calibration Check	2E31044-CCV3	052312so4-027	05/23/12 08:32
Calibration Blank	2E31044-CCB3	052312so4-028	05/23/12 08:32
106RCT	1206545-MS1	052312so4-158	05/23/12 11:01
106RCT	1206545-MSD1	052312so4-159	05/23/12 11:01
Calibration Check	2E31044-CCV4	052312so4-160	05/23/12 11:03
Calibration Blank	2E31044-CCB4	052312so4-161	05/23/12 11:03

ANALYSIS BATCH (SEQUENCE) SUMMARY

ASTM D516-90 (02)

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Sequence: 2E31046

SDG: KNM050712

Project: KNM

Calibration: 2E31012

Instrument: 298

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Cal Standard	2E31046-CAL1	052312so4L-001	05/23/12 07:20
Cal Standard	2E31046-CAL2	052312so4L-002	05/23/12 07:20
Cal Standard	2E31046-CAL3	052312so4L-003	05/23/12 07:20
Cal Standard	2E31046-CAL4	052312so4L-004	05/23/12 07:20
Cal Standard	2E31046-CAL5	052312so4L-005	05/23/12 07:20
Cal Standard	2E31046-CAL6	052312so4L-006	05/23/12 07:20
Calibration Check	2E31046-CCV1	052312so4L-007	05/23/12 07:42
Calibration Blank	2E31046-CCB1	052312so4L-008	05/23/12 07:42
Instrument RL Check	2E31046-CRL1	052312so4L-009	05/23/12 07:42
Secondary Cal Check	2E31046-SCV1	052312so4L-010	05/23/12 07:42
Blank	1206544-BLK1	052312so4L-011	05/23/12 07:42
LCS	1206544-BS1	052312so4L-015	05/23/12 07:48
Calibration Check	2E31046-CCV2	052312so4L-016	05/23/12 08:17
Calibration Blank	2E31046-CCB2	052312so4L-017	05/23/12 08:17
1060SL	1205358-01	052312so4L-018	05/23/12 08:36
1060SL	1206544-MS1	052312so4L-019	05/23/12 08:46
1060SL	1206544-MSD1	052312so4L-020	05/23/12 08:46
Calibration Check	2E31046-CCV3	052312so4L-021	05/23/12 08:52
Calibration Blank	2E31046-CCB3	052312so4L-022	05/23/12 08:52

INITIAL AND CONTINUING CALIBRATION CHECK

ASTM D516-90 (02)

Laboratory: TriMatrix Laboratories, Inc.
SDG: KNM050712
Client: TechLaw
Project: KNM
Sequence: 2E21059
Calibration: 2E21030
Control Limt: +/- 15.00%
Instrument ID: 298

Lab Sample ID	Analyte	True	Found	%R	Units	Analyzed
2E21059-CCV1	Sulfate	10.0	9.94	99	mg/L	05/17/12 08:02
2E21059-CCV2	Sulfate	10.0	9.93	99	mg/L	05/17/12 08:09
2E21059-CCV3	Sulfate	25.0	24.9	99	mg/L	05/17/12 10:19

* Values outside of QC limits

INITIAL AND CONTINUING CALIBRATION CHECK

ASTM D516-90 (02)

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Sequence: 2E31044
Control Limt: +/- 15.00%

SDG: KNM050712
Project: KNM
Calibration: 2E31011
Instrument ID: 298

Lab Sample ID	Analyte	True	Found	%R	Units	Analyzed
2E31044-CCV1	Sulfate	10.0	9.85	99	mg/L	05/23/12 07:54
2E31044-CCV2	Sulfate	10.0	9.99	100	mg/L	05/23/12 08:00
2E31044-CCV3	Sulfate	10.0	9.85	99	mg/L	05/23/12 08:32
2E31044-CCV4	Sulfate	20.0	18.9	94	mg/L	05/23/12 11:03

* Values outside of QC limits

INITIAL AND CONTINUING CALIBRATION CHECK

ASTM D516-90 (02)

Laboratory: TriMatrix Laboratories, Inc.
SDG: KNM050712
Client: TechLaw
Project: KNM
Sequence: 2E31046
Calibration: 2E31012
Control Limt: +/- 15.00%
Instrument ID: 298

Lab Sample ID	Analyte	True	Found	%R	Units	Analyzed
2E31046-CCV1	Sulfate	10.0	10.2	102	mg/L	05/23/12 07:42
2E31046-CCV2	Sulfate	10.0	10.1	101	mg/L	05/23/12 08:17
2E31046-CCV3	Sulfate	10.0	9.93	99	mg/L	05/23/12 08:52

* Values outside of QC limits

SECOND-SOURCE CALIBRATION VERIFICATION

ASTM D516-90 (02)

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Laboratory ID: 2E21059-SCV1
Sequence: 2E21059

SDG: KNM050712
Project: KNM
Instrument: 298
Calibration: 2E21030

Analyte	Expected	Found	% R	QC Limit	Units
Sulfate	20.0	19.8	99	85-115	mg/L

* Values outside of QC limits

SECOND-SOURCE CALIBRATION VERIFICATION

ASTM D516-90 (02)

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Laboratory ID: 2E31044-SCV1
Sequence: 2E31044

SDG: KNM050712
Project: KNM
Instrument: 298
Calibration: 2E31011

Analyte	Expected	Found	% R	QC Limit	Units
Sulfate	20.0	19.7	99	85-115	mg/L

* Values outside of QC limits

SECOND-SOURCE CALIBRATION VERIFICATION

ASTM D516-90 (02)

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Laboratory ID: 2E31046-SCV1
Sequence: 2E31046

SDG: KNM050712
Project: KNM
Instrument: 298
Calibration: 2E31012

Analyte	Expected	Found	% R	QC Limit	Units
Sulfate	5.00	4.88	98	85-115	mg/L

* Values outside of QC limits

CRDL STANDARD

ASTM D516-90 (02)

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Sequence: 2E21059

SDG: KNM050712

Project: KNM

Calibration: 2E21030

Instrument ID: 298

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
2E21059-CRL1	Sulfate	5.00	4.82	96	mg/L	50 - 150

* Values outside of QC limits

CRDL STANDARD

ASTM D516-90 (02)

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Sequence: 2E31044

SDG: KNM050712

Project: KNM

Calibration: 2E31011

Instrument ID: 298

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
2E31044-CRL1	Sulfate	5.00	4.69	94	mg/L	50 - 150

* Values outside of QC limits

CRDL STANDARD

ASTM D516-90 (02)

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Sequence: 2E31046

SDG: KNM050712

Project: KNM

Calibration: 2E31012

Instrument ID: 298

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
2E31046-CRL1	Sulfate	1.00	0.980	98	mg/L	50 - 150

* Values outside of QC limits

BLANKS
ASTM D516-90 (02)

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Sequence: 2E21059

SDG: KNM050712
Project: KNM
Calibration: 2E21030
Instrument ID: 298

Lab Sample ID	Analyte	Found	Unit	MDL	MRL	C	Analyzed
2E21059-CCB1	Sulfate	0.16	mg/L	0.35	1.0	U	05/17/12 08:02
2E21059-CCB2	Sulfate	0.15	mg/L	0.35	1.0	U	05/17/12 08:09
2E21059-CCB3	Sulfate	0.22	mg/L	0.35	1.0	U	05/17/12 10:19

* Values outside of QC limits

BLANKS
ASTM D516-90 (02)

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Sequence: 2E31044

SDG: KNM050712
Project: KNM
Calibration: 2E31011
Instrument ID: 298

Lab Sample ID	Analyte	Found	Unit	MDL	MRL	C	Analyzed
2E31044-CCB1	Sulfate	0.25	mg/L	0.35	1.0	U	05/23/12 07:54
2E31044-CCB2	Sulfate	0.27	mg/L	0.35	1.0	U	05/23/12 08:00
2E31044-CCB3	Sulfate	0.29	mg/L	0.35	1.0	U	05/23/12 08:32
2E31044-CCB4	Sulfate	0.34	mg/L	0.35	1.0	U	05/23/12 11:03

* Values outside of QC limits

BLANKS
ASTM D516-90 (02)

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Sequence: 2E31046

SDG: KNM050712
Project: KNM
Calibration: 2E31012
Instrument ID: 298

Lab Sample ID	Analyte	Found	Unit	MDL	MRL	C	Analyzed
2E31046-CCB1	Sulfate	0.16	mg/L	0.35	1.0	U	05/23/12 07:42
2E31046-CCB2	Sulfate	0.16	mg/L	0.35	1.0	U	05/23/12 08:17
2E31046-CCB3	Sulfate	0.20	mg/L	0.35	1.0	U	05/23/12 08:52

* Values outside of QC limits

QC BATCH SUMMARY

ASTM D516-90 (02)

Laboratory: TriMatrix Laboratories, Inc.

SDG: KNM050712

Client: TechLaw

Project: KNM

QC Batch: 1206333

QC Batch Matrix: Water

Preparation: General Inorganic Prep

Sample Name	Lab Sample ID	Date Prepared	Observations
106091	1205226-01	05/17/12 07:00	must report at 1mg/L
106191	1205226-02	05/17/12 07:00	must report at 1mg/L
Blank	1206333-BLK1	05/17/12 07:00	
LCS	1206333-BS1	05/17/12 07:00	
106091	1206333-MS1	05/17/12 07:00	
106091	1206333-MSD1	05/17/12 07:00	

QC BATCH SUMMARY

ASTM D516-90 (02)

Laboratory: TriMatrix Laboratories, Inc.

SDG: KNM050712

Client: TechLaw

Project: KNM

QC Batch: 1206544 QC Batch Matrix: Water

Preparation: General Inorganic Prep

Sample Name	Lab Sample ID	Date Prepared	Observations
1060SL	1205358-01	05/23/12 07:00	must report at 1mg/L
Blank	1206544-BLK1	05/23/12 07:00	
LCS	1206544-BS1	05/23/12 07:00	
1060SL	1206544-MS1	05/23/12 07:00	
1060SL	1206544-MSD1	05/23/12 07:00	

QC BATCH SUMMARY

ASTM D516-90 (02)

Laboratory: TriMatrix Laboratories, Inc.

SDG: KNM050712

Client: TechLaw

Project: KNM

QC Batch: 1206545 QC Batch Matrix: Water

Preparation: General Inorganic Prep

Sample Name	Lab Sample ID	Date Prepared	Observations
106RCT	1205374-01	05/23/12 07:00	must report at 1mg/L
Blank	1206545-BLK1	05/23/12 07:00	
LCS	1206545-BS1	05/23/12 07:00	
106RCT	1206545-MS1	05/23/12 07:00	
106RCT	1206545-MSD1	05/23/12 07:00	

METHOD BLANK DATA SHEET
ASTM D516-90 (02)

Laboratory: TriMatrix Laboratories, Inc.
SDG: KNM050712
Client: TechLaw
Project: KNM
Matrix: Water
Laboratory ID: 1206333-BLK1
File ID: 051712so4-013
Prepared: 05/17/12 07:00
Analyzed: 05/17/12 08:03
Preparation: General Inorganic Prep
Initial/Final: 10 mL / 10 mL
QC Batch: 1206333
Sequence: 2E21059
Calibration: 2E21030
Instrument: 298

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

METHOD BLANK DATA SHEET
ASTM D516-90 (02)

Laboratory: TriMatrix Laboratories, Inc.
SDG: KNM050712
Client: TechLaw
Project: KNM
Matrix: Water
Laboratory ID: 1206544-BLK1
File ID: 052312so4L-011
Prepared: 05/23/12 07:00
Analyzed: 05/23/12 07:42
Preparation: General Inorganic Prep
Initial/Final: 10 mL / 10 mL
QC Batch: 1206544
Sequence: 2E31046
Calibration: 2E31012
Instrument: 298

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

METHOD BLANK DATA SHEET
ASTM D516-90 (02)

Laboratory: TriMatrix Laboratories, Inc. SDG: KNM050712

Client: TechLaw Project: KNM

Matrix: Water Laboratory ID: 1206545-BLK1 File ID: 052312so4-013

Prepared: 05/23/12 07:00 Analyzed: 05/23/12 07:54

Preparation: General Inorganic Prep Initial/Final: 10 mL / 10 mL

QC Batch: 1206545 Sequence: 2E31044 Calibration: 2E31011 Instrument: 298

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

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

106091

ASTM D516-90 (02)

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Matrix: Water

QC Batch: 1206333

SDG: KNM050712

Project: KNM

Laboratory ID: 1206333-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	39.6	58.6	95	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

106091

ASTM D516-90 (02)

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Matrix: Water

QC Batch: 1206333

SDG: KNM050712

Project: KNM

Laboratory ID: 1206333-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	58.2	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

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

1060SL

ASTM D516-90 (02)

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Matrix: Water

QC Batch: 1206544

SDG: KNM050712

Project: KNM

Laboratory ID: 1206544-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	ND	18.5	93	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

1060SL

ASTM D516-90 (02)

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Matrix: Water

QC Batch: 1206544

SDG: KNM050712

Project: KNM

Laboratory ID: 1206544-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	18.6	93	0.3	20	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

106RCT

ASTM D516-90 (02)

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Matrix: Water

QC Batch: 1206545

SDG: KNM050712

Project: KNM

Laboratory ID: 1206545-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	30.1	46.2	81	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

106RCT

ASTM D516-90 (02)

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Matrix: Water

QC Batch: 1206545

SDG: KNM050712

Project: KNM

Laboratory ID: 1206545-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	47.0	85	2	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: 1206333

SDG: KNM050712

Project: KNM

Laboratory ID: 1206333-BS1

Preparation: General Inorganic Prep

Initial/Final: 10 mL / 10 mL

Sequence: 2E21059

Analyte	Spike Added	LCS Conc.	LCS % Rec. #	QC Limits Rec.	Units
Sulfate	20.0	19.6	98	88 - 116	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: 1206544

SDG: KNM050712

Project: KNM

Laboratory ID: 1206544-BS1

Preparation: General Inorganic Prep

Initial/Final: 10 mL / 10 mL

Sequence: 2E31046

Analyte	Spike Added	LCS Conc.	LCS % Rec. #	QC Limits Rec.	Units
Sulfate	20.0	18.6	93	88 - 116	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: 1206545

SDG: KNM050712

Project: KNM

Laboratory ID: 1206545-BS1

Preparation: General Inorganic Prep

Initial/Final: 10 mL / 10 mL

Sequence: 2E31044

Analyte	Spike Added	LCS Conc.	LCS % Rec. #	QC Limits Rec.	Units
Sulfate	20.0	19.2	96	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.

Client: TechLaw

Analyte: Sulfate

SDG: KNM050712

Project: KNM

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
106091	05/09/12	05/10/12		05/17/12	8	NA	05/17/12	8	28	
106191	05/09/12	05/10/12		05/17/12	8	NA	05/17/12	8	28	
1060SL	05/17/12	05/18/12		05/23/12	6	NA	05/23/12	6	28	
106RCT	05/18/12	05/21/12		05/23/12	5	NA	05/23/12	5	28	

Inorganic - Wet Chemistry, Water, May-17-12

Instrument = 298, Calibration = 2E21030

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

Lab Number	*Analysis*	*Contain*	*STD ID*	*ISTD ID*	*Client / QC Type*	*Extraction Comments*
2E21059-CAL1	QC		2050030		CAL STANDARD	
2E21059-CAL2	QC		2050027		CAL STANDARD	
2E21059-CAL3	QC		2050026		CAL STANDARD	
2E21059-CAL4	QC		2050025		CAL STANDARD	
2E21059-CAL5	QC		2050024		CAL STANDARD	
2E21059-CAL6	QC		2050023		CAL STANDARD	
2E21059-CAL7	QC		2050022		CAL STANDARD	
2E21059-CAL8	QC		2050021		CAL STANDARD	
2E21059-CCV1	QC		2050026		CALIBRATION CHECK	
2E21059-CCB1	QC		2050030		CALIBRATION BLANK	
2E21059-CRL1	QC		2050027		INSTRUMENT RL CHECK	
2E21059-SCV1	QC		2050561		SECONDARY CAL CHECK	
1206333-BLK1	QC				BLANK	
1206333-BS1	QC				LCS	
2E21059-CCV2	QC		2050026		CALIBRATION CHECK	
2E21059-CCB2	QC		2050030		CALIBRATION BLANK	
1205226-01	Sulfate ASTM D516-90 (Low Level)	J			TechLaw	must report at 1mg/L
1206333-MS1	QC				MATRIX SPIKE	
1206333-MSD1	QC				MATRIX SPIKE DUP	
1205226-02	Sulfate ASTM D516-90 (Low Level)	J			TechLaw	must report at 1mg/L
2E21059-CCV3	QC		2050023		CALIBRATION CHECK	
2E21059-CCB3	QC		2050030		CALIBRATION BLANK	

Comments:	Analyst Initials:

TriMatrix Laboratories, Inc.

due 05/23/12

PREPARATION BATCH **1206333** Page 1 of 1

Printed: 5/17/2012 3:52:26PM

Inorganic - Wet Chemistry, Water, General Inorganic Prep

(No Surrogate)

Batch Comments: (none)

NLB 5-23-12

4MD

01519

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
1205226	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*
1206333-BLK1		May-17-12 07:00	LMA	10	10					BLANK	
1206333-BS1		May-17-12 07:00	LMA	10	10			2050015	20	LCS	
1206333-MS1		May-17-12 07:00	LMA	10	10		1205226-01	2050015	20	MATRIX SPIKE	
1206333-MSD1		May-17-12 07:00	LMA	10	10		1205226-01	2050015	20	MATRIX SPIKE DUP	
1205226-01	J	May-17-12 07:00	LMA	10	10					TechLaw	must report at 1mg/L
1205226-02	J	May-17-12 07:00	LMA	10	10					TechLaw	must report at 1mg/L

Comments:	Analyst Initials:

TriMatrix Laboratories Inst #298
Konelab User

5/17/2012 7:38

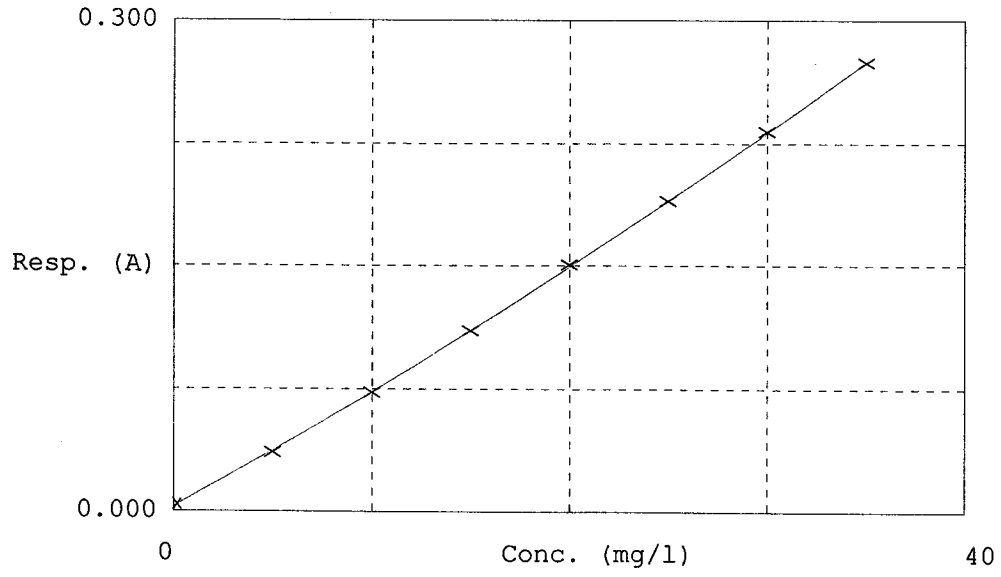
Test SO4 HIGH

Accepted 5/17/2012 7:38

Resp. = A * Conc. ^ 2 + B * Conc. + C
A = 0.00003
B = 0.00673
C = 0.00294

Coeff. of det. 0.999918

Errors



	Calibrator	Response	Calc. con.	Conc.	Errors
1	SO4-0	0.00398	0.15467	0.00000	
2	SO4- 5	0.03606	4.81951	5.00000	
3	SO4-10	0.07278	9.94395	10.00000	
4	SO4-15	0.11020	14.95600	15.00000	
5	SO4-20	0.15052	20.14561	20.00000	
6	SO4-25	0.18948	24.97434	25.00000	
7	SO4-30	0.23215	30.07825	30.00000	
8	SO4-35	0.27413	34.92760	35.00000	

TriMatrix Laboratories Inst #298
Konelab User

Date : 5/17/2012
Time : 15:21

Test SO4 HIGH
Unit mg/l

Sample ID:	Result	Resp.	Date and Time	Dilut	Man.dilut
SO4 CCV	9.9353	0.073	5/17/2012 8:02		
SO4 CCB 1	0.1566	0.004	5/17/2012 8:02		
crl 5.0	4.8247	0.036	5/17/2012 8:02		
scv	19.7867	0.148	5/17/2012 8:03		
blk 1 1206333	0.1783	0.004	5/17/2012 8:03		
bs 1	19.5736	0.146	5/17/2012 8:03		
SO4 CCV	9.9341	0.073	5/17/2012 8:09		
SO4 CCB 2	0.1518	0.004	5/17/2012 8:09		
40 1+1	37.8926	0.141	5/17/2012 8:09	1+1.0	
100 1+4	97.8048	0.146	5/17/2012 8:09	1+4.0	
200 1+9	196.2556	0.146	5/17/2012 8:09	1+9.0	
500 1+24	492.9582	0.147	5/17/2012 8:09	1+24.0	
SO4 CCV	9.8811	0.072	5/17/2012 8:14		
SO4 CCB	0.1842	0.004	5/17/2012 8:14		
1000 1+49	1e+003	0.155	5/17/2012 8:14	1+49.0	
SO4 CCV	9.8641	0.072	5/17/2012 8:26		
SO4 CCB	0.1241	0.004	5/17/2012 8:26		
SO4 CCV	24.9325	0.189	5/17/2012 9:35		
SO4 CCB	0.1902	0.004	5/17/2012 9:35		
blk ww	0.1357	0.004	5/17/2012 9:35		
bs ww	19.9790	0.149	5/17/2012 9:35		
1205203-01	_____	-	- Dilute		
1205203-02	_____	-	- 2		
SO4 CCV	24.9046	0.189	5/17/2012 9:38		
SO4 CCB	0.1986	0.004	5/17/2012 9:38		
1205227-01	24.8667	0.189	5/17/2012 9:38		
1205229-01	0.2053	0.004	5/17/2012 9:38		
1205229-01ms	20.1619	0.151	5/17/2012 9:38		
1205229-01msd	19.6202	0.146	5/17/2012 9:38		
SO4 CCV	24.7512	0.188	5/17/2012 9:41		
SO4 CCB	0.1960	0.004	5/17/2012 9:41		
1205263-01	0.1928	0.004	5/17/2012 9:41		
1205265-01	0.1801	0.004	5/17/2012 9:41		
1205275-01	0.1895	0.004	5/17/2012 9:41		
1205275-02	0.1787	0.004	5/17/2012 9:41		
SO4 CCV	24.9489	0.189	5/17/2012 9:44		
SO4 CCB	0.1838	0.004	5/17/2012 9:44		
1205303-01	0.1743	0.004	5/17/2012 9:44		
1205226-01	_____	0.326	- Dilute		
1205226-01ms	_____	0.476	-		
1205226-01msd	_____	0.475	- d		
SO4 CCV	24.7802	0.188	5/17/2012 9:47		
SO4 CCB	0.1857	0.004	5/17/2012 9:47		
1205226-02	_____	0.328	- Dilute		
blk 2	0.2059	0.004	5/17/2012 9:47		
bs 2	20.2201	0.151	5/17/2012 9:47		
blk 3	0.1820	0.004	5/17/2012 9:47		
SO4 CCV	24.7854	0.188	5/17/2012 9:50		
SO4 CCB	0.1890	0.004	5/17/2012 9:50		
bs 3	19.7177	0.147	5/17/2012 9:50		
blk 4	0.1883	0.004	5/17/2012 9:50		
bs 4	19.8623	0.148	5/17/2012 9:50		
1205207-01	10.3536	0.076	5/17/2012 9:50		

TriMatrix Laboratories Inst #298
Konelab User

Date : 5/17/2012
Time : 15:21

Test SO4 HIGH
Unit mg/l

Sample ID:	Result	Resp.	Date and Time	Dilut	Man.dilut
SO4 CCV	25.0075	0.190	5/17/2012 9:53		
SO4 CCB	0.1910	0.004	5/17/2012 9:53		
1205207-02		-	- Dilute Low level		
1205207-03	6.7483	0.050	5/17/2012 9:53		
1205207-04	11.7255	0.086	5/17/2012 9:53		
1205207-05	5.3506	0.040	5/17/2012 9:53		
SO4 CCV	24.7724	0.188	5/17/2012 9:55		
SO4 CCB	0.1969	0.004	5/17/2012 9:55		
1205207-06	13.0248	0.096	5/17/2012 9:55		
1205207-07	18.5489	0.138	5/17/2012 9:56		
1205242-01		0.315	- Dilute		
1205242-01ms		0.476	- d		
SO4 CCV	24.8783	0.189	5/17/2012 9:59		
SO4 CCB	0.1864	0.004	5/17/2012 9:59		
1205242-01msd		0.475	- Dilute		
1205242-02	31.7505	0.246	5/17/2012 9:59		
1205242-03		-	- Low level		
1205242-04		0.284	- Dilute		
SO4 CCV	24.7307	0.187	5/17/2012 10:01		
SO4 CCB	0.2013	0.004	5/17/2012 10:01		
1205242-05	21.0684	0.158	5/17/2012 10:01		
1205242-07		-	- Low level		
1205242-06		-	- d		
1205203-01		-	- Dilute	1+49.0	
SO4 CCV	24.7050	0.187	5/17/2012 10:05		
SO4 CCB	0.2050	0.004	5/17/2012 10:05		
1205203-02		-	- Dilute	1+49.0	
1205226-01	39.5563	0.148	5/17/2012 10:05	1+1.0	
1205226-01ms	58.5811	0.225	5/17/2012 10:05	1+1.0	
1205226-01msd	58.2256	0.224	5/17/2012 10:09	1+1.0	
SO4 CCV	24.8801	0.189	5/17/2012 10:09		
SO4 CCB	0.2036	0.004	5/17/2012 10:09		
1205200-01	1e+003	0.205	5/17/2012 10:09	1+49.0	
1205200-02	1e+003	0.188	5/17/2012 10:09	1+49.0	
1205200-03	1e+003	0.211	5/17/2012 10:09	1+49.0	
1205200-04	2e+003	0.243	5/17/2012 10:13	1+49.0	
SO4 CCV	24.7167	0.187	5/17/2012 10:13		
SO4 CCB	0.2153	0.004	5/17/2012 10:13		
1205200-05	657.5678	0.097	5/17/2012 10:13	1+49.0	
1205200-06	804.9960	0.119	5/17/2012 10:13	1+49.0	
1205200-07	457.2982	0.067	5/17/2012 10:13	1+49.0	
1205200-08	622.2802	0.091	5/17/2012 10:15	1+49.0	
SO4 CCV	24.6492	0.187	5/17/2012 10:15		
SO4 CCB	0.2335	0.005	5/17/2012 10:15		
1205226-02	40.0277	0.149	5/17/2012 10:19	1+1.0	
1205242-01	38.4432	0.143	5/17/2012 10:19	1+1.0	
1205242-01ms	57.7541	0.222	5/17/2012 10:19	1+1.0	
1205242-01msd	57.4255	0.221	5/17/2012 10:19	1+1.0	
SO4 CCV	24.8706	0.189	5/17/2012 10:19		
SO4 CCB	0.2206	0.004	5/17/2012 10:19		
1205200-09	1e+003	0.220	5/17/2012 10:23	1+49.0	
1205200-09ms	1e+003	0.222	5/17/2012 10:23	1+49.0	
1205200-09msd	1e+003	0.218	5/17/2012 10:23	1+49.0	

TriMatrix Laboratories Inst #298
Konelab User

Date : 5/17/2012
Time : 15:22

Test SO4 HIGH
Unit mg/l

Sample ID:	Result	Resp.	Date and Time	Dilut	Man.dilut
1205242-04	34.2198	0.127	5/17/2012 10:23	1+1.0	
SO4 CCV	24.4965	0.186	5/17/2012 10:23		
SO4 CCB	0.2345	0.005	5/17/2012 10:23		
1205200-10		0.082	-	1+49.0	
1205200-11		0.032	-	1+24.0	
1205200-12		0.061	-	1+49.0	
1205200-13		0.079	-	1+49.0	
SO4 CCV	19.5259	0.146	5/17/2012 10:26		
SO4 CCB	0.2382	0.005	5/17/2012 10:26		
1205200-14	731.2535	0.108	5/17/2012 10:30	1+49.0	
1205200-15	735.8727	0.108	5/17/2012 10:30	1+49.0	
1205200-16		0.076	-	1+49.0	
1205200-17		0.049	-	1+49.0	
SO4 CCV	19.7783	0.148	5/17/2012 10:30		
SO4 CCB	0.2289	0.004	5/17/2012 10:30		
1205200-18	779.9997	0.115	5/17/2012 10:34	1+49.0	
1205200-19	1e+003	0.170	5/17/2012 10:34	1+49.0	
1205200-20	1e+003	0.186	5/17/2012 10:34	1+49.0	
1205200-21	987.2438	0.147	5/17/2012 10:34	1+49.0	
SO4 CCV	19.6310	0.146	5/17/2012 10:34		
SO4 CCB	0.2309	0.004	5/17/2012 10:34		
1205200-21ms	1e+003	0.155	5/17/2012 10:38	1+49.0	
1205200-21msd	1e+003	0.156	5/17/2012 10:38	1+49.0	
1205200-22		0.056	-	1+49.0	
1205200-23	856.7528	0.127	5/17/2012 10:38	1+49.0	
SO4 CCV	19.6357	0.146	5/17/2012 10:38		
SO4 CCB	0.2164	0.004	5/17/2012 10:38		
1205200-10	564.8632	0.170	5/17/2012 10:41	1+24.0	
1205200-11	109.1311	0.080	5/17/2012 10:41	1+9.0	
1205200-12	423.1559	0.125	5/17/2012 10:41	1+24.0	
1205200-13	558.2139	0.168	5/17/2012 10:41	1+24.0	
SO4 CCV	19.5380	0.146	5/17/2012 10:41		
SO4 CCB	0.2202	0.004	5/17/2012 10:41		
1205200-24	626.3094	0.092	5/17/2012 10:44	1+49.0	
1205200-25		0.072	-	1+49.0	
1205200-26	887.2375	0.132	5/17/2012 10:44	1+49.0	
1205200-27		-	-	1+49.0	
SO4 CCV	19.6048	0.146	5/17/2012 10:47		
SO4 CCB	0.1782	0.004	5/17/2012 10:47		
1205200-16	501.9022	0.150	5/17/2012 10:50	1+24.0	
1205200-17	325.0572	0.095	5/17/2012 10:50	1+24.0	
1205200-22	377.6693	0.111	5/17/2012 10:50	1+24.0	
SO4 CCV	19.4231	0.145	5/17/2012 10:51		
SO4 CCB	0.2059	0.004	5/17/2012 10:51		
SO4 CCV	19.7886	0.148	5/17/2012 11:28		
SO4 CCB	0.2269	0.004	5/17/2012 11:28		
1205200-27	0.5513	0.007	5/17/2012 11:28		
1205200-25	504.7585	0.151	5/17/2012 11:30	1+24.0	
SO4 CCV	19.6855	0.147	5/17/2012 11:38		
SO4 CCB	0.2027	0.004	5/17/2012 11:38		
SO4 CCV	9.8370	0.072	5/17/2012 14:00		
SO4 CCB	0.2847	0.005	5/17/2012 14:00		
1205203-01 100x	2e+003	0.136	5/17/2012 14:00		1+99.0

01458

TriMatrix Laboratories Inst #298
Konelab User

Date : 5/17/2012
Time : 15:22

Test SO4 HIGH
Unit mg/l

Sample ID:	Result	Resp.	Date and Time	Dilut	Man.dilut
1205203-02 100x	2e+003	0.144	5/17/2012 14:00		1+99.0
1205242-11		1.478	-		
1205242-12		-	-		
SO4 CCV	9.7751	0.072	5/17/2012 14:09		
SO4 CCB	0.2957	0.005	5/17/2012 14:09		
1205242-13		1.454	-		
1205242-14	2.7995	0.022	5/17/2012 14:09		
1205242-16		0.457	-		
1205242-17		0.409	-		
SO4 CCV	9.8234	0.072	5/17/2012 14:11		
SO4 CCB	0.2556	0.005	5/17/2012 14:11		
1205242-11		0.029	-	1+49.0	
1205242-13		0.063	-	1+24.0	
1205242-16	53.8292	0.206	5/17/2012 14:34	1+1.0	
1205242-17	49.5036	0.188	5/17/2012 14:36	1+1.0	
SO4 CCV	9.6946	0.071	5/17/2012 14:39		
SO4 CCB	0.2553	0.005	5/17/2012 14:39		
SO4 CCV	9.7736	0.072	5/17/2012 15:12		
SO4 CCB	0.2859	0.005	5/17/2012 15:12		
1205242-11	198.8259	0.148	5/17/2012 15:12	1+9.0	
1205242-13	221.6065	0.167	5/17/2012 15:12	1+9.0	
SO4 CCV	9.6894	0.071	5/17/2012 15:14		
SO4 CCB	0.2604	0.005	5/17/2012 15:14		

Inorganic - Wet Chemistry, Water, May-23-12

Instrument = 298, Calibration = 2E31011

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

Lab Number	*Analysis*	*Contain*	*STD ID*	*ISTD ID*	*Client / QC Type*	*Extraction Comments*
2E31044-CAL1	QC		2050030		CAL STANDARD	
2E31044-CAL2	QC		2050027		CAL STANDARD	
2E31044-CAL3	QC		2050026		CAL STANDARD	
2E31044-CAL4	QC		2050025		CAL STANDARD	
2E31044-CAL5	QC		2050024		CAL STANDARD	
2E31044-CAL6	QC		2050023		CAL STANDARD	
2E31044-CAL7	QC		2050022		CAL STANDARD	
2E31044-CAL8	QC		2050021		CAL STANDARD	
2E31044-CCV1	QC		2050026		CALIBRATION CHECK	
2E31044-CCB1	QC		2050030		CALIBRATION BLANK	
2E31044-CRL1	QC		2050027		INSTRUMENT RL CHECK	
2E31044-SCV1	QC		2050561		SECONDARY CAL CHECK	
1206545-BLK1	QC				BLANK	
1206545-BS1	QC				LCS	
2E31044-CCV2	QC		2050026		CALIBRATION CHECK	
2E31044-CCB2	QC		2050030		CALIBRATION BLANK	
1205374-01	Sulfate ASTM D516-90 (Low Level)	J			TechLaw	must report at 1mg/L
2E31044-CCV3	QC		2050026		CALIBRATION CHECK	
2E31044-CCB3	QC		2050030		CALIBRATION BLANK	
1206545-MS1	QC				MATRIX SPIKE	
1206545-MSD1	QC				MATRIX SPIKE DUP	
2E31044-CCV4	QC		2050024		CALIBRATION CHECK	
2E31044-CCB4	QC		2050030		CALIBRATION BLANK	

Comments:	Analyst Initials:

due 06/04/12

TriMatrix Laboratories, Inc.

