

# ASSOCIATED LABORATORIES

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LAB REQUEST 233265

REPORTED 04/30/2009

RECEIVED 04/23/2009

PROJECT #2258 Lower SMR Watershed

SUBMITTER Client

## COMMENTS

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods as indicated on the report. This cover letter is an integral part of the final report.

### Order No.

989243

989244

### Client Sample Identification

#11044350 Sandia Creek

Laboratory Method Blank

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by,

  
Edward S. Behare, Ph.D.  
Vice President

*NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.*

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TESTING & CONSULTING  
Chemical  
Microbiological  
Environmental

Order #: 989243 Client Sample ID: #11044350 Sandia Creek

Matrix: WATER

Date Sampled: 04/23/2009

Time Sampled: 12:15

Method	Analyte	Result	DF	EQL	MDL	Units	Date/Analyst
200.7	Aluminum	ND	1	0.03	0.010	mg/L	04/27/09 NVK
200.7	Beryllium	ND	1	0.001	0.001	mg/L	04/27/09 NVK
200.7	Boron	0.120	1	0.05	0.009	mg/L	04/27/09 NVK
200.7	Calcium	121	1	0.1	0.038	mg/L	04/27/09 NVK
200.7	Iron	0.069	1	0.02	0.012	mg/L	04/27/09 NVK
200.7	Manganese	0.006 J	1	0.01	0.001	mg/L	04/27/09 NVK
200.7	Silver	0.009	1	0.005	0.002	mg/L	04/27/09 NVK
200.7	Sodium	113	1	0.5	0.15	mg/L	04/27/09 NVK
200.7	Zinc	0.008 J	1	0.01	0.002	mg/L	04/27/09 NVK
200.8	Antimony	ND	1	0.002	0.0014	mg/L	04/27/09 NVK
200.8	Arsenic	0.0004 J	1	0.002	0.0002	mg/L	04/27/09 NVK
200.8	Cadmium	ND	1	0.001	0.0001	mg/L	04/27/09 NVK
200.8	Chromium	0.0041 J	1	0.005	0.0008	mg/L	04/27/09 NVK
200.8	Copper	0.0023 J	1	0.003	0.0001	mg/L	04/27/09 NVK
200.8	Lead	ND	1	0.005	0.0001	mg/L	04/27/09 NVK
200.8	Nickel	0.007	1	0.005	0.0005	mg/L	04/27/09 NVK
200.8	Selenium	0.0053	1	0.002	0.0003	mg/L	04/27/09 NVK
200.8	Thallium	0.0002 J	1	0.001	0.0001	mg/L	04/27/09 NVK
1664	Total Oil and Grease	ND	1	5	1.7	mg/L	04/24/09 LN
2130B	Turbidity	0.50	1	0.1	0.0	NTU	04/24/09 AE
2320B	Bicarbonate Alkalinity as	226	1	5.0	1.2	mg/L	04/29/09 HK
245.1	Mercury	0.0002 J	1	0.0004	0.00003	mg/L	04/27/09 MDJ
2510B	Specific Conductance	1660	1	1.0	0.86	umhos/c	04/24/09 LN
2540C	Total Dissolved Solids	1120	1	10.0	5.7	mg/L	04/24/09 LN
300.0	Chloride	225	25	25.0	2.5	mg/L	04/24/09 WW
300.0	Nitrate (as NO3)	18.6	1	0.44	0.07	mg/L	04/24/09 WW

EQL = Estimated Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor  
 ND = Not detected below indicated MDL, J=Trace, S = Surrogate outside control limits