PREPARATION BATCH **1206545** Page 1 of 1

Printed: 5/23/2012 1:25:08PM

NLB 6-4-12

HMD

Inorganic - Wet Chemistry, Water, General Inorganic Prep

(No Surrogate)

Batch Comments: (none)

5151

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
1205374	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*
1206545-BLK1		May-23-12 07:00	LMA	10	10					BLANK	
1206545-BS1		May-23-12 07:00	LMA	10	10			2050015	20	LCS	
1206545-MS1		May-23-12 07:00	LMA	10	10		1205374-01	2050015	20	MATRIX SPIKE	
1206545-MSD1		May-23-12 07:00	LMA	10	10		1205374-01	2050015	20	MATRIX SPIKE DUP	
1205374-01	J	May-23-12 07:00	LMA	10	10					TechLaw	must report at 1mg/L

Comments:

Analyst Initials:

TriMatrix Laboratories Inst #298
Konelab User

5/23/2012 7:29

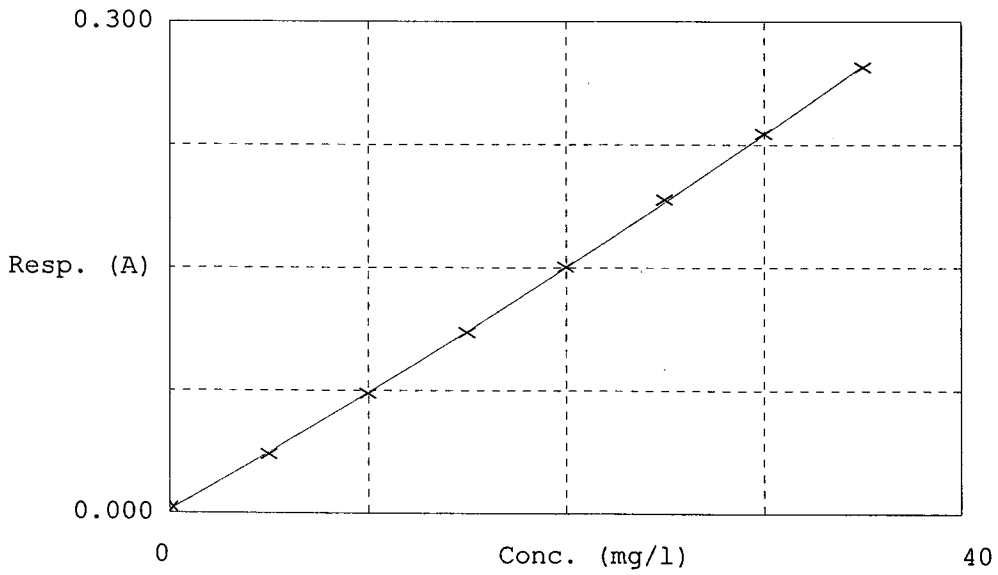
Test SO4 HIGH

Accepted 5/23/2012 7:28

Resp. = A * Conc. ^ 2 + B * Conc. + C
A = 0.00002
B = 0.00695
C = 0.00192

Coeff. of det. 0.999852

Errors



	Calibrator	Response	Calc. con.	Conc.	Errors
1	SO4-0	0.00332	0.20111	0.00000	
2	SO4- 5	0.03580	4.80197	5.00000	
3	SO4-10	0.07307	9.91792	10.00000	
4	SO4-15	0.11051	14.90016	15.00000	
5	SO4-20	0.15034	20.04207	20.00000	
6	SO4-25	0.19149	25.19747	25.00000	
7	SO4-30	0.23155	30.07579	30.00000	
8	SO4-35	0.27192	34.86327	35.00000	

Result Report | Aquakem 7.2AQ1 | Page: 1

TriMatrix Laboratories Inst #298
Konelab User

Date : 5/23/2012
Time : 13:20

Test: SO4 HIGH
Unit: mg/l

Sample ID:	Result	Resp.	Date and Time	Dilut	Man.dilut
SO4 CCV 1	9.8506	0.073	5/23/2012 7:54		
SO4 CCB	0.2468	0.004	5/23/2012 7:54		
crl 5.0	4.6920	0.035	5/23/2012 7:54		
scv	19.7444	0.148	5/23/2012 7:54		
blk 1 1206545	0.2753	0.004	5/23/2012 7:54		
bs 1	19.1558	0.143	5/23/2012 7:54		
SO4 CCV 2	9.9948	0.074	5/23/2012 8:00		
SO4 CCB	0.2720	0.004	5/23/2012 8:00		
40 1+1	37.9077	0.142	5/23/2012 8:00	1+1.0	
100 1+4	98.1556	0.147	5/23/2012 8:00	1+4.0	
200 1+9	193.0576	0.145	5/23/2012 8:00	1+9.0	
500 1+24	493.9674	0.148	5/23/2012 8:00	1+24.0	
SO4 CCV	9.8342	0.072	5/23/2012 8:06		
SO4 CCB	0.2801	0.004	5/23/2012 8:06		
1000 1+49	1e+003	0.155	5/23/2012 8:06	1+49.0	1032.767
SO4 CCV	9.8151	0.072	5/23/2012 8:17		
SO4 CCB	0.2531	0.004	5/23/2012 8:17		
1205358-01	Low level	-	-		
1205358-01ms	↓	-	-		
1205358-01msd	↓	-	-		
1205374-01	30.0599	0.231	5/23/2012 8:32		
SO4 CCV 3	9.8530	0.073	5/23/2012 8:32		
SO4 CCB	0.2852	0.004	5/23/2012 8:32		
blk splp 1206551	0.2153	0.003	5/23/2012 8:32		
bs splp	19.3509	0.145	5/23/2012 8:32		
1205348-01	0.3108	0.004	5/23/2012 8:32		
1205348-01ms	19.8677	0.149	5/23/2012 8:35		
SO4 CCV	9.7752	0.072	5/23/2012 8:35		
SO4 CCB	0.2557	0.004	5/23/2012 8:35		
1205348-01msd	19.9040	0.149	5/23/2012 8:35		
1205348-02	2.4757	0.019	5/23/2012 8:35		
1205348-03	0.2662	0.004	5/23/2012 8:35		
1205348-04	0.2536	0.004	5/23/2012 8:50		
SO4 CCV	9.7601	0.072	5/23/2012 8:53		
SO4 CCB	0.3345	0.004	5/23/2012 8:53		
SO4 CCV	24.9179	0.189	5/23/2012 9:20		
SO4 CCB	0.2640	0.004	5/23/2012 9:20		
blk ww 1206550	0.2687	0.004	5/23/2012 9:20		
bs ww	19.4966	0.146	5/23/2012 9:20		
1205320-01	0.3274	0.004	5/23/2012 9:20		
1205327-01	Dilute	0.276	-		
SO4 CCV	25.1119	0.191	5/23/2012 9:23		
SO4 CCB	0.2526	0.004	5/23/2012 9:23		
1205327-02	Dilute	1.871	-		
1205327-03	↓	0.810	-		
1205327-04	↓	0.978	-		
1205350-01	0.6621	0.007	5/23/2012 9:23		
SO4 CCV	24.5169	0.186	5/23/2012 9:26		
SO4 CCB	0.2786	0.004	5/23/2012 9:26		
1205350-01ms	19.0846	0.143	5/23/2012 9:26		
1205350-01msd	19.0554	0.143	5/23/2012 9:26		
1205396-01	0.2888	0.004	5/23/2012 9:26		
blk 2 1206547	0.2417	0.004	5/23/2012 9:26		

TriMatrix Laboratories Inst #298
Konelab User

Date : 5/23/2012
Time : 13:20

Test SO4 HIGH
Unit mg/l

Sample ID:	Result	Resp.	Date and Time	Dilut	Man.dilut
SO4 CCV	24.7275	0.188	5/23/2012 9:29		
SO4 CCB	0.2801	0.004	5/23/2012 9:29		
bs 2 1206547	19.5133	0.146	5/23/2012 9:29		
1205244-01	21.5230	0.162	5/23/2012 9:29		
1205245-01	Dilute	0.298	-		
1205245-02	9.2461	0.068	5/23/2012 9:29		
SO4 CCV	24.5767	0.186	5/23/2012 9:32		
SO4 CCB	0.3352	0.004	5/23/2012 9:32		
1205245-03	Dilute	0.390	-		
1205245-04	15.1767	0.113	5/23/2012 9:32		
1205292-01	Low Level	-	-		
1205292-03	↓	-	-		
SO4 CCB	Auto rejected	0.000	-		
SO4 CCV	↓	0.000	-		
SO4 CCV	24.7669	0.188	5/23/2012 9:38		
SO4 CCB	0.3390	0.004	5/23/2012 9:38		
1205313-05	Dilute	2.141	-		
1205313-07	|	2.051	-		
1205313-10	|	0.893	-		
1205313-12	↓	2.360	-		
SO4 CCV	24.2837	0.184	5/23/2012 9:41		
SO4 CCB	1.1355	0.010	5/23/2012 9:41		
1205340-01	13.1802	0.097	5/23/2012 9:41		
1205340-03	Dilute	0.473	-		
blk 3 1206548	0.3740	0.005	5/23/2012 9:41		
bs 3	19.1965	0.144	5/23/2012 9:41		
SO4 CCV	24.8577	0.189	5/23/2012 9:44		
SO4 CCB	0.4264	0.005	5/23/2012 9:44		
1205294-02	Dilute	2.101	-		
1205294-03	|	0.428	-		
1205294-04	|	2.499	-		
1205294-05	↓	2.668	-		
SO4 CCV	24.4226	0.185	5/23/2012 9:47		
SO4 CCB	0.4213	0.005	5/23/2012 9:47		
1205313-01	Dilute	1.410	-		
1205313-01ms	|	1.457	-		
1205313-01msd	|	1.454	-		
1205313-03	↓	2.375	-		
SO4 CCV	27.4689	0.210	5/23/2012 9:50		
SO4 CCB	0.6822	0.007	5/23/2012 9:50		
1205294-06	Dilute	2.383	-		
1205294-07	19.5965	0.147	5/23/2012 9:53		
1205294-07ms	Dilute	0.286	-		
1205294-07msd	↓	0.282	-		
SO4 CCV	24.3484	0.185	5/23/2012 9:53		
SO4 CCB	0.3241	0.004	5/23/2012 9:53		
1205294-08	Dilute	0.426	-		
1205294-09	|	1.439	-		
1205294-10	|	1.467	-		
1205294-11	↓	1.466	-		
SO4 CCV	25.0037	0.190	5/23/2012 9:56		
SO4 CCB	0.4010	0.005	5/23/2012 9:56		
blk 4 1206549	0.4542	0.005	5/23/2012 9:58		

TriMatrix Laboratories Inst #298
Konelab User

Date : 5/23/2012
Time : 13:20

Test SO4 HIGH
Unit mg/l

Sample ID:	Result	Resp.	Date and Time	Dilut	Man.dilut
bs 4 1206549	19.0001	0.142	5/23/2012 9:59		
1205354-02	Dilute	0.675	-		
1205354-03	"	0.801	-		
SO4 CCV	19.4175	0.145	5/23/2012 9:59		
SO4 CCB	0.2977	0.004	5/23/2012 9:59		
1205354-04	Dilute	1.165	-		
1205354-04ms		1.243	-		
1205354-04msd		1.242	-		
1205354-05	"	1.181	-		
SO4 CCV	19.8836	0.149	5/23/2012 10:02		
SO4 CCB	0.3634	0.004	5/23/2012 10:02		
1205354-06	Dilute	0.544	-		
1205361-02		2.493	-		
1205361-03		2.357	-		
1205361-04	"	1.057	-		
SO4 CCV	20.0255	0.150	5/23/2012 10:05		
SO4 CCB	0.6405	0.006	5/23/2012 10:05		
1205361-05	Dilute	2.251	-		
1205361-05ms		2.274	-		
1205361-05msd		2.276	-		
1205361-06	"	2.260	-		
SO4 CCV	22.8717	0.173	5/23/2012 10:08		
SO4 CCB	0.8569	0.008	5/23/2012 10:08		
1205361-07	27.8172	0.213	5/23/2012 10:10		
1205361-08	16.2886	0.121	5/23/2012 10:10		
1205361-10	Dilute	2.023	-		
1205327-01	32.0310	0.119	5/23/2012 10:14	1+1.0	
SO4 CCV	19.0847	0.143	5/23/2012 10:14		
SO4 CCB	0.3615	0.004	5/23/2012 10:14		
1205327-02	Re-dilute	0.069	-	1+49.0	
1205327-03	97.0129	0.145	5/23/2012 10:14	1+4.0	
1205327-04	136.9177	0.101	5/23/2012 10:14	1+9.0	
1205245-01	34.4783	0.128	5/23/2012 10:16	1+1.0	
SO4 CCV	19.0250	0.142	5/23/2012 10:16		
SO4 CCB	0.3154	0.004	5/23/2012 10:16		
1205245-03	45.6690	0.172	5/23/2012 10:20	1+1.0	
1205313-05	Re-dilute	0.094	-	1+49.0	
1205313-07	"	0.082	-	1+49.0	
1205313-12	838.3160	0.125	5/23/2012 10:20	1+49.0	
SO4 CCV	19.1616	0.143	5/23/2012 10:20		
SO4 CCB	0.3175	0.004	5/23/2012 10:20		
1205313-10	Re-dilute	0.086	-	1+9.0	
1205340-03	56.6073	0.217	5/23/2012 10:24	1+1.0	
1205294-02	Re-dilute	0.090	-	1+49.0	
1205294-04	1e+003	0.154	5/23/2012 10:24	1+49.0	1028.318
SO4 CCV	19.1627	0.143	5/23/2012 10:24		
SO4 CCB	0.2776	0.004	5/23/2012 10:24		
1205313-01	Re-dilute	0.072	-	1+24.0	
1205313-01ms	"	0.079	-	1+24.0	
1205294-03	48.5371	0.184	5/23/2012 10:28	1+1.0	
1205294-05	1e+003	0.222	5/23/2012 10:28	1+49.0	1448.493
SO4 CCV	18.9527	0.142	5/23/2012 10:28		
SO4 CCB	0.3288	0.004	5/23/2012 10:28		

TriMatrix Laboratories Inst #298
Konelab User

Date : 5/23/2012
Time : 13:20

Test SO4 HIGH
Unit mg/l

Sample ID:	Result	Resp.	Date and Time	Dilut	Man.dilut
1205313-01msd	Re-dilute	0.078	-	1+24.0	
1205313-03	851.3623	0.127	5/23/2012 10:31	1+49.0	
1205294-06	856.3937	0.128	5/23/2012 10:31	1+49.0	
1205294-07ms	33.5837	0.125	5/23/2012 10:31	1+1.0	
SO4 CCV	19.0258	0.142	5/23/2012 10:31		
SO4 CCB	0.2963	0.004	5/23/2012 10:31		
1205294-07msd	33.2303	0.124	5/23/2012 10:35	1+1.0	
1205294-08	51.2214	0.195	5/23/2012 10:35	1+1.0	
1205294-09	Re-dilute	0.078	-	1+24.0	
1205294-10	d	0.079	-	1+24.0	
SO4 CCV	18.9734	0.142	5/23/2012 10:35		
SO4 CCB	0.3182	0.004	5/23/2012 10:35		
1205294-11	Re-dilute	0.076	-	1+24.0	
1205354-02	80.3964	0.120	5/23/2012 10:39	1+4.0	
1205354-03	100.2878	0.150	5/23/2012 10:39	1+4.0	
1205354-04	170.5552	0.127	5/23/2012 10:39	1+9.0	
SO4 CCV	19.0322	0.142	5/23/2012 10:39		
SO4 CCB	0.2962	0.004	5/23/2012 10:39		
1205354-04ms	189.1601	0.142	5/23/2012 10:43	1+9.0	
1205354-04msd	191.1729	0.143	5/23/2012 10:43	1+9.0	
1205354-05	174.2927	0.130	5/23/2012 10:43	1+9.0	
1205354-06	67.6163	0.263	5/23/2012 10:43	1+1.0	
SO4 CCV	18.9363	0.142	5/23/2012 10:43		
SO4 CCB	0.3057	0.004	5/23/2012 10:43		
1205361-02	999.0419	0.150	5/23/2012 10:46	1+49.0	
1205361-03	850.5259	0.127	5/23/2012 10:46	1+49.0	
1205361-04	147.9236	0.110	5/23/2012 10:46	1+9.0	
1205361-05	762.5371	0.113	5/23/2012 10:46	1+49.0	
SO4 CCV	18.8963	0.141	5/23/2012 10:46		
SO4 CCB	0.3663	0.004	5/23/2012 10:46		
1205361-05ms	745.5438	0.111	5/23/2012 10:50	1+49.0	
1205361-05msd	780.8667	0.116	5/23/2012 10:50	1+49.0	
1205361-06	766.6722	0.114	5/23/2012 10:50	1+49.0	
1205361-10	Re-dilute	0.082	-	1+49.0	
SO4 CCV	19.0552	0.143	5/23/2012 10:50		
SO4 CCB	0.3253	0.004	5/23/2012 10:50		
1205327-02	484.5735	0.145	5/23/2012 10:54	1+24.0	
1205313-05	661.3692	0.202	5/23/2012 10:54	1+24.0	
1205313-07	572.0953	0.173	5/23/2012 10:54	1+24.0	
1205313-10	121.1646	0.184	5/23/2012 10:54	1+4.0	
SO4 CCV	18.8068	0.141	5/23/2012 10:54		
SO4 CCB	0.2911	0.004	5/23/2012 10:54		
1205313-01	255.9772	0.195	5/23/2012 10:58	1+9.0	
1205313-01ms	277.2503	0.212	5/23/2012 10:58	1+9.0	
1205313-01msd	276.0438	0.211	5/23/2012 10:58	1+9.0	
1205294-02	598.3947	0.181	5/23/2012 10:58	1+24.0	
SO4 CCV	19.0183	0.142	5/23/2012 10:58		
SO4 CCB	0.3234	0.004	5/23/2012 10:58		
1205294-09	264.2995	0.202	5/23/2012 11:01	1+9.0	
1205294-10	265.9104	0.203	5/23/2012 11:01	1+9.0	
1205374-01ms	46.2412	0.175	5/23/2012 11:01	1+1.0	
1205374-01msd	47.0206	0.178	5/23/2012 11:01	1+1.0	
SO4 CCV 4	18.8664	0.141	5/23/2012 11:03		

TriMatrix Laboratories Inst #298
Konelab User

Date : 5/23/2012
Time : 13:20

Test SO4 HIGH
Unit mg/l

Sample ID:	Result	Resp.	Date and Time	Dilut	Man.dilut
SO4 CCB 4	0.3378	0.004	5/23/2012 11:03		
1205294-11	273.6491	0.209	5/23/2012 11:06	1+9.0	
SO4 CCV	18.9121	0.141	5/23/2012 11:07		
SO4 CCB	0.2709	0.004	5/23/2012 11:07		
1205361-10	559.4900	0.169	5/23/2012 11:09	1+24.0	
SO4 CCV	18.8592	0.141	5/23/2012 11:11		
SO4 CCB	0.2652	0.004	5/23/2012 11:11		

Inorganic - Wet Chemistry, Water, May-23-12

Instrument = 298, Calibration = 2E31012

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

Lab Number	*Analysis*	*Contain*	*STD ID*	*ISTD ID*	*Client / QC Type*	*Extraction Comments*
2E31046-CAL1	QC		2050030		CAL STANDARD	
2E31046-CAL2	QC		2050029		CAL STANDARD	
2E31046-CAL3	QC		2050028		CAL STANDARD	
2E31046-CAL4	QC		2050027		CAL STANDARD	
2E31046-CAL5	QC		2050026		CAL STANDARD	
2E31046-CAL6	QC		2050025		CAL STANDARD	
2E31046-CCV1	QC		2050026		CALIBRATION CHECK	
2E31046-CCB1	QC		2050030		CALIBRATION BLANK	
2E31046-CRL1	QC		2050029		INSTRUMENT RL CHECK	
2E31046-SCV1	QC		2050562		SECONDARY CAL CHECK	
1206544-BLK1	QC				BLANK	
1206544-BS1	QC				LCS	
2E31046-CCV2	QC		2050026		CALIBRATION CHECK	
2E31046-CCB2	QC		2050030		CALIBRATION BLANK	
1205358-01	Sulfate ASTM D516-90 (Low Level)	J			TechLaw	must report at 1mg/L
1206544-MS1	QC				MATRIX SPIKE	
1206544-MSD1	QC				MATRIX SPIKE DUP	
2E31046-CCV3	QC		2050026		CALIBRATION CHECK	
2E31046-CCB3	QC		2050030		CALIBRATION BLANK	

Comments:	Analyst Initials:

TriMatrix Laboratories, Inc.

NLB 6-4-12

due 06/01/12

Printed: 5/23/2012 1:24:25PM

4MD

PREPARATION BATCH 1206544 Page 1 of 1

Inorganic - Wet Chemistry, Water, General Inorganic Prep

(No Surrogate)

Batch Comments: (none)

61169

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
1205358	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
1206544-BLK1		May-23-12 07:00	LMA	10	10					BLANK	
1206544-BS1		May-23-12 07:00	LMA	10	10			2050015	20	LCS	
1206544-MS1		May-23-12 07:00	LMA	10	10		1205358-01	2050015	20	MATRIX SPIKE	
1206544-MSD1		May-23-12 07:00	LMA	10	10		1205358-01	2050015	20	MATRIX SPIKE DUP	
1205358-01	J	May-23-12 07:00	LMA	10	10					TechLaw	must report at 1mg/L

Comments:	Analyst Initials:

TriMatrix Laboratories Inst #298
Konelab User

5/23/2012 7:20

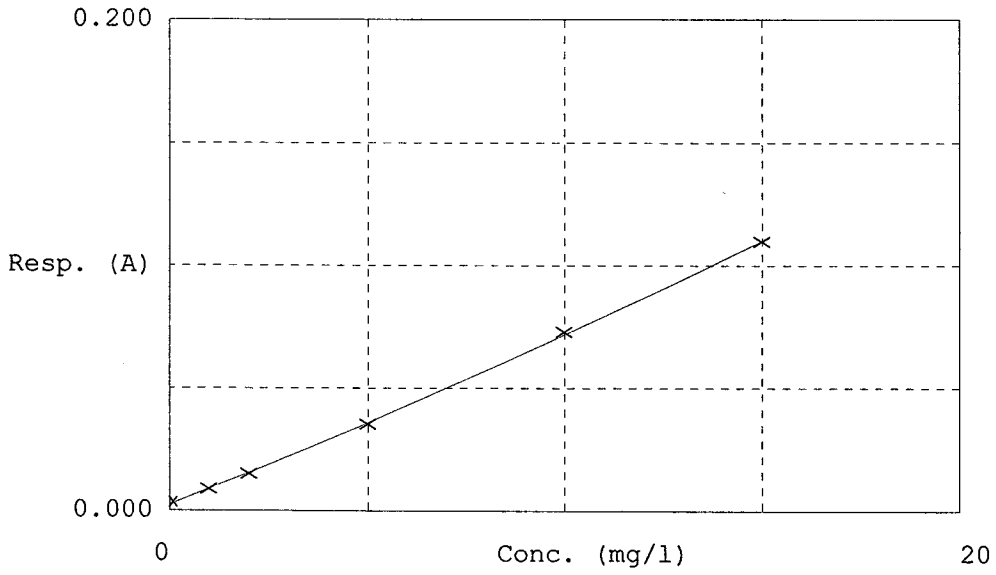
Test SO4 Low

Accepted 5/23/2012 7:20

Resp. = A * Conc. ^ 2 + B * Conc. + C
A = 0.00005
B = 0.00646
C = 0.00252

Coeff. of det. 0.999706

Errors



	Calibrator	Response	Calc. con.	Conc.	Errors
1	SO4-0	0.00329	0.11942	0.00000	
2	SO4-1	0.00885	0.97282	1.00000	
3	SO4-2	0.01507	1.91419	2.00000	
4	SO4- 5	0.03534	4.90162	5.00000	
5	SO4-10	0.07292	10.13870	10.00000	
6	SO4-15	0.10975	14.95299	15.00000	

Result Report | Aquakem 7.2AQ1 | Page: 1

TriMatrix Laboratories Inst #298
Konelab User

Date : 5/23/2012
Time : 13:21

Test: SO4 Low
Unit: mg/l

Sample ID:	Result	Resp.	Date and Time	Dilut	Man.dilut
SO4 CCV 1	10.15003	0.073	5/23/2012 7:42		
SO4 CCB	0.15566	0.004	5/23/2012 7:42		
low crl 1.0	0.97994	0.009	5/23/2012 7:42		
low scv	4.88021	0.035	5/23/2012 7:42		
blk 1 1206544	0.15599	0.004	5/23/2012 7:42		
low 20 1+1	19.19015	0.069	5/23/2012 7:48	1+1.0	
SO4 CCV	10.15598	0.073	5/23/2012 7:48		
SO4 CCB	0.22012	0.004	5/23/2012 7:48		
bs 1 1206544	18.59578	0.067	5/23/2012 7:48	1+1.0	
SO4 CCV 2	10.14569	0.073	5/23/2012 8:17		
SO4 CCB	0.16162	0.004	5/23/2012 8:17		
1205358-01	0.14288	0.003	5/23/2012 8:36		
1205358-01ms	18.53617	0.066	5/23/2012 8:46	1+1.0	
1205358-01msd	18.59794	0.067	5/23/2012 8:46	1+1.0	
SO4 CCV 3	9.92862	0.071	5/23/2012 8:52		
SO4 CCB	0.19505	0.004	5/23/2012 8:52		
SO4 CCV	9.49518	0.068	5/23/2012 11:23		
SO4 CCB	0.33974	0.005	5/23/2012 11:23		
blk 2 1206546	0.34497	0.005	5/23/2012 11:23		
1205292-01	0.10070	0.003	5/23/2012 11:23		
1205292-03	0.31437	0.005	5/23/2012 11:23		
bs 2 1206546	18.66292	0.067	5/23/2012 11:29	1+1.0	
SO4 CCV	9.75847	0.070	5/23/2012 11:29		
SO4 CCB	0.31340	0.005	5/23/2012 11:29		
1205292-01ms	18.08999	0.065	5/23/2012 11:29	1+1.0	
1205292-01msd	18.28450	0.066	5/23/2012 11:29	1+1.0	
SO4 CCV	9.79706	0.070	5/23/2012 11:40		
SO4 CCB	0.29356	0.004	5/23/2012 11:40		

TriMatrix Laboratories, Inc.

TechLaw

Project: KNM

SDG: KNM050712

SM 2320 B 20th

SAMPLE ID SUMMARY

SM 2320 B 20th

Laboratory: TriMatrix Laboratories, Inc.

SDG: KNM050712

Client: TechLaw

Project: KNM

Client Sample Id:	Lab Sample Id:
106091	1205226-01
106191	1205226-02
1060SL	1205358-01
106RCT	1205374-01

INORGANIC ANALYSIS DATA SHEET

SM 2320 B 20th

106091

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Matrix: Water
Sampled: 05/09/12 10:00
Solids: 0.00
QC Batch: 1206176

SDG: KNM050712
Project: KNM
Laboratory ID: 1205226-01
Prepared: 05/15/12 08:14
Preparation: Method-Specific Preparation
Initial/Final: 50 mL / 50 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
	Alkalinity, Bicarbonate	1	140	mg/L	0.50	20		05/15/12 09:06

INORGANIC ANALYSIS DATA SHEET

SM 2320 B 20th

106091

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Matrix: Water
Sampled: 05/09/12 10:00
Solids: 0.00
QC Batch: 1206178

SDG: KNM050712
Project: KNM
Laboratory ID: 1205226-01
Prepared: 05/15/12 08:19
Preparation: Method-Specific Preparation
Initial/Final: 50 mL / 50 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
	Alkalinity, Total	1	140	mg/L	0.50	20		05/15/12 09:06

INORGANIC ANALYSIS DATA SHEET

SM 2320 B 20th

106191

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Matrix: Water
Sampled: 05/09/12 13:00
Solids: 0.00
QC Batch: 1206176

SDG: KNM050712
Project: KNM
Laboratory ID: 1205226-02
Prepared: 05/15/12 08:14
Preparation: Method-Specific Preparation
Initial/Final: 50 mL / 50 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
	Alkalinity, Bicarbonate	1	140	mg/L	0.50	20		05/15/12 09:06

INORGANIC ANALYSIS DATA SHEET

SM 2320 B 20th

106191

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Matrix: Water
Sampled: 05/09/12 13:00
Solids: 0.00
QC Batch: 1206178

SDG: KNM050712
Project: KNM
Laboratory ID: 1205226-02
Prepared: 05/15/12 08:19
Preparation: Method-Specific Preparation
Initial/Final: 50 mL / 50 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
	Alkalinity, Total	1	140	mg/L	0.50	20		05/15/12 09:06

INORGANIC ANALYSIS DATA SHEET

SM 2320 B 20th

1060SL

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Matrix: Water
Sampled: 05/17/12 10:00
Solids: 0.00
QC Batch: 1206606

SDG: KNM050712
Project: KNM
Laboratory ID: 1205358-01
Prepared: 05/24/12 09:53
Preparation: Method-Specific Preparation
Initial/Final: 100 mL / 100 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
	Alkalinity, Bicarbonate	1	1.0	mg/L	0.50	20	J	05/24/12 14:57

INORGANIC ANALYSIS DATA SHEET

SM 2320 B 20th

1060SL

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Matrix: Water
Sampled: 05/17/12 10:00
Solids: 0.00
QC Batch: 1206612

SDG: KNM050712
Project: KNM
Laboratory ID: 1205358-01
Prepared: 05/24/12 10:02
Preparation: Method-Specific Preparation
Initial/Final: 100 mL / 100 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
	Alkalinity, Total	1	1.0	mg/L	0.50	20	J	05/24/12 14:57

INORGANIC ANALYSIS DATA SHEET

SM 2320 B 20th

106RCT

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Matrix: Water
Sampled: 05/18/12 09:30
Solids: 0.00
QC Batch: 1206606

SDG: KNM050712
Project: KNM
Laboratory ID: 1205374-01
Prepared: 05/24/12 09:53
Preparation: Method-Specific Preparation
Initial/Final: 50 mL / 50 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
	Alkalinity, Bicarbonate	1	100	mg/L	0.50	20		05/24/12 14:57

INORGANIC ANALYSIS DATA SHEET

SM 2320 B 20th

106RCT

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Matrix: Water
Sampled: 05/18/12 09:30
Solids: 0.00
QC Batch: 1206612

SDG: KNM050712
Project: KNM
Laboratory ID: 1205374-01
Prepared: 05/24/12 10:02
Preparation: Method-Specific Preparation
Initial/Final: 50 mL / 50 mL

CAS No.	Analyte	Dil. Factor	Conc.	Units	MDL	MRL	Q	Analyzed
	Alkalinity, Total	1	100	mg/L	0.50	20		05/24/12 14:57

ANALYSIS BATCH (SEQUENCE) SUMMARY

SM 2320 B 20th

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Sequence: 2E15085

SDG: KNM050712

Project: KNM

Calibration: UNASSIGNED

Instrument: 309

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Check	2E15085-CCV1		05/15/12 09:06
Blank	1206176-BLK1		05/15/12 09:06
LCS	1206176-BS1		05/15/12 09:06
Secondary Cal Check	2E15085-SCV1		05/15/12 09:06
106091	1205226-01		05/15/12 09:06
106091	1206176-DUP1		05/15/12 09:06
106091	1206176-MS1		05/15/12 09:06
106191	1205226-02		05/15/12 09:06
Calibration Check	2E15085-CCV2		05/15/12 09:06

01482

ANALYSIS BATCH (SEQUENCE) SUMMARY

SM 2320 B 20th

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Sequence: 2E15086

SDG: KNM050712

Project: KNM

Calibration: UNASSIGNED

Instrument: 309

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Check	2E15086-CCV1		05/15/12 09:06
Blank	1206178-BLK1		05/15/12 09:06
LCS	1206178-BS1		05/15/12 09:06
Secondary Cal Check	2E15086-SCV1		05/15/12 09:06
106091	1205226-01		05/15/12 09:06
106091	1206178-DUP1		05/15/12 09:06
106091	1206178-MS1		05/15/12 09:06
106191	1205226-02		05/15/12 09:06
Calibration Check	2E15086-CCV2		05/15/12 09:06

ANALYSIS BATCH (SEQUENCE) SUMMARY

SM 2320 B 20th

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Sequence: 2E25009

SDG: KNM050712

Project: KNM

Calibration: UNASSIGNED

Instrument: 309

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Check	2E25009-CCV1		05/24/12 14:57
Blank	1206606-BLK1		05/24/12 14:57
LCS	1206606-BS1		05/24/12 14:57
Secondary Cal Check	2E25009-SCV1		05/24/12 14:57
1060SL	1205358-01		05/24/12 14:57
1060SL	1206606-DUP1		05/24/12 14:57
1060SL	1206606-MS1		05/24/12 14:57
106RCT	1205374-01		05/24/12 14:57
Calibration Check	2E25009-CCV2		05/24/12 14:57

01484

ANALYSIS BATCH (SEQUENCE) SUMMARY

SM 2320 B 20th

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Sequence: 2E25015

SDG: KNM050712

Project: KNM

Calibration: UNASSIGNED

Instrument: 309

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Check	2E25015-CCV1		05/24/12 14:57
Blank	1206612-BLK1		05/24/12 14:57
LCS	1206612-BS1		05/24/12 14:57
Secondary Cal Check	2E25015-SCV1		05/24/12 14:57
1060SL	1205358-01		05/24/12 14:57
1060SL	1206612-DUP1		05/24/12 14:57
1060SL	1206612-MS1		05/24/12 14:57
106RCT	1205374-01		05/24/12 14:57
Calibration Check	2E25015-CCV2		05/24/12 14:57

INITIAL AND CONTINUING CALIBRATION CHECK

SM 2320 B 20th

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Sequence: 2E15085
Control Limt: +/- 15.00%

SDG: KNM050712
Project: KNM
Calibration: UNASSIGNED
Instrument ID: 309

Lab Sample ID	Analyte	True	Found	%R	Units	Analyzed
2E15085-CCV1	Alkalinity, Bicarbonate	238	239	100	mg/L	05/15/12 09:06
2E15085-CCV2	Alkalinity, Bicarbonate	238	239	100	mg/L	05/15/12 09:06

* Values outside of QC limits

INITIAL AND CONTINUING CALIBRATION CHECK

SM 2320 B 20th

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Sequence: 2E15086
Control Limt: +/- 15.00%

SDG: KNM050712
Project: KNM
Calibration: UNASSIGNED
Instrument ID: 309

Lab Sample ID	Analyte	True	Found	%R	Units	Analyzed
2E15086-CCV1	Alkalinity, Total	238	239	100	mg/L	05/15/12 09:06
2E15086-CCV2	Alkalinity, Total	238	239	100	mg/L	05/15/12 09:06

* Values outside of QC limits

INITIAL AND CONTINUING CALIBRATION CHECK

SM 2320 B 20th

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Sequence: 2E25009
Control Limt: +/- 15.00%

SDG: KNM050712
Project: KNM
Calibration: UNASSIGNED
Instrument ID: 309

Lab Sample ID	Analyte	True	Found	%R	Units	Analyzed
2E25009-CCV1	Alkalinity, Bicarbonate	238	238	100	mg/L	05/24/12 14:57
2E25009-CCV2	Alkalinity, Bicarbonate	238	238	100	mg/L	05/24/12 14:57

* Values outside of QC limits

INITIAL AND CONTINUING CALIBRATION CHECK

SM 2320 B 20th

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Sequence: 2E25015
Control Limt: +/- 15.00%

SDG: KNM050712
Project: KNM
Calibration: UNASSIGNED
Instrument ID: 309

Lab Sample ID	Analyte	True	Found	%R	Units	Analyzed
2E25015-CCV1	Alkalinity, Total	238	238	100	mg/L	05/24/12 14:57
2E25015-CCV2	Alkalinity, Total	238	238	100	mg/L	05/24/12 14:57

* Values outside of QC limits

SECOND-SOURCE CALIBRATION VERIFICATION

SM 2320 B 20th

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Laboratory ID: 2E15085-SCV1

Sequence: 2E15085

SDG: KNM050712

Project: KNM

Instrument: 309

Calibration: UNASSIGNED

Analyte	Expected	Found	% R	QC Limit	Units
Alkalinity, Bicarbonate	238	239	100	92-108	mg/L

* Values outside of QC limits

SECOND-SOURCE CALIBRATION VERIFICATION

SM 2320 B 20th

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Laboratory ID: 2E15086-SCV1
Sequence: 2E15086

SDG: KNM050712
Project: KNM
Instrument: 309
Calibration: UNASSIGNED

Analyte	Expected	Found	% R	QC Limit	Units
Alkalinity, Total	238	239	100	89-111	mg/L

* Values outside of QC limits

SECOND-SOURCE CALIBRATION VERIFICATION

SM 2320 B 20th

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Laboratory ID: 2E25009-SCV1
Sequence: 2E25009

SDG: KNM050712
Project: KNM
Instrument: 309
Calibration: UNASSIGNED

Analyte	Expected	Found	% R	QC Limit	Units
Alkalinity, Bicarbonate	238	239	100	92-108	mg/L

* Values outside of QC limits

SECOND-SOURCE CALIBRATION VERIFICATION

SM 2320 B 20th

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Laboratory ID: 2E25015-SCV1
Sequence: 2E25015

SDG: KNM050712
Project: KNM
Instrument: 309
Calibration: UNASSIGNED

Analyte	Expected	Found	% R	QC Limit	Units
Alkalinity, Total	238	239	100	89-111	mg/L

* Values outside of QC limits

QC BATCH SUMMARY

SM 2320 B 20th

Laboratory: TriMatrix Laboratories, Inc.

SDG: KNM050712

Client: TechLaw

Project: KNM

QC Batch: 1206176

QC Batch Matrix: Water

Preparation: Method-Specific Preparation

Sample Name	Lab Sample ID	Date Prepared	Observations
106091	1205226-01	05/15/12 08:14	
106191	1205226-02	05/15/12 08:14	
Blank	1206176-BLK1	05/15/12 08:14	
LCS	1206176-BS1	05/15/12 08:14	
106091	1206176-DUP1	05/15/12 08:14	
106091	1206176-MS1	05/15/12 08:14	

QC BATCH SUMMARY

SM 2320 B 20th

Laboratory: TriMatrix Laboratories, Inc.

SDG: KNM050712

Client: TechLaw

Project: KNM

QC Batch: 1206178 QC Batch Matrix: Water

Preparation: Method-Specific Preparation

Sample Name	Lab Sample ID	Date Prepared	Observations
106091	1205226-01	05/15/12 08:19	
106191	1205226-02	05/15/12 08:19	
Blank	1206178-BLK1	05/15/12 08:19	
LCS	1206178-BS1	05/15/12 08:19	
106091	1206178-DUP1	05/15/12 08:19	
106091	1206178-MS1	05/15/12 08:19	

QC BATCH SUMMARY

SM 2320 B 20th

Laboratory: TriMatrix Laboratories, Inc.

SDG: KNM050712

Client: TechLaw

Project: KNM

QC Batch: 1206606

QC Batch Matrix: Water

Preparation: Method-Specific Preparation

Sample Name	Lab Sample ID	Date Prepared	Observations
1060SL	1205358-01	05/24/12 09:53	
106RCT	1205374-01	05/24/12 09:53	
Blank	1206606-BLK1	05/24/12 09:53	
LCS	1206606-BS1	05/24/12 09:53	
1060SL	1206606-DUP1	05/24/12 09:53	
1060SL	1206606-MS1	05/24/12 09:53	

QC BATCH SUMMARY

SM 2320 B 20th

Laboratory: TriMatrix Laboratories, Inc.

SDG: KNM050712

Client: TechLaw

Project: KNM

QC Batch: 1206612

QC Batch Matrix: Water

Preparation: Method-Specific Preparation

Sample Name	Lab Sample ID	Date Prepared	Observations
1060SL	1205358-01	05/24/12 10:02	
106RCT	1205374-01	05/24/12 10:02	
Blank	1206612-BLK1	05/24/12 10:02	
LCS	1206612-BS1	05/24/12 10:02	
1060SL	1206612-DUP1	05/24/12 10:02	
1060SL	1206612-MS1	05/24/12 10:02	

METHOD BLANK DATA SHEET
SM 2320 B 20th

Laboratory: TriMatrix Laboratories, Inc.
SDG: KNM050712
Client: TechLaw
Project: KNM
Matrix: Water
Laboratory ID: 1206176-BLK1
File ID:
Prepared: 05/15/12 08:14
Analyzed: 05/15/12 09:06
Preparation: Method-Specific Preparat
Initial/Final: 100 mL / 100 mL
QC Batch: 1206176
Sequence: 2E15085
Calibration: UNASSIGNE
Instrument: 309

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

METHOD BLANK DATA SHEET
SM 2320 B 20th

Laboratory: TriMatrix Laboratories, Inc.
SDG: KNM050712

Client: TechLaw
Project: KNM

Matrix: Water
Laboratory ID: 1206178-BLK1
File ID:

Prepared: 05/15/12 08:19
Analyzed: 05/15/12 09:06

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

QC Batch: 1206178
Sequence: 2E15086
Calibration: UNASSIGNE
Instrument: 309

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

METHOD BLANK DATA SHEET
SM 2320 B 20th

Laboratory: TriMatrix Laboratories, Inc.
SDG: KNM050712
Client: TechLaw
Project: KNM
Matrix: Water
Laboratory ID: 1206606-BLK1
File ID:
Prepared: 05/24/12 09:53
Analyzed: 05/24/12 14:57
Preparation: Method-Specific Preparat
Initial/Final: 100 mL / 100 mL
QC Batch: 1206606
Sequence: 2E25009
Calibration: UNASSIGNE
Instrument: 309

CAS No.	Analyte	Concentration	Unit	MDL	MRL	Q
	Alkalinity, Bicarbonate	0.91	mg/L	0.50	20	J

METHOD BLANK DATA SHEET
SM 2320 B 20th

Laboratory: TriMatrix Laboratories, Inc.
SDG: KNM050712
Client: TechLaw
Project: KNM
Matrix: Water
Laboratory ID: 1206612-BLK1
File ID:
Prepared: 05/24/12 10:02
Analyzed: 05/24/12 14:57
Preparation: Method-Specific Preparat
Initial/Final: 100 mL / 100 mL
QC Batch: 1206612
Sequence: 2E25015
Calibration: UNASSIGNE
Instrument: 309

CAS No.	Analyte	Concentration	Unit	MDL	MRL	Q
	Alkalinity, Total	0.91	mg/L	0.50	20	J

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

SM 2320 B 20th

106091

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Matrix: Water

QC Batch: 1206176

SDG: KNM050712

Project: KNM

Laboratory ID: 1206176-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	141	378	100	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

106091

SM 2320 B 20th

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Matrix: Water

QC Batch: 1206178

SDG: KNM050712

Project: KNM

Laboratory ID: 1206178-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	141	378	100	82 - 121	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

SM 2320 B 20th

1060SL

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Matrix: Water

QC Batch: 1206606

SDG: KNM050712

Project: KNM

Laboratory ID: 1206606-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	1.01	239	100	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

SM 2320 B 20th

1060SL

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Matrix: Water

QC Batch: 1206612

SDG: KNM050712

Project: KNM

Laboratory ID: 1206612-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	1.01	239	100	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

106091

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Matrix: Water
Lab Source ID: 1205226-01
% Solids:
QC Batch: 1206176

SDG: KNM050712
Project: KNM
Laboratory ID: 1206176-DUP1
Source Sample Name: 106091
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	141		142		0.7		SM 2320 B 20th	mg/L

* Values outside of QC limits

DUPLICATES
SM 2320 B 20th

106091

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Matrix: Water
Lab Source ID: 1205226-01
% Solids:
QC Batch: 1206178

SDG: KNM050712
Project: KNM
Laboratory ID: 1206178-DUP1
Source Sample Name: 106091
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	141		142		0.7		SM 2320 B 20th	mg/L

* Values outside of QC limits

DUPLICATES
SM 2320 B 20th

1060SL

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Matrix: Water
Lab Source ID: 1205358-01
% Solids:
QC Batch: 1206606

SDG: KNM050712
Project: KNM
Laboratory ID: 1206606-DUP1
Source Sample Name: 1060SL
Preparation: Method-Specific Preparation
Initial/Final: 100 mL / 100 mL

Analyte	Control Limit	Sample Conc.	C	Dup. Conc.	C	RPD %	Q	Method	Units
Alkalinity, Bicarbonate	20	1.01	J	1.01	J	0		SM 2320 B 20th	mg/L

* Values outside of QC limits

DUPLICATES
SM 2320 B 20th

1060SL

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Matrix: Water
Lab Source ID: 1205358-01
% Solids:
QC Batch: 1206612

SDG: KNM050712
Project: KNM
Laboratory ID: 1206612-DUP1
Source Sample Name: 1060SL
Preparation: Method-Specific Preparation
Initial/Final: 100 mL / 100 mL

Analyte	Control Limit	Sample Conc.	C	Dup. Conc.	C	RPD %	Q	Method	Units
Alkalinity, Total	20	1.01	J	1.01	J	0		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: 1206176

SDG: KNM050712

Project: KNM

Laboratory ID: 1206176-BS1

Preparation: Method-Specific Preparation

Initial/Final: 50 mL / 50 mL

Sequence: 2E15085

Analyte	Spike Added	LCS Conc.	LCS % Rec. #	QC Limits Rec.	Units
Alkalinity, Bicarbonate	238	237	100	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

SDG: KNM050712

Project: KNM

Laboratory ID: 1206178-BS1

Preparation: Method-Specific Preparation

Initial/Final: 50 mL / 50 mL

QC Batch: 1206178

Sequence: 2E15086

Analyte	Spike Added	LCS Conc.	LCS % Rec. #	QC Limits Rec.	Units
Alkalinity, Total	238	237	100	91 - 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 2320 B 20th

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Matrix: Water

QC Batch: 1206606

SDG: KNM050712

Project: KNM

Laboratory ID: 1206606-BS1

Preparation: Method-Specific Preparation

Initial/Final: 50 mL / 50 mL

Sequence: 2E25009

Analyte	Spike Added	LCS Conc.	LCS % Rec. #	QC Limits Rec.	Units
Alkalinity, Bicarbonate	238	238	100	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: 1206612

SDG: KNM050712

Project: KNM

Laboratory ID: 1206612-BS1

Preparation: Method-Specific Preparation

Initial/Final: 50 mL / 50 mL

Sequence: 2E25015

Analyte	Spike Added	LCS Conc.	LCS % Rec. #	QC Limits Rec.	Units
Alkalinity, Total	238	238	100	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.

Client: TechLaw

Analyte: Alkalinity, Bicarbonate

SDG: KNM050712

Project: KNM

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
106091	05/09/12	05/10/12		05/15/12	6	NA	05/15/12	6	14	
106191	05/09/12	05/10/12		05/15/12	6	NA	05/15/12	6	14	
1060SL	05/17/12	05/18/12		05/24/12	7	NA	05/24/12	7	14	
106RCT	05/18/12	05/21/12		05/24/12	6	NA	05/24/12	6	14	

HOLDING TIME SUMMARY

SM 2320 B 20th

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Analyte: Alkalinity, Total

SDG: KNM050712

Project: KNM

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
106091	05/09/12	05/10/12		05/15/12	6	NA	05/15/12	6	14	
106191	05/09/12	05/10/12		05/15/12	6	NA	05/15/12	6	14	
1060SL	05/17/12	05/18/12		05/24/12	7	NA	05/24/12	7	14	
106RCT	05/18/12	05/21/12		05/24/12	6	NA	05/24/12	6	14	

Inorganic - Wet Chemistry, Water, May-15-12

Instrument = 309, Calibration = UNASSIGNED

Sequence Analyses:
Alkalinity, Bicarbonate 2320 B

Lab Number	*Analysis*	*Contain*	*STD ID*	*ISTD ID*	*Client / QC Type*	*Extraction Comments*
2E15085-CCV1	QC		2050416		CALIBRATION CHECK	
1206176-BLK1	QC				BLANK	
1206176-BS1	QC				LCS	
2E15085-SCV1	QC		2050417		SECONDARY CAL CHECK	
1205226-01	Alkalinity, Bicarbonate 2320 B	J			TechLaw	
1206176-DUP1	QC				DUPLICATE	
1206176-MS1	QC				MATRIX SPIKE	
1205226-02	Alkalinity, Bicarbonate 2320 B	J			TechLaw	
2E15085-CCV2	QC		2050416		CALIBRATION CHECK	

Comments:	Analyst Initials:

TriMatrix Laboratories, Inc.

PREPARATION BATCH 1206176

Printed: 5/15/2012 1:15:48PM

NLB 5-23-12

Inorganic - Wet Chemistry, Water, Method-Specific Preparation

(No Surrogate)

Batch Comments: (none)

Due 5/23/12

level 4

Standard	Description	Solvent	LotNum
2050418	Alkalinity BS 1190 mg/L	DI H20	081495

Work Order	Analysis	Work Order	Analysis	Work Order	Analysis
1205226	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
1206176-BLK1		May-15-12 08:14	SKA	100	100					BLANK	
1206176-DUP1		May-15-12 08:14	SKA	50	50		1205226-01			DUPLICATE	
1206176-BS1		May-15-12 08:14	SKA	50	50			2050418	10000	LCS	
1206176-MS1		May-15-12 08:14	SKA	50	50		1205226-01	2050418	10000	MATRIX SPIKE	
1205226-01	J	May-15-12 08:14	SKA	50	50					TechLaw	
1205226-02	J	May-15-12 08:14	SKA	50	50					TechLaw	

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:
Reference Citation: 310.1/SM 2320 B | Due: 05/23/12 | Stock Standards ID: | Supervisor:
Batch: 1206176 | Run Date: 05/15/12 | Results Approved by: | Date Approved:

Comments: Med Cal 4-7-10 Slope: 100.4 Start: 9.06am End: 2.27pm

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) = 25.1

Normality = 0.019920319

Standards ID for A: 9110986 Standards ID for B: 2030690 Standards ID for C: 2050615

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	8.34		12.00	12.000	50		239.04		238	FALSE
	BLK	5.43		0.05	0.050	100		0.50		238	FALSE
	BS	8.22		11.90	11.900	50		237.05		238	FALSE
	SCV	8.30		12.00	12.000	50		239.04		238	FALSE
1205226-01	S	7.63		7.10	7.100	50		141.43			FALSE
1205226-01	DUP	7.62		7.15	7.150	50		142.43			FALSE
1205226-01	MS	8.04		19.00	19.000	50		378.49			FALSE
1205226-02	S	7.71		7.10	7.100	50		141.43			FALSE
	CCV2	8.23		12.00	12.000	50		239.04			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

Calibration Buffer 4.0: Calibration Buffer 7.0:

51518

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:

Reference Citation: 310.1/SM 2320 B | Due: 05/23/12 | Stock Standards ID: | Supervisor:

Batch: 1206176 | Run Date: 05/15/12 | Results Approved by: | Date Approved:

Comments: Med Cal 4-7-10 Slope: 100.4 Start: 9:00a End: 2:27p

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) = 25.10

Normality = #DIV/0!

Standards ID for A: 9110986 | Standards ID for B: 2030690 | Standards ID for C: 2050615

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	8.34	—	12.00	0.000	50	239.04	#DIV/0!		238	#DIV/0!
	BLK	7.43	—	0.05	0.000	100	0.50	#DIV/0!		238	#DIV/0!
	BS	8.22	—	11.90	0.000	50	237.05	#DIV/0!		238	#DIV/0!
	SCV	8.30	—	12.00	0.000	50	239.07	#DIV/0!		238	#DIV/0!
1205226-01	S	7.63	—	7.10	0.000	50	~~141.43~~	SA 5/15/12 #DIV/0! 141.44			#DIV/0!
1205226-01	DUP	7.62	—	7.15	0.000	50	142.43	#DIV/0! 142.43			#DIV/0!
1205226-01	MS	8.04	—	19.00	0.000	50	378.48	#DIV/0! 141.43			#DIV/0!
1205226-02	S	7.71	—	7.10	0.000	50	141.43	#DIV/0! 141.45			#DIV/0!
	CCV2	8.23	—	12.00	0.000	50	239.04	#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:

91519

Inorganic - Wet Chemistry, Water, May-15-12

Instrument = 309, Calibration = UNASSIGNED

Sequence Analyses:
Alkalinity, Total 2320 B

Lab Number	*Analysis*	*Contain*	*STD ID*	*ISTD ID*	*Client / QC Type*	*Extraction Comments*
2E15086-CCV1	QC		2050416		CALIBRATION CHECK	
1206178-BLK1	QC				BLANK	
1206178-BS1	QC				LCS	
2E15086-SCV1	QC		2050417		SECONDARY CAL CHECK	
1205226-01	Alkalinity, Total 2320 B	J			TechLaw	
1206178-DUP1	QC				DUPLICATE	
1206178-MS1	QC				MATRIX SPIKE	
1205226-02	Alkalinity, Total 2320 B	J			TechLaw	
2E15086-CCV2	QC		2050416		CALIBRATION CHECK	

Comments:	Analyst Initials:

TriMatrix Laboratories, Inc.

NLB 5-23-12

PREPARATION BATCH **1206178** Page 1 of 1

Printed: 5/15/2012 1:20:38PM

Inorganic - Wet Chemistry, Water, Method-Specific Preparation

(No Surrogate)

Batch Comments: (none)

Due 5/23/12

level 4

01521

Standard	Description	Solvent	LotNum
2050418	Alkalinity BS 1190 mg/L	DI H20	081495

Work Order	Analysis	Work Order	Analysis	Work Order	Analysis
1205226	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*
1206178-BLK1		May-15-12 08:19	SKA	100	100					BLANK	
1206178-DUP1		May-15-12 08:19	SKA	50	50		1205226-01			DUPLICATE	
1206178-BS1		May-15-12 08:19	SKA	50	50			2050418	10000	LCS	
1206178-MS1		May-15-12 08:19	SKA	50	50		1205226-01	2050418	10000	MATRIX SPIKE	
1205226-01	J	May-15-12 08:19	SKA	50	50					TechLaw	
1205226-02	J	May-15-12 08:19	SKA	50	50					TechLaw	

Comments:

Analyst Initials:

INORGANIC BENCHSHEET -- ALKALINITY

Alkalinity: ~~bicarbonate~~ Total SA 5/15/12 | Instrument: 309 | Est. Analytical hrs: 6.4 | Benchsheet ID:
Method: ALK/TITRI/WTR | ODL: 2.0 | Actual Analytical hrs: | Batch Owner: SKA
Reference Citation: 310.1/SM 2320 B | Default Units: mg/L | Samples in Batch: | Batch Open Date:
Batch: 1206178 | Due: 05/23/12 | Stock Standards ID: | Supervisor:
Run Date: 05/15/12 | Results Approved by: | Date Approved:

Comments: Med Cal 4-7-10 Slope: 100.4 Start: 9.06 am End: 2.27 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) = 2.6500
B (mL) = 10.0
C (mL) = 25.1

Normality = 0.019920319

Standards ID for A: 9110986 Standards ID for B: 2030690 Standards ID for C: 2050615

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	8.34		12.00	12.000	50		239.04		238	FALSE
	BLK	5.43		0.05	0.050	100		0.50		238	FALSE
	BS	8.22		11.90	11.900	50		237.05		238	FALSE
	SCV	8.30		12.00	12.000	50		239.04		238	FALSE
1205226-01	S	7.63		7.10	7.100	50		141.43			FALSE
1205226-01	DUP	7.62		7.15	7.150	50		142.43			FALSE
1205226-01	MS	8.04		19.00	19.000	50		378.49			FALSE
1205226-02	S	7.71		7.10	7.100	50		141.43			FALSE
	CCV2	8.23		12.00	12.000	50		239.04			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

Calibration Buffer 4.0: Calibration Buffer 7.0:

01522

INORGANIC BENCHSHEET -- ALKALINITY

Alkalinity: ~~bicarbonate~~ Total | Instrument: 309 | Est. Analytical hrs: 6.4 | Benchsheet ID:
Method: ALK/TITRI/WTR | ODL: 2.0 | Actual Analytical hrs: | Batch Owner: SKA
Reference Citation: 310.1/SM 2320 B | Default Units: mg/L | Samples in Batch: | Batch Open Date:
Batch: 1206178 | Due: 05/23/12 | Stock Standards ID: | Supervisor:
Run Date: 05/15/12 | Results Approved by: | Date Approved:

Comments: Med Cal 4-7-10 Slope: 100.4 Start: 9:06 pm End: 2:27 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) = 2.6500
B (mL) = 10.0
C (mL) = 25.10

Normality = #DIV/0!

Standards ID for A: 9110986 Standards ID for B: 2030690 Standards ID for C: 2050615

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	8.34	—	12.00	0.000	50	239.04	#DIV/0!		238	#DIV/0!
	BLK	5.43	—	0.05	0.000	100	0.50	#DIV/0!		238	#DIV/0!
	BS	8.22	—	11.90	0.000	50	237.05	#DIV/0!		238	#DIV/0!
	SCV	8.30	—	12.00	0.000	50	239.04	#DIV/0!		238	#DIV/0!
1205226-01	S	7.63	—	7.10	0.000	50	141.43	#DIV/0!			#DIV/0!
1205226-01	DUP	7.62	—	7.15	0.000	50	142.43	#DIV/0!			#DIV/0!
1205226-01	MS	8.04	—	19.00	0.000	50	378.48	#DIV/0!			#DIV/0!
1205226-02	S	7.71	—	7.10	0.000	50	141.43	#DIV/0!			#DIV/0!
	CCV2	8.23	—	12.00	0.000	50	239.04	#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:

91529

Inorganic - Wet Chemistry, Water, May-24-12

Instrument = 309, Calibration = UNASSIGNED

Sequence Analyses:
Alkalinity, Bicarbonate 2320 B

Lab Number	*Analysis*	*Contain*	*STD ID*	*ISTD ID*	*Client / QC Type*	*Extraction Comments*
2E25009-CCV1	QC		2050416		CALIBRATION CHECK	
1206606-BLK1	QC				BLANK	
1206606-BS1	QC				LCS	
2E25009-SCV1	QC		2050417		SECONDARY CAL CHECK	
1205358-01	Alkalinity, Bicarbonate 2320 B	J			TechLaw	
1206606-DUP1	QC				DUPLICATE	
1206606-MS1	QC				MATRIX SPIKE	
1205374-01	Alkalinity, Bicarbonate 2320 B	J			TechLaw	
2E25009-CCV2	QC		2050416		CALIBRATION CHECK	

Comments:

Analyst Initials:

TriMatrix Laboratories, Inc.

PREPARATION BATCH 1206606

Printed: 5/25/2012 9:45:05AM

AHB 6-5-12

Inorganic - Wet Chemistry, Water, Method-Specific Preparation

(No Surrogate)

Batch Comments: (none)

Due 6/1/12

level 4

91525

Standard	Description	Solvent	LotNum
2050418	Alkalinity BS 1190 mg/L	DI H20	081495

Work Order	Analysis	Work Order	Analysis	Work Order	Analysis
1205358	Alkalinity, Bicarbonate 2320 B	1205374	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
1206606-BLK1		May-24-12 09:53	SKA	100	100					BLANK	
1206606-DUP1		May-24-12 09:53	SKA	100	100		1205358-01			DUPLICATE	
1206606-BS1		May-24-12 09:53	SKA	50	50			2050418	10000	LCS	
1206606-MS1		May-24-12 09:53	SKA	50	50		1205358-01	2050418	10000	MATRIX SPIKE	
1205358-01	J	May-24-12 09:53	SKA	100	100					TechLaw	
1205374-01	J	May-24-12 09:53	SKA	50	50					TechLaw	

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:

Reference Citation: 310.1/SM 2320 B | Due: 06/01/12 | Stock Standards ID: | Supervisor:

Batch: 1206606 | Run Date: 05/24/12 | Results Approved by: | Date Approved:

Comments: Med Cal 4-7-10 Slope: 98.3 Start: 2.57pm End: 5.05pm

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) = 24.85

Normality = 0.020120724

Standards ID for A: 9110986 | Standards ID for B: 2030690 | Standards ID for C: 2050796

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	8.22		11.85	11.850	50		238.43		238	FALSE
	BLK	5.40		0.09	0.090	100		0.91		238	FALSE
	BS	8.31		11.85	11.850	50		238.43		238	FALSE
	SCV	8.29		11.90	11.900	50		239.44		238	FALSE
1205358-01	S	5.27		0.10	0.100	100		1.01			FALSE
1205358-01	DUP	5.34		0.10	0.100	100		1.01			FALSE
1205358-01	MS	8.01		11.90	11.900	50		239.44			FALSE
1205374-01	S	7.78		5.15	5.150	50		103.62			FALSE
	CCV2	8.30		11.85	11.850	50		238.43			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

Calibration Buffer 4.0: | Calibration Buffer 7.0:

91529

1317.03

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:
Reference Citation: 310.1/SM 2320 B | Due: 06/01/12 | Stock Standards ID: | Supervisor:
Batch: 1206606 | Run Date: 05/24/12 | Results Approved by: | Date Approved:
Comments: Med Cal 4-7-10 Slope: 90.3 Start: 2:57pm End: 5:05pm

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)

Normality = #DIV/0! 0.02012

A (gm) = 2.6500
B (mL) = 10.0
C (mL) = 24.85

Standards ID for A: 9110986 | Standards ID for B: 2030690 | Standards ID for C: 2050796

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	8.22	—	11.85	0.000	50	238.43	#DIV/0! 4.48		238	#DIV/0!
	BLK	5.40	—	0.09	0.000	100	0.91	#DIV/0! 4.50		238	#DIV/0!
	BS	8.31	—	11.85	0.000	50	238.43	#DIV/0! 4.49		238	#DIV/0!
	SCV	8.29	—	11.90	0.000	50	239.44	#DIV/0! 4.47		238	#DIV/0!
*	1205358-01	S	5.27	—	0.10	0.000	100	1.01	#DIV/0! 4.46			#DIV/0!
*	1205358-01	DUP	5.34	—	0.10	0.000	100	1.01	#DIV/0! 4.46			#DIV/0!
*	1205358-01	MS	8.01	—	11.90	0.000	50	239.44	#DIV/0! 4.46			#DIV/0!
	1205374-01	S	7.78	—	5.15	0.000	50	103.62	#DIV/0! 4.44			#DIV/0!
		CCV2	8.30	—	11.85	0.000	50	238.43	#DIV/0! 4.50			#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 - Wet Chemistry, Water, May-24-12

Instrument = 309, Calibration = UNASSIGNED

Sequence Analyses:
Alkalinity, Total 2320 B

Lab Number	*Analysis*	*Contain*	*STD ID*	*ISTD ID*	*Client / QC Type*	*Extraction Comments*
2E25015-CCV1	QC		2050416		CALIBRATION CHECK	
1206612-BLK1	QC				BLANK	
1206612-BS1	QC				LCS	
2E25015-SCV1	QC		2050417		SECONDARY CAL CHECK	
1205358-01	Alkalinity, Total 2320 B	J			TechLaw	
1206612-DUP1	QC				DUPLICATE	
1206612-MS1	QC				MATRIX SPIKE	
1205374-01	Alkalinity, Total 2320 B	J			TechLaw	
2E25015-CCV2	QC		2050416		CALIBRATION CHECK	

Comments:	Analyst Initials:

TriMatrix Laboratories, Inc.

NLB 6-5-12

PREPARATION BATCH **1206612** Page 1 of 1

Printed: 5/25/2012 9:44:29AM

Inorganic - Wet Chemistry, Water, Method-Specific Preparation

(No Surrogate)

Batch Comments: (none)

Due 6/1/12

level 4

9525

Standard	Description	Solvent	LotNum
2050418	Alkalinity BS 1190 mg/L	DI H20	081495

Work Order	Analysis	Work Order	Analysis	Work Order	Analysis
1205358	Alkalinity, Total 2320 B	1205374	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*
1206612-BLK1		May-24-12 10:02	SKA	100	100					BLANK	
1206612-DUP1		May-24-12 10:02	SKA	100	100		1205358-01			DUPLICATE	
1206612-BS1		May-24-12 10:02	SKA	50	50			2050418	10000	LCS	
1206612-MS1		May-24-12 10:02	SKA	50	50		1205358-01	2050418	10000	MATRIX SPIKE	
1205358-01	J	May-24-12 10:02	SKA	100	100					TechLaw	
1205374-01	J	May-24-12 10:02	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: 06/01/12 | Stock Standards ID: | Supervisor:

Batch: 1206612 | Run Date: 05/24/12 | Results Approved by: | Date Approved:

Comments: Med Cal 4-7-10 Slope: 98.3 Start: 2.57pm End: 5.05pm

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) = 24.85

Normality = 0.020120724

Standards ID for A: 9110986 | Standards ID for B: 2030690 | Standards ID for C: 2050796

Sample ID	QC Type	Initial Sample pH	C_{V1} (mL)	V_2 (mL)	C_{V2} (mL)	Sample Volume (mL)	Total Alkalinity Result (mg/L)		SEQ	QC Conc. (mg/L)	QC Result (mg/L)
	CCV1	8.22		11.85	11.850	50	238.43			238	238.4
	BLK	5.40		0.09	0.090	100	0.91			238	0.9
	BS	8.31		11.85	11.850	50	238.43			238	238.4
	SCV	8.29		11.90	11.900	50	239.44			238	239.4
1205358-01	S	5.27		0.10	0.100	100	1.01				1.01
1205358-01	DUP	5.34		0.10	0.100	100	1.01				1.01
1205358-01	MS	8.01		11.90	11.900	50	239.44				239.44
1205374-01	S	7.78		5.15	5.150	50	103.62				103.62
	CCV2	8.30		11.85	11.850	50	238.43				238.43

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

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: 06/01/12 | Stock Standards ID: | Supervisor:
Batch: 1206612 | Run Date: 05/24/12 | Results Approved by: | Date Approved:
Comments: Med Cal 4-7-10 Slope: 98.3 Start: 2:57 pm End: 5:05 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) = 2.6500
B (mL) = 10.0
C (mL) = 24.85

Normality = #DIV/0! 0.020121

Standards ID for A: 9110986 | Standards ID for B: 2030690 | Standards ID for C: 2050796

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	8.22	—	11.85	0.000	50	#DIV/0!	238.43		238	#DIV/0!
	BLK	5.40	—	0.09	0.000	100	#DIV/0!	0.91		238	#DIV/0!
	BS	8.31	—	11.85	0.000	50	#DIV/0!	238.43		238	#DIV/0!
	SCV	8.29	—	11.90	0.000	50	#DIV/0!	239.44		238	#DIV/0!
1205358-01	S	5.27	—	0.10	0.000	~~50~~ 100	SA 5/24/12 #DIV/0!	1.01			#DIV/0!
1205358-01	DUP	5.34	—	0.10	0.000	100	#DIV/0!	1.01			#DIV/0!
1205358-01	MS	8.01	—	11.90	0.000	50	#DIV/0!	239.44			#DIV/0!
1205374-01	S	7.78	—	5.15	0.000	50	#DIV/0!	103.62			#DIV/0!
	CCV2	8.30	—	11.85	0.000	50	#DIV/0!	238.43			#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:

S1531

TriMatrix Laboratories, Inc.

TechLaw

Project: KNM

SDG: KNM050712

SM 4500-Cl E 20th

SAMPLE ID SUMMARY

SM 4500-Cl E 20th

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

SDG: KNM050712

Project: KNM

Client Sample Id:	Lab Sample Id:
106091	1205226-01
106191	1205226-02
1060SL	1205358-01
106RCT	1205374-01

INORGANIC ANALYSIS DATA SHEET

SM 4500-Cl E 20th

106091

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Matrix: Water
Sampled: 05/09/12 10:00
Solids: 0.00
QC Batch: 1206030

SDG: KNM050712
Project: KNM
Laboratory ID: 1205226-01
Prepared: 05/12/12 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	22	mg/L	0.24	1.0		05/12/12 10:51

INORGANIC ANALYSIS DATA SHEET

SM 4500-Cl E 20th

106191

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Matrix: Water
Sampled: 05/09/12 13:00
Solids: 0.00
QC Batch: 1206030

SDG: KNM050712
Project: KNM
Laboratory ID: 1205226-02
Prepared: 05/12/12 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	23	mg/L	0.24	1.0		05/12/12 10:51

INORGANIC ANALYSIS DATA SHEET

SM 4500-Cl E 20th

1060SL

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Matrix: Water
Sampled: 05/17/12 10:00
Solids: 0.00
QC Batch: 1206667

SDG: KNM050712
Project: KNM
Laboratory ID: 1205358-01
Prepared: 05/25/12 08:00
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	0.50	mg/L	0.24	1.0	J	05/25/12 09:55

INORGANIC ANALYSIS DATA SHEET

SM 4500-Cl E 20th

106RCT

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Matrix: Water
Sampled: 05/18/12 09:30
Solids: 0.00
QC Batch: 1206667

SDG: KNM050712
Project: KNM
Laboratory ID: 1205374-01
Prepared: 05/25/12 08:00
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	51	mg/L	0.24	1.0		05/25/12 09:55

01537

ANALYSIS BATCH (SEQUENCE) SUMMARY

SM 4500-Cl E 20th

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Sequence: 2E21060

SDG: KNM050712
Project: KNM
Calibration: 2E21031
Instrument: 298

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Cal Standard	2E21060-CAL1	051212CL-001	05/12/12 08:01
Cal Standard	2E21060-CAL2	051212CL-002	05/12/12 08:01
Cal Standard	2E21060-CAL3	051212CL-003	05/12/12 08:01
Cal Standard	2E21060-CAL4	051212CL-004	05/12/12 08:01
Cal Standard	2E21060-CAL5	051212CL-005	05/12/12 08:01
Cal Standard	2E21060-CAL6	051212CL-006	05/12/12 08:01
Cal Standard	2E21060-CAL7	051212CL-007	05/12/12 08:01
Cal Standard	2E21060-CAL8	051212CL-008	05/12/12 08:01
Calibration Check	2E21060-CCV1	051212CL-009	05/12/12 08:12
Calibration Blank	2E21060-CCB1	051212CL-010	05/12/12 08:12
Low Cal Check	2E21060-LCV1	051212CL-011	05/12/12 08:12
High Cal Check	2E21060-HCV1	051212CL-012	05/12/12 08:12
Instrument RL Check	2E21060-CRL1	051212CL-013	05/12/12 08:12
Secondary Cal Check	2E21060-SCV1	051212CL-014	05/12/12 08:12
Calibration Check	2E21060-CCV2	051212CL-021	05/12/12 08:15
Calibration Blank	2E21060-CCB2	051212CL-022	05/12/12 08:15
Blank	1206030-BLK1	051212CL-119	05/12/12 10:51
LCS	1206030-BS1	051212CL-120	05/12/12 10:51
106091	1205226-01	051212CL-121	05/12/12 10:51
106091	1206030-MS1	051212CL-122	05/12/12 10:51
106091	1206030-MSD1	051212CL-123	05/12/12 10:51
106191	1205226-02	051212CL-124	05/12/12 10:51
Calibration Check	2E21060-CCV3	051212CL-128	05/12/12 10:54
Calibration Blank	2E21060-CCB3	051212CL-129	05/12/12 10:54
Low Cal Check	2E21060-LCV2	051212CL-194	05/12/12 11:59
High Cal Check	2E21060-HCV2	051212CL-195	05/12/12 11:59
Calibration Check	2E21060-CCV4	051212CL-197	05/12/12 12:00
Calibration Blank	2E21060-CCB4	051212CL-198	05/12/12 12:00

ANALYSIS BATCH (SEQUENCE) SUMMARY

SM 4500-Cl E 20th

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Sequence: 2E31047

SDG: KNM050712
Project: KNM
Calibration: 2E31013
Instrument: 303

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Cal Standard	2E31047-CAL1	052512cl-001	05/25/12 08:26
Cal Standard	2E31047-CAL2	052512cl-002	05/25/12 08:26
Cal Standard	2E31047-CAL3	052512cl-003	05/25/12 08:26
Cal Standard	2E31047-CAL4	052512cl-004	05/25/12 08:26
Cal Standard	2E31047-CAL5	052512cl-005	05/25/12 08:26
Cal Standard	2E31047-CAL6	052512cl-006	05/25/12 08:26
Cal Standard	2E31047-CAL7	052512cl-007	05/25/12 08:26
Cal Standard	2E31047-CAL8	052512cl-008	05/25/12 08:26
Calibration Check	2E31047-CCV1	052512cl-009	05/25/12 08:37
Calibration Blank	2E31047-CCB1	052512cl-010	05/25/12 08:37
Low Cal Check	2E31047-LCV1	052512cl-011	05/25/12 08:37
High Cal Check	2E31047-HCV1	052512cl-012	05/25/12 08:37
Instrument RL Check	2E31047-CRL1	052512cl-013	05/25/12 08:37
Secondary Cal Check	2E31047-SCV1	052512cl-014	05/25/12 08:37
Blank	1206667-BLK1	052512cl-015	05/25/12 08:37
LCS	1206667-BS1	052512cl-016	05/25/12 08:37
Calibration Check	2E31047-CCV2	052512cl-021	05/25/12 08:39
Calibration Blank	2E31047-CCB2	052512cl-022	05/25/12 08:39
1060SL	1205358-01	052512cl-028	05/25/12 09:55
106RCT	1205374-01	052512cl-029	05/25/12 09:55
106RCT	1206667-MS1	052512cl-030	05/25/12 09:55
106RCT	1206667-MSD1	052512cl-031	05/25/12 09:55
Calibration Check	2E31047-CCV3	052512cl-038	05/25/12 09:56
Calibration Blank	2E31047-CCB3	052512cl-039	05/25/12 09:56
Low Cal Check	2E31047-LCV2	052512cl-116	05/25/12 10:50
High Cal Check	2E31047-HCV2	052512cl-117	05/25/12 10:50
Calibration Check	2E31047-CCV4	052512cl-120	05/25/12 10:51
Calibration Blank	2E31047-CCB4	052512cl-121	05/25/12 10:51

INITIAL AND CONTINUING CALIBRATION CHECK

SM 4500-Cl E 20th

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Sequence: 2E21060
Control Limt: +/- 15.00%

SDG: KNM050712
Project: KNM
Calibration: 2E21031
Instrument ID: 298

Lab Sample ID	Analyte	True	Found	%R	Units	Analyzed
2E21060-CCV1	Chloride	40.0	39.9	100	mg/L	05/12/12 08:12
2E21060-CCV2	Chloride	40.0	40.3	101	mg/L	05/12/12 08:15
2E21060-CCV3	Chloride	40.0	40.3	101	mg/L	05/12/12 10:54
2E21060-CCV4	Chloride	40.0	40.0	100	mg/L	05/12/12 12:00

* Values outside of QC limits

INITIAL AND CONTINUING CALIBRATION CHECK

SM 4500-Cl E 20th

Laboratory: TriMatrix Laboratories, Inc.
SDG: KNM050712
Client: TechLaw
Project: KNM
Sequence: 2E31047
Calibration: 2E31013
Control Limt: +/- 15.00%
Instrument ID: 303

Lab Sample ID	Analyte	True	Found	%R	Units	Analyzed
2E31047-CCV1	Chloride	40.0	39.6	99	mg/L	05/25/12 08:37
2E31047-CCV2	Chloride	40.0	40.3	101	mg/L	05/25/12 08:39
2E31047-CCV3	Chloride	40.0	39.6	99	mg/L	05/25/12 09:56
2E31047-CCV4	Chloride	40.0	39.5	99	mg/L	05/25/12 10:51

* Values outside of QC limits

LOW-CONCENTRATION CALIBRATION VERIFICATION

SM 4500-Cl E 20th

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Laboratory ID: 2E21060-LCV1
Sequence: 2E21060

SDG: KNM050712
Project: KNM
Instrument: 298
Calibration: 2E21031

Analyte	Expected	Found	% Drift	QC Limit	Units
Chloride	20.0	19.6	-1.8		mg/L

* Values outside of QC limits

LOW-CONCENTRATION CALIBRATION VERIFICATION

SM 4500-Cl E 20th

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Laboratory ID: 2E21060-LCV2
Sequence: 2E21060

SDG: KNM050712
Project: KNM
Instrument: 298
Calibration: 2E21031

Analyte	Expected	Found	% Drift	QC Limit	Units
Chloride	20.0	20.4	1.8		mg/L

* Values outside of QC limits

LOW-CONCENTRATION CALIBRATION VERIFICATION

SM 4500-Cl E 20th

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Laboratory ID: 2E31047-LCV1
Sequence: 2E31047

SDG: KNM050712
Project: KNM
Instrument: 303
Calibration: 2E31013

Analyte	Expected	Found	% Drift	QC Limit	Units
Chloride	20.0	19.6	-1.9		mg/L

* Values outside of QC limits

LOW-CONCENTRATION CALIBRATION VERIFICATION

SM 4500-Cl E 20th

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Laboratory ID: 2E31047-LCV2
Sequence: 2E31047

SDG: KNM050712
Project: KNM
Instrument: 303
Calibration: 2E31013

Analyte	Expected	Found	% Drift	QC Limit	Units
Chloride	20.0	20.2	0.8		mg/L

* Values outside of QC limits

HIGH-CONCENTRATION CALIBRATION VERIFICATION

SM 4500-Cl E 20th

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Laboratory ID: 2E21060-HCV1
Sequence: 2E21060

SDG: KNM050712
Project: KNM
Instrument: 298
Calibration: 2E21031

Analyte	Expected	Found	% Drift	QC Limit	Units
Chloride	75.0	74.6	-0.5		mg/L

* Values outside of QC limits

HIGH-CONCENTRATION CALIBRATION VERIFICATION

SM 4500-Cl E 20th

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Laboratory ID: 2E21060-HCV2
Sequence: 2E21060

SDG: KNM050712
Project: KNM
Instrument: 298
Calibration: 2E21031

Analyte	Expected	Found	% Drift	QC Limit	Units
Chloride	75.0	76.3	1.7		mg/L

* Values outside of QC limits

HIGH-CONCENTRATION CALIBRATION VERIFICATION

SM 4500-Cl E 20th

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Laboratory ID: 2E31047-HCV1
Sequence: 2E31047

SDG: KNM050712
Project: KNM
Instrument: 303
Calibration: 2E31013

Analyte	Expected	Found	% Drift	QC Limit	Units
Chloride	75.0	74.6	-0.5		mg/L

* Values outside of QC limits

HIGH-CONCENTRATION CALIBRATION VERIFICATION

SM 4500-Cl E 20th

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Laboratory ID: 2E31047-HCV2
Sequence: 2E31047

SDG: KNM050712
Project: KNM
Instrument: 303
Calibration: 2E31013

Analyte	Expected	Found	% Drift	QC Limit	Units
Chloride	75.0	76.2	1.5		mg/L

* Values outside of QC limits

SECOND-SOURCE CALIBRATION VERIFICATION

SM 4500-Cl E 20th

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Laboratory ID: 2E21060-SCV1
Sequence: 2E21060

SDG: KNM050712
Project: KNM
Instrument: 298
Calibration: 2E21031

Analyte	Expected	Found	% R	QC Limit	Units
Chloride	50.0	50.4	101	90-110	mg/L

* Values outside of QC limits

SECOND-SOURCE CALIBRATION VERIFICATION

SM 4500-Cl E 20th

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Laboratory ID: 2E31047-SCV1
Sequence: 2E31047

SDG: KNM050712
Project: KNM
Instrument: 303
Calibration: 2E31013

Analyte	Expected	Found	% R	QC Limit	Units
Chloride	50.0	50.4	101	90-110	mg/L

* Values outside of QC limits

CRDL STANDARD

SM 4500-Cl E 20th

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Sequence: 2E21060

SDG: KNM050712

Project: KNM

Calibration: 2E21031

Instrument ID: 298

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
2E21060-CRL1	Chloride	1.00	1.29	129	mg/L	50 - 150

* Values outside of QC limits

CRDL STANDARD

SM 4500-Cl E 20th

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Sequence: 2E31047

SDG: KNM050712

Project: KNM

Calibration: 2E31013

Instrument ID: 303

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
2E31047-CRL1	Chloride	1.00	1.30	130	mg/L	50 - 150

* Values outside of QC limits

BLANKS
SM 4500-Cl E 20th

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Sequence: 2E21060

SDG: KNM050712
Project: KNM
Calibration: 2E21031
Instrument ID: 298

Lab Sample ID	Analyte	Found	Unit	MDL	MRL	C	Analyzed
2E21060-CCB1	Chloride	0.59	mg/L	0.24	1.0	J	05/12/12 08:12
2E21060-CCB2	Chloride	0.48	mg/L	0.24	1.0	J	05/12/12 08:15
2E21060-CCB3	Chloride	0.78	mg/L	0.24	1.0	J	05/12/12 10:54
2E21060-CCB4	Chloride	0.40	mg/L	0.24	1.0	J	05/12/12 12:00

* Values outside of QC limits

BLANKS
SM 4500-Cl E 20th

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Sequence: 2E31047

SDG: KNM050712
Project: KNM
Calibration: 2E31013
Instrument ID: 303

Lab Sample ID	Analyte	Found	Unit	MDL	MRL	C	Analyzed
2E31047-CCB1	Chloride	0.48	mg/L	0.24	1.0	J	05/25/12 08:37
2E31047-CCB2	Chloride	0.56	mg/L	0.24	1.0	J	05/25/12 08:39
2E31047-CCB3	Chloride	0.52	mg/L	0.24	1.0	J	05/25/12 09:56
2E31047-CCB4	Chloride	0.34	mg/L	0.24	1.0	J	05/25/12 10:51

* Values outside of QC limits

QC BATCH SUMMARY

SM 4500-Cl E 20th

Laboratory: TriMatrix Laboratories, Inc.

SDG: KNM050712

Client: TechLaw

Project: KNM

QC Batch: 1206030 QC Batch Matrix: Water

Preparation: General Inorganic Prep

Sample Name	Lab Sample ID	Date Prepared	Observations
106091	1205226-01	05/12/12 07:30	
106191	1205226-02	05/12/12 07:30	
Blank	1206030-BLK1	05/12/12 07:30	
LCS	1206030-BS1	05/12/12 07:30	
106091	1206030-MS1	05/12/12 07:30	
106091	1206030-MSD1	05/12/12 07:30	

01556

QC BATCH SUMMARY

SM 4500-Cl E 20th

Laboratory: TriMatrix Laboratories, Inc.

SDG: KNM050712

Client: TechLaw

Project: KNM

QC Batch: 1206667

QC Batch Matrix: Water

Preparation: General Inorganic Prep

Sample Name	Lab Sample ID	Date Prepared	Observations
1060SL	1205358-01	05/25/12 08:00	
106RCT	1205374-01	05/25/12 08:00	
Blank	1206667-BLK1	05/25/12 08:00	
LCS	1206667-BS1	05/25/12 08:00	
106RCT	1206667-MS1	05/25/12 08:00	
106RCT	1206667-MSD1	05/25/12 08:00	

01557

METHOD BLANK DATA SHEET
SM 4500-Cl E 20th

Laboratory: TriMatrix Laboratories, Inc.
SDG: KNM050712
Client: TechLaw
Project: KNM
Matrix: Water
Laboratory ID: 1206030-BLK1
File ID: 051212CL-119
Prepared: 05/12/12 07:30
Analyzed: 05/12/12 10:51
Preparation: General Inorganic Prep
Initial/Final: 10 mL / 10 mL
QC Batch: 1206030
Sequence: 2E21060
Calibration: 2E21031
Instrument: 298

CAS No.	Analyte	Concentration	Unit	MDL	MRL	Q
16887-00-6	Chloride	0.69	mg/L	0.24	1.0	J

01558

METHOD BLANK DATA SHEET
SM 4500-Cl E 20th

Laboratory: TriMatrix Laboratories, Inc.
SDG: KNM050712
Client: TechLaw
Project: KNM
Matrix: Water
Laboratory ID: 1206667-BLK1
File ID: 052512cl-015
Prepared: 05/25/12 08:00
Analyzed: 05/25/12 08:37
Preparation: General Inorganic Prep
Initial/Final: 10 mL / 10 mL
QC Batch: 1206667
Sequence: 2E31047
Calibration: 2E31013
Instrument: 303

CAS No.	Analyte	Concentration	Unit	MDL	MRL	Q
16887-00-6	Chloride	0.58	mg/L	0.24	1.0	J

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

106091

SM 4500-Cl E 20th

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Matrix: Water

QC Batch: 1206030

SDG: KNM050712

Project: KNM

Laboratory ID: 1206030-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	22.4	71.4	98	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

106091

SM 4500-Cl E 20th

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Matrix: Water

QC Batch: 1206030

SDG: KNM050712

Project: KNM

Laboratory ID: 1206030-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	72.5	100	2	20	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

106RCT

SM 4500-Cl E 20th

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Matrix: Water

QC Batch: 1206667

SDG: KNM050712

Project: KNM

Laboratory ID: 1206667-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	50.8	97.8	94	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

106RCT

SM 4500-Cl E 20th

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Matrix: Water

QC Batch: 1206667

SDG: KNM050712

Project: KNM

Laboratory ID: 1206667-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	97.2	93	0.6	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

QC Batch: 1206030

SDG: KNM050712

Project: KNM

Laboratory ID: 1206030-BS1

Preparation: General Inorganic Prep

Initial/Final: 10 mL / 10 mL

Sequence: 2E21060

Analyte	Spike Added	LCS Conc.	LCS % Rec. #	QC Limits Rec.	Units
Chloride	50.0	50.1	100	90 - 106	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

QC Batch: 1206667

SDG: KNM050712

Project: KNM

Laboratory ID: 1206667-BS1

Preparation: General Inorganic Prep

Initial/Final: 10 mL / 10 mL

Sequence: 2E31047

Analyte	Spike Added	LCS Conc.	LCS % Rec. #	QC Limits Rec.	Units
Chloride	50.0	48.5	97	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: KNM050712

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
106091	05/09/12	05/10/12		05/12/12	3	NA	05/12/12	3	28	
106191	05/09/12	05/10/12		05/12/12	3	NA	05/12/12	3	28	
1060SL	05/17/12	05/18/12		05/25/12	8	NA	05/25/12	8	28	
106RCT	05/18/12	05/21/12		05/25/12	7	NA	05/25/12	7	28	

01566

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

Instrument = 298, Calibration = 2E21031

Sequence Analyses:
Chloride 4500-Cl E

Lab Number	*Analysis*	*Contain*	*STD ID*	*ISTD ID*	*Client / QC Type*	*Extraction Comments*
2E21060-CAL1	QC		2050014		CAL STANDARD	
2E21060-CAL2	QC		2050013		CAL STANDARD	
2E21060-CAL3	QC		2050012		CAL STANDARD	
2E21060-CAL4	QC		2050011		CAL STANDARD	
2E21060-CAL5	QC		2050009		CAL STANDARD	
2E21060-CAL6	QC		2050008		CAL STANDARD	
2E21060-CAL7	QC		2050010		CAL STANDARD	
2E21060-CAL8	QC		2050007		CAL STANDARD	
2E21060-CCV1	QC		2050008		CALIBRATION CHECK	
2E21060-CCB1	QC		2050014		CALIBRATION BLANK	
2E21060-LCV1	QC		2050009		LOW CAL CHECK	
2E21060-HCV1	QC		2050010		HIGH CAL CHECK	
2E21060-CRL1	QC		2050013		INSTRUMENT RL CHECK	
2E21060-SCV1	QC		2050559		SECONDARY CAL CHECK	
2E21060-CCV2	QC		2050008		CALIBRATION CHECK	
2E21060-CCB2	QC		2050014		CALIBRATION BLANK	
1206030-BLK1	QC				BLANK	
1206030-BS1	QC				LCS	
1205226-01	Chloride 4500-Cl E	J			TechLaw	
1206030-MS1	QC				MATRIX SPIKE	
1206030-MSD1	QC				MATRIX SPIKE DUP	
1205226-02	Chloride 4500-Cl E	J			TechLaw	
2E21060-CCV3	QC		2050008		CALIBRATION CHECK	
2E21060-CCB3	QC		2050014		CALIBRATION BLANK	
2E21060-LCV2	QC		2050009		LOW CAL CHECK	
2E21060-HCV2	QC		2050010		HIGH CAL CHECK	
2E21060-CCV4	QC		2050008		CALIBRATION CHECK	
2E21060-CCB4	QC		2050014		CALIBRATION BLANK	

Comments:	Analyst Initials:

due 05/23/12

TriMatrix Laboratories, Inc.