**ASSOCIATED LABORATORIES**

Analytical Results Report

Lab Request 233265 results, page 1 of 4



Order #: 989243 Client Sample ID: #11044350 Sandia Creek

Matrix: WATER

Date Sampled: 04/23/2009

Time Sampled: 12:15

Method	Analyte	Result	DF	EQL	MDL	Units	Date/Analyst
300.0	Nitrite (as NO2)	0.06 J	1	0.33	0.06	mg/L	04/24/09 WW
300.0	Sulfate	339	25	25.0	4.25	mg/L	04/24/09 WW
335.4	Cyanide	ND	1	0.01	0.001	mg/L	04/24/09 TP
350.1	Ammonia -N	ND	1	0.1	0.01	mg/L	04/26/09 TP
351.2	Total Kjeldahl Nitrogen (TKN)	0.14 J	1	0.4	0.06	mg/L	04/25/09 TP
4500-F C	Fluoride	0.26	1	0.05	0.004	mg/L	04/27/09 CM
4500-H+B	pH	8.12	1			NA	04/23/09 DV
4500-P-B.5-E	Total Phosphorus as P	0.017 J	1	0.02	0.01	mg/L	04/27/09 DK
4500-P-E	Ortho Phosphate as PO4	0.03 J	1	0.06	0.015	mg/L	04/24/09 DK
5210B	BOD	ND	1	3.0	1.5	mg/L	04/24/09 LT
5540C	MBAS	ND	1	0.04	0.02	mg/L	04/24/09 DV
9221	Fecal Coliform by MTF	50	1			MPN/10	04/23/09 RB
5310B	Total Organic Carbon	3.2	2	1.0	1.0	mg/L	04/24/09 QP

EQL = Estimated Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor  
ND = Not detected below indicated MDL, J=Trace, S = Surrogate outside control limits

**ASSOCIATED LABORATORIES**

Analytical Results Report

Lab Request 233265 results, page 2 of 4



Order #: 989244

Client Sample ID: Laboratory Method Blank

Matrix: WATER

Method	Analyte	Result	DF	EQL	MDL	Units	Date/Analyst
200.7	Aluminum	ND	1	0.030	0.010	mg/L	04/27/09 NVK
200.7	Beryllium	ND	1	0.001	0.001	mg/L	04/27/09 NVK
200.7	Boron	ND	1	0.050	0.009	mg/L	04/27/09 NVK
200.7	Calcium	ND	1	0.10	0.038	mg/L	04/27/09 NVK
200.7	Iron	ND	1	0.02	0.012	mg/L	04/27/09 NVK
200.7	Manganese	ND	1	0.010	0.001	mg/L	04/27/09 NVK
200.7	Silver	ND	1	0.005	0.002	mg/L	04/27/09 NVK
200.7	Sodium	ND	1	0.50	0.15	mg/L	04/27/09 NVK
200.7	Zinc	ND	1	0.010	0.002	mg/L	04/27/09 NVK
200.8	Antimony	ND	1	0.002	0.0014	mg/L	04/27/09 NVK
200.8	Arsenic	ND	1	0.002	0.0002	mg/L	04/27/09 NVK
200.8	Cadmium	ND	1	0.001	0.0001	mg/L	04/27/09 NVK
200.8	Chromium	ND	1	0.005	0.0008	mg/L	04/27/09 NVK
200.8	Copper	ND	1	0.003	0.0001	mg/L	04/27/09 NVK
200.8	Lead	ND	1	0.005	0.0001	mg/L	04/27/09 NVK
200.8	Nickel	ND	1	0.005	0.0005	mg/L	04/27/09 NVK
200.8	Selenium	ND	1	0.002	0.0003	mg/L	04/27/09 NVK
200.8	Thallium	ND	1	0.001	0.0001	mg/L	04/27/09 NVK
1664	Total Oil and Grease	ND	1	5	1.7	mg/L	04/24/09 LN
2130B	Turbidity	ND	1	0.1	0.0	NTU	04/24/09 AE
2320B	Bicarbonate Alkalinity as	ND	1	5.0	1.2	mg/L	04/29/09 HK
245.1	Mercury	ND	1	0.0004	0.00003	mg/L	04/27/09 MDJ
2510B	Specific Conductance	0.54	1	1.0	0.86	umhos/c	04/24/09 LN
2540C	Total Dissolved Solids	ND	1	10.0	5.7	mg/L	04/24/09 LN
300.0	Chloride	ND	1	1.0	0.1	mg/L	04/24/09 WW
300.0	Nitrate (as NO3)	ND	1	0.44	0.07	mg/L	04/24/09 WW

EQL = Estimated Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor

ND = Not detected below indicated MDL, J=Trace, S = Surrogate outside control limits