PREPARATION BATCH **1206030** Page 1 of 1

Printed: 5/12/2012 12:18:03PM

NLB 5-23-12

4MD

Inorganic - Wet Chemistry, Water, General Inorganic Prep

(No Surrogate)

Batch Comments: (none)

61569

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
1205226	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
1206030-BLK1		May-12-12 07:30	LMA	10	10					BLANK	
1206030-BS1		May-12-12 07:30	LMA	10	10			2050003	50	LCS	
1206030-MS1		May-12-12 07:30	LMA	10	10		1205226-01	2050003	50	MATRIX SPIKE	
1206030-MSD1		May-12-12 07:30	LMA	10	10		1205226-01	2050003	50	MATRIX SPIKE DUP	
1205226-01	J	May-12-12 07:30	LMA	10	10					TechLaw	
1205226-02	J	May-12-12 07:30	LMA	10	10					TechLaw	

Comments:

Analyst Initials:

TriMatrix Laboratories Inst #298
Konelab User

5/12/2012 8:01

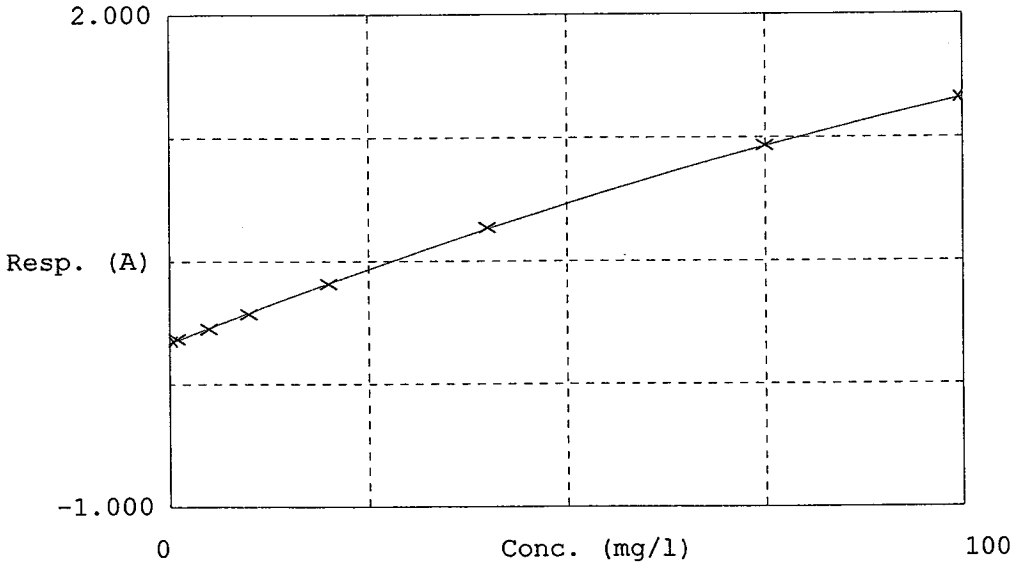
Test Chloride

Accepted 5/12/2012 8:01

Resp. = A * Conc. ^ 2 + B * Conc. + C
A = -0.00004
B = 0.01913
C = -0.00066

Coeff. of det. 0.999829

Errors



	Calibrator	Response	Calc. con.	Conc.	Errors
1	Cl-0	0.00983	0.54913	0.00000	
2	Cl-1	0.02432	1.30994	1.00000	
3	Cl-5	0.08582	4.56711	5.00000	
4	Cl-10	0.17609	9.43688	10.00000	
5	Cl-20	0.36042	19.73694	20.00000	
6	Cl-40	0.70277	40.37852	40.00000	
7	Cl-75	1.19900	75.23387	75.00000	
8	Cl-100	1.48677	99.78206	100.00000	

TriMatrix Laboratories Inst #298
Konelab User

Date : 5/12/2012
Time : 12:05

Test Chloride
Unit mg/l

Sample ID:	Result	Resp.	Date and Time	Dilut	Man.dilut
Cl CCV 1	39.9143	0.695	5/12/2012 8:12		
Cl CCB 1	0.5882	0.011	5/12/2012 8:12		
cl 20	19.6435	0.359	5/12/2012 8:12		
cl 75	74.6331	1.191	5/12/2012 8:12		
crl 1.0.	1.2944	0.024	5/12/2012 8:12		
scv	50.3603	0.855	5/12/2012 8:12		
blk 1	0.6544	0.012	5/12/2012 8:12		
bs 1	49.3007	0.840	5/12/2012 8:12		
100 1+1	96.5815	0.824	5/12/2012 8:15	1+1.0	
250 1+4	245.6907	0.837	5/12/2012 8:15	1+4.0	
500 1+9	502.5305	0.854	5/12/2012 8:15	1+9.0	
1000 1+24/+49	990.9617	0.691	5/12/2012 8:15	1+24.0	
Cl CCV 2	40.2939	0.701	5/12/2012 8:15		
Cl CCB 2	0.4849	0.009	5/12/2012 8:15		
1000 1+24/+49	962.1223	0.352	5/12/2012 8:16	1+49.0	
Cl CCV	39.8617	0.695	5/12/2012 8:21		
Cl CCB	0.5134	0.009	5/12/2012 8:21		
Cl CCV	39.9151	0.695	5/12/2012 8:43		
Cl CCB	0.6474	0.012	5/12/2012 8:43		
1205075-06	0.6246	0.011	5/12/2012 8:43		
1205087-10	0.6471	0.012	5/12/2012 8:43		
1205188-01	4.6750	0.088	5/12/2012 8:43		
1205188-03	32.1555	0.571	5/12/2012 8:43		
1205194-01	29.7959	0.532	5/12/2012 8:43		
1205194-02	95.2422	1.437	5/12/2012 8:43		
1205194-03	5.4631	0.103	5/12/2012 8:43		
1205194-04	22.2572	0.404	5/12/2012 8:43		
1205194-05	2.3521	0.044	5/12/2012 8:43		
1205212-01	36.5211	0.642	5/12/2012 8:43		
Cl CCV	39.9468	0.696	5/12/2012 8:46		
Cl CCB	0.6664	0.012	5/12/2012 8:46		
1205212-02	37.2853	0.654	5/12/2012 8:46		
1205212-03	60.2175	0.998	5/12/2012 8:46		
1205241-01	2.0154	0.038	5/12/2012 8:46		
1205241-01ms	50.7482	0.861	5/12/2012 8:46		
1205241-01msd	52.0483	0.880	5/12/2012 8:46		
1205241-03	54.5070	0.916	5/12/2012 8:46		
1205241-05	15.3873	0.284	5/12/2012 8:46		
1205241-07	2.1571	0.040	5/12/2012 8:46		
1205241-10	4.2014	0.079	5/12/2012 8:46		
blk 2	0.8108	0.015	5/12/2012 8:46		
Cl CCV	39.9869	0.697	5/12/2012 8:53		
Cl CCB	0.6510	0.012	5/12/2012 8:53		
bs 2	50.1727	0.853	5/12/2012 8:53		
1205189-01	16.1624	0.297	5/12/2012 8:53		
1205189-01ms	66.2986	1.082	5/12/2012 8:53		
1205189-01msd	66.2252	1.081	5/12/2012 8:53		
1205189-02	27.1604	0.488	5/12/2012 8:53		
1205189-03	42.3019	0.733	5/12/2012 8:53		
1205189-04	34.2071	0.604	5/12/2012 8:53		
1205189-05	54.1735	0.911	5/12/2012 8:53		
1205189-06	32.6656	0.579	5/12/2012 8:53		
1205189-07	33.1608	0.587	5/12/2012 8:53		

TriMatrix Laboratories Inst #298
Konelab User

Date : 5/12/2012
Time : 12:05

Test Chloride
Unit mg/l

Sample ID:	Result	Resp.	Date and Time	Dilut	Man.dilut
Cl CCV	40.0919	0.698	5/12/2012 8:56		
Cl CCB	0.6658	0.012	5/12/2012 8:56		
1205189-08	62.0567	1.023	5/12/2012 8:56		
1205189-09	60.9390	1.008	5/12/2012 8:56		
1205189-10	39.9582	0.696	5/12/2012 8:56		
1205189-11	47.9072	0.819	5/12/2012 8:56		
1205189-12	35.2943	0.622	5/12/2012 8:56		
1205189-13	35.3483	0.623	5/12/2012 8:56		
1205189-14	45.4590	0.782	5/12/2012 8:56		
1205189-15	_____	0.021	- Reanalyze		
1205189-16	31.2202	0.555	5/12/2012 8:56		
1205189-17	34.6570	0.611	5/12/2012 8:56		
Cl CCV	39.9983	0.697	5/12/2012 9:03		
Cl CCB	0.6832	0.012	5/12/2012 9:03		
1205189-18	25.7459	0.464	5/12/2012 9:03		
1205189-19	15.2240	0.281	5/12/2012 9:03		
1205189-20	0.7040	0.013	5/12/2012 9:03		
blk 3	0.7545	0.014	5/12/2012 9:03		
bs 3	49.3620	0.841	5/12/2012 9:03		
1205189-21	70.0026	1.131	5/12/2012 9:04		
1205189-22	24.9559	0.450	5/12/2012 9:04		
1205189-23	24.6033	0.444	5/12/2012 9:04		
1205189-24	43.3996	0.750	5/12/2012 9:04		
1205189-25	42.8392	0.741	5/12/2012 9:04		
Cl CCV	40.2323	0.700	5/12/2012 9:06		
Cl CCB	0.7920	0.014	5/12/2012 9:06		
1205189-26	_____	2.658	- Dilute		
1205189-27	48.0825	0.821	5/12/2012 9:06		
1205189-28	48.0921	0.821	5/12/2012 9:06		
1205189-29	12.5886	0.233	5/12/2012 9:07		
1205189-30	22.3632	0.406	5/12/2012 9:07		
1205189-31	33.9649	0.600	5/12/2012 9:07		
1205189-32	22.0603	0.401	5/12/2012 9:07		
1205189-33	24.1326	0.436	5/12/2012 9:07		
1205189-33ms	72.9609	1.170	5/12/2012 9:07		
1205189-33msd	73.4926	1.177	5/12/2012 9:07		
Cl CCV	40.2008	0.700	5/12/2012 9:13		
Cl CCB	0.7414	0.013	5/12/2012 9:13		
1205189-15	0.6514	0.012	5/12/2012 9:13		
1205207-01	19.1391	0.350	5/12/2012 9:13		
1205207-02	26.2127	0.472	5/12/2012 9:13		
1205207-03	33.9380	0.600	5/12/2012 9:13		
1205207-04	19.3710	0.354	5/12/2012 9:13		
1205207-05	40.5021	0.705	5/12/2012 9:13		
1205207-06	39.9696	0.696	5/12/2012 9:13		
1205207-07	28.0926	0.503	5/12/2012 9:13		
Cl CCV	40.0635	0.698	5/12/2012 9:14		
Cl CCB	0.5619	0.010	5/12/2012 9:14		
1205189-26	229.4173	0.788	5/12/2012 9:19	1+4.0	
Cl CCV	40.0534	0.698	5/12/2012 9:20		
Cl CCB	0.5448	0.010	5/12/2012 9:20		
Cl CCV	40.0407	0.697	5/12/2012 9:33		
Cl CCB	0.6322	0.011	5/12/2012 9:33		

TriMatrix Laboratories Inst #298
Konelab User

Date : 5/12/2012
Time : 12:05

Test Chloride
Unit mg/l

Sample ID:	Result	Resp.	Date and Time	Dilut	Man.dilut
cl 20	19.9553	0.364	5/12/2012 9:33		
cl 75	75.3048	1.200	5/12/2012 9:33		
Cl CCV	39.9914	0.697	5/12/2012 9:34		
Cl CCB	0.4702	0.008	5/12/2012 9:34		
Cl CCV	40.1045	0.698	5/12/2012 10:51		
Cl CCB	0.7066	0.013	5/12/2012 10:51		
blk a 1206030	0.6929	0.013	5/12/2012 10:51		
bs a	50.0874	0.851	5/12/2012 10:51		
1205226-01	22.4129	0.407	5/12/2012 10:51		
1205226-01ms	71.3610	1.149	5/12/2012 10:51		
1205226-01msd	72.5384	1.164	5/12/2012 10:51		
1205226-02	23.0515	0.418	5/12/2012 10:51		
blk ww		0.020	-	Dilute	
bs ww	50.9251	0.864	5/12/2012 10:51		
1205198-01	1.3436	0.025	5/12/2012 10:51		
1205198-01ms	51.6170	0.874	5/12/2012 10:51		
Cl CCV 3	40.2627	0.701	5/12/2012 10:54		
Cl CCB	0.7775	0.014	5/12/2012 10:54		
1205198-01msd	50.0945	0.851	5/12/2012 10:54		
1205203-01		9.714	-	Dilute	
1205203-02		9.717	-	↓	
1205227-01	80.8956	1.270	5/12/2012 10:54		
1205229-01	1.2609	0.023	5/12/2012 10:54		
blk b		0.020	-	Reanalyze	
bs b	51.2476	0.869	5/12/2012 10:54		
1205242-01	3.2529	0.061	5/12/2012 10:54		
1205242-01ms	53.5132	0.902	5/12/2012 10:55		
1205242-01msd	52.3675	0.885	5/12/2012 10:55		
Cl CCV	39.9873	0.697	5/12/2012 11:02		
Cl CCB	0.6494	0.012	5/12/2012 11:02		
1205242-02	13.6113	0.252	5/12/2012 11:02		
1205242-03	2.5792	0.048	5/12/2012 11:02		
1205242-05	2.1921	0.041	5/12/2012 11:02		
1205242-06	3.9150	0.074	5/12/2012 11:02		
1205242-07	1.9864	0.037	5/12/2012 11:02		
1205242-11	36.2943	0.638	5/12/2012 11:02		
1205242-12	3.7302	0.070	5/12/2012 11:02		
1205242-13	8.8130	0.165	5/12/2012 11:02		
1205242-14		9.728	-	Dilute	
1205242-16	13.0825	0.242	5/12/2012 11:02		
Cl CCV	40.2372	0.701	5/12/2012 11:04		
Cl CCB	0.7585	0.014	5/12/2012 11:04		
1205242-17	12.1031	0.225	5/12/2012 11:04		
blk c	0.8205	0.015	5/12/2012 11:04		
bs c	51.2917	0.869	5/12/2012 11:04		
1205245-01	34.5825	0.610	5/12/2012 11:04		
1205245-02	26.4252	0.475	5/12/2012 11:04		
1205245-03	34.8961	0.615	5/12/2012 11:04		
1205245-04	27.0286	0.485	5/12/2012 11:04		
1205246-01	16.7359	0.308	5/12/2012 11:04		
1205246-01ms	66.4396	1.083	5/12/2012 11:10		
1205246-01msd	67.6363	1.100	5/12/2012 11:10		
Cl CCV	40.3363	0.702	5/12/2012 11:10		

TriMatrix Laboratories Inst #298
Konelab User

Date : 5/12/2012
Time : 12:05

Test Chloride
Unit mg/l

Sample ID:	Result	Resp.	Date and Time	Dilut	Man.dilut
Cl CCB	0.8787	0.016	5/12/2012 11:10		
1205246-02		0.537	-		
1205246-03		0.654	-		
1205246-04		0.412	-		
1205246-05		0.466	-		
1205246-06		0.573	-		
1205246-07		0.584	-		
1205246-08		0.517	-		
1205246-09		0.576	-		
1205246-10		0.628	-		
1205246-11		0.629	-		
Cl CCV		0.708	-		
Cl CCB		0.022	-		
1205246-12		0.702	-		
1205246-13		0.545	-		
1205246-14		0.398	-		
1205242-04		0.183	-		
1205208-01		-	-	1+49.0	
1205244-01		-	-	1+49.0	
blk ww		0.010	-		
blk b		0.011	-		
Cl CCV	40.2616	0.701	5/12/2012 11:20		
Cl CCB	0.5514	0.010	5/12/2012 11:20		
1205203-01		2.096	-	1+24.0	
1205203-02		2.053	-	1+24.0	
1205242-14	2e+003	1.372	5/12/2012 11:22	1+24.0	
Cl CCV	40.0552	0.698	5/12/2012 11:23		
Cl CCB	0.6531	0.012	5/12/2012 11:23		
Cl CCV	40.1811	0.700	5/12/2012 11:39		
Cl CCB	0.5997	0.011	5/12/2012 11:40		
1205246-02	29.6526	0.529	5/12/2012 11:40		
1205246-03	37.0953	0.651	5/12/2012 11:40		
1205246-04	22.6910	0.412	5/12/2012 11:40		
1205246-05	26.1376	0.470	5/12/2012 11:40		
1205246-06	32.5820	0.578	5/12/2012 11:40		
1205246-07	33.3008	0.589	5/12/2012 11:40		
1205246-08	29.3721	0.525	5/12/2012 11:40		
1205246-09	32.9399	0.584	5/12/2012 11:40		
1205246-10	35.8804	0.631	5/12/2012 11:40		
1205246-11	35.6862	0.628	5/12/2012 11:40		
Cl CCV	40.2958	0.701	5/12/2012 11:42		
Cl CCB	0.5748	0.010	5/12/2012 11:42		
blk ww	0.6853	0.012	5/12/2012 11:42		
blk b	0.6976	0.013	5/12/2012 11:42		
1205246-12	40.0292	0.697	5/12/2012 11:42		
1205246-13	30.2157	0.539	5/12/2012 11:42		
1205246-14	21.5015	0.391	5/12/2012 11:42		
1205242-04	9.8043	0.183	5/12/2012 11:42		
1205208-01 100x	5e+003	0.818	5/12/2012 11:42		1+99.0
1205244-01 100x		1.585	-		1+99.0
1205203-01	4e+003	1.283	5/12/2012 11:48	1+49.0	
1205203-02	4e+003	1.292	5/12/2012 11:48	1+49.0	
Cl CCV	40.1630	0.699	5/12/2012 11:48		

Reanalyze
ccb too high
Dilute
Dilute

TriMatrix Laboratories Inst #298
Konelab User

Date : 5/12/2012
Time : 12:05

Test Chloride
Unit mg/l

Sample ID:	Result	Resp.	Date and Time	Dilut	Man.dilut
Cl CCB	0.4527	0.008	5/12/2012 11:48		
Cl CCV	40.1969	0.700	5/12/2012 11:59		
Cl CCB	0.6322	0.011	5/12/2012 11:59		
cl 20	20.3500	0.371	5/12/2012 11:59		
cl 75	76.2901	1.212	5/12/2012 11:59		
1205244-01 100x	1e+004	0.877	5/12/2012 11:59	1+1.0	1+99.0
Cl CCV 4	40.0339	0.697	5/12/2012 12:00		
Cl CCB	0.3994	0.007	5/12/2012 12:00		

Inorganic - Wet Chemistry, Water, May-25-12

Instrument = 303, Calibration = 2E31013

Sequence Analyses:
Chloride 4500-Cl E

Lab Number	*Analysis*	*Contain*	*STD ID*	*ISTD ID*	*Client / QC Type*	*Extraction Comments*
2E31047-CAL1	QC		2050014		CAL STANDARD	
2E31047-CAL2	QC		2050013		CAL STANDARD	
2E31047-CAL3	QC		2050012		CAL STANDARD	
2E31047-CAL4	QC		2050011		CAL STANDARD	
2E31047-CAL5	QC		2050009		CAL STANDARD	
2E31047-CAL6	QC		2050008		CAL STANDARD	
2E31047-CAL7	QC		2050010		CAL STANDARD	
2E31047-CAL8	QC		2050007		CAL STANDARD	
2E31047-CCV1	QC		2050008		CALIBRATION CHECK	
2E31047-CCB1	QC		2050014		CALIBRATION BLANK	
2E31047-LCV1	QC		2050009		LOW CAL CHECK	
2E31047-HCV1	QC		2050010		HIGH CAL CHECK	
2E31047-CRL1	QC		2050013		INSTRUMENT RL CHECK	
2E31047-SCV1	QC		2050559		SECONDARY CAL CHECK	
1206667-BLK1	QC				BLANK	
1206667-BS1	QC				LCS	
2E31047-CCV2	QC		2050008		CALIBRATION CHECK	
2E31047-CCB2	QC		2050014		CALIBRATION BLANK	
1205358-01	Chloride 4500-Cl E	J			TechLaw	
1205374-01	Chloride 4500-Cl E	J			TechLaw	
1206667-MS1	QC				MATRIX SPIKE	
1206667-MSD1	QC				MATRIX SPIKE DUP	
2E31047-CCV3	QC		2050008		CALIBRATION CHECK	
2E31047-CCB3	QC		2050014		CALIBRATION BLANK	
2E31047-LCV2	QC		2050009		LOW CAL CHECK	
2E31047-HCV2	QC		2050010		HIGH CAL CHECK	
2E31047-CCV4	QC		2050008		CALIBRATION CHECK	
2E31047-CCB4	QC		2050014		CALIBRATION BLANK	

Comments:	Analyst Initials:

due 06/01/12

TriMatrix Laboratories, Inc.

PREPARATION BATCH **1206667** Page 1 of 1

Printed: 5/25/2012 11:47:43AM

HLB 6-4-12

4MD

Inorganic - Wet Chemistry, Water, General Inorganic Prep

(No Surrogate)

Batch Comments: (none)

91575

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
1205358	Chloride 4500-Cl E	1205374	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*
1206667-BLK1		May-25-12 08:00	LMA	10	10					BLANK	
1206667-BS1		May-25-12 08:00	LMA	10	10			2050003	50	LCS	
1206667-MS1		May-25-12 08:00	LMA	10	10		1205374-01	2050003	50	MATRIX SPIKE	
1206667-MSD1		May-25-12 08:00	LMA	10	10		1205374-01	2050003	50	MATRIX SPIKE DUP	
1205358-01	J	May-25-12 08:00	LMA	10	10					TechLaw	
1205374-01	J	May-25-12 08:00	LMA	10	10					TechLaw	

Comments:	Analyst Initials:

Laboratory inst#303
Konelab User

25.05.2012 08:26

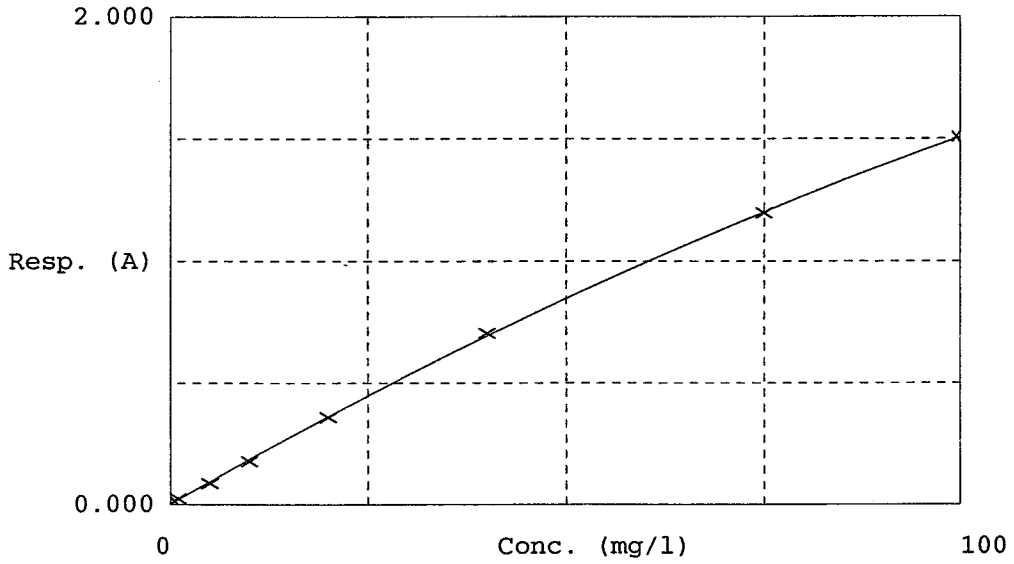
Test Chloride

Accepted 25.05.2012 08:26

Resp. = A * Conc. ^ 2 + B * Conc. + C
A = -0.00004
B = 0.01882
C = 0.00155

Coeff. of det. 0.999818

Errors



	Calibrator	Response	Calc. con.	Conc.	Errors
1	cl-0	0.01171	0.54080	0.00000	
2	cl-1	0.02439	1.21710	1.00000	
3	cl-5	0.08630	4.54525	5.00000	
4	cl-10	0.17635	9.46885	10.00000	
5	cl-20	0.35921	19.79110	20.00000	
6	cl-40	0.70442	40.66065	40.00000	
7	cl-75	1.19733	74.71664	75.00000	
8	cl-100	1.50747	100.06150	100.00000	

Laboratory inst#303
Konelab User

Date : 2012-05-25
Time : 11.46

Test Chloride
Unit mg/l

Sample ID:	Result	Resp.	Date and Time	Dilut	Man.dilut
cl ccv 1	39.5626	0.687	2012-05-25 08.37		
cl ccb	0.4758	0.010	2012-05-25 08.37		
cl 20	19.6120	0.356	2012-05-25 08.37		
cl 75	74.5924	1.196	2012-05-25 08.37		
crl 1.0	1.2975	0.026	2012-05-25 08.37		
scv	50.3976	0.854	2012-05-25 08.37		
blk 1 3120666	0.5775	0.012	2012-05-25 08.37		
bs 1 3	48.5364	0.826	2012-05-25 08.37		
100 1+1	98.3966	0.836	2012-05-25 08.39	1+1.0	
250 1+4	253.3395	0.858	2012-05-25 08.39	1+4.0	
500 1+9	496.2564	0.843	2012-05-25 08.39	1+9.0	
1000 1+24/+49	1e+003	0.708	2012-05-25 08.39	1+24.0	
cl ccv 2	40.2679	0.698	2012-05-25 08.39		
cl ccb 2	0.5587	0.012	2012-05-25 08.39		
1000 1+24/+49	940.1185	0.342	2012-05-25 08.39	1+49.0	
cl ccv	39.4879	0.686	2012-05-25 08.40		
cl ccb	0.3434	0.008	2012-05-25 08.40		
cl ccv	39.8151	0.691	2012-05-25 09.55		
cl ccb	0.4939	0.011	2012-05-25 09.55		
1205358-01	0.5010	0.011	2012-05-25 09.55		
1205374-01	50.8104	0.860	2012-05-25 09.55		
1205374-01ms	97.8364	1.482	2012-05-25 09.55		
1205374-01msd	97.2314	1.475	2012-05-25 09.55		
blk splp	0.6950	0.015	2012-05-25 09.55		
bs splp	49.1685	0.836	2012-05-25 09.55		
1205348-01	1.3623	0.027	2012-05-25 09.55		
1205348-02	2.0823	0.041	2012-05-25 09.55		
1205348-03	1.2271	0.025	2012-05-25 09.55		
1205348-03ms	49.3218	0.838	2012-05-25 09.55		
cl ccv 3	39.6435	0.688	2012-05-25 09.56		
cl ccb 3	0.5231	0.011	2012-05-25 09.56		
1205348-03msd	49.0591	0.834	2012-05-25 09.56		
1205348-04	1.6413	0.032	2012-05-25 09.56		
blk 2	0.5707	0.012	2012-05-25 09.56		
bs 2	48.6830	0.828	2012-05-25 09.56		
1205353-01	11.1397	0.206	2012-05-25 09.56		
1205353-02	15.1473	0.278	2012-05-25 09.56		
1205353-03	8.3474	0.156	2012-05-25 09.56		
1205353-04	8.2892	0.155	2012-05-25 09.56		
1205353-05	4.5992	0.087	2012-05-25 09.56		
1205353-06	4.5601	0.087	2012-05-25 09.56		
cl ccv	39.4962	0.686	2012-05-25 10.02		
cl ccb	0.5589	0.012	2012-05-25 10.02		
1205353-07	14.2955	0.263	2012-05-25 10.02		
1205353-08	8.4151	0.157	2012-05-25 10.02		
1205353-09	3.9520	0.075	2012-05-25 10.02		
1205353-10	23.8774	0.429	2012-05-25 10.02		
1205420-01	18.2458	0.332	2012-05-25 10.02		
1205420-03	20.6954	0.375	2012-05-25 10.02		
1205420-05	44.4654	0.764	2012-05-25 10.02		
1205420-08	39.4592	0.685	2012-05-25 10.02		
1205420-08ms	87.9073	1.365	2012-05-25 10.02		
1205420-08msd	86.5347	1.348	2012-05-25 10.02		

Laboratory inst#303
Konelab User

Date : 2012-05-25
Time : 11.46

Test Chloride
Unit mg/l

Sample ID:	Result	Resp.	Date and Time	Dilut	Man.dilut
cl ccv	39.5754	0.687	2012-05-25 10.04		
cl ccb	0.4674	0.010	2012-05-25 10.04		
1205420-10	61.8090	1.021	2012-05-25 10.04		
1205420-12	81.8664	1.290	2012-05-25 10.04		
1205420-14	97.3101	1.476	2012-05-25 10.04		
1205420-16	12.4492	0.230	2012-05-25 10.04		
1205420-18	Dilute	2.743	- Dilute 05/25/12		
blk ww	Reanalyze	0.019	-		
bs ww	48.8705	0.831	2012-05-25 10.04		
1205350-01	1.2614	0.025	2012-05-25 10.04		
1205388-01	84.8188	1.327	2012-05-25 10.04		
1205396-01	1.0603	0.021	2012-05-25 10.04		
1205375-01	26.5287	0.474	2012-05-25 10.06		
1205375-02	2.4285	0.047	2012-05-25 10.06		
cl ccv	39.8349	0.691	2012-05-25 10.06		
cl ccb	0.4512	0.010	2012-05-25 10.06		
cl ccv	39.6810	0.689	2012-05-25 10.09		
cl ccb	0.6021	0.013	2012-05-25 10.09		
1205396-01ms	Reanalyze	0.822	-		
1205396-01msd		0.848	-		
1205405-01		2.426	-		
1205419-02		9.671	-		
12054443-01		1.337	-		
1205468-01		0.023	-		
blk 3		0.016	-		
bs 3		0.836	-		
1205375-03		0.228	-		
1205375-04		0.204	-		
1205375-05		0.021	-		
1205375-06		0.087	-		
1205375-07		0.129	-		
1205375-07ms		0.946	-		
1205375-07msd		0.942	-		
1205375-08		0.387	-		
1205375-09		0.043	-		
1205375-10		0.324	-		
cl ccv	40.4082	0.700	2012-05-25 10.12		
cl ccb	0.7468	0.016	2012-05-25 10.12		
1205375-11	2.4726	0.048	2012-05-25 10.17		
1205375-12	1.2863	0.026	2012-05-25 10.17		
1205375-13	58.3908	0.972	2012-05-25 10.17		
1205375-14	11.0483	0.205	2012-05-25 10.17		
1205375-15	0.9950	0.020	2012-05-25 10.17		
1205375-16	0.7503	0.016	2012-05-25 10.17		
1205402-01	Dilute	1.898	-		
1205402-02	68.0314	1.107	2012-05-25 10.17		
1205402-03	Dilute	2.026	-		
1205402-04	73.1537	1.177	2012-05-25 10.17		
cl ccv	39.9459	0.693	2012-05-25 10.18		
cl ccb	0.4484	0.010	2012-05-25 10.18		
1205420-18	245.1885	0.834	2012-05-25 10.19	1+4.0	
blk ww	0.1846	0.005	2012-05-25 10.20		
1205405-01	204.2226	0.707	2012-05-25 10.23	1+4.0	

Laboratory inst#303
Konelab User

Date : 2012-05-25
Time : 11.46

Test Chloride
Unit mg/l

Sample ID:	Result	Resp.	Date and Time	Dilut	Man.dilut
1205419-02	2e+003	0.573	2012-05-25 10.23	1+49.0	
cl ccv	39.4342	0.685	2012-05-25 10.23		
cl ccb	0.3614	0.008	2012-05-25 10.23		
cl ccv	39.5897	0.688	2012-05-25 10.49		
cl ccb	0.5089	0.011	2012-05-25 10.49		
1205396-01ms	48.3666	0.824	2012-05-25 10.49		
1205396-01msd	49.4472	0.840	2012-05-25 10.49		
12054443-01	85.4338	1.334	2012-05-25 10.49		
1205468-01	0.9212	0.019	2012-05-25 10.49		
blk 3	0.6783	0.014	2012-05-25 10.49		
bs 3	49.9159	0.847	2012-05-25 10.49		
1205375-03	12.8905	0.238	2012-05-25 10.49		
1205375-04	11.5710	0.214	2012-05-25 10.49		
1205375-05	1.4243	0.028	2012-05-25 10.49		
1205375-06	4.7222	0.090	2012-05-25 10.49		
cl ccv	39.5523	0.687	2012-05-25 10.50		
cl ccb	0.5558	0.012	2012-05-25 10.50		
1205375-07	6.8257	0.128	2012-05-25 10.50		
1205375-07ms	56.7776	0.949	2012-05-25 10.50		
1205375-07msd	56.7671	0.948	2012-05-25 10.50		
1205375-08	21.3586	0.386	2012-05-25 10.50		
1205375-09	2.2022	0.043	2012-05-25 10.50		
1205375-10	18.0461	0.329	2012-05-25 10.50		
cl 20	20.1571	0.366	2012-05-25 10.50		
cl 75	76.1566	1.216	2012-05-25 10.50		
1205402-01	137.5972	1.118	2012-05-25 10.51	1+1.0	
1205402-03	152.6481	1.218	2012-05-25 10.51	1+1.0	
cl ccv 4	39.5359	0.687	2012-05-25 10.51		
cl ccb	0.3435	0.008	2012-05-25 10.51		
cl ccv	39.6554	0.689	2012-05-25 11.27		
cl ccb	0.5266	0.011	2012-05-25 11.27		
1205427-01	0.7099	0.015	2012-05-25 11.27		
blk 4	0.5751	0.012	2012-05-25 11.27		
bs 4	50.1905	0.851	2012-05-25 11.27		
1205434-01	56.3045	0.942	2012-05-25 11.27		
1205434-02	65.9099	1.078	2012-05-25 11.27		
1205434-03	Dilute	3.230	-		
1205460-01	32.7337	0.577	2012-05-25 11.27		
1205460-01ms	80.3529	1.270	2012-05-25 11.27		
1205460-01msd	79.6466	1.261	2012-05-25 11.27		
1205460-02	98.8251	1.493	2012-05-25 11.27		
cl ccv	39.7131	0.689	2012-05-25 11.29		
cl ccb	0.5158	0.011	2012-05-25 11.29		
1205460-03	13.1016	0.242	2012-05-25 11.29		
1205460-05	47.2704	0.807	2012-05-25 11.29		
1205471-01	16.5788	0.303	2012-05-25 11.29		
1205471-02	3.1689	0.061	2012-05-25 11.29		
1205471-03	10.9852	0.204	2012-05-25 11.29		
1205471-04	15.8992	0.291	2012-05-25 11.29		
1205471-05	17.4581	0.319	2012-05-25 11.29		
1205471-06	4.8449	0.092	2012-05-25 11.29		
1205471-07	22.9534	0.414	2012-05-25 11.29		
1205471-08	7.7365	0.145	2012-05-25 11.29		

Laboratory inst#303
Konelab User

Date : 2012-05-25
Time : 11.46

Test Chloride
Unit mg/l

Sample ID:	Result	Resp.	Date and Time	Dilut	Man.dilut
cl ccv	40.3683	0.700	2012-05-25 11.30		
cl ccb	0.5870	0.013	2012-05-25 11.30		
1205471-09	16.1651	0.296	2012-05-25 11.30		
cl ccv	39.5730	0.687	2012-05-25 11.34		
cl ccb	0.3580	0.008	2012-05-25 11.34		
1205434-03	335.3386	1.094	2012-05-25 11.39	1+4.0	
cl 20	19.7810	0.359	2012-05-25 11.39		
cl 75	75.2121	1.204	2012-05-25 11.39		
cl ccv	39.5460	0.687	2012-05-25 11.40		
cl ccb	0.4266	0.010	2012-05-25 11.40		

TriMatrix Laboratories, Inc.

TechLaw

Project: KNM

SDG: KNM050712

SM 4500-NH3 G 20th

SAMPLE ID SUMMARY

SM 4500-NH3 G 20th

Laboratory: TriMatrix Laboratories, Inc.

SDG: KNM050712

Client: TechLaw

Project: KNM

Client Sample Id:	Lab Sample Id:
106091	1205226-01
106191	1205226-02
1060SL	1205358-01
106RCT	1205374-01

INORGANIC ANALYSIS DATA SHEET

SM 4500-NH3 G 20th

106091

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Matrix: Water
Sampled: 05/09/12 10:00
Solids: 0.00
QC Batch: 1206256

SDG: KNM050712
Project: KNM
Laboratory ID: 1205226-01
Prepared: 05/16/12 11:38
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	05/16/12 15:39

INORGANIC ANALYSIS DATA SHEET

SM 4500-NH3 G 20th

106191

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Matrix: Water
Sampled: 05/09/12 13:00
Solids: 0.00
QC Batch: 1206256

SDG: KNM050712
Project: KNM
Laboratory ID: 1205226-02
Prepared: 05/16/12 11:38
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	0.15	mg/L	0.0049	0.050		05/16/12 15:39

INORGANIC ANALYSIS DATA SHEET

SM 4500-NH3 G 20th

1060SL

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Matrix: Water
Sampled: 05/17/12 10:00
Solids: 0.00
QC Batch: 1206419

SDG: KNM050712
Project: KNM
Laboratory ID: 1205358-01
Prepared: 05/21/12 10:00
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	05/21/12 13:51

INORGANIC ANALYSIS DATA SHEET

SM 4500-NH3 G 20th

106RCT

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Matrix: Water
Sampled: 05/18/12 09:30
Solids: 0.00
QC Batch: 1206419

SDG: KNM050712
Project: KNM
Laboratory ID: 1205374-01
Prepared: 05/21/12 10:00
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	05/21/12 14:54

ANALYSIS BATCH (SEQUENCE) SUMMARY

SM 4500-NH3 G 20th

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Sequence: 2E22024

SDG: KNM050712
Project: KNM
Calibration: 2E22013
Instrument: 303

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Cal Standard	2E22024-CAL1	051612nh3m-019	05/16/12 12:46
Cal Standard	2E22024-CAL2	051612nh3m-020	05/16/12 12:46
Cal Standard	2E22024-CAL3	051612nh3m-021	05/16/12 12:46
Cal Standard	2E22024-CAL4	051612nh3m-022	05/16/12 12:46
Cal Standard	2E22024-CAL5	051612nh3m-023	05/16/12 12:46
Cal Standard	2E22024-CAL6	051612nh3m-024	05/16/12 12:46
Cal Standard	2E22024-CAL7	051612nh3m-025	05/16/12 12:46
Calibration Check	2E22024-CCV1	051612nh3m-026	05/16/12 13:04
Calibration Blank	2E22024-CCB1	051612nh3m-027	05/16/12 13:04
Instrument RL Check	2E22024-CRL1	051612nh3m-028	05/16/12 13:04
Secondary Cal Check	2E22024-SCV1	051612nh3m-029	05/16/12 13:04
Blank	1206256-BLK1	051612nh3m-030	05/16/12 13:04
LCS	1206256-BS1	051612nh3m-038	05/16/12 13:30
Calibration Check	2E22024-CCV2	051612nh3m-041	05/16/12 13:38
Calibration Blank	2E22024-CCB2	051612nh3m-042	05/16/12 13:38
Calibration Check	2E22024-CCV3	051612nh3m-077	05/16/12 15:39
Calibration Blank	2E22024-CCB3	051612nh3m-078	05/16/12 15:39
106091	1205226-01	051612nh3m-079	05/16/12 15:39
106091	1206256-MS1	051612nh3m-080	05/16/12 15:39
106091	1206256-MSD1	051612nh3m-081	05/16/12 15:39
106191	1205226-02	051612nh3m-082	05/16/12 15:39
Calibration Check	2E22024-CCV4	051612nh3m-089	05/16/12 15:47
Calibration Blank	2E22024-CCB4	051612nh3m-090	05/16/12 15:47

ANALYSIS BATCH (SEQUENCE) SUMMARY

SM 4500-NH3 G 20th

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Sequence: 2E24022

SDG: KNM050712
Project: KNM
Calibration: 2E24002
Instrument: 303

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Cal Standard	2E24022-CAL1	052112nh3m-001	05/21/12 09:48
Cal Standard	2E24022-CAL2	052112nh3m-002	05/21/12 09:48
Cal Standard	2E24022-CAL3	052112nh3m-003	05/21/12 09:48
Cal Standard	2E24022-CAL4	052112nh3m-004	05/21/12 09:48
Cal Standard	2E24022-CAL5	052112nh3m-005	05/21/12 09:48
Cal Standard	2E24022-CAL6	052112nh3m-006	05/21/12 09:48
Cal Standard	2E24022-CAL7	052112nh3m-007	05/21/12 09:48
Calibration Check	2E24022-CCV1	052112nh3m-008	05/21/12 10:08
Calibration Blank	2E24022-CCB1	052112nh3m-009	05/21/12 10:08
Secondary Cal Check	2E24022-SCV1	052112nh3m-010	05/21/12 10:09
Blank	1206419-BLK1	052112nh3m-012	05/21/12 10:09
LCS	1206419-BS1	052112nh3m-013	05/21/12 10:09
Calibration Check	2E24022-CCV2	052112nh3m-066	05/21/12 13:32
Calibration Blank	2E24022-CCB2	052112nh3m-067	05/21/12 13:32
1060SL	1205358-01	052112nh3m-077	05/21/12 13:51
1060SL	1206419-MS1	052112nh3m-080	05/21/12 13:51
1060SL	1206419-MSD1	052112nh3m-081	05/21/12 13:51
Instrument RL Check	2E24022-CRL1	052112nh3m-105	05/21/12 14:54
106RCT	1205374-01	052112nh3m-108	05/21/12 14:54
Calibration Check	2E24022-CCV3	052112nh3m-109	05/21/12 14:57
Calibration Blank	2E24022-CCB3	052112nh3m-110	05/21/12 14:57

INITIAL AND CONTINUING CALIBRATION CHECK

SM 4500-NH3 G 20th

Laboratory: TriMatrix Laboratories, Inc.
SDG: KNM050712
Client: TechLaw
Project: KNM
Sequence: 2E22024
Calibration: 2E22013
Control Limt: +/- 10.00%
Instrument ID: 303

Lab Sample ID	Analyte	True	Found	%R	Units	Analyzed
2E22024-CCV1	Nitrogen, Ammonia	1.00	1.01	101	mg/L	05/16/12 13:04
2E22024-CCV2	Nitrogen, Ammonia	1.00	1.06	106	mg/L	05/16/12 13:38
2E22024-CCV3	Nitrogen, Ammonia	1.00	0.948	95	mg/L	05/16/12 15:39
2E22024-CCV4	Nitrogen, Ammonia	1.00	0.983	98	mg/L	05/16/12 15:47

* Values outside of QC limits

INITIAL AND CONTINUING CALIBRATION CHECK

SM 4500-NH3 G 20th

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Sequence: 2E24022
Control Limt: +/- 10.00%

SDG: KNM050712
Project: KNM
Calibration: 2E24002
Instrument ID: 303

Lab Sample ID	Analyte	True	Found	%R	Units	Analyzed
2E24022-CCV1	Nitrogen, Ammonia	1.00	0.974	97	mg/L	05/21/12 10:08
2E24022-CCV2	Nitrogen, Ammonia	1.00	1.02	102	mg/L	05/21/12 13:32
2E24022-CCV3	Nitrogen, Ammonia	1.00	1.01	101	mg/L	05/21/12 14:57

* Values outside of QC limits

SECOND-SOURCE CALIBRATION VERIFICATION

SM 4500-NH3 G 20th

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Laboratory ID: 2E22024-SCV1
Sequence: 2E22024

SDG: KNM050712
Project: KNM
Instrument: 303
Calibration: 2E22013

Analyte	Expected	Found	% R	QC Limit	Units
Nitrogen, Ammonia	1.00	0.947	95	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: 2E24022-SCV1
Sequence: 2E24022

SDG: KNM050712
Project: KNM
Instrument: 303
Calibration: 2E24002

Analyte	Expected	Found	% R	QC Limit	Units
Nitrogen, Ammonia	1.00	1.04	104	90-110	mg/L

* Values outside of QC limits

CRDL STANDARD

SM 4500-NH3 G 20th

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Sequence: 2E22024

SDG: KNM050712

Project: KNM

Calibration: 2E22013

Instrument ID: 303

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
2E22024-CRL1	Nitrogen, Ammonia	0.0100	0.0116	116	mg/L	50 - 150

* Values outside of QC limits

CRDL STANDARD

SM 4500-NH3 G 20th

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Sequence: 2E24022

SDG: KNM050712

Project: KNM

Calibration: 2E24002

Instrument ID: 303

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
2E24022-CRL1	Nitrogen, Ammonia	0.0100	0.00793	79	mg/L	50 - 150

* Values outside of QC limits

BLANKS
SM 4500-NH3 G 20th

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Sequence: 2E22024

SDG: KNM050712
Project: KNM
Calibration: 2E22013
Instrument ID: 303

Lab Sample ID	Analyte	Found	Unit	MDL	MRL	C	Analyzed
2E22024-CCB1	Nitrogen, Ammonia	-0.0015	mg/L	0.0049	0.050	U	05/16/12 13:04
2E22024-CCB2	Nitrogen, Ammonia	-0.00017	mg/L	0.0049	0.050	U	05/16/12 13:38
2E22024-CCB3	Nitrogen, Ammonia	0.0014	mg/L	0.0049	0.050	U	05/16/12 15:39
2E22024-CCB4	Nitrogen, Ammonia	-0.00027	mg/L	0.0049	0.050	U	05/16/12 15:47

* Values outside of QC limits

BLANKS
SM 4500-NH3 G 20th

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Sequence: 2E24022

SDG: KNM050712
Project: KNM
Calibration: 2E24002
Instrument ID: 303

Lab Sample ID	Analyte	Found	Unit	MDL	MRL	C	Analyzed
2E24022-CCB1	Nitrogen, Ammonia	-0.026	mg/L	0.0049	0.050	J	05/21/12 10:08
2E24022-CCB2	Nitrogen, Ammonia	-0.022	mg/L	0.0049	0.050	J	05/21/12 13:32
2E24022-CCB3	Nitrogen, Ammonia	-0.025	mg/L	0.0049	0.050	J	05/21/12 14:57

* Values outside of QC limits

QC BATCH SUMMARY

SM 4500-NH3 G 20th

Laboratory: TriMatrix Laboratories, Inc.

SDG: KNM050712

Client: TechLaw

Project: KNM

QC Batch: 1206256

QC Batch Matrix: Water

Preparation: Method-Specific Preparation

Sample Name	Lab Sample ID	Date Prepared	Observations
106091	1205226-01	05/16/12 11:38	
106191	1205226-02	05/16/12 11:38	
Blank	1206256-BLK1	05/16/12 11:38	
LCS	1206256-BS1	05/16/12 11:38	
106091	1206256-MS1	05/16/12 11:38	
106091	1206256-MSD1	05/16/12 11:38	

QC BATCH SUMMARY

SM 4500-NH3 G 20th

Laboratory: TriMatrix Laboratories, Inc.

SDG: KNM050712

Client: TechLaw

Project: KNM

QC Batch: 1206419

QC Batch Matrix: Water

Preparation: Method-Specific Preparation

Sample Name	Lab Sample ID	Date Prepared	Observations
1060SL	1205358-01	05/21/12 10:00	
106RCT	1205374-01	05/21/12 10:00	
Blank	1206419-BLK1	05/21/12 10:00	
LCS	1206419-BS1	05/21/12 10:00	
1060SL	1206419-MS1	05/21/12 10:00	
1060SL	1206419-MSD1	05/21/12 10:00	

METHOD BLANK DATA SHEET
SM 4500-NH3 G 20th

Laboratory: TriMatrix Laboratories, Inc.
SDG: KNM050712
Client: TechLaw
Project: KNM
Matrix: Water
Laboratory ID: 1206256-BLK1
File ID: 051612nh3m-030
Prepared: 05/16/12 11:38
Analyzed: 05/16/12 13:04
Preparation: Method-Specific Preparat
Initial/Final: 10 mL / 10 mL
QC Batch: 1206256
Sequence: 2E22024
Calibration: 2E22013
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: KNM050712
Client: TechLaw
Project: KNM
Matrix: Water
Laboratory ID: 1206419-BLK1
File ID: 052112nh3m-012
Prepared: 05/21/12 10:00
Analyzed: 05/21/12 10:09
Preparation: Method-Specific Preparat
Initial/Final: 10 mL / 10 mL
QC Batch: 1206419
Sequence: 2E24022
Calibration: 2E24002
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

106091

SM 4500-NH3 G 20th

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Matrix: Water

QC Batch: 1206256

SDG: KNM050712

Project: KNM

Laboratory ID: 1206256-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	0.462	92	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

106091

SM 4500-NH3 G 20th

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Matrix: Water

QC Batch: 1206256

SDG: KNM050712

Project: KNM

Laboratory ID: 1206256-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	0.472	94	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

1060SL

SM 4500-NH3 G 20th

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Matrix: Water

QC Batch: 1206419

SDG: KNM050712

Project: KNM

Laboratory ID: 1206419-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	0.514	103	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

1060SL

SM 4500-NH3 G 20th

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Matrix: Water

QC Batch: 1206419

SDG: KNM050712

Project: KNM

Laboratory ID: 1206419-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	0.481	96	7	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: 1206256

SDG: KNM050712

Project: KNM

Laboratory ID: 1206256-BS1

Preparation: Method-Specific Preparation

Initial/Final: 20 mL / 20 mL

Sequence: 2E22024

Analyte	Spike Added	LCS Conc.	LCS % Rec. #	QC Limits Rec.	Units
Nitrogen, Ammonia	0.500	0.460	92	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: 1206419

SDG: KNM050712

Project: KNM

Laboratory ID: 1206419-BS1

Preparation: Method-Specific Preparation

Initial/Final: 20 mL / 20 mL

Sequence: 2E24022

Analyte	Spike Added	LCS Conc.	LCS % Rec. #	QC Limits Rec.	Units
Nitrogen, Ammonia	0.500	0.483	97	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: KNM050712

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
106091	05/09/12	05/10/12		05/16/12	7	NA	05/16/12	7	28	
106191	05/09/12	05/10/12		05/16/12	7	NA	05/16/12	7	28	
1060SL	05/17/12	05/18/12		05/21/12	4	NA	05/21/12	4	28	
106RCT	05/18/12	05/21/12		05/21/12	3	NA	05/21/12	3	28	

Inorganic - Wet Chemistry, Water, May-16-12

Instrument = 303, Calibration = 2E22013

Sequence Analyses:
Nitrogen, Ammonia 4500-NH3 G

Lab Number	*Analysis*	*Contain*	*STD ID*	*ISTD ID*	*Client / QC Type*	*Extraction Comments*
2E22024-CAL1	QC		2050547		CAL STANDARD	
2E22024-CAL2	QC		2050557		CAL STANDARD	
2E22024-CAL3	QC		2050556		CAL STANDARD	
2E22024-CAL4	QC		2050555		CAL STANDARD	
2E22024-CAL5	QC		2050553		CAL STANDARD	
2E22024-CAL6	QC		2050552		CAL STANDARD	
2E22024-CAL7	QC		2050551		CAL STANDARD	
2E22024-CCV1	QC		2050552		CALIBRATION CHECK	
2E22024-CCB1	QC				CALIBRATION BLANK	
2E22024-CRL1	QC		2050557		INSTRUMENT RL CHECK	
2E22024-SCV1	QC		2050898		SECONDARY CAL CHECK	
1206256-BLK1	QC				BLANK	
1206256-BS1	QC				LCS	
2E22024-CCV2	QC		2050552		CALIBRATION CHECK	
2E22024-CCB2	QC				CALIBRATION BLANK	
2E22024-CCV3	QC		2050552		CALIBRATION CHECK	
2E22024-CCB3	QC				CALIBRATION BLANK	
1205226-01	Nitrogen, Ammonia 4500-NH3 G	K			TechLaw	
1206256-MS1	QC				MATRIX SPIKE	
1206256-MSD1	QC				MATRIX SPIKE DUP	
1205226-02	Nitrogen, Ammonia 4500-NH3 G	K			TechLaw	
2E22024-CCV4	QC		2050552		CALIBRATION CHECK	
2E22024-CCB4	QC		2020188		CALIBRATION BLANK	

Comments:	Analyst Initials:

TriMatrix Laboratories, Inc.

NLB 5-22-12

PREPARATION BATCH **1206256** Page 1 of 1

Printed: 5/16/2012 3:39:19PM

Inorganic - Wet Chemistry, Water, Method-Specific Preparation

(No Surrogate)

Batch Comments: (none)

91619

due 5-23-12 CV

Standard	Description	Solvent	LotNum
2050448	Ammonia-1M NAOH	na	na
2050449	Ammonia-Buffer	na	na
2050450	Ammonia-Sodium Nitroprusside	DI H2O	104219
2050546	Ammonia-Carrier 0.038M H2SO4	diH2O	116298
2050797	Ammonia-Bleach Reagent	DI H2O	K38505
2050798	Ammonia-Sodium Phenolate	DI H2O	na
2050801	Ammonia 100mg/L	2050546	K39628

Work Order	Analysis	Work Order	Analysis	Work Order	Analysis
1205226	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
1206256-BLK1		May-16-12 11:38	CLB	10	10					BLANK	
1206256-BS1		May-16-12 11:38	CLB	20	20			2050801	100	LCS	
1206256-MS1		May-16-12 11:38	CLB	20	20		1205226-01	2050801	100	MATRIX SPIKE	
1206256-MSD1		May-16-12 11:38	CLB	20	20		1205226-01	2050801	100	MATRIX SPIKE DUP	
1205226-01	K	May-16-12 11:38	CLB	10	10					TechLaw	
1205226-02	K	May-16-12 11:38	CLB	10	10					TechLaw	

Comments:

Analyst Initials:

Laboratory inst#303
Konelab User

16.05.2012 13:00

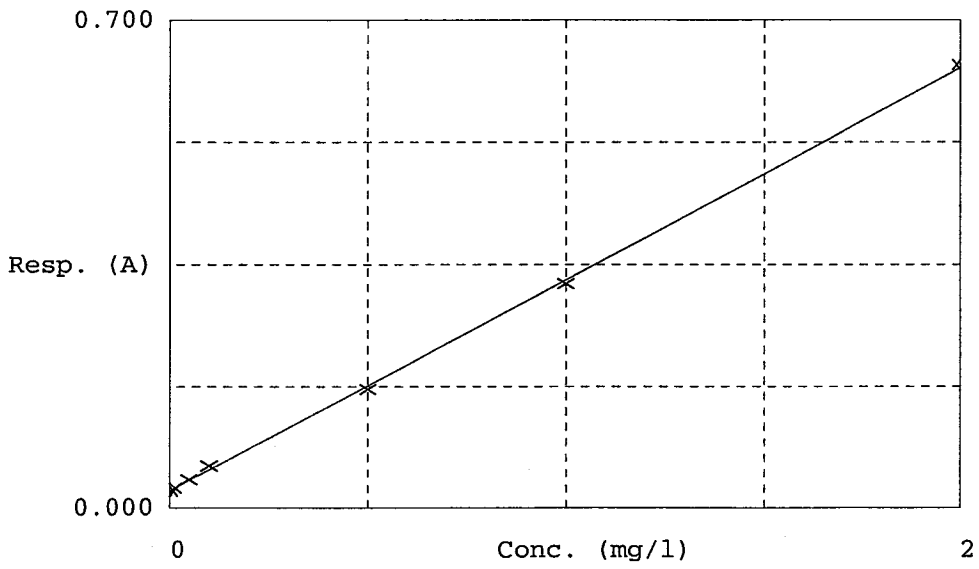
Test Ammonia

Accepted 16.05.2012 12:47

Factor 3.293
Bias 0.025

Coeff. of det. 0.999660

Errors



	Calibrator	Response	Calc. con.	Conc.	Errors
1	NH3- 0	0.024	-0.00297	0.00000	
2	NH3- .01	0.028	0.01254	0.01000	
3	NH3- .05	0.041	0.05440	0.05000	
4	NH3- .1	0.061	0.11870	0.10000	
5	NH3- .5	0.171	0.48324	0.50000	
6	NH3- 1	0.323	0.98192	1.00000	
7	NH3- 2	0.636	2.01217	2.00000	

Result Report AquaKem 6.5 Page: 1

Laboratory inst#303
Konelab User

Date : 2012-05-17
Time : 07.31

Test Ammonia
Unit mg/l

Sample ID:	Result	Resp.	Date and Time	Dilut	Man.dilut
NH3 CCV	0.9547	0.334	2012-05-16 11.05		
NH3 CCB	-0.0099	0.023	2012-05-16 11.05		
NH3 CCV	1.0034	0.311	2012-05-16 11.58		
NH3 CCB	-0.0085	0.023	2012-05-16 11.58		
NH3 CCV 1	1.0052	0.330	2012-05-16 13.04		
NH3 CCB	-0.0015	0.024	2012-05-16 13.04		
crdl	0.0116	0.028	2012-05-16 13.04		
scv	0.9471	0.312	2012-05-16 13.04		
blk 1	-0.0006	0.024	2012-05-16 13.04		
NH3 CCV	1.0231	0.335	2012-05-16 13.07		
NH3 CCB	0.0000	0.025	2012-05-16 13.07		
NH3 CCV	0.9846	0.324	2012-05-16 13.30		
NH3 CCB	0.0003	0.025	2012-05-16 13.30		
blk ww	0.0016	0.025	2012-05-16 13.30		
blk 2	0.0055	0.026	2012-05-16 13.30		
blk 3	-0.0004	0.025	2012-05-16 13.30		
bs 1	0.4598	0.164	2012-05-16 13.30		
bs 2	0.4659	0.166	2012-05-16 13.30		
bs 3	0.4595	0.164	2012-05-16 13.30		
NH3 CCV 2	1.0648	0.348	2012-05-16 13.38		
NH3 CCB	-0.0002	0.025	2012-05-16 13.38		
10 ppm 1+9	9.4395	0.311	2012-05-16 13.38	1+9.0	
2 ppm 1+4	1.8514	0.137	2012-05-16 13.38	1+4.0	
2 ppm 1+4	1.8356	0.303	2012-05-16 13.42	1+1.0	
NH3 CCV	1.0322	0.338	2012-05-16 13.44		
NH3 CCB	-0.0004	0.024	2012-05-16 13.44		
NH3 CCV	1.0104	0.331	2012-05-16 14.05		
NH3 CCB	-0.0007	0.024	2012-05-16 14.05		
bsd ww	1.0915	0.356	2012-05-16 14.05		
NH3 CCV	1.0060	0.330	2012-05-16 14.12		
NH3 CCB	-0.0016	0.024	2012-05-16 14.12		
NH3 CCV	0.9664	0.318	2012-05-16 15.02		
NH3 CCB	0.0049	0.026	2012-05-16 15.02		
1205242-13	1.7500	0.556	2012-05-16 15.02		
1205242-16	0.2155	0.090	2012-05-16 15.02		
1205242-17	0.1675	0.075	2012-05-16 15.03		
1205245-01	0.0556	0.041	2012-05-16 15.03		
1205245-01 ms	0.5127	0.180	2012-05-16 15.03		
1205245-01 msd	0.5161	0.181	2012-05-16 15.03		
1205245-02	0.0347	0.035	2012-05-16 15.03		
1205245-03	0.0744	0.047	2012-05-16 15.03		
1205245-04	0.0792	0.049	2012-05-16 15.03		
1205246-01	0.0973	0.054	2012-05-16 15.03		
NH3 CCV	0.9544	0.314	2012-05-16 15.12		
NH3 CCB	0.0047	0.026	2012-05-16 15.12		
1205212-03	0.0314	0.034	2012-05-16 15.12		
1205212-03 ms	0.4613	0.165	2012-05-16 15.12		
1205246-06	0.1350	0.066	2012-05-16 15.12		
1205246-07	0.1382	0.067	2012-05-16 15.12		
1205246-02	0.1227	0.062	2012-05-16 15.12		
1205246-03	0.1416	0.068	2012-05-16 15.12		
1205246-04	0.1608	0.073	2012-05-16 15.12		
1205246-05	0.1332	0.065	2012-05-16 15.12		

Recalibrated

01612

Laboratory inst#303
Konelab User

Date : 2012-05-17
Time : 07.31

Test Ammonia
Unit mg/l

Sample ID:	Result	Resp.	Date and Time	Dilut	Man.dilut
NH3 CCV	0.9451	0.312	2012-05-16 15.21		
NH3 CCB	0.0034	0.026	2012-05-16 15.21		
NH3 CCV 3	0.9485	0.313	2012-05-16 15.39		
NH3 CCB 3	0.0014	0.025	2012-05-16 15.39		
1205226-01	0.0004	0.025	2012-05-16 15.39		
1205226-01 ms	0.4624	0.165	2012-05-16 15.39		
1205226-01 msd	0.4720	0.168	2012-05-16 15.39		
1205226-02	0.1451	0.069	2012-05-16 15.39		
1205242-01	0.2848	0.111	2012-05-16 15.39		
1205242-01 ms	0.7533	0.253	2012-05-16 15.39		
1205242-01 msd	0.7510	0.253	2012-05-16 15.39		
1205242-02	0.4015	0.147	2012-05-16 15.39		
1205242-03	0.1117	0.059	2012-05-16 15.39		
1205242-04	0.4907	0.174	2012-05-16 15.39		
NH3 CCV 4	0.9834	0.323	2012-05-16 15.47		
NH3 CCB 4	-0.0003	0.025	2012-05-16 15.47		
1205212-03 msd	0.4717	0.168	2012-05-16 15.47		
1205242-05	0.0711	0.046	2012-05-16 15.47		
1205242-06	0.1215	0.062	2012-05-16 15.47		
1205242-07	0.6511	0.222	2012-05-16 15.47		
1205212-01	2.5741	0.415	2012-05-16 15.52	1+1.0	
1205212-02	2.6365	0.425	2012-05-16 15.52	1+1.0	
NH3 CCV	0.9911	0.326	2012-05-16 15.53		
NH3 CCB	0.0007	0.025	2012-05-16 15.53		
1205246-08	0.1676	0.076	2012-05-16 16.02		
1205246-09	0.1581	0.073	2012-05-16 16.02		
1205246-10	0.1757	0.078	2012-05-16 16.02		
1205246-11	0.1765	0.078	2012-05-16 16.02		
1205246-12	0.1900	0.082	2012-05-16 16.02		
1205246-13	0.1780	0.079	2012-05-16 16.02		
1205246-14	0.1597	0.073	2012-05-16 16.02		
1205213-01	0.0071	0.027	2012-05-16 16.02		
1205213-02	0.0101	0.028	2012-05-16 16.02		
1205213-04	1.1263	0.367	2012-05-16 16.03		
NH3 CCV	0.9985	0.328	2012-05-16 16.03		
NH3 CCB	0.0030	0.026	2012-05-16 16.03		
1205213-05	1.1168	0.364	2012-05-16 16.10		
1205207-01	0.0055	0.026	2012-05-16 16.10		
1205207-02	0.5124	0.180	2012-05-16 16.10		
1205207-03	0.0029	0.025	2012-05-16 16.10		
1205207-04	0.0068	0.027	2012-05-16 16.10		
1205207-05	1.4063	0.452	2012-05-16 16.10		
1205207-06	0.0212	0.031	2012-05-16 16.10		
1205207-07	0.4158	0.151	2012-05-16 16.10		
1205213-03	5.4988	0.359	2012-05-16 16.17	1+4.0	
1205242-11	6.3444	0.410	2012-05-16 16.17	1+4.0	
NH3 CCV	1.0020	0.329	2012-05-16 16.17		
NH3 CCB	0.0014	0.025	2012-05-16 16.17		
1205242-12	5.5315	0.361	2012-05-16 16.17	1+4.0	
NH3 CCV	1.0054	0.330	2012-05-16 16.20		
NH3 CCB	0.0001	0.025	2012-05-16 16.20		
NH3 CCV	0.9755	0.321	2012-05-16 16.44		
NH3 CCB	0.0004	0.025	2012-05-16 16.44		

Laboratory inst#303
Konelab User

Date : 2012-05-17
Time : 07.31

Test Ammonia
Unit mg/l

Sample ID:	Result	Resp.	Date and Time	Dilut	Man.dilut
1205288-01	0.1618	0.074	2012-05-16 16.44		
1205288-02	0.1407	0.067	2012-05-16 16.44		
1205288-03	0.1417	0.068	2012-05-16 16.44		
NH3 CCV	0.9694	0.319	2012-05-16 16.47		
NH3 CCB	0.0020	0.025	2012-05-16 16.47		

TriMatrix Laboratories, Inc. **ANALYSIS SEQUENCE** **2E24022** Page 1 of 1 Printed: 5/24/2012 9:49:48AM

Inorganic - Wet Chemistry, Water, May-21-12

Instrument = 303, Calibration = 2E24002

Sequence Analyses:
Nitrogen, Ammonia 4500-NH3 G

Lab Number	*Analysis*	*Contain*	*STD ID*	*ISTD ID*	*Client / QC Type*	*Extraction Comments*
2E24022-CAL1	QC		2050874		CAL STANDARD	
2E24022-CAL2	QC		2050883		CAL STANDARD	
2E24022-CAL3	QC		2050882		CAL STANDARD	
2E24022-CAL4	QC		2050881		CAL STANDARD	
2E24022-CAL5	QC		2050880		CAL STANDARD	
2E24022-CAL6	QC		2050879		CAL STANDARD	
2E24022-CAL7	QC		2050878		CAL STANDARD	
2E24022-CCV1	QC		2050879		CALIBRATION CHECK	
2E24022-CCB1	QC				CALIBRATION BLANK	
2E24022-SCV1	QC		2051007		SECONDARY CAL CHECK	
1206419-BLK1	QC				BLANK	
1206419-BS1	QC				LCS	
2E24022-CCV2	QC		2050879		CALIBRATION CHECK	
2E24022-CCB2	QC				CALIBRATION BLANK	
1205358-01	Nitrogen, Ammonia 4500-NH3 G	L			TechLaw	
1206419-MS1	QC				MATRIX SPIKE	
1206419-MSD1	QC				MATRIX SPIKE DUP	
2E24022-CRL1	QC		2050883		INSTRUMENT RL CHECK	
1205374-01	Nitrogen, Ammonia 4500-NH3 G	K			TechLaw	
2E24022-CCV3	QC		2050879		CALIBRATION CHECK	
2E24022-CCB3	QC		2020381		CALIBRATION BLANK	

Comments:

Analyst Initials:

TriMatrix Laboratories, Inc.

PREPARATION BATCH **1206419** Page 1 of 1

Printed: 5/24/2012 9:54:54AM

TNB 6-4-12

Inorganic - Wet Chemistry, Water, Method-Specific Preparation

(No Surrogate)

Batch Comments: (none)

Standard	Description	Solvent	LotNum
2050873	Ammonia-Carrier 0.038M H2SO4	diH2O	116298
2050875	Ammonia 100mg/L	2050873	K39628
2050967	Ammonia-Sodium Nitroprusside	DI H2O	104219
2050968	Ammonia-Sodium Phenolate	DI H2O	na
2050969	Ammonia-1M NAOH	na	na
2050970	Ammonia-Buffer	na	na
2050971	Ammonia-Bleach Reagent	DI H2O	K38505

due 6-1-12 LVL

Work Order	Analysis	Work Order	Analysis	Work Order	Analysis
1205358	Nitrogen, Ammonia 4500-NH3 G	1205374	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*
1206419-BLK1		May-21-12 10:00	CLB	10	10					BLANK	
1206419-BS1		May-21-12 10:00	CLB	20	20			2050875	100	LCS	
1206419-MS1		May-21-12 10:00	CLB	20	20		1205358-01	2050875	100	MATRIX SPIKE	
1206419-MSD1		May-21-12 10:00	CLB	20	20		1205358-01	2050875	100	MATRIX SPIKE DUP	
1205358-01	L	May-21-12 10:00	CLB	10	10					TechLaw	
1205374-01	K	May-21-12 10:00	CLB	10	10					TechLaw	

Comments:

Analyst Initials:

bch_TriMatrix.rpt

Laboratory inst#303
Konelab User

21.05.2012 10:42

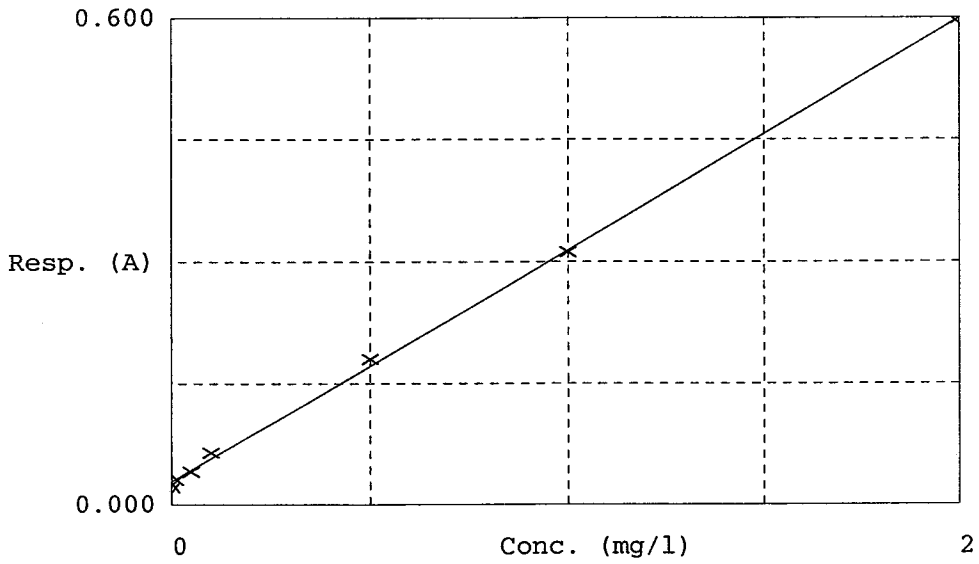
Test Ammonia

Accepted 21.05.2012 09:49

Factor 3.502
Bias 0.029

Coeff. of det. 0.999298

Errors



	Calibrator	Response	Calc. con.	Conc.	Errors
1	NH3- 0	0.021	-0.02657	0.00000	
2	NH3- .01	0.030	0.00525	0.01000	
3	NH3- .05	0.040	0.04086	0.05000	
4	NH3- .1	0.064	0.12339	0.10000	
5	NH3- .5	0.180	0.52994	0.50000	
6	NH3- 1	0.312	0.99106	1.00000	
7	NH3- 2	0.599	1.99607	2.00000	

Laboratory inst#303
Konelab User

Date : 2012-05-21
Time : 15.40

Test Ammonia
Unit mg/l

Sample ID:	Result	Resp.	Date and Time	Dilut	Man.dilut
NH3 CCV	0.9739	0.307	2012-05-21 10.08		
NH3 CCB	-0.0258	0.021	2012-05-21 10.08		
scv	1.0423	0.326	2012-05-21 10.09		
blk w 0518	-0.0307	0.020	2012-05-21 10.09		
blk w	-0.0304	0.020	2012-05-21 10.09		
bs w	0.4829	0.167	2012-05-21 10.09		
NH3 CCV	1.0160	0.319	2012-05-21 10.13		
NH3 CCB	-0.0234	0.022	2012-05-21 10.13		
NH3 CCV	0.9932	0.312	2012-05-21 10.33		
NH3 CCB	-0.0266	0.021	2012-05-21 10.33		
bs w 0518	1.0319	0.323	2012-05-21 10.33		
bsd w0518	1.0336	0.324	2012-05-21 10.33		
blk s 0518	-0.0167	0.024	2012-05-21 10.33		
25 ppm 1+49	22.5204	0.157	2012-05-21 10.41	1+49.0	
25 ppm 1+49	24.4303	0.308	2012-05-21 10.41	1+24.0	
10 ppm 1+9	9.6653	0.305	2012-05-21 10.41	1+9.0	
NH3 CCV	1.0232	0.321	2012-05-21 10.41		
NH3 CCB	-0.0279	0.021	2012-05-21 10.41		
2 ppm 1+4	1.9112	0.302	2012-05-21 10.46	1+1.0	
NH3 CCV	1.0180	0.319	2012-05-21 10.47		
NH3 CCB	-0.0301	0.020	2012-05-21 10.47		
NH3 CCV	1.0144	0.318	2012-05-21 11.09		
NH3 CCB	-0.0271	0.021	2012-05-21 11.09		
bs s 0518	1.0512	0.329	2012-05-21 11.09		
bsd s 0518	1.0368	0.325	2012-05-21 11.09		
NH3 CCV	1.0166	0.319	2012-05-21 11.15		
NH3 CCB	-0.0276	0.021	2012-05-21 11.15		
NH3 CCV	1.0055	0.316	2012-05-21 11.45		
NH3 CCB	-0.0254	0.022	2012-05-21 11.45		
blk s 0521	-0.0235	0.022	2012-05-21 11.45		
bs s 0521	0.9163	0.290	2012-05-21 11.45		
2 ppm 1+4	1.8024	0.132	2012-05-21 11.49	1+4.0	
NH3 CCV	1.0523	0.329	2012-05-21 12.30		
NH3 CCB	-0.0198	0.023	2012-05-21 12.30		
bsd s 0521	0.9044	0.287	2012-05-21 12.30		
NH3 CCV	1.0392	0.326	2012-05-21 12.33		
NH3 CCB	-0.0193	0.023	2012-05-21 12.33		
NH3 CCV	0.9937	0.313	2012-05-21 12.55		
NH3 CCB	0.0024	0.029	2012-05-21 12.55		
1205341-01	0.6404	0.212	2012-05-21 12.55		
1205271-01	0.0793	0.051	2012-05-21 12.55		
1205271-02	0.1889	0.083	2012-05-21 12.55		
1205271-03	0.0313	0.038	2012-05-21 12.55		
1205275-01	-0.0236	0.022	2012-05-21 12.55		
1205275-02	0.1376	0.068	2012-05-21 12.55		
NH3 CCV	0.9908	0.312	2012-05-21 13.04		
NH3 CCB	-0.0134	0.025	2012-05-21 13.04		
NH3 CCV	0.9817	0.309	2012-05-21 13.23		
NH3 CCB	-0.0187	0.023	2012-05-21 13.23		
1205353-04	-0.0043	0.028	2012-05-21 13.23		
1205353-05	-0.0090	0.026	2012-05-21 13.23		
1205353-06	0.1875	0.082	2012-05-21 13.23		
1205353-07	0.0116	0.032	2012-05-21 13.23		

Laboratory inst#303
Konelab User

Date : 2012-05-21
Time : 15.40

Test Ammonia
Unit mg/l

Sample ID:	Result	Resp.	Date and Time	Dilut	Man.dilut
1205353-08	0.0136	0.033	2012-05-21 13.23		
1205353-09	0.0025	0.030	2012-05-21 13.23		
1205353-10	0.0158	0.033	2012-05-21 13.23		
NH3 CCV	1.0186	0.320	2012-05-21 13.29		
NH3 CCB	-0.0174	0.024	2012-05-21 13.29		
NH3 CCV 2	1.0157	0.319	2012-05-21 13.32		
NH3 CCB 2	-0.0218	0.023	2012-05-21 13.32		
1205281-01	0.0149	0.033	2012-05-21 13.42		
1205281-01 ms	0.9728	0.307	2012-05-21 13.42		
1205281-01 msd	0.9697	0.306	2012-05-21 13.42		
1205282-01	0.3945	0.141	2012-05-21 13.51		
1205283-01	0.1765	0.079	2012-05-21 13.51		
1205301-01	1.1957	0.370	2012-05-21 13.51		
1205303-01	-0.0104	0.026	2012-05-21 13.51		
1205305-01	0.0147	0.033	2012-05-21 13.51		
1205320-01	0.5804	0.195	2012-05-21 13.51		
1205358-01	-0.0175	0.024	2012-05-21 13.51		
NH3 CCV	0.9909	0.312	2012-05-21 13.51		
NH3 CCB	-0.0210	0.023	2012-05-21 13.51		
1205358-01 ms	0.5138	0.176	2012-05-21 13.51		
1205358-01 msd	0.4810	0.166	2012-05-21 13.51		
1205353-01	-0.0059	0.027	2012-05-21 13.57		
1205353-02	0.0871	0.054	2012-05-21 13.57		
1205353-02 ms	0.4370	0.154	2012-05-21 13.57		
1205353-02 msd	0.4574	0.159	2012-05-21 13.57		
1205353-03	-0.0102	0.026	2012-05-21 13.57		
1205208-01 10x	326.9839	0.402	2012-05-21 14.05	1+24.0	1+9.0
NH3 CCV	1.0172	0.319	2012-05-21 14.05		
NH3 CCB	-0.0191	0.023	2012-05-21 14.05		
1205312-02	32.9499	0.405	2012-05-21 14.05	1+24.0	
1205369-01	10.5294	0.329	2012-05-21 14.14	1+9.0	
1205369-02	16.1020	0.489	2012-05-21 14.14	1+9.0	
1205369-03	3.9653	0.255	2012-05-21 14.14	1+4.0	
1205369-04	6.5417	0.216	2012-05-21 14.14	1+9.0	
1205369-05	7.7274	0.249	2012-05-21 14.19	1+9.0	
1205369-06	4.2482	0.271	2012-05-21 14.19	1+4.0	
NH3 CCV	1.0111	0.317	2012-05-21 14.22		
NH3 CCB	-0.0168	0.024	2012-05-21 14.22		
1205200-27 10x	657.2562	0.404	2012-05-21 14.28	1+49.0	1+9.0
1205244-01 10x	627.6126	0.387	2012-05-21 14.28	1+49.0	1+9.0
NH3 CCV	1.0080	0.317	2012-05-21 14.31		
NH3 CCB	-0.0219	0.023	2012-05-21 14.31		
NH3 CCV	0.9893	0.311	2012-05-21 14.54		
NH3 CCB	-0.0238	0.022	2012-05-21 14.54		
crdl	0.0079	0.031	2012-05-21 14.54		
1205319-01 100x	164.8569	0.500	2012-05-21 14.54		1+99.0
1205321-01 100 x	183.4190	0.553	2012-05-21 14.54		1+99.0
1205374-01	-0.0181	0.024	2012-05-21 14.54		
NH3 CCV 3	1.0116	0.318	2012-05-21 14.57		
NH3 CCB 3	-0.0246	0.022	2012-05-21 14.57		
NH3 CCV	0.9733	0.307	2012-05-21 15.21		
NH3 CCB	-0.0239	0.022	2012-05-21 15.21		
1205369-07	1.2480	0.385	2012-05-21 15.22		

Laboratory inst#303
Konelab User

Date : 2012-05-21
Time : 15.40

Test Ammonia
Unit mg/l

Sample ID:	Result	Resp.	Date and Time	Dilut	Man.dilut
1205369-08	1.8507	0.557	2012-05-21 15.22		
1205369-10	0.6377	0.211	2012-05-21 15.22		
1205369-12	1.1749	0.364	2012-05-21 15.22		
NH3 CCV	1.0024	0.315	2012-05-21 15.24		
NH3 CCB	-0.0229	0.022	2012-05-21 15.24		
1205369-09	2.9881	0.455	2012-05-21 15.37	1+1.0	
NH3 CCV	1.0154	0.319	2012-05-21 15.40		
NH3 CCB	-0.0153	0.024	2012-05-21 15.40		

TriMatrix Laboratories, Inc.

TechLaw

Project: KNM

SDG: KNM050712

SM 4500-NO3 F 20th

SAMPLE ID SUMMARY

SM 4500-NO3 F 20th

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

SDG: KNM050712

Project: KNM

Client Sample Id:	Lab Sample Id:
106091	1205226-01
106191	1205226-02
1060SL	1205358-01
106RCT	1205374-01

INORGANIC ANALYSIS DATA SHEET

SM 4500-NO3 F 20th

106091

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Matrix: Water
Sampled: 05/09/12 10:00
Solids: 0.00
QC Batch: 1206049

SDG: KNM050712
Project: KNM
Laboratory ID: 1205226-01
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 13:56

INORGANIC ANALYSIS DATA SHEET

SM 4500-NO3 F 20th

106191

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Matrix: Water
Sampled: 05/09/12 13:00
Solids: 0.00
QC Batch: 1206049

SDG: KNM050712
Project: KNM
Laboratory ID: 1205226-02
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	0.010	mg/L	0.0097	0.050	J	05/11/12 13:57

INORGANIC ANALYSIS DATA SHEET

SM 4500-NO3 F 20th

1060SL

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Matrix: Water
Sampled: 05/17/12 10:00
Solids: 0.00
QC Batch: 1206711

SDG: KNM050712
Project: KNM
Laboratory ID: 1205358-01
Prepared: 05/25/12 12:07
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	0.026	mg/L	0.0097	0.050	J	05/25/12 12:41

INORGANIC ANALYSIS DATA SHEET

SM 4500-NO3 F 20th

106RCT

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Matrix: Water
Sampled: 05/18/12 09:30
Solids: 0.00
QC Batch: 1206711

SDG: KNM050712
Project: KNM
Laboratory ID: 1205374-01
Prepared: 05/25/12 12:07
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	0.031	mg/L	0.0097	0.050	J	05/25/12 12:42

ANALYSIS BATCH (SEQUENCE) SUMMARY

SM 4500-NO3 F 20th

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

SDG: KNM050712
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
106091	1205226-01	05111233-022	05/11/12 13:56
106191	1205226-02	05111233-023	05/11/12 13:57
Calibration Check	2E17061-CCV5	05111233-025	05/11/12 13:59
Calibration Blank	2E17061-CCB5	05111233-026	05/11/12 14:00

ANALYSIS BATCH (SEQUENCE) SUMMARY

SM 4500-NO3 F 20th

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Sequence: 2E31034

SDG: KNM050712

Project: KNM

Calibration: 2E31007

Instrument: 189

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Cal Standard	2E31034-CAL1	05251231-001	05/25/12 12:07
Cal Standard	2E31034-CAL2	05251231-002	05/25/12 12:08
Cal Standard	2E31034-CAL3	05251231-003	05/25/12 12:09
Cal Standard	2E31034-CAL4	05251231-004	05/25/12 12:10
Cal Standard	2E31034-CAL5	05251231-005	05/25/12 12:11
Cal Standard	2E31034-CAL6	05251231-006	05/25/12 12:12
Calibration Check	2E31034-CCV1	05251232-001	05/25/12 12:16
Calibration Blank	2E31034-CCB1	05251232-002	05/25/12 12:17
Blank	1206711-BLK1	05251232-003	05/25/12 12:18
LCS	1206711-BS1	05251232-004	05/25/12 12:19
Secondary Cal Check	2E31034-SCV1	05251232-005	05/25/12 12:20
Instrument RL Check	2E31034-CRL1	05251232-006	05/25/12 12:22
Calibration Check	2E31034-CCV2	05251232-013	05/25/12 12:30
Calibration Blank	2E31034-CCB2	05251232-014	05/25/12 12:31
1060SL	1205358-01	05251232-023	05/25/12 12:41
106RCT	1205374-01	05251232-024	05/25/12 12:42
Calibration Check	2E31034-CCV3	05251232-025	05/25/12 12:43
Calibration Blank	2E31034-CCB3	05251232-026	05/25/12 12:44
106RCT	1206711-MS1	05251232-027	05/25/12 12:46
106RCT	1206711-MSD1	05251232-028	05/25/12 12:47
Calibration Check	2E31034-CCV4	05251232-034	05/25/12 12:54
Calibration Blank	2E31034-CCB4	05251232-035	05/25/12 12:55

INITIAL AND CONTINUING CALIBRATION CHECK

SM 4500-NO3 F 20th

Laboratory: TriMatrix Laboratories, Inc.
SDG: KNM050712
Client: TechLaw
Project: KNM
Sequence: 2E17061
Calibration: 2E17020
Control Limt: +/- 10.00%
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

INITIAL AND CONTINUING CALIBRATION CHECK

SM 4500-NO3 F 20th

Laboratory: TriMatrix Laboratories, Inc.
SDG: KNM050712
Client: TechLaw
Project: KNM
Sequence: 2E31034
Calibration: 2E31007
Control Limt: +/- 10.00%
Instrument ID: 189

Lab Sample ID	Analyte	True	Found	%R	Units	Analyzed
2E31034-CCV1	Nitrogen, Nitrate+Nitrite	0.500	0.510	102	mg/L	05/25/12 12:16
2E31034-CCV2	Nitrogen, Nitrate+Nitrite	0.500	0.499	100	mg/L	05/25/12 12:30
2E31034-CCV3	Nitrogen, Nitrate+Nitrite	0.500	0.496	99	mg/L	05/25/12 12:43
2E31034-CCV4	Nitrogen, Nitrate+Nitrite	0.500	0.506	101	mg/L	05/25/12 12:54

* Values outside of QC limits

SECOND-SOURCE CALIBRATION VERIFICATION

SM 4500-NO3 F 20th

Laboratory: TriMatrix Laboratories, Inc.
SDG: KNM050712
Client: TechLaw
Project: KNM
Laboratory ID: 2E17061-SCV1
Instrument: 189
Sequence: 2E17061
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

SECOND-SOURCE CALIBRATION VERIFICATION

SM 4500-NO3 F 20th

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Laboratory ID: 2E31034-SCV1
Sequence: 2E31034

SDG: KNM050712
Project: KNM
Instrument: 189
Calibration: 2E31007

Analyte	Expected	Found	% R	QC Limit	Units
Nitrogen, Nitrate+Nitrite	0.500	0.466	93	90-110	mg/L

* Values outside of QC limits

CRDL STANDARD

SM 4500-NO3 F 20th

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Sequence: 2E17061

SDG: KNM050712

Project: KNM

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

CRDL STANDARD

SM 4500-NO3 F 20th

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Sequence: 2E31034

SDG: KNM050712

Project: KNM

Calibration: 2E31007

Instrument ID: 189

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
2E31034-CRL1	Nitrogen, Nitrate+Nitrite	0.0500	0.0658	132	mg/L	50 - 150

* Values outside of QC limits

BLANKS
SM 4500-NO3 F 20th

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

SDG: KNM050712
Project: KNM
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

BLANKS
SM 4500-NO3 F 20th

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Sequence: 2E31034

SDG: KNM050712
Project: KNM
Calibration: 2E31007
Instrument ID: 189

Lab Sample ID	Analyte	Found	Unit	MDL	MRL	C	Analyzed
2E31034-CCB1	Nitrogen, Nitrate+Nitrite	-0.0061	mg/L	0.0097	0.050	U	05/25/12 12:17
2E31034-CCB2	Nitrogen, Nitrate+Nitrite	-0.0053	mg/L	0.0097	0.050	U	05/25/12 12:31
2E31034-CCB3	Nitrogen, Nitrate+Nitrite	-0.0065	mg/L	0.0097	0.050	U	05/25/12 12:44
2E31034-CCB4	Nitrogen, Nitrate+Nitrite	-0.0058	mg/L	0.0097	0.050	U	05/25/12 12:55

* Values outside of QC limits

QC BATCH SUMMARY

SM 4500-NO3 F 20th

Laboratory: TriMatrix Laboratories, Inc.

SDG: KNM050712

Client: TechLaw

Project: KNM

QC Batch: 1206049

QC Batch Matrix: Water

Preparation: General Inorganic Prep

Sample Name	Lab Sample ID	Date Prepared	Observations
106091	1205226-01	05/11/12 10:28	
106191	1205226-02	05/11/12 10:28	
Blank	1206049-BLK1	05/11/12 10:28	
LCS	1206049-BS1	05/11/12 10:28	

QC BATCH SUMMARY

SM 4500-NO3 F 20th

Laboratory: TriMatrix Laboratories, Inc.

SDG: KNM050712

Client: TechLaw

Project: KNM

QC Batch: 1206711

QC Batch Matrix: Water

Preparation: General Inorganic Prep

Sample Name	Lab Sample ID	Date Prepared	Observations
1060SL	1205358-01	05/25/12 12:07	
106RCT	1205374-01	05/25/12 12:07	
Blank	1206711-BLK1	05/25/12 12:07	
LCS	1206711-BS1	05/25/12 12:07	
106RCT	1206711-MS1	05/25/12 12:07	
106RCT	1206711-MSD1	05/25/12 12:07	

METHOD BLANK DATA SHEET
SM 4500-NO3 F 20th

Laboratory: TriMatrix Laboratories, Inc.
SDG: KNM050712
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

METHOD BLANK DATA SHEET
SM 4500-NO3 F 20th

Laboratory: TriMatrix Laboratories, Inc.
SDG: KNM050712
Client: TechLaw
Project: KNM
Matrix: Water
Laboratory ID: 1206711-BLK1
File ID: 05251232-003
Prepared: 05/25/12 12:07
Analyzed: 05/25/12 12:18
Preparation: General Inorganic Prep
Initial/Final: 10 mL / 10 mL
QC Batch: 1206711
Sequence: 2E31034
Calibration: 2E31007
Instrument: 189

CAS No.	Analyte	Concentration	Unit	MDL	MRL	Q
14797-55-8	Nitrogen, Nitrate+Nitrite	0.014	mg/L	0.0097	0.050	J

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

106RCT

SM 4500-NO3 F 20th

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Matrix: Water

QC Batch: 1206711

SDG: KNM050712

Project: KNM

Laboratory ID: 1206711-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	0.0307	0.564	107	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

106RCT

SM 4500-NO3 F 20th

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Matrix: Water

QC Batch: 1206711

SDG: KNM050712

Project: KNM

Laboratory ID: 1206711-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	0.541	102	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-NO3 F 20th

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Matrix: Water

QC Batch: 1206049

SDG: KNM050712

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

LCS / LCS DUPLICATE RECOVERY

SM 4500-NO3 F 20th

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Matrix: Water

SDG: KNM050712
Project: KNM
Laboratory ID: 1206711-BS1
Preparation: General Inorganic Prep
Initial/Final: 10 mL / 10 mL
Sequence: 2E31034

QC Batch: 1206711

Analyte	Spike Added	LCS Conc.	LCS % Rec. #	QC Limits Rec.	Units
Nitrogen, Nitrate+Nitrite	0.500	0.540	108	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.

Client: TechLaw

Analyte: Nitrogen, Nitrate+Nitrite

SDG: KNM050712

Project: KNM

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
106091	05/09/12	05/10/12		05/11/12	2	NA	05/11/12	2	28	
106191	05/09/12	05/10/12		05/11/12	2	NA	05/11/12	2	28	
1060SL	05/17/12	05/18/12		05/25/12	8	NA	05/25/12	8	28	
106RCT	05/18/12	05/21/12		05/25/12	7	NA	05/25/12	7	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:

TriMatrix Laboratories, Inc.

Due 5-15-12

PREPARATION BATCH **1206049** Page 1 of 1

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

NLB 5-18-12

Inorganic - Wet Chemistry, Water, General Inorganic Prep

(No Surrogate)

Batch Comments: (none)

Level 4

01617

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

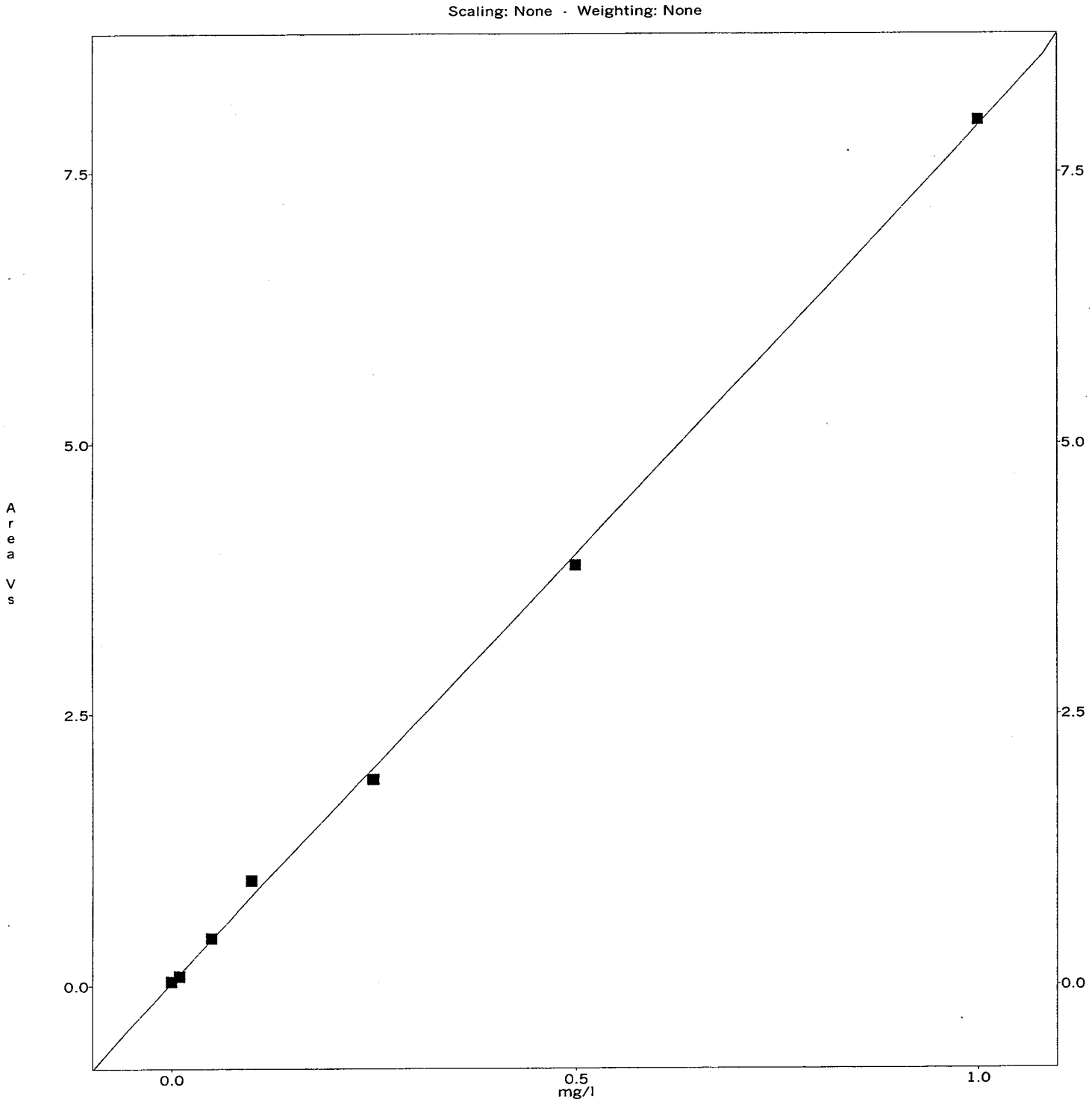
2050201
2050202

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



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

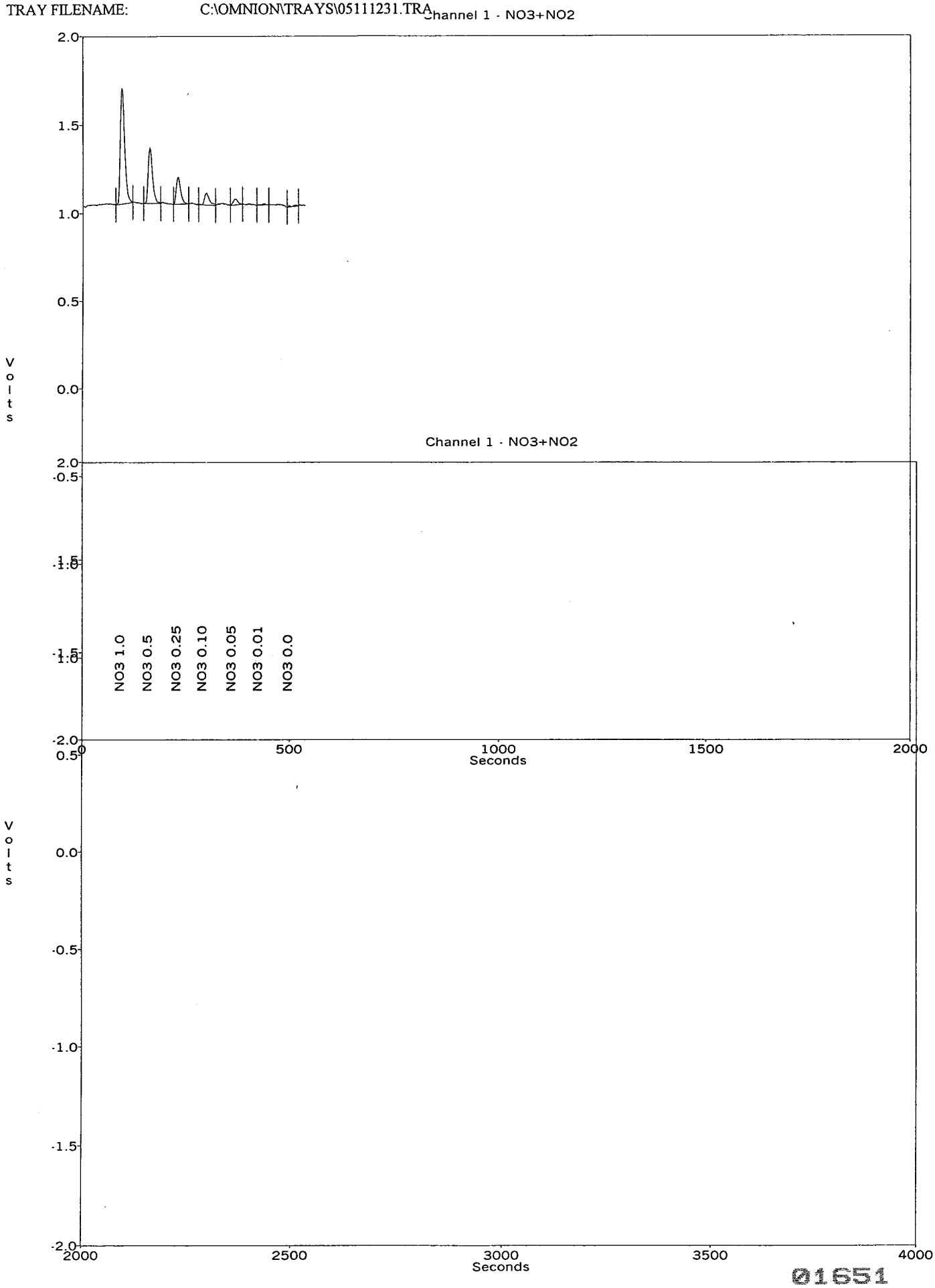
01649

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



01651

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

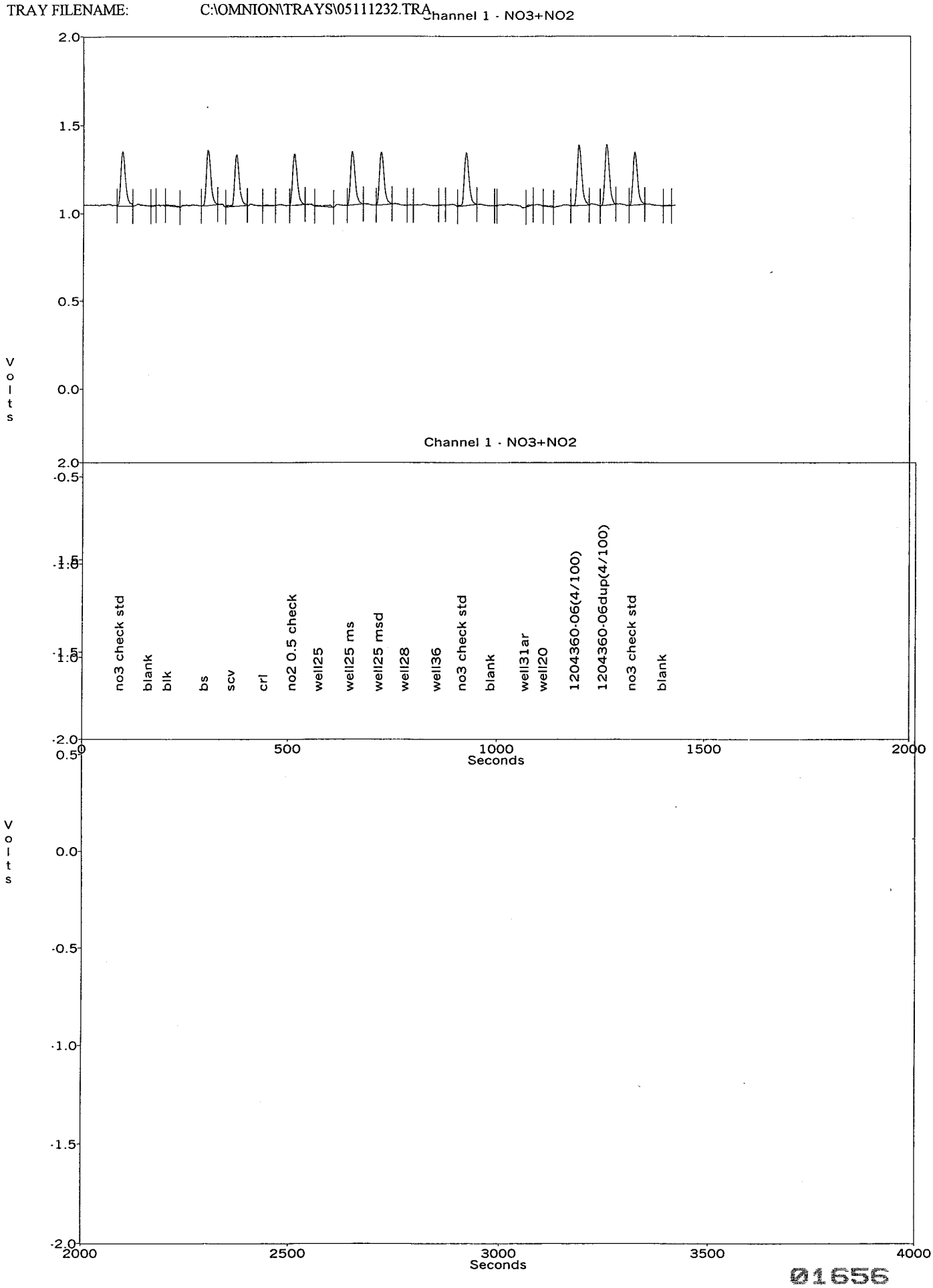
Cup	Sample ID	Sample Type	Sampling Date	Sampling Time	# of Reps	NO3+NO2 (mg/l)	Auto Dil Factor
2	no3 check st	RelChkStd	11 May 2012	10:38:17	1	0.515	1.00 CCV1
				Known Concentration:		0.500	
				% Difference:		2.904	
2	no3 check st	RelChkStd	11 May 2012	10:52:04	1	0.494	1.00 CCV2
				Known Concentration:		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



01656

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 (w3
				Known Concentration:		0.500	
				% Difference:		4.924	
2	no3 check st	RelChkStd	11 May 2012	13:45:56	1	0.514	1.00 (w4
				Known Concentration:		0.500	
				% Difference:		2.760	
2	no3 check st	RelChkStd	11 May 2012	13:59:30	1	0.481	1.00 (w5
				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

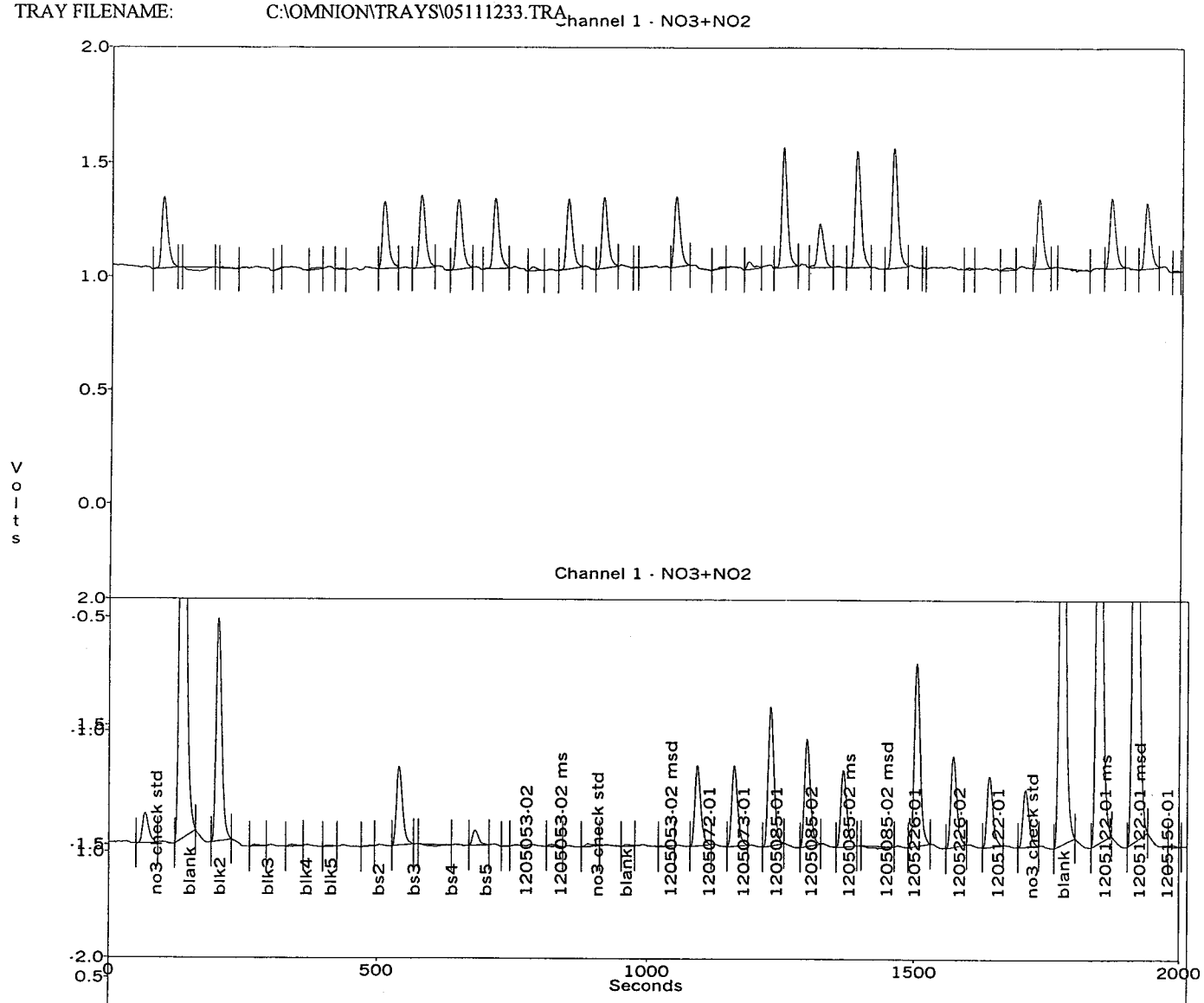
Cup	Sample ID	Sampling Date	Sampling Time	# of Reps	NO3+NO2 (mg/l)	Man Dil Factor	Auto Dil Factor
51	1205132-27	11 May 2012	14:42:34	1	0.007	1.0	1.00
52	1205132-28	11 May 2012	14:43:42	1	7.422	1.0	1.00
53	mw3s92	11 May 2012	14:44:50	1	0.196	1.0	1.00
54	mw3s92 ms	11 May 2012	14:45:57	1	0.682	1.0	1.00
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

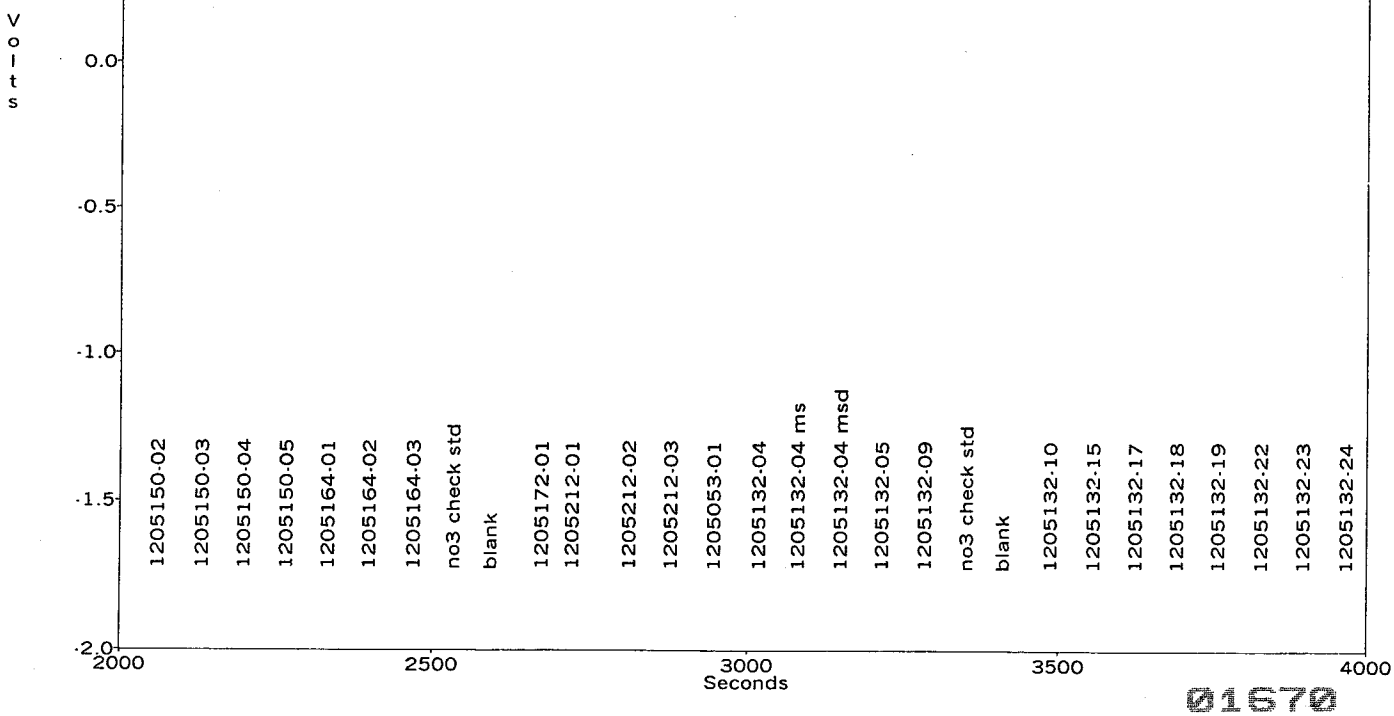
OPERATOR: cac
ACQ. TIME: May 11, 2012 13:32:18
DATA FILENAME: C:\OMNION\DATA\05111233.FDT

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

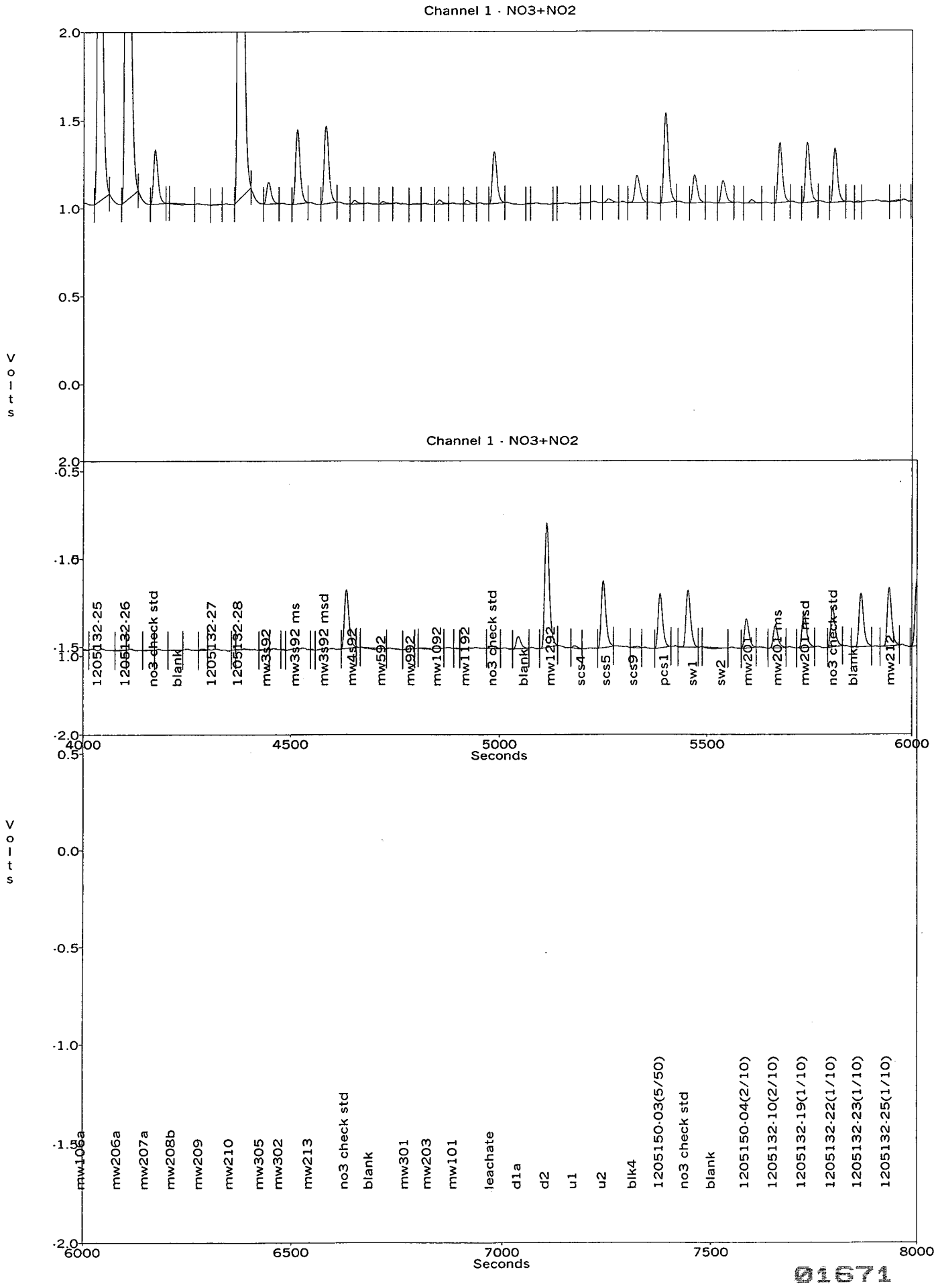
Cup	Sample ID	Sampling Date	# of Reps	NO3+NO2 (mg/l)	Auto Dil Factor
76	mw209	11 May 2012	1	0.009	1.00
77	mw210	11 May 2012	1	-0.001	1.00
78	mw305	11 May 2012	1	0.005	1.00
79	mw302	11 May 2012	1	0.000	1.00
80	mw213	11 May 2012	1	0.000	1.00
81	mw301	11 May 2012	1	0.004	1.00
82	mw203	11 May 2012	1	-0.003	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



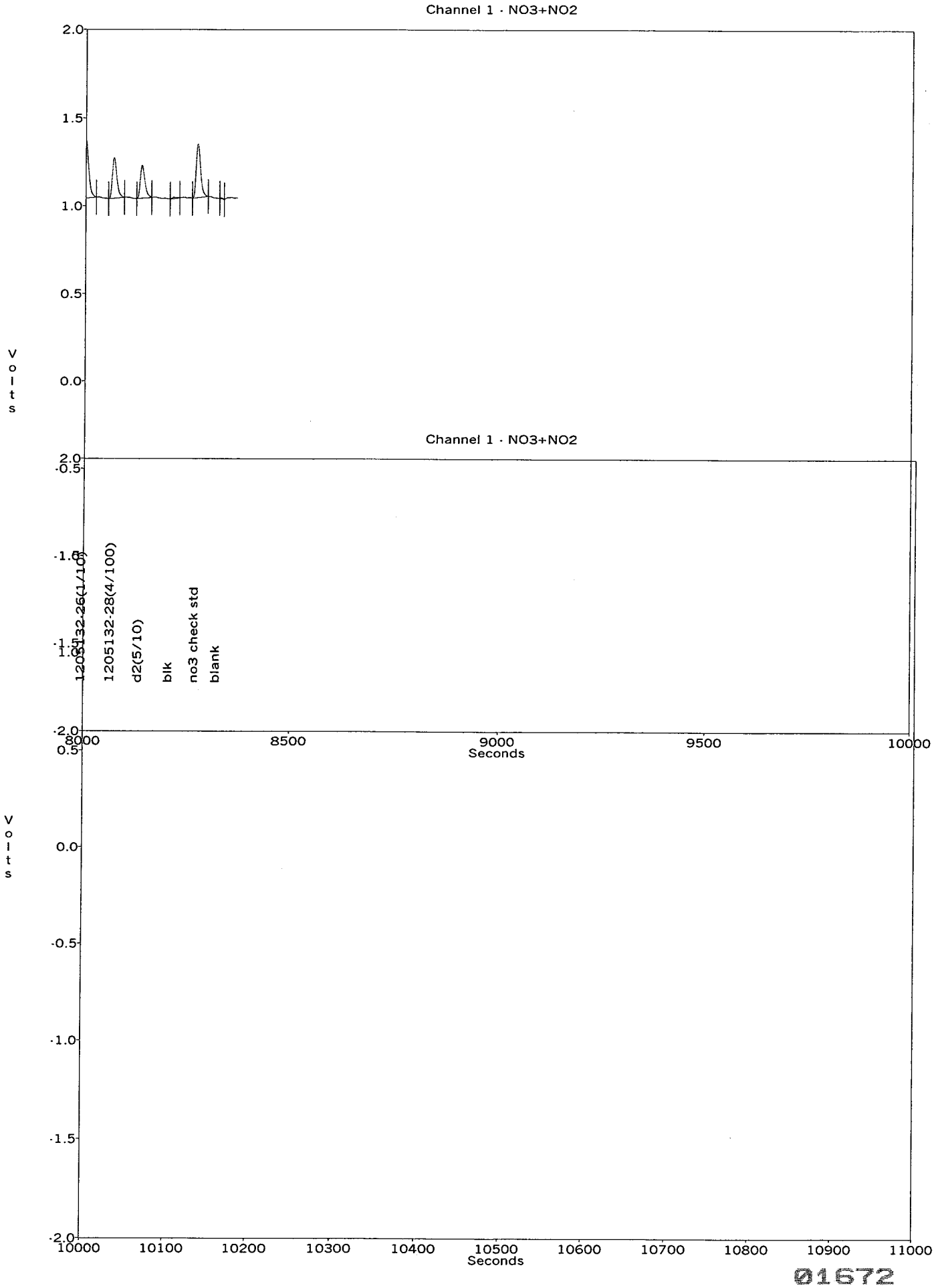


OPERATOR: cac
DATA FILENAME: C:\OMNION\DATA\05111233.FDT
TRAY FILENAME: C:\OMNION\TRAYS\05111233.TRA



01671

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



01672

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

Inorganic - Wet Chemistry, Water, May-25-12

Instrument = 189, Calibration = 2E31007

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

Lab Number	*Analysis*	*Contain*	*STD ID*	*ISTD ID*	*Client / QC Type*	*Extraction Comments*
2E31034-CAL1	QC		2051065		CAL STANDARD	
2E31034-CAL2	QC		2051066		CAL STANDARD	
2E31034-CAL3	QC		2051067		CAL STANDARD	
2E31034-CAL4	QC		2051068		CAL STANDARD	
2E31034-CAL5	QC		2051069		CAL STANDARD	
2E31034-CAL6	QC		2051071		CAL STANDARD	
2E31034-CCV1	QC		2051066		CALIBRATION CHECK	
2E31034-CCV2	QC		2051066		CALIBRATION CHECK	
2E31034-CCV3	QC		2051066		CALIBRATION CHECK	
2E31034-CCV4	QC		2051066		CALIBRATION CHECK	
2E31034-CCB1	QC		2051071		CALIBRATION BLANK	
2E31034-CCB2	QC		2051071		CALIBRATION BLANK	
2E31034-CCB3	QC		2051071		CALIBRATION BLANK	
2E31034-CCB4	QC		2051071		CALIBRATION BLANK	
1206711-BLK1	QC				BLANK	
1206711-BS1	QC				LCS	
2E31034-SCV1	QC		2051072		SECONDARY CAL CHECK	
2E31034-CRL1	QC		2051069		INSTRUMENT RL CHECK	
1205358-01	Nitrogen, NO3+NO2 4500-NO3 F	K			TechLaw	
1205374-01	Nitrogen, NO3+NO2 4500-NO3 F	K			TechLaw	
1206711-MS1	QC				MATRIX SPIKE	
1206711-MSD1	QC				MATRIX SPIKE DUP	

Comments:	Analyst Initials:

TriMatrix Laboratories, Inc.

HLB 6-4-12

PREPARATION BATCH **1206711** Page 1 of 1

Printed: 5/29/2012 8:58:41AM

Due 6-1-12

Level 4

Inorganic - Wet Chemistry, Water, General Inorganic Prep

(No Surrogate)

Batch Comments: (none)

01645

Standard	Description	Solvent	LotNum
2030137	NO3 100 mg/L	H2O	066134
2050775	Sulfanilamide Reagent	n/a	n/a
2050776	Ammonium Chloride Buffer	DI H2O	n/a

Work Order	Analysis	Work Order	Analysis	Work Order	Analysis
1205358	Nitrogen, NO3+NO2 4500-NO3 F	1205374	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*
1206711-BLK1		May-25-12 12:07	CAC	10	10					BLANK	
1206711-BS1		May-25-12 12:07	CAC	10	10			2030137	50	LCS	
1206711-MS1		May-25-12 12:07	CAC	10	10		1205374-01	2030137	50	MATRIX SPIKE	
1206711-MSD1		May-25-12 12:07	CAC	10	10		1205374-01	2030137	50	MATRIX SPIKE DUP	
1205358-01	K	May-25-12 12:07	CAC	10	10					TechLaw	
1205374-01	K	May-25-12 12:07	CAC	10	10					TechLaw	

Comments:

Analyst Initials:

Creator: cac
Creation Date: May 25, 2012 12:07:06
Last Modified: May 25, 2012 12:07:06
Description: None

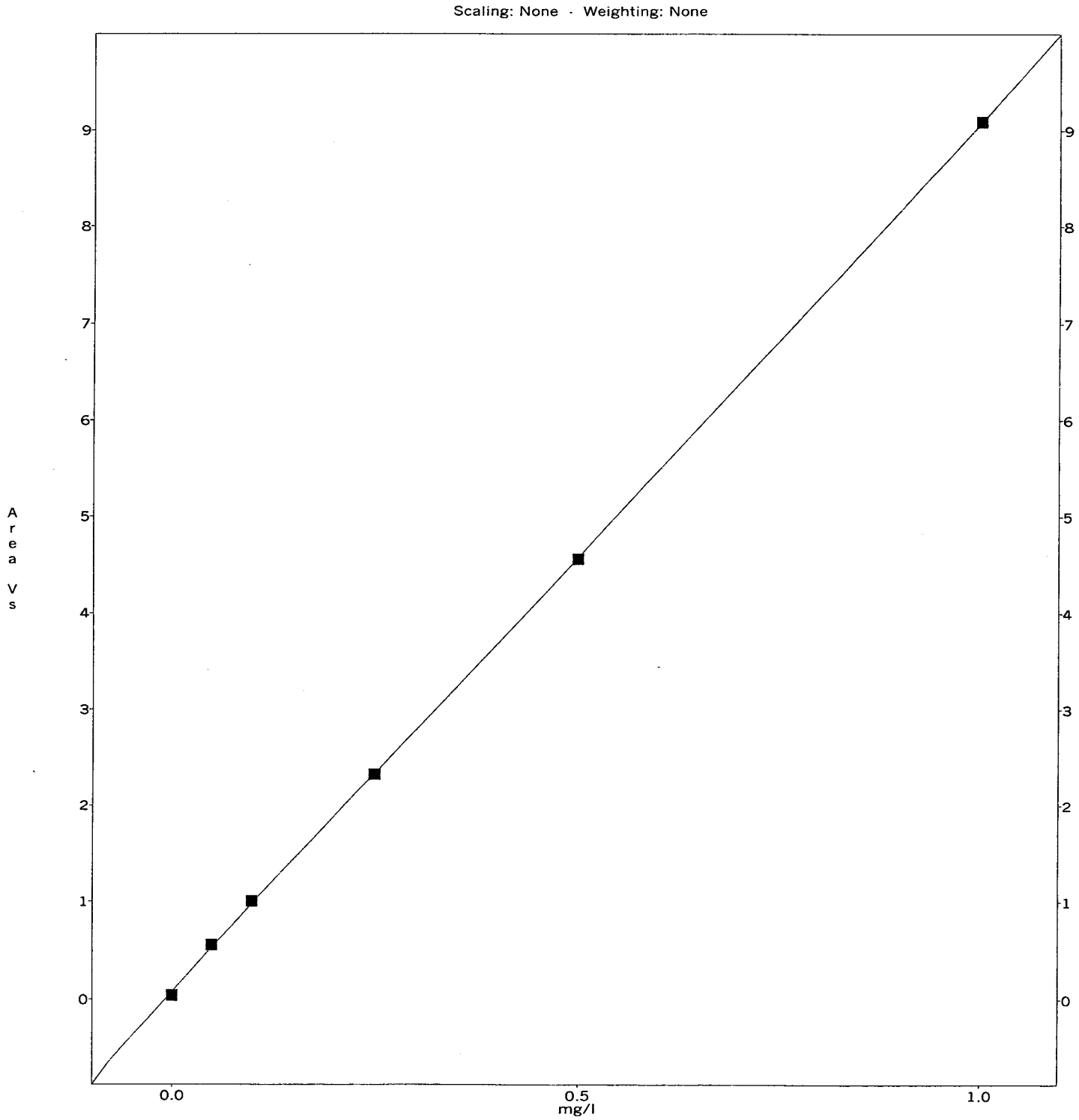
2050775
2050776

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 0.0	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	9092295	1.00	9092295					0.0	0.0	-0.0
2	4569386	0.50	4569386					0.0	0.0	0.3
3	2323575	0.25	2323575					0.0	0.0	0.3
4	1005008	0.10	1005008					0.0	0.0	-3.0
5	552944	0.05	552944					0.0	0.0	-5.6
6	40499	0.00	40499					0.0	0.0	

1st Order Poly
Conc = 1.110e-007 Area - 8.549e-003
r = 1.0000



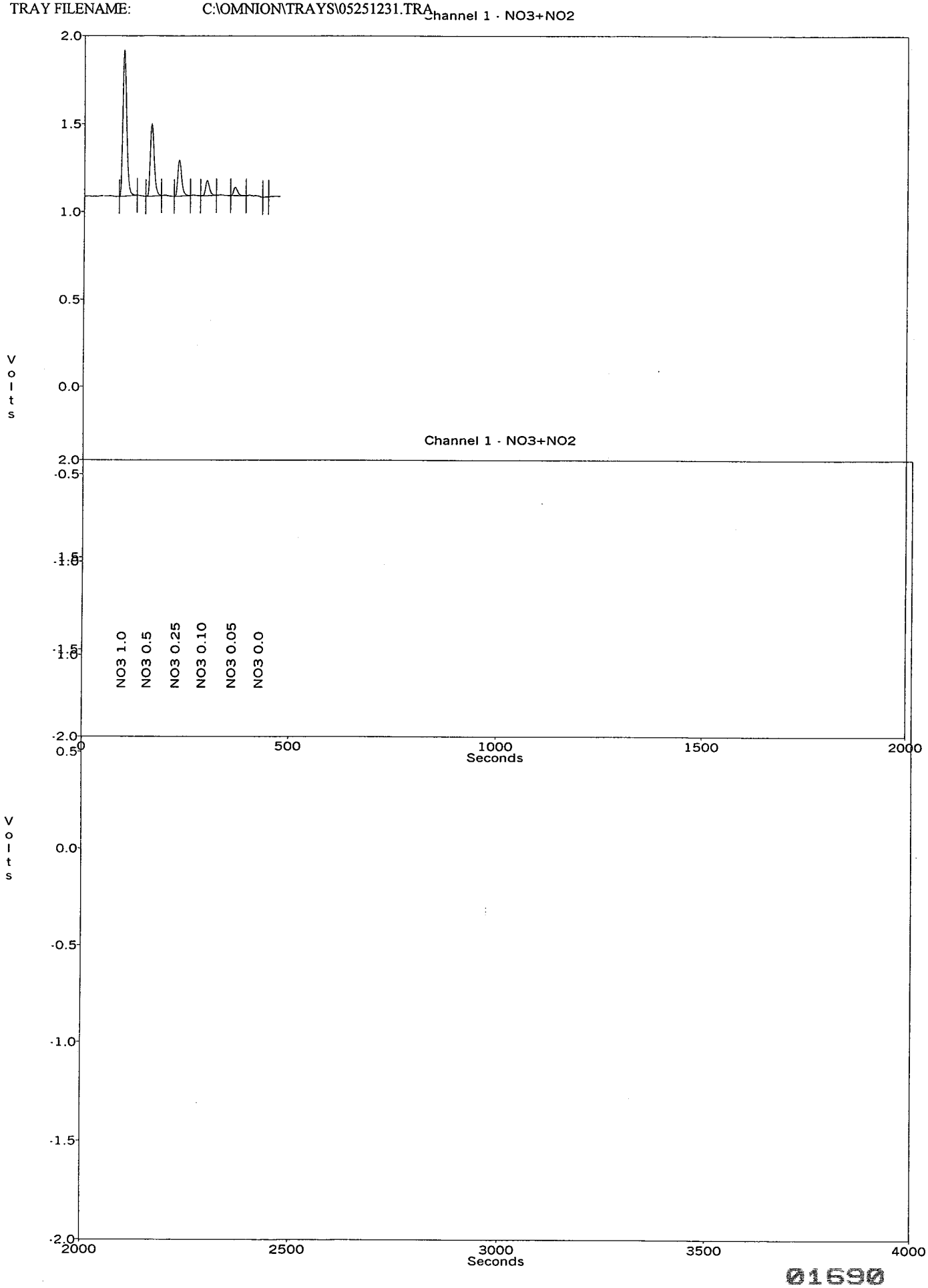
Printed: Friday, May 25, 2012 - 12:15 PM

OPERATOR: cac
ACQ. TIME: May 25, 2012 12:07:14
DATA FILENAME: C:\OMNION\DATA\05251231.FDT
METHOD FILENAME: C:\OMNION\METHODS\NO3ONLY.MET
TRAY FILENAME: C:\OMNION\TRAYS\05251231.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	25 May 2012	12:07:16	1	9092295.000	1.00
2	NO3 0.5	25 May 2012	12:08:23	1	4569386.000	1.00
3	NO3 0.25	25 May 2012	12:09:30	1	2323575.000	1.00
4	NO3 0.10	25 May 2012	12:10:39	1	1005008.000	1.00
5	NO3 0.05	25 May 2012	12:11:47	1	552944.000	1.00
6	NO3 0.0	25 May 2012	12:12:55	1	40499.000	1.00

OPERATOR: cac
ACQ. TIME: May 25, 2012 12:07:14
DATA FILENAME: C:\OMNION\DATA\05251231.FDT
METHOD FILENAME: C:\OMNION\METHODS\NO3ONLY.MET
TRAY FILENAME: C:\OMNION\TRAYS\05251231.TRA



01690

INSTRUMENT: FIA
TRAY: 05251231.TRA METHOD: NO3ONLY.MET DATAFILE: 05251231.FDT
DATE/TIME: Fri May 25 12:07:14 2012 OPERATOR: cac

*** Begin Calibration ***
Cup# 1 Sample: NO3 1.0 Type: CalStd Level: 1 Rep# 1/1
  Ch 1: NO3+NO2 Peak Area = 9092295.0 µv-s
Cup# 2 Sample: NO3 0.5 Type: CalStd Level: 2 Rep# 1/1
  Ch 1: NO3+NO2 Peak Area = 4569386.0 µv-s
Cup# 3 Sample: NO3 0.25 Type: CalStd Level: 3 Rep# 1/1
  Ch 1: NO3+NO2 Peak Area = 2323575.0 µv-s
Cup# 4 Sample: NO3 0.10 Type: CalStd Level: 4 Rep# 1/1
  Ch 1: NO3+NO2 Peak Area = 1005008.0 µv-s
Cup# 5 Sample: NO3 0.05 Type: CalStd Level: 5 Rep# 1/1
  Ch 1: NO3+NO2 Peak Area = 552944.0 µv-s
Cup# 6 Sample: NO3 0.0 Type: CalStd Level: 6 Rep# 1/1
  Ch 1: NO3+NO2 Peak Area = 40499.0 µv-s
*** Updated Calibration ***
  Ch 1: NO3+NO2
    ** 1st Order Poly Calibration **
    C[0] = 1.10972e-007
    C[1] = -0.00854884
    r = 1.0000
*** End Calibration Block ***
*** Calibration Passed ***
******* Tray Run Complete *******

Creator: cac
Creation Date: May 25, 2012 12:09:25
Last Modified: May 25, 2012 12:43:49
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	r11s	1.0000	Unknown	
7	r11s ms	1.0000	Unknown	
8	r11s msd	1.0000	Unknown	
9	rm16	1.0000	Unknown	
10	b2	1.0000	Unknown	
11	g120b	1.0000	Unknown	
12	mw202	1.0000	Unknown	
13	b4	1.0000	Unknown	
14	mw17	1.0000	Unknown	
15	mw17 ms	1.0000	Unknown	
16	mw17 msd	1.0000	Unknown	
17	dup2	1.0000	Unknown	
18	mwb1	1.0000	Unknown	
19	1205358-01	1.0000	Unknown	
20	1205374-01	1.0000	Unknown	
21	1205374-01 ms	1.0000	Unknown	
22	1205374-01 msd	1.0000	Unknown	
23	r11s(2/50)	25.0000	Unknown	
24	r11sms(2/50)	25.0000	Unknown	
25	r11smsd(2/50)	25.0000	Unknown	
26	rm16(5/50)	10.0000	Unknown	
27	g120b(5/25)	5.0000	Unknown	

OPERATOR: cac
ACQ. TIME: May 25, 2012 12:16:15
DATA FILENAME: C:\OMNION\DATA\05251232.FDT
METHOD FILENAME: C:\OMNION\METHODS\NO3ONLY.MET
TRAY FILENAME: C:\OMNION\TRAYS\05251232.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	25 May 2012	12:16:17	1	0.510	1.00 CCV1
				Known Concentration:		0.500	
				% Difference:		2.011	
2	no3 check st	RelChkStd	25 May 2012	12:30:04	1	0.499	1.00 CCV2
				Known Concentration:		0.500	
				% Difference:		-0.112	
2	no3 check st	RelChkStd	25 May 2012	12:43:48	1	0.496	1.00 CCV3
				Known Concentration:		0.500	
				% Difference:		-0.758	
2	no3 check st	RelChkStd	25 May 2012	12:54:04	1	0.506	1.00 CCV4
				Known Concentration:		0.500	
				% Difference:		1.178	
6	blank	Blank	25 May 2012	12:17:26	1	-0.006	1.00 CCB1
6	blank	Blank	25 May 2012	12:31:13	1	-0.005	1.00 CCB2
6	blank	Blank	25 May 2012	12:44:56	1	-0.006	1.00 CCB3
6	blank	Blank	25 May 2012	12:55:13	1	-0.006	1.00 CCB4

OPERATOR: cac
ACQ. TIME: May 25, 2012 12:16:15
DATA FILENAME: C:\OMNION\DATA\05251232.FDT

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

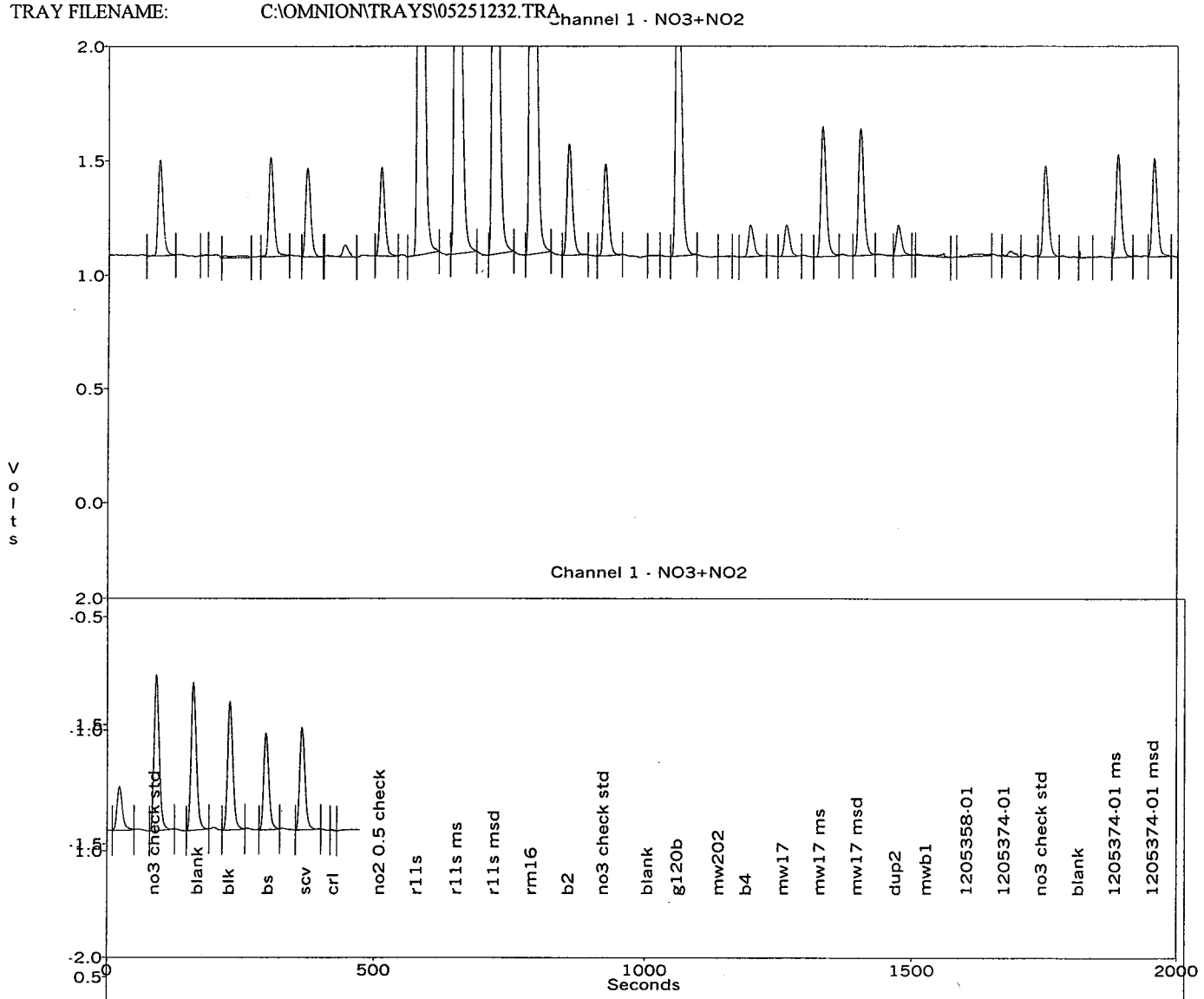
Cup	Sample ID	Sampling Date	Sampling Time	# of Reps	NO3+NO2 (mg/l)	Man Dil Factor
1	blk	25 May 2012	12:18:36	1	0.014	1.0
2	bs	25 May 2012	12:19:46	1	0.540	1.0
3	scv	25 May 2012	12:20:55	1	0.466	1.0
4	crl	25 May 2012	12:22:04	1	0.066	1.0
5	no2 0.5 check	25 May 2012	12:23:12	1	0.481	1.0
6	r11s	25 May 2012	12:24:21	1	4.797	1.0
7	r11s ms	25 May 2012	12:25:30	1	5.116	1.0
8	r11s msd	25 May 2012	12:26:39	1	5.110	1.0
9	rm16	25 May 2012	12:27:48	1	5.301	1.0
10	b2	25 May 2012	12:28:57	1	0.611	1.0
11	g120b	25 May 2012	12:32:21	1	2.182	1.0
12	mw202	25 May 2012	12:33:29	1	-0.003	1.0
13	b4	25 May 2012	12:34:37	1	0.177	1.0
14	mw17	25 May 2012	12:35:45	1	0.168	1.0
15	mw17 ms	25 May 2012	12:36:52	1	0.726	1.0
16	mw17 msd	25 May 2012	12:38:02	1	0.705	1.0
17	dup2	25 May 2012	12:39:12	1	0.167	1.0
18	mwb1	25 May 2012	12:40:22	1	-0.000	1.0
19	1205358-01	25 May 2012	12:41:32	1	0.026	1.0
20	1205374-01	25 May 2012	12:42:41	1	0.031	1.0
21	1205374-01 ms	25 May 2012	12:46:06	1	0.564	1.0
22	1205374-01 msd	25 May 2012	12:47:14	1	0.541	1.0
23	r11s(2/50)	25 May 2012	12:48:23	1	5.481	25.0
24	r11sms(2/50)	25 May 2012	12:49:32	1	19.413	25.0
25	r11smsd(2/50)	25 May 2012	12:50:41	1	18.277	25.0

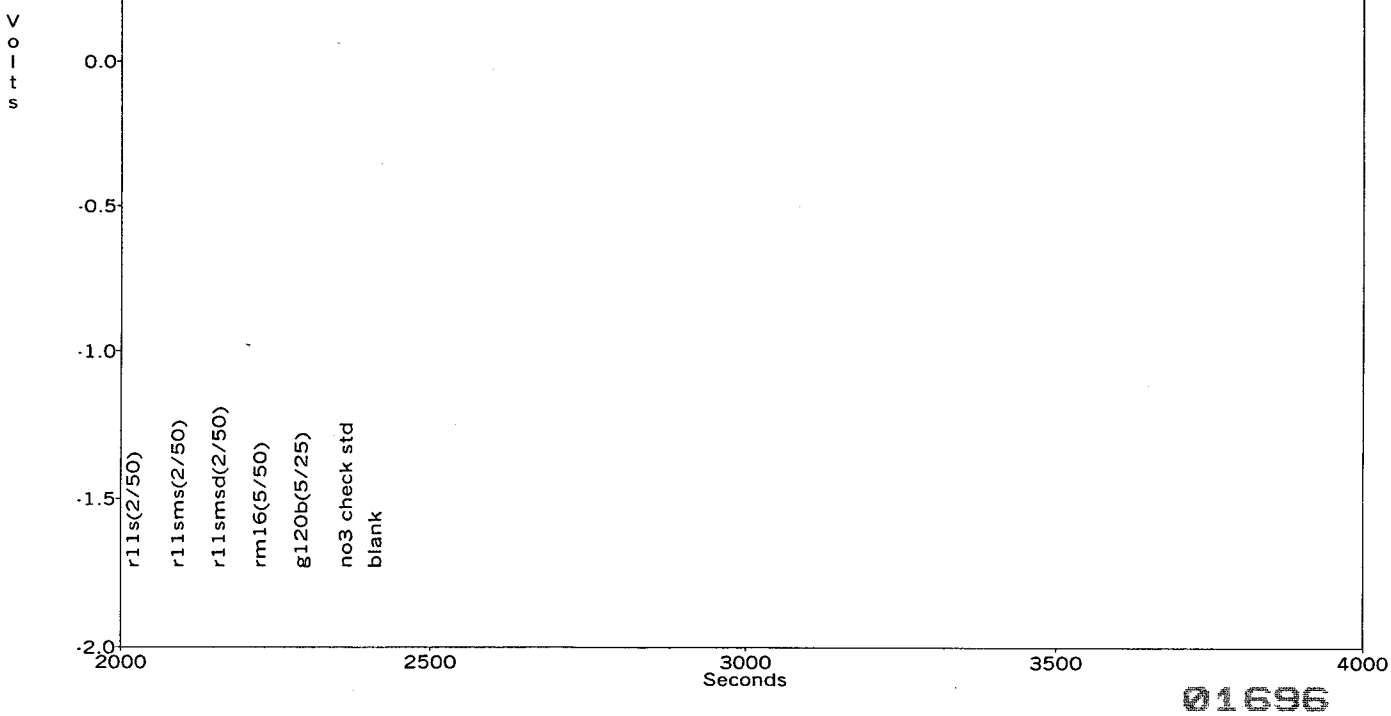
OPERATOR: cac
ACQ. TIME: May 25, 2012 12:16:15
DATA FILENAME: C:\OMNION\DATA\05251232.FDT

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
26	rm16(5/50)	25 May 2012	12:51:50	1	6.390	10.0
27	g120b(5/25)	25 May 2012	12:52:58	1	2.405	5.0

OPERATOR: cac
ACQ. TIME: May 25, 2012 12:16:15
DATA FILENAME: C:\OMNION\DATA\05251232.FDT
METHOD FILENAME: C:\OMNION\METHODS\NO3ONLY.MET
TRAY FILENAME: C:\OMNION\TRAYS\05251232.TRA





01696

INSTRUMENT: FIA
TRAY: 05251232.TRA METHOD: NO3ONLY.MET DATAFILE: 05251232.FDT
DATE/TIME: Fri May 25 12:16:16 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 = 0.5101 mg/l
DQM Sample Results: no3 check std
 Ch 1: NO3+NO2 = 0.5101 mg/l
  Known Conc = 0.5000 mg/L - %Diff from Known = 2.0107%
   Test 1: Passed
Cup# 6 Sample: blank Type: Blank Rep# 1/1
 Ch 1: NO3+NO2 = -0.0061 mg/l
DQM Sample Results: blank
 Ch 1: NO3+NO2
  Determined Conc = -0.0061 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 = 0.0138 mg/l
Cup# 2 Sample: bs Type: Unknown Rep# 1/1
 Ch 1: NO3+NO2 = 0.5399 mg/l
Cup# 3 Sample: scv Type: Unknown Rep# 1/1
 Ch 1: NO3+NO2 = 0.4662 mg/l
Cup# 4 Sample: crl Type: Unknown Rep# 1/1
 Ch 1: NO3+NO2 = 0.0658 mg/l
Cup# 5 Sample: no2 0.5 check Type: Unknown Rep# 1/1
 Ch 1: NO3+NO2 = 0.4811 mg/l
Cup# 6 Sample: r11s Type: Unknown Rep# 1/1
 Ch 1: NO3+NO2 = 4.7974 mg/l
Cup# 7 Sample: r11s ms Type: Unknown Rep# 1/1
 Ch 1: NO3+NO2 = 5.1158 mg/l
Cup# 8 Sample: r11s msd Type: Unknown Rep# 1/1
 Ch 1: NO3+NO2 = 5.1097 mg/l
Cup# 9 Sample: rm16 Type: Unknown Rep# 1/1
 Ch 1: NO3+NO2 = 5.3011 mg/l
Cup# 10 Sample: b2 Type: Unknown Rep# 1/1
 Ch 1: NO3+NO2 = 0.6110 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 = 0.4994 mg/l
DQM Sample Results: no3 check std
 Ch 1: NO3+NO2 = 0.4994 mg/l
  Known Conc = 0.5000 mg/L - %Diff from Known = -0.1120%
   Test 1: Passed
Cup# 6 Sample: blank Type: Blank Rep# 1/1 Repeat# 1
 Ch 1: NO3+NO2 = -0.0053 mg/l
DQM Sample Results: blank
 Ch 1: NO3+NO2
  Determined Conc = -0.0053 mg/l
   Test 1: Passed
*** End of DQM Set Check Std - Set Passed ***
Cup# 11 Sample: g120b Type: Unknown Rep# 1/1
 Ch 1: NO3+NO2 = 2.1818 mg/l
Cup# 12 Sample: mw202 Type: Unknown Rep# 1/1
 Ch 1: NO3+NO2 = -0.0032 mg/l
Cup# 13 Sample: b4 Type: Unknown Rep# 1/1
 Ch 1: NO3+NO2 = 0.1772 mg/l
Cup# 14 Sample: mw17 Type: Unknown Rep# 1/1
 Ch 1: NO3+NO2 = 0.1683 mg/l
Cup# 15 Sample: mw17 ms Type: Unknown Rep# 1/1
 Ch 1: NO3+NO2 = 0.7262 mg/l
Cup# 16 Sample: mw17 msd Type: Unknown Rep# 1/1
 Ch 1: NO3+NO2 = 0.7054 mg/l
Cup# 17 Sample: dup2 Type: Unknown Rep# 1/1
 Ch 1: NO3+NO2 = 0.1665 mg/l

Cup# 18 Sample: mwb1 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = -0.0002 mg/l
Cup# 19 Sample: 1205358-01 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.0258 mg/l
Cup# 20 Sample: 1205374-01 Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.0307 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 = 0.4962 mg/l
DQM Sample Results: no3 check std
Ch 1: NO3+NO2 = 0.4962 mg/l
Known Conc = 0.5000 mg/L - %Diff from Known = -0.7579%
Test 1: Passed
Cup# 6 Sample: blank Type: Blank Rep# 1/1 Repeat# 2
Ch 1: NO3+NO2 = -0.0065 mg/l
DQM Sample Results: blank
Ch 1: NO3+NO2
Determined Conc = -0.0065 mg/l
Test 1: Passed
*** End of DQM Set Check Std - Set Passed ***
Cup# 21 Sample: 1205374-01 ms Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.5638 mg/l
Cup# 22 Sample: 1205374-01 msd Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.5406 mg/l
Cup# 23 Sample: r11s(2/50) Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.2192 mg/l
Cup# 24 Sample: r11sms(2/50) Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.7765 mg/l
Cup# 25 Sample: r11smsd(2/50) Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.7311 mg/l
Cup# 26 Sample: rm16(5/50) Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.6390 mg/l
Cup# 27 Sample: g120b(5/25) Type: Unknown Rep# 1/1
Ch 1: NO3+NO2 = 0.4810 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 = 0.5059 mg/l
DQM Sample Results: no3 check std
Ch 1: NO3+NO2 = 0.5059 mg/l
Known Conc = 0.5000 mg/L - %Diff from Known = 1.1783%
Test 1: Passed
Cup# 6 Sample: blank Type: Blank Rep# 1/1 Repeat# 3
Ch 1: NO3+NO2 = -0.0058 mg/l
DQM Sample Results: blank
Ch 1: NO3+NO2
Determined Conc = -0.0058 mg/l
Test 1: Passed
*** End of DQM Set Check Std - Set Passed ***
******* Tray Run Complete *******

OPERATOR: cac
ACQ. TIME: May 25, 2012 12:16:15
DATA FILENAME: C:\OMNION\DATA\05251232.FDT
METHOD FILENAME: C:\OMNION\METHODS\NO3ONLY.MET
TRAY FILENAME: C:\OMNION\TRAYS\05251232.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	25 May 2012	12:16:17	1	4673287.000	1.00
				Known Concentration:		0.500	
				% Difference:		2.011	
2	no3 check st	RelChkStd	25 May 2012	12:30:04	1	4577645.000	1.00
				Known Concentration:		0.500	
				% Difference:		-0.112	
2	no3 check st	RelChkStd	25 May 2012	12:43:48	1	4548544.000	1.00
				Known Concentration:		0.500	
				% Difference:		-0.758	
2	no3 check st	RelChkStd	25 May 2012	12:54:04	1	4635780.000	1.00
				Known Concentration:		0.500	
				% Difference:		1.178	
6	blank	Blank	25 May 2012	12:17:26	1	22179.000	1.00
6	blank	Blank	25 May 2012	12:31:13	1	29181.000	1.00
6	blank	Blank	25 May 2012	12:44:56	1	18492.000	1.00
6	blank	Blank	25 May 2012	12:55:13	1	24664.000	1.00

OPERATOR: cac
ACQ. TIME: May 25, 2012 12:16:15
DATA FILENAME: C:\OMNION\DATA\05251232.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	25 May 2012	12:18:36	1	201606.000	1.0
2	bs	25 May 2012	12:19:46	1	4941972.000	1.0
3	scv	25 May 2012	12:20:55	1	4278292.000	1.0
4	crl	25 May 2012	12:22:04	1	670064.000	1.0
5	no2 0.5 check	25 May 2012	12:23:12	1	4412660.000	1.0
6	r11s	25 May 2012	12:24:21	1	43307476.000	1.0
7	r11s ms	25 May 2012	12:25:30	1	46176748.000	1.0
8	r11s msd	25 May 2012	12:26:39	1	46121920.000	1.0
9	rm16	25 May 2012	12:27:48	1	47846804.000	1.0
10	b2	25 May 2012	12:28:57	1	5583092.000	1.0
11	g120b	25 May 2012	12:32:21	1	19737606.000	1.0
12	mw202	25 May 2012	12:33:29	1	48118.000	1.0
13	b4	25 May 2012	12:34:37	1	1674195.000	1.0
14	mw17	25 May 2012	12:35:45	1	1593235.000	1.0
15	mw17 ms	25 May 2012	12:36:52	1	6621338.000	1.0
16	mw17 msd	25 May 2012	12:38:02	1	6433472.000	1.0
17	dup2	25 May 2012	12:39:12	1	1577824.000	1.0
18	mwb1	25 May 2012	12:40:22	1	75102.000	1.0
19	1205358-01	25 May 2012	12:41:32	1	309856.000	1.0
20	1205374-01	25 May 2012	12:42:41	1	353808.000	1.0
21	1205374-01 ms	25 May 2012	12:46:06	1	5157821.000	1.0
22	1205374-01 msd	25 May 2012	12:47:14	1	4948346.000	1.0
23	r11s(2/50)	25 May 2012	12:48:23	1	2052589.000	25.0
24	r11sms(2/50)	25 May 2012	12:49:32	1	7074538.000	25.0
25	r11smsd(2/50)	25 May 2012	12:50:41	1	6664935.000	25.0

OPERATOR: cac
ACQ. TIME: May 25, 2012 12:16:15
DATA FILENAME: C:\OMNION\DATA\05251232.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
26	rm16(5/50)	25 May 2012	12:51:50	1	5835184.000	10.0
27	g120b(5/25)	25 May 2012	12:52:58	1	4411632.000	5.0

TriMatrix Laboratories, Inc.

TechLaw

Project: KNM

SDG: KNM050712

SM 4500-S2 D 20th

SAMPLE ID SUMMARY

SM 4500-S2 D 20th

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

SDG: KNM050712

Project: KNM

Client Sample Id:	Lab Sample Id:
106091	1205226-01
106191	1205226-02
1060SL	1205358-01
106RCT	1205374-01

INORGANIC ANALYSIS DATA SHEET

SM 4500-S2 D 20th

106091

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Matrix: Water
Sampled: 05/09/12 10:00
Solids: 0.00
QC Batch: 1206223

SDG: KNM050712
Project: KNM
Laboratory ID: 1205226-01
Prepared: 05/10/12 19:00
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	0.020	mg/L	0.0052	0.020	U	05/10/12 19:26

INORGANIC ANALYSIS DATA SHEET

SM 4500-S2 D 20th

106191

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Matrix: Water
Sampled: 05/09/12 13:00
Solids: 0.00
QC Batch: 1206223

SDG: KNM050712
Project: KNM
Laboratory ID: 1205226-02
Prepared: 05/10/12 19:00
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	0.020	mg/L	0.0052	0.020	U	05/10/12 19:27

INORGANIC ANALYSIS DATA SHEET

SM 4500-S2 D 20th

1060SL

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Matrix: Water
Sampled: 05/17/12 10:00
Solids: 0.00
QC Batch: 1206679

SDG: KNM050712
Project: KNM
Laboratory ID: 1205358-01
Prepared: 05/24/12 16:00
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	0.020	mg/L	0.0052	0.020	U	05/24/12 16:16

INORGANIC ANALYSIS DATA SHEET

SM 4500-S2 D 20th

106RCT

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Matrix: Water
Sampled: 05/18/12 09:30
Solids: 0.00
QC Batch: 1206679

SDG: KNM050712
Project: KNM
Laboratory ID: 1205374-01
Prepared: 05/24/12 16:00
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	0.020	mg/L	0.0052	0.020	U	05/24/12 16:19

ANALYSIS BATCH (SEQUENCE) SUMMARY

SM 4500-S2 D 20th

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Sequence: 2E16013

SDG: KNM050712

Project: KNM

Calibration: 2E16005

Instrument: 330

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Cal Standard	2E16013-CAL1		05/10/12 19:13
Cal Standard	2E16013-CAL2		05/10/12 19:14
Cal Standard	2E16013-CAL3		05/10/12 19:14
Cal Standard	2E16013-CAL4		05/10/12 19:15
Cal Standard	2E16013-CAL5		05/10/12 19:15
Cal Standard	2E16013-CAL6		05/10/12 19:16
Calibration Check	2E16013-CCV1		05/10/12 19:17
Calibration Blank	2E16013-CCB1		05/10/12 19:19
Blank	1206223-BLK1		05/10/12 19:19
LCS	1206223-BS1		05/10/12 19:19
Secondary Cal Check	2E16013-SCV1		05/10/12 19:20
Instrument RL Check	2E16013-CRL1		05/10/12 19:21
Calibration Check	2E16013-CCV2		05/10/12 19:24
Calibration Blank	2E16013-CCB2		05/10/12 19:25
106091	1205226-01		05/10/12 19:26
106191	1205226-02		05/10/12 19:27
106191	1206223-MS1		05/10/12 19:28
106191	1206223-MSD1		05/10/12 19:28
Calibration Check	2E16013-CCV3		05/10/12 19:30
Calibration Blank	2E16013-CCB3		05/10/12 19:31

ANALYSIS BATCH (SEQUENCE) SUMMARY

SM 4500-S2 D 20th

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Sequence: 2E25037

SDG: KNM050712

Project: KNM

Calibration: 2E25009

Instrument: 330

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Cal Standard	2E25037-CAL1		05/24/12 16:04
Cal Standard	2E25037-CAL2		05/24/12 16:05
Cal Standard	2E25037-CAL3		05/24/12 16:05
Cal Standard	2E25037-CAL4		05/24/12 16:06
Cal Standard	2E25037-CAL5		05/24/12 16:07
Cal Standard	2E25037-CAL6		05/24/12 16:07
Calibration Check	2E25037-CCV1		05/24/12 16:08
Calibration Blank	2E25037-CCB1		05/24/12 16:09
Blank	1206679-BLK1		05/24/12 16:09
LCS	1206679-BS1		05/24/12 16:09
Secondary Cal Check	2E25037-SCV1		05/24/12 16:10
Instrument RL Check	2E25037-CRL1		05/24/12 16:11
Calibration Check	2E25037-CCV2		05/24/12 16:15
Calibration Blank	2E25037-CCB2		05/24/12 16:16
1060SL	1205358-01		05/24/12 16:16
1060SL	1206679-MS1		05/24/12 16:17
1060SL	1206679-MSD1		05/24/12 16:18
106RCT	1205374-01		05/24/12 16:19
Calibration Check	2E25037-CCV3		05/24/12 16:20
Calibration Blank	2E25037-CCB3		05/24/12 16:20

INITIAL AND CONTINUING CALIBRATION CHECK

SM 4500-S2 D 20th

Laboratory: TriMatrix Laboratories, Inc.
SDG: KNM050712
Client: TechLaw
Project: KNM
Sequence: 2E16013
Calibration: 2E16005
Control Limt: +/- 15.00%
Instrument ID: 330

Lab Sample ID	Analyte	True	Found	%R	Units	Analyzed
2E16013-CCV1	Sulfide, Total	0.234	0.241	103	mg/L	05/10/12 19:17
2E16013-CCV2	Sulfide, Total	0.234	0.240	103	mg/L	05/10/12 19:24
2E16013-CCV3	Sulfide, Total	0.234	0.241	103	mg/L	05/10/12 19:30

* Values outside of QC limits

INITIAL AND CONTINUING CALIBRATION CHECK

SM 4500-S2 D 20th

Laboratory: TriMatrix Laboratories, Inc.
SDG: KNM050712
Client: TechLaw
Project: KNM
Sequence: 2E25037
Calibration: 2E25009
Control Limt: +/- 15.00%
Instrument ID: 330

Lab Sample ID	Analyte	True	Found	%R	Units	Analyzed
2E25037-CCV1	Sulfide, Total	0.232	0.233	101	mg/L	05/24/12 16:08
2E25037-CCV2	Sulfide, Total	0.232	0.232	100	mg/L	05/24/12 16:15
2E25037-CCV3	Sulfide, Total	0.232	0.232	100	mg/L	05/24/12 16:20

* Values outside of QC limits

SECOND-SOURCE CALIBRATION VERIFICATION

SM 4500-S2 D 20th

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Laboratory ID: 2E16013-SCV1
Sequence: 2E16013

SDG: KNM050712
Project: KNM
Instrument: 330
Calibration: 2E16005

Analyte	Expected	Found	% R	QC Limit	Units
Sulfide, Total	0.236	0.237	100	80-120	mg/L

* Values outside of QC limits

SECOND-SOURCE CALIBRATION VERIFICATION

SM 4500-S2 D 20th

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Laboratory ID: 2E25037-SCV1
Sequence: 2E25037

SDG: KNM050712
Project: KNM
Instrument: 330
Calibration: 2E25009

Analyte	Expected	Found	% R	QC Limit	Units
Sulfide, Total	0.230	0.245	107	80-120	mg/L

* Values outside of QC limits

CRDL STANDARD

SM 4500-S2 D 20th

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Sequence: 2E16013

SDG: KNM050712

Project: KNM

Calibration: 2E16005

Instrument ID: 330

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
2E16013-CRL1	Sulfide, Total	0.0234	0.0197	84	mg/L	50 - 150

* Values outside of QC limits

CRDL STANDARD

SM 4500-S2 D 20th

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Sequence: 2E25037

SDG: KNM050712

Project: KNM

Calibration: 2E25009

Instrument ID: 330

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
2E25037-CRL1	Sulfide, Total	0.0232	0.0195	84	mg/L	50 - 150

* Values outside of QC limits

BLANKS
SM 4500-S2 D 20th

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Sequence: 2E16013

SDG: KNM050712
Project: KNM
Calibration: 2E16005
Instrument ID: 330

Lab Sample ID	Analyte	Found	Unit	MDL	MRL	C	Analyzed
2E16013-CCB1	Sulfide, Total	-0.0045	mg/L	0.0052	0.020	U	05/10/12 19:19
2E16013-CCB2	Sulfide, Total	-0.0044	mg/L	0.0052	0.020	U	05/10/12 19:25
2E16013-CCB3	Sulfide, Total	-0.0045	mg/L	0.0052	0.020	U	05/10/12 19:31

* Values outside of QC limits

BLANKS
SM 4500-S2 D 20th

Laboratory: TriMatrix Laboratories, Inc.
Client: TechLaw
Sequence: 2E25037

SDG: KNM050712
Project: KNM
Calibration: 2E25009
Instrument ID: 330

Lab Sample ID	Analyte	Found	Unit	MDL	MRL	C	Analyzed
2E25037-CCB1	Sulfide, Total	-0.0046	mg/L	0.0052	0.020	U	05/24/12 16:09
2E25037-CCB2	Sulfide, Total	-0.0044	mg/L	0.0052	0.020	U	05/24/12 16:16
2E25037-CCB3	Sulfide, Total	-0.0041	mg/L	0.0052	0.020	U	05/24/12 16:20

* Values outside of QC limits

QC BATCH SUMMARY

SM 4500-S2 D 20th

Laboratory: TriMatrix Laboratories, Inc.

SDG: KNM050712

Client: TechLaw

Project: KNM

QC Batch: 1206223 QC Batch Matrix: Water

Preparation: Method-Specific Preparation

Sample Name	Lab Sample ID	Date Prepared	Observations
106091	1205226-01	05/10/12 19:00	
106191	1205226-02	05/10/12 19:00	
Blank	1206223-BLK1	05/10/12 19:00	
LCS	1206223-BS1	05/10/12 19:00	
106191	1206223-MS1	05/10/12 19:00	
106191	1206223-MSD1	05/10/12 19:00	

QC BATCH SUMMARY

SM 4500-S2 D 20th

Laboratory: TriMatrix Laboratories, Inc.

SDG: KNM050712

Client: TechLaw

Project: KNM

QC Batch: 1206679

QC Batch Matrix: Water

Preparation: Method-Specific Preparation

Sample Name	Lab Sample ID	Date Prepared	Observations
1060SL	1205358-01	05/24/12 16:00	
106RCT	1205374-01	05/24/12 16:00	
Blank	1206679-BLK1	05/24/12 16:00	
LCS	1206679-BS1	05/24/12 16:00	
1060SL	1206679-MS1	05/24/12 16:00	
1060SL	1206679-MSD1	05/24/12 16:00	

METHOD BLANK DATA SHEET
SM 4500-S2 D 20th

Laboratory: TriMatrix Laboratories, Inc.
SDG: KNM050712
Client: TechLaw
Project: KNM
Matrix: Water
Laboratory ID: 1206223-BLK1
File ID:
Prepared: 05/10/12 19:00
Analyzed: 05/10/12 19:19
Preparation: Method-Specific Preparat
Initial/Final: 7.5 mL / 7.5 mL
QC Batch: 1206223
Sequence: 2E16013
Calibration: 2E16005
Instrument: 330

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

METHOD BLANK DATA SHEET
SM 4500-S2 D 20th

Laboratory: TriMatrix Laboratories, Inc.
SDG: KNM050712
Client: TechLaw
Project: KNM
Matrix: Water
Laboratory ID: 1206679-BLK1
File ID:
Prepared: 05/24/12 16:00
Analyzed: 05/24/12 16:09
Preparation: Method-Specific Preparat
Initial/Final: 7.5 mL / 7.5 mL
QC Batch: 1206679
Sequence: 2E25037
Calibration: 2E25009
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

106191

SM 4500-S2 D 20th

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Matrix: Water

QC Batch: 1206223

SDG: KNM050712

Project: KNM

Laboratory ID: 1206223-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	0.312	ND	0.335	108	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

106191

SM 4500-S2 D 20th

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Matrix: Water

QC Batch: 1206223

SDG: KNM050712

Project: KNM

Laboratory ID: 1206223-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	0.312	0.325	104	3	20	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

1060SL

SM 4500-S2 D 20th

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Matrix: Water

QC Batch: 1206679

SDG: KNM050712

Project: KNM

Laboratory ID: 1206679-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	0.309	ND	0.325	105	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

SM 4500-S2 D 20th

1060SL

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Matrix: Water

QC Batch: 1206679

SDG: KNM050712

Project: KNM

Laboratory ID: 1206679-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	0.309	0.311	101	5	20	55 - 119	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-S2 D 20th

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Matrix: Water

QC Batch: 1206223

SDG: KNM050712

Project: KNM

Laboratory ID: 1206223-BS1

Preparation: Method-Specific Preparation

Initial/Final: 7.5 mL / 7.5 mL

Sequence: 2E16013

Analyte	Spike Added	LCS Conc.	LCS % Rec. #	QC Limits Rec.	Units
Sulfide, Total	0.312	0.327	105	80 - 120	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-S2 D 20th

Laboratory: TriMatrix Laboratories, Inc.

Client: TechLaw

Matrix: Water

QC Batch: 1206679

SDG: KNM050712

Project: KNM

Laboratory ID: 1206679-BS1

Preparation: Method-Specific Preparation

Initial/Final: 7.5 mL / 7.5 mL

Sequence: 2E25037

Analyte	Spike Added	LCS Conc.	LCS % Rec. #	QC Limits Rec.	Units
Sulfide, Total	0.309	0.321	104	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.

Client: TechLaw

Analyte: Sulfide, Total

SDG: KNM050712

Project: KNM

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
106091	05/09/12	05/10/12		05/10/12	1	NA	05/10/12	1	7	
106191	05/09/12	05/10/12		05/10/12	1	NA	05/10/12	1	7	
1060SL	05/17/12	05/18/12		05/24/12	7	NA	05/24/12	7	7	
106RCT	05/18/12	05/21/12		05/24/12	6	NA	05/24/12	6	7	

Inorganic - Wet Chemistry, Water, May-10-12

Instrument = 330, Calibration = 2E16005

Sequence Analyses:
Sulfide, Total 4500-S2 D

Lab Number	*Analysis*	*Contain*	*STD ID*	*ISTD ID*	*Client / QC Type*	*Extraction Comments*
2E16013-CAL1	QC		2050465		CAL STANDARD	
2E16013-CAL2	QC		2050464		CAL STANDARD	
2E16013-CAL3	QC		2050463		CAL STANDARD	
2E16013-CAL4	QC		2050462		CAL STANDARD	
2E16013-CAL5	QC		2050461		CAL STANDARD	
2E16013-CAL6	QC		2050460		CAL STANDARD	
2E16013-CCV1	QC		2050461		CALIBRATION CHECK	
2E16013-CCB1	QC		2050465		CALIBRATION BLANK	
1206223-BLK1	QC				BLANK	
1206223-BS1	QC				LCS	
2E16013-SCV1	QC		2050456		SECONDARY CAL CHECK	
2E16013-CRL1	QC		2050464		INSTRUMENT RL CHECK	
2E16013-CCV2	QC		2050461		CALIBRATION CHECK	
2E16013-CCB2	QC		2050465		CALIBRATION BLANK	
1205226-01	Sulfide, Total 4500-S2 D	M			TechLaw	
1205226-02	Sulfide, Total 4500-S2 D	M			TechLaw	
1206223-MS1	QC				MATRIX SPIKE	
1206223-MSD1	QC				MATRIX SPIKE DUP	
2E16013-CCV3	QC		2050461		CALIBRATION CHECK	
2E16013-CCB3	QC		2050465		CALIBRATION BLANK	

Comments:	Analyst Initials:

TriMatrix Laboratories, Inc.

NLB 5-23-12

Due 5.23.12

Printed: 5/16/2012 8:28:18AM

Lv 4mD

PREPARATION BATCH 1206223

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
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
2041294	Ferric Chloride(sulfides)	Di H2O	NA
2050318	Diammonium Hydrogen Phosphat	Di H2O	NA
2050339	1+1 HCl (Sulide)	Di H2O	110306
2050459	SULFIDE 4.68ppm	DI WATER	K17597

Work Order	Analysis	Work Order	Analysis	Work Order	Analysis
1205226	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*
1206223-BLK1		May-10-12 19:00	KAR	7.5	7.5					BLANK	
1206223-BS1		May-10-12 19:00	KAR	7.5	7.5			2050459	500	LCS	
1206223-MS1		May-10-12 19:00	KAR	7.5	7.5		1205226-02	2050459	500	MATRIX SPIKE	
1206223-MSD1		May-10-12 19:00	KAR	7.5	7.5		1205226-02	2050459	500	MATRIX SPIKE DUP	
1205226-01	M	May-10-12 19:00	KAR	7.5	7.5					TechLaw	
1205226-02	M	May-10-12 19:00	KAR	7.5	7.5					TechLaw	

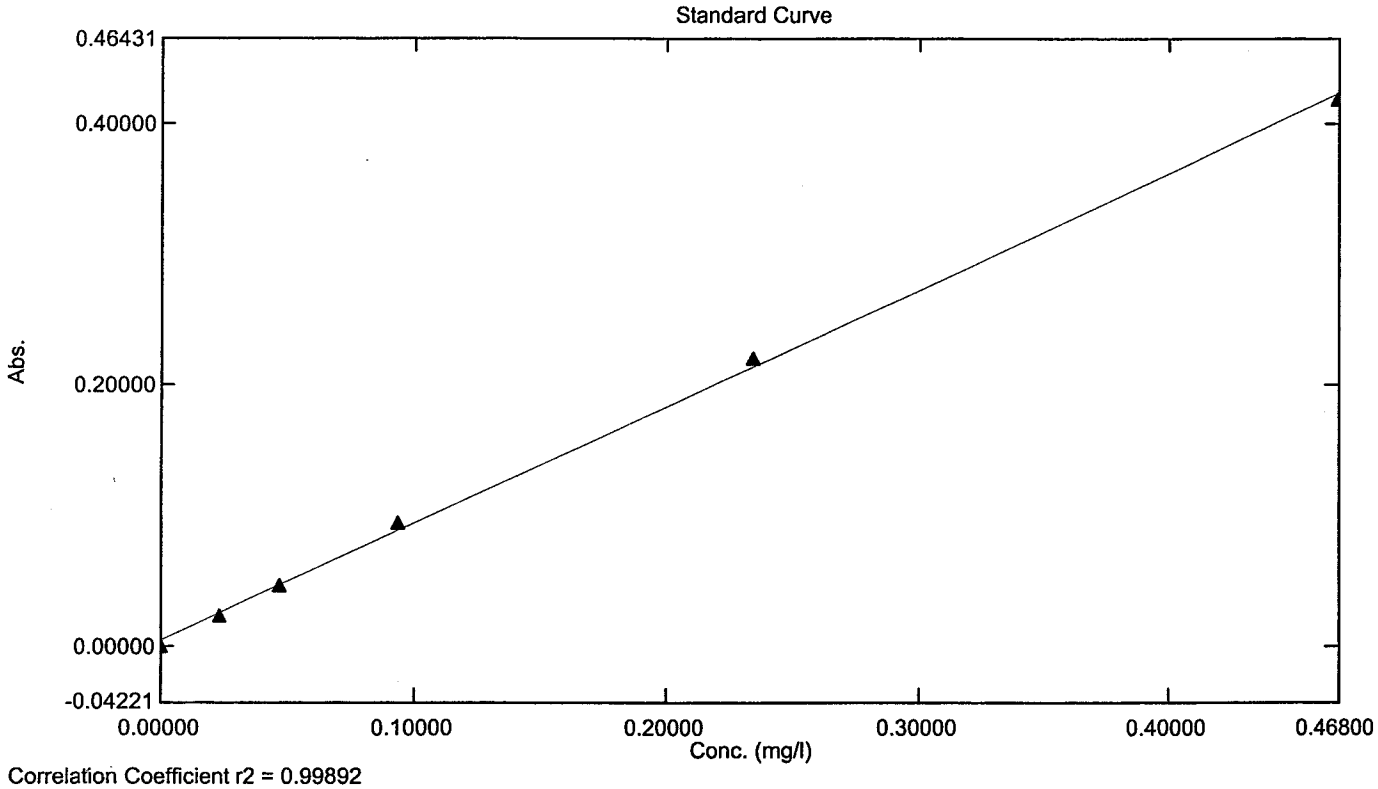
Comments:

Analyst Initials:

Standard Table Report

05/10/2012 07:31:50 PM

File Name: C:\Program Files\Shimadzu\UVProbe\Data\Old Data\Ver1 Data\Sulfide\051012.pho



Correlation Coefficient r2 = 0.99892

Standard Table

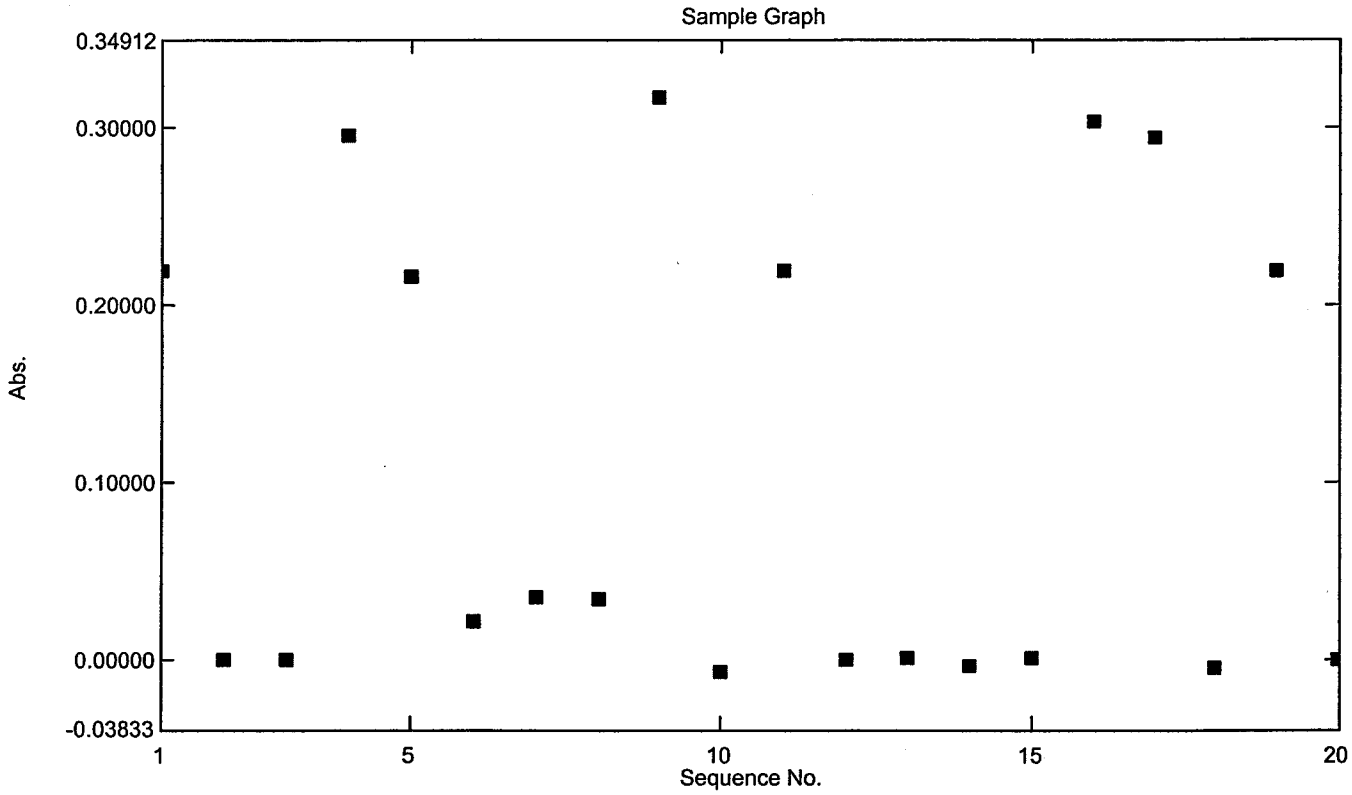
	Sample ID	Type	Ex	Date	Time	Conc	WL664.0	Wgt.Factor	Comments
1	STD 1	Standar		05/10/2012	07:13:17 PM	0.00000	0.00000	1.00000	
2	STD 2	Standar		05/10/2012	07:14:07 PM	0.02340	0.02191	1.00000	
3	STD 3	Standar		05/10/2012	07:14:46 PM	0.04680	0.04504	1.00000	
4	STD 4	Standar		05/10/2012	07:15:22 PM	0.09360	0.09444	1.00000	
5	STD 5	Standar		05/10/2012	07:15:59 PM	0.23400	0.22025	1.00000	
6	STD 6	Standar		05/10/2012	07:16:36 PM	0.46800	0.41811	1.00000	
7									

01731

Sample Table Report

05/10/2012 07:31:54 PM

File Name: C:\Program Files\Shimadzu\UVProbe\Data\Old Data\Ver1 Data\Sulfide\051012.pho



Sample Table

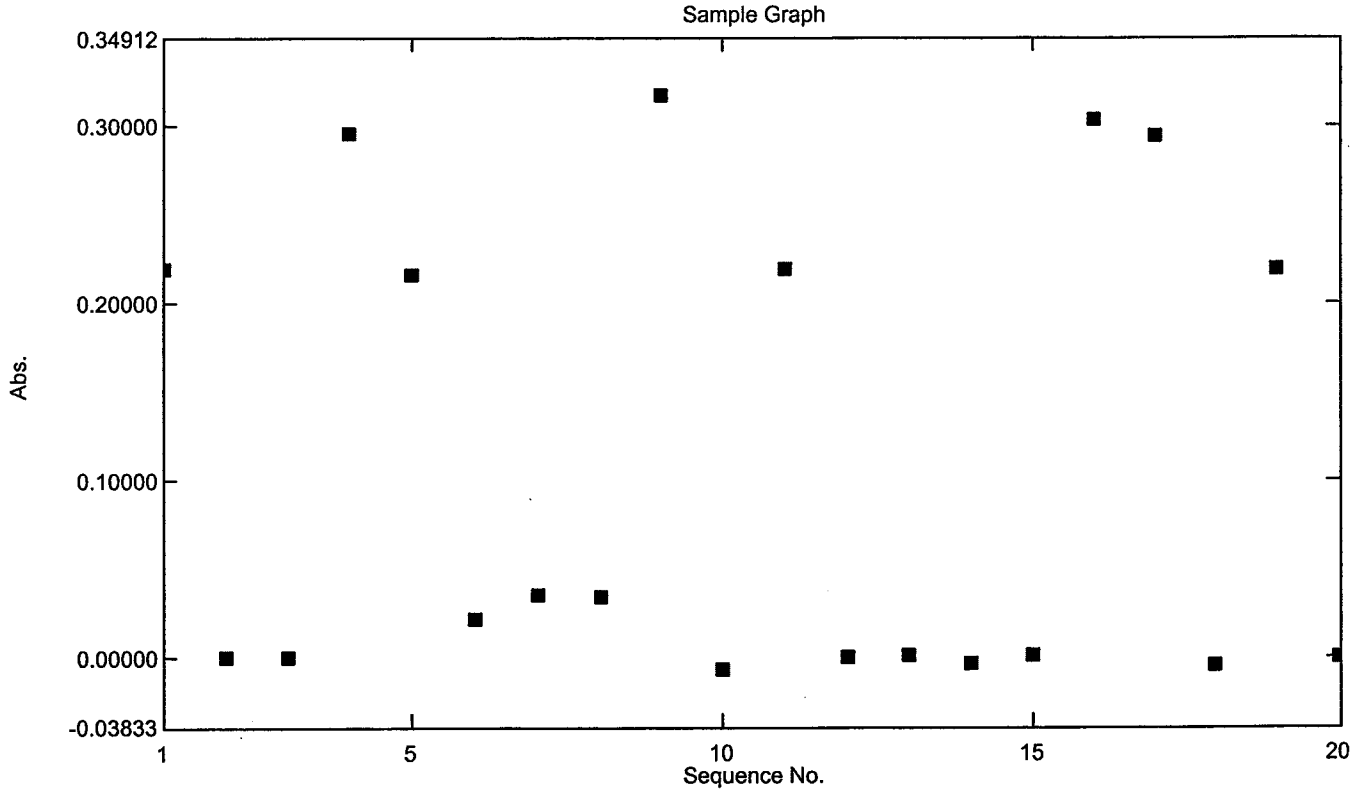
	Sample ID	Type	Ex	Date	Time	Conc	WL664.0	Comments
1	CCV1	Unknown		05/10/2012	07:17:37 PM	0.24073	0.21945	
2	CCB1	Unknown		05/10/2012	07:19:09 PM	-0.00448	0.00035	
3	BLK	Unknown		05/10/2012	07:19:11 PM	-0.00447	0.00037	
4	BS	Unknown		05/10/2012	07:19:52 PM	0.32653	0.29611	
5	SCV	Unknown		05/10/2012	07:20:47 PM	0.23714	0.21625	
6	CRDL	Unknown		05/10/2012	07:21:37 PM	0.01966	0.02193	
7	5185.01	Unknown		05/10/2012	07:22:20 PM	0.03527	0.03587	
8	5185.01 DUP	Unknown		05/10/2012	07:22:55 PM	0.03314	0.03397	
9	5185.01 MS	Unknown		05/10/2012	07:23:36 PM	0.34972	0.31683	
10	5185.01 BKG	Unknown		05/10/2012	07:24:21 PM	-0.01164	-0.00604	
11	CCV2	Unknown		05/10/2012	07:24:53 PM	0.24037	0.21913	
12	CCB2	Unknown		05/10/2012	07:25:30 PM	-0.00436	0.00046	
13	5226.01	Unknown		05/10/2012	07:26:11 PM	-0.00327	0.00143	
14	5226.01 BKG	Unknown		05/10/2012	07:26:45 PM	-0.00870	-0.00342	
15	5226.02	Unknown		05/10/2012	07:27:24 PM	-0.00312	0.00157	
16	5226.02 MS	Unknown		05/10/2012	07:28:11 PM	0.33543	0.30406	
17	5226.02 MSD	Unknown		05/10/2012	07:28:58 PM	0.32482	0.29459	
18	5226.02 BKG	Unknown		05/10/2012	07:29:43 PM	-0.00942	-0.00406	

01732

Sample Table Report

05/10/2012 07:31:54 PM

File Name: C:\Program Files\Shimadzu\UVProbe\Data\Old Data\Ver1 Data\Sulfide\051012.pho



Sample Table

	Sample ID	Type	Ex	Date	Time	Conc	WL664.0	Comments
19	CCV3	Unknown		05/10/2012	07:30:31 PM	0.24053	0.21927	
20	CCB3	Unknown		05/10/2012	07:31:10 PM	-0.00448	0.00035	
21								

01733

TRIMATRIX LABORATORIES

General Information

ethod Reference:	4500-S2 D	SOP Reference:	GR-05-102 - total sulfides (colorimetric)	Matrix:	Water
Date:	05/10/12	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: 4.00
PAO Normality: 0.025
Volume Titrated, in mL: 2.00
LCS (SCV) Concentration, in mg/L: 1180.0

2050454

LFB (BS/MS) Spiking Solution Concentration

Added I_2, in mL: 10.00
PAO volume titrated, in mL: 4.05
PAO Normality: 0.025
Volume Titrated, in mL: 2.00
LFB (BS) Concentration, in mg/L: 1170.0

2050457

PAO Buret Readings (mL)

initial	final
0.00	9.90
14.05	18.05
10.00	14.05

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: 23.60 2050455

Volume of Spiking Solution used: 2.00
LFB (BS) Concentration, in mg/L: 23.40 2050458

0.10

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)	Standard ~~COMMENTS~~ #
0.236ppm SCV =		1mL	of	2050455	into	100mL			2050456
4.68ppm =		20mL	of	2050458	into	100mL			2050459
0.468ppm =		10mL	of	2050459	into	100mL			2050460
0.234ppm =		5mL	of	"	"	"	"	"	2050461
0.0936ppm =		2mL	of	"	"	"	"	"	2050462
0.0468ppm =		10mL	of	2050460	into	100mL			2050463
0.0234ppm =		10mL	of	2050461	into	100mL			2050464
0ppm									2050465

K-iodate/iodide ID: 2040667
Stock LCS(SCV): 2050452
Stock LFB/BS/MS Solution: 2050453
1:1 HCl: 2050339
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: 2050318

TRIMATRIX LABORATORIES

General Information

ethod Reference:	4500-S2 D	SOP Reference:	GR-05-102 - total sulfides (colorimetric)	Matrix:	Water
Date:	05/10/12	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:	9.9	PAO volume titrated, in mL:	4.0	PAO volume titrated, in mL:	4.05	0.0	9.90
PAO Normality:	0.025	PAO Normality:	0.025	PAO Normality:	0.025	14.05	18.05
I2 Normality:	0.00000	Volume Titrated, in mL:	2.00	Volume Titrated, in mL:	2.00	10.0	14.05
		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

								0.10	
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)	COMMENTS

K-iodate/iodide ID: 2040667
LCS(SCV): _____
LFB/BS/MS Solution: _____
1:1 HCl: 2060339
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: 2060318

Inorganic - Wet Chemistry, Water, May-24-12

Instrument = 330, Calibration = 2E25009

Sequence Analyses:
Sulfide, Total 4500-S2 D

Lab Number	*Analysis*	*Contain*	*STD ID*	*ISTD ID*	*Client / QC Type*	*Extraction Comments*
2E25037-CAL1	QC		2051183		CAL STANDARD	
2E25037-CAL2	QC		2051182		CAL STANDARD	
2E25037-CAL3	QC		2051181		CAL STANDARD	
2E25037-CAL4	QC		2051180		CAL STANDARD	
2E25037-CAL5	QC		2051179		CAL STANDARD	
2E25037-CAL6	QC		2051178		CAL STANDARD	
2E25037-CCV1	QC		2051179		CALIBRATION CHECK	
2E25037-CCB1	QC		2051183		CALIBRATION BLANK	
1206679-BLK1	QC				BLANK	
1206679-BS1	QC				LCS	
2E25037-SCV1	QC		2051174		SECONDARY CAL CHECK	
2E25037-CRL1	QC		2051182		INSTRUMENT RL CHECK	
2E25037-CCV2	QC		2051179		CALIBRATION CHECK	
2E25037-CCB2	QC		2051183		CALIBRATION BLANK	
1205358-01	Sulfide, Total 4500-S2 D	M			TechLaw	
1206679-MS1	QC				MATRIX SPIKE	
1206679-MSD1	QC				MATRIX SPIKE DUP	
1205374-01	Sulfide, Total 4500-S2 D	M			TechLaw	
2E25037-CCV3	QC		2051179		CALIBRATION CHECK	
2E25037-CCB3	QC		2051183		CALIBRATION BLANK	

Comments:	Analyst Initials:

Due 6.1.12

TriMatrix Laboratories, Inc.

TLB 6-5-12

PREPARATION BATCH **1206679** Page 1 of 1

Printed: 5/25/2012 2:43:40PM

LU 4 MS

Inorganic - Wet Chemistry, Water, Method-Specific Preparation

(No Surrogate)

Batch Comments: (none)

91737

Standard	Description	Solvent	LotNum
2020077	1+1 Sulfuric Acid (sulfide)	Di H2O	113789
2031045	Phenylarsine Oxide solution - 0.02	Water	2010612
2040667	IODINE TITRANT REAGENT	Di H2O	NA
2041202	STARCH INDICATOR	Di H2O	NA
2041294	Ferric Chloride(sulfides)	Di H2O	NA
2050339	1+1 HCl (Sulfide)	Di H2O	110306
2050777	AminoSulfuric Acid	Di H2O	NA
2050778	Diammonium Hydrogen Phosphat	Di H2O	NA
2051177	SULFIDE 4.64ppm	DI WATER	K17597

Work Order	Analysis	Work Order	Analysis	Work Order	Analysis
1205358	Sulfide, Total 4500-S2 D	1205374	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*
1206679-BLK1		May-24-12 16:00	KAR	7.5	7.5					BLANK	
1206679-BS1		May-24-12 16:00	KAR	7.5	7.5			2051177	500	LCS	
1206679-MS1		May-24-12 16:00	KAR	7.5	7.5		1205358-01	2051177	500	MATRIX SPIKE	
1206679-MSD1		May-24-12 16:00	KAR	7.5	7.5		1205358-01	2051177	500	MATRIX SPIKE DUP	
1205358-01	M	May-24-12 16:00	KAR	7.5	7.5					TechLaw	
1205374-01	M	May-24-12 16:00	KAR	7.5	7.5					TechLaw	

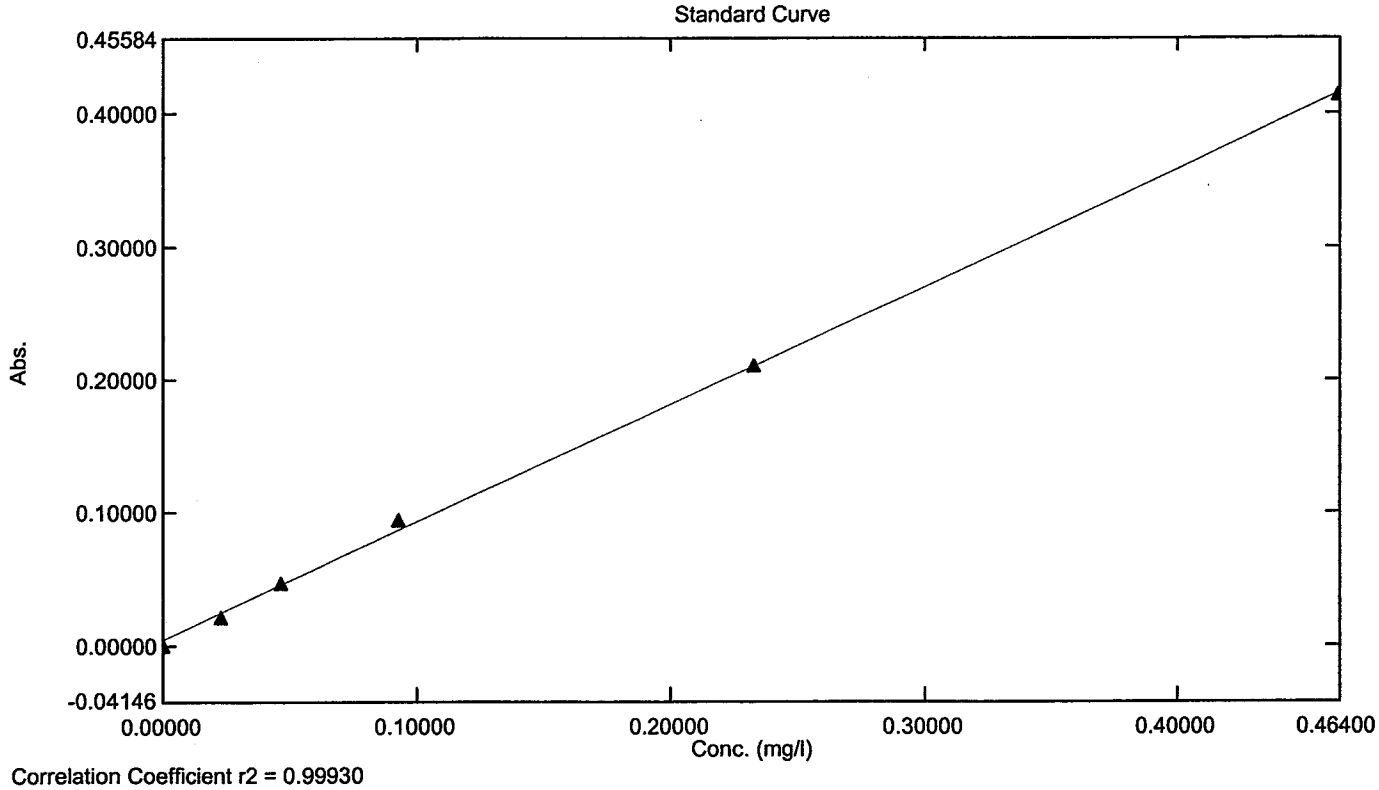
Comments:

Analyst Initials:

Standard Table Report

05/24/2012 04:21:40 PM

File Name: C:\Program Files\Shimadzu\UVProbe\Data\Old Data\Ver1 Data\Sulfide\052412.pho



Correlation Coefficient r2 = 0.99930

Standard Table

	Sample ID	Type	Ex	Date	Time	Conc	WL664.0	Wgt.Factor	Comments
1	STD 1	Standard		05/24/2012	04:04:27 PM	0.00000	-0.00002	1.00000	
2	STD 2	Standard		05/24/2012	04:05:20 PM	0.02320	0.02122	1.00000	
3	STD 3	Standard		05/24/2012	04:05:56 PM	0.04640	0.04637	1.00000	
4	STD 4	Standard		05/24/2012	04:06:28 PM	0.09280	0.09334	1.00000	
5	STD 5	Standard		05/24/2012	04:07:04 PM	0.23200	0.21075	1.00000	
6	STD 6	Standard		05/24/2012	04:07:44 PM	0.46400	0.41280	1.00000	
7									

01738

Sample Table Report

05/24/2012 04:21:44 PM

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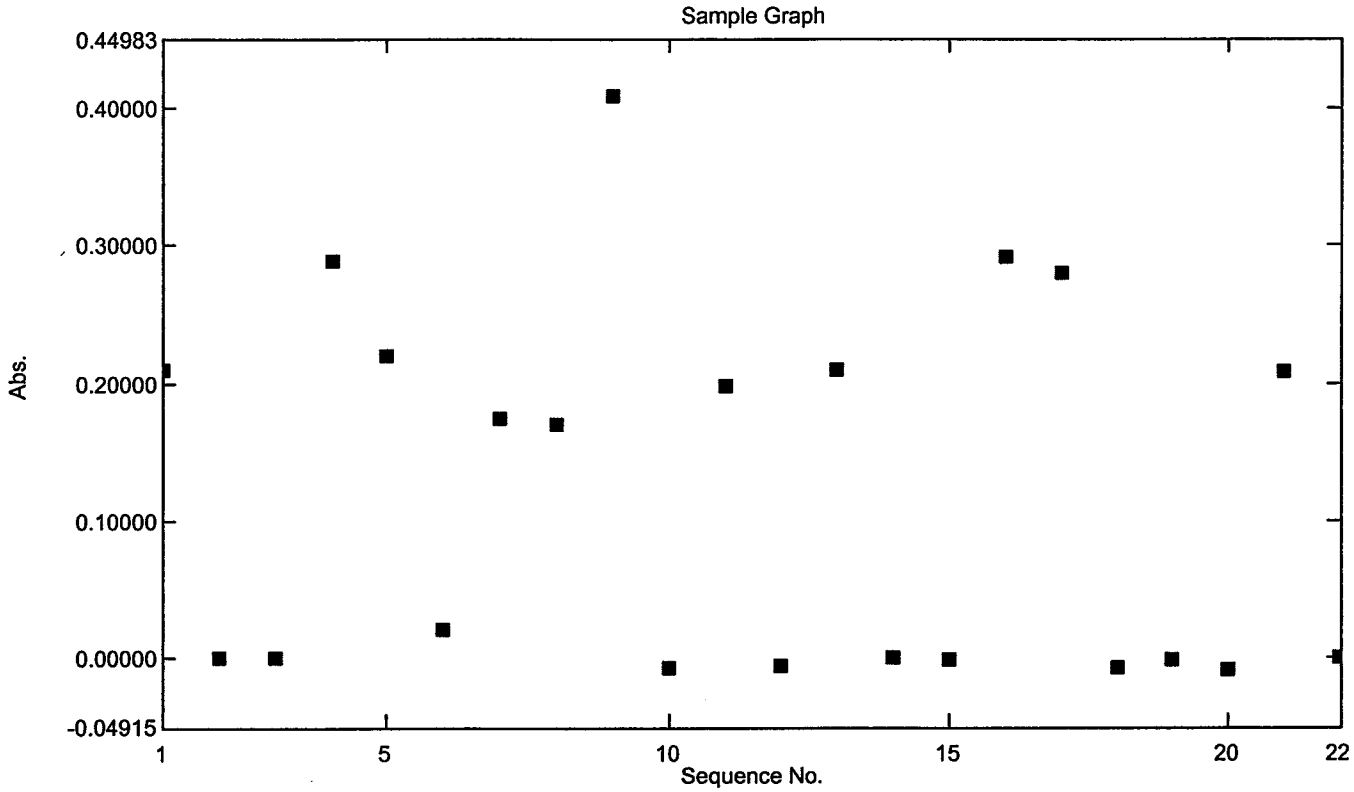


Sample Table

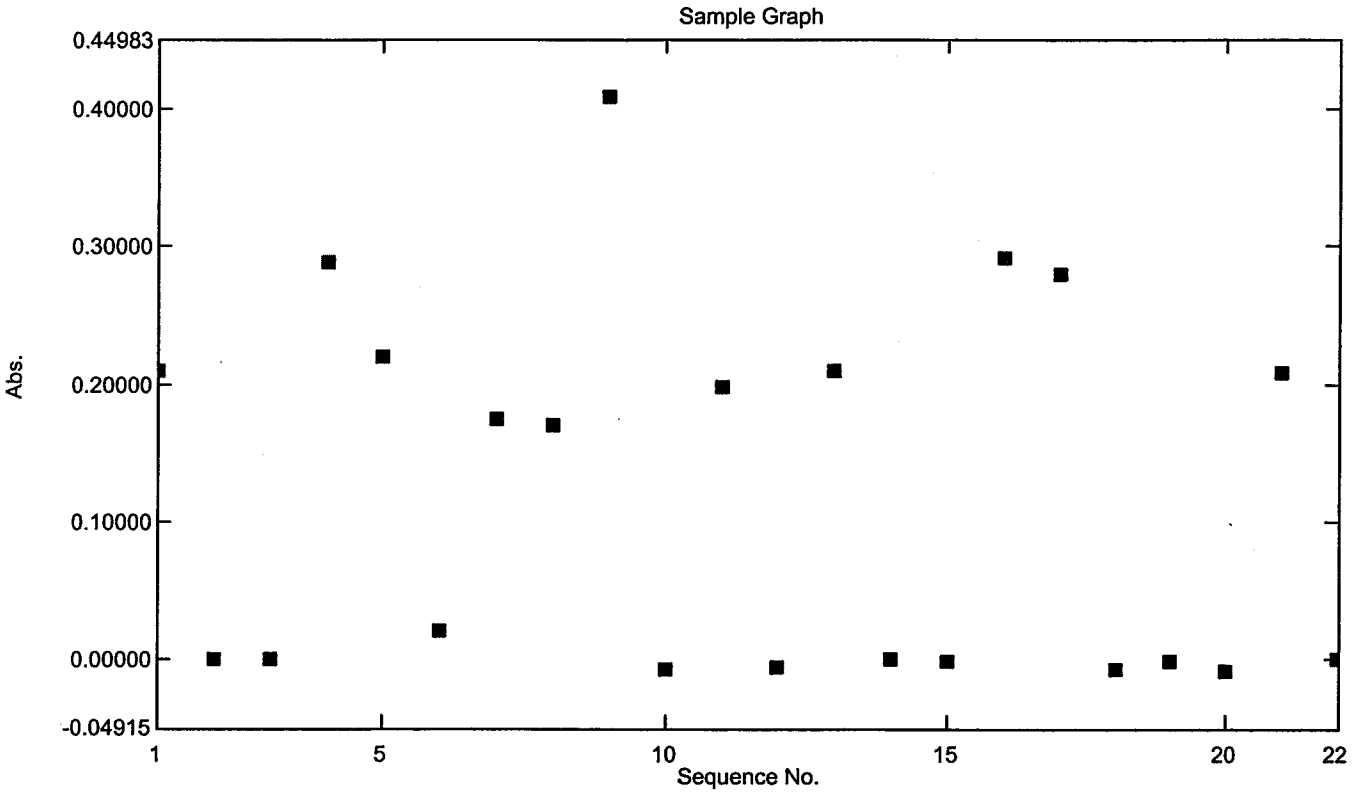
	Sample ID	Type	Ex	Date	Time	Conc	WL664.0	Comments
1	CCV1	Unknown		05/24/2012	04:08:26 PM	0.23325	0.21057	
2	CCB1	Unknown		05/24/2012	04:09:22 PM	-0.00463	0.00002	
3	BLK	Unknown		05/24/2012	04:09:24 PM	-0.00461	0.00003	
4	BS	Unknown		05/24/2012	04:09:58 PM	0.32102	0.28825	
5	SCV	Unknown		05/24/2012	04:10:45 PM	0.24468	0.22069	
6	CRDL	Unknown		05/24/2012	04:11:23 PM	0.01950	0.02138	
7	5423.01E	Unknown		05/24/2012	04:12:00 PM	0.19286	0.17482	
8	5423.01 DUP	Unknown		05/24/2012	04:12:34 PM	0.18845	0.17091	
9	5423.01 MS	Unknown		05/24/2012	04:13:07 PM	0.45659	0.40825	
10	5423.01 BKG	Unknown		05/24/2012	04:13:55 PM	-0.01298	-0.00737	
11	5423.01 F	Unknown		05/24/2012	04:14:27 PM	0.21962	0.19850	USED FOR CONFIRMATIOI
12	5423.01 F BKG	Unknown		05/24/2012	04:14:59 PM	-0.01127	-0.00586	
13	CCV2	Unknown		05/24/2012	04:15:32 PM	0.23179	0.20927	
14	CCB2	Unknown		05/24/2012	04:16:16 PM	-0.00436	0.00026	
15	5358.01	Unknown		05/24/2012	04:16:48 PM	-0.00611	-0.00130	
16	5358.01 MS	Unknown		05/24/2012	04:17:20 PM	0.32547	0.29219	
17	5358.01 MSD	Unknown		05/24/2012	04:18:01 PM	0.31102	0.27940	
18	5358.01 BKG	Unknown		05/24/2012	04:18:40 PM	-0.01285	-0.00726	

01739

Sample Table Report

05/24/2012 04:21:44 PM

File Name: C:\Program Files\Shimadzu\UVProbe\Data\Old Data\Ver1 Data\Sulfide\052412.pho



Sample Table

	Sample ID	Type	Ex	Date	Time	Conc	WL664.0	Comments
19	5374.01	Unknown		05/24/2012	04:19:10 PM	-0.00599	-0.00119	
20	5374.01 BKG	Unknown		05/24/2012	04:19:44 PM	-0.01320	-0.00757	
21	CCV3	Unknown		05/24/2012	04:20:18 PM	0.23160	0.20911	
22	CCB3	Unknown		05/24/2012	04:20:51 PM	-0.00408	0.00050	
23								

01740

TRIMATRIX LABORATORIES

General Information

ethod Reference:	4500-S2 D	SOP Reference:	GR-05-102 - total sulfides (colorimetric)	Matrix:	Water
Date:	05/24/12	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	0.00	9.90
PAO volume titrated, in mL:	9.90	PAO volume titrated, in mL:	4.15	PAO volume titrated, in mL:	4.10	14.10	18.25
PAO Normality:	0.025	PAO Normality:	0.025	PAO Normality:	0.025	9.90	14.10
I2 Normality:	0.02475	Volume Titrated, in mL:	2.00	Volume Titrated, in mL:	2.00		
		LCS (SCV) Concentration, in mg/L:	1150.0	LFB (BS) Concentration, in mg/L:	1160.0		

2051172

2051175

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: 23.00 2051173

Volume of Spiking Solution used: 2.00
LFB (BS) Concentration, in mg/L: 23.20 2051176

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)	0.10 RESULT (mg/L)	COMMENTS
0.230ppm SCV =		1mL of	2051173		into	100mL			2051174
4.64ppm =		20mL of	2051176		into	100mL			2051177
0.464ppm =		10mL of	2051177		into	100mL			2051178
0.232ppm =		5mL	"	"	"	"			2051179
0.0928ppm =		2mL	"	"	"	"			2051180
0.0464ppm =		10mL of	2051178		into	100mL			2051181
0.0232ppm =		10mL of	2051179		into	100mL			2051182
	0ppm								2051183

K-iodate/iodide ID: 2040667
stock LCS(SCV): 2051170
stock LFB/BS/MS Solution: 2051171
1:1 HCl: 2050339
Starch Indicator: 2041202

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

Aminosulfuric Acid: 2050777
1:1 H_2SO_4: 2020077
Ferric Chloride: 2041294
H_2SO_4(0.01N):
NaOH(0.25N):
Diammonium Hydrogen Phosphate: 2050778

TRIMATRIX LABORATORIES

General Information

ethod Reference:	4500-S2 D	SOP Reference:	GR-05-102 - total sulfides (colorimetric)	Matrix:	Water
Date:	05/24/12	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	0.0	9.9
PAO volume titrated, in mL:		PAO volume titrated, in mL:		PAO volume titrated, in mL:		14.1	18.35
PAO Normality:	0.025	PAO Normality:	0.025	PAO Normality:	0.025	9.9	14.1
I2 Normality:	0.00000	Volume Titrated, in mL:	2.00	Volume Titrated, in mL:	2.00		
		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: 2041067
LCS(SCV): _____
LFB/BS/MS Solution: _____
1:1 HCl: 2050339
Starch Indicator: 2041202

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

Aminosulfuric Acid: 2050777
1:1 H_2SO_4: 2020077
Ferric Chloride: 2041214
H_2SO_4(0.01N): _____
NaOH(0.25N): _____
Diammonium Hydrogen Phosphate: 2050778

TRIMATRIX
LABORATORIES

TechLaw
KNM

END OF REPORT

SDG: KNM050712

June 07, 2012

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Individual sample results relate only to the sample tested.