**ASSOCIATED LABORATORIES**

Analytical Results Report



Order #: 989244

Client Sample ID: Laboratory Method Blank

Matrix: WATER

Method	Analyte	Result	DF	EQL	MDL	Units	Date/Analyst
300.0	Nitrite (as NO <sub>2</sub> )	ND	1	0.33	0.06	mg/L	04/24/09 WW
300.0	Sulfate	ND	1	1.0	0.17	mg/L	04/24/09 WW
335.4	Cyanide	ND	1	0.01	0.001	mg/L	04/24/09 TP
350.1	Ammonia -N	ND	1	0.1	0.01	mg/L	04/26/09 TP
351.2	Total Kjeldahl Nitrogen (TKN)	ND	1	0.4	0.06	mg/L	04/25/09 TP
4500-F C	Fluoride	ND	1	0.05	0.004	mg/L	04/27/09 CM
4500-H+B	pH	5.37	1			NA	04/23/09 DV
4500-P-B.5-E	Total Phosphorus as P	ND	1	0.02	0.01	mg/L	04/27/09 DK
4500-P-E	Ortho Phosphate as PO <sub>4</sub>	ND	1	0.06	0.015	mg/L	04/24/09 DK
5210B	BOD	ND	1	3.0	1.5	mg/L	04/24/09 LT
5540C	MBAS	ND	1	0.04	0.02	mg/L	04/24/09 DV
5310B	Total Organic Carbon	ND	1	0.5	0.5	mg/L	04/24/09 QP

EQL = Estimated Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor  
ND = Not detected below indicated MDL, J=Trace, S = Surrogate outside control limits

**ASSOCIATED LABORATORIES**

Analytical Results Report



ASSOCIATED LABORATORIES  
QA REPORT FORM

Method : EPA 310/SM2320B

QC Sample: LR 233317

Matrix: WATER

Analysis Date: April 29, 2009

Lab ID#'s in Batch: LR 233261, 233262, 233263, 233264, 233265, 233266, 233277, 233364

REPORTING UNITS = mg/L

**SAMPLE DUPLICATE RESULT**

Test	Sample Result	Sample Duplicate	%RPD
Bicarbonate	177	178	1
Carbonate	ND	ND	0
Hydroxide	ND	ND	0
Alkalinity	145	146	1

ND = "U" - Not Detected

RPD = Relative Percent Difference of Sample Result and Sample Duplicate

RPD LIMITS = 20%
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**ASSOCIATED LABORATORIES**  
**QA REPORT FORM - METHOD 200.8**

QC Sample: LR233261-989222 H#042709W10  
Matrix: WATER  
Prep. Date: April 27, 2009  
Analysis Date: April 27, 2009  
Lab ID#'s in Batch: LR233261,233265,233264,233263,233262,233266,233277,233290,233343,233279.

Reporting Units = mg/L

**MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULT**

Test	Sample Result	Spike Added	Matrix Spike	%Rec MS
As	ND	0.05	0.060	120
Se	0.003	0.05	0.061	116
Tl	ND	0.05	0.055	110
Pb	ND	0.05	0.053	106
Sb	ND	0.05	0.058	116
Cd	ND	0.05	0.051	102
Cr	0.003	0.05	0.060	114
Cu	ND	0.05	0.054	108
Ni	0.005	0.05	0.057	104

\* = Outside QC limits, due to matrix Interference  
If Sample Result > 4 times Spike Added, then "NC"

% REC LIMITS = 70 - 130 RPD LIMITS = 20
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**ASSOCIATED LABORATORIES**  
**LCS REPORT FORM - METHOD 200.8**

**LCS RECOVERY / METHOD BLANK**

Test	LCS Result	True Value	LCS %Rec	QC Limit %REC	Method Blank
As	0.054	0.05	108	80-120	< 0.002
Cd	0.052	0.05	104	80-120	< 0.001
Cr	0.057	0.05	114	80-120	< 0.002
Cu	0.053	0.05	106	80-120	< 0.005
Ni	0.053	0.05	106	80-120	< 0.005
Pb	0.056	0.05	112	80-120	< 0.005
Sb	0.054	0.05	108	80-120	< 0.002
Se	0.056	0.05	112	80-120	< 0.005
Tl	0.056	0.05	112	80-120	< 0.001



**ASSOCIATED LABORATORIES**  
**QA REPORT FORM - METHOD 200.7 / 6010**

QC Sample: LR233266-989249 H#042409W1A

Matrix: WATER

Prep. Date: April 24, 2009

Analysis Date: April 27, 2009

Lab ID#'s in Batch: LR233261,233263,233264,233279,233265,233311,233251,233300,233336,233332,233266,  
 LR233262,233277,233317.

Reporting Units = mg/L

**MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULT**

Test	Sample Result	Spike Added	Matrix Spike	%Rec MS
As	ND	1	0.96	96
Se	ND	1	0.78	78
Tl	ND	1	0.91	91
Pb	ND	1	0.85	85
Sb	ND	1	0.91	91
Ba	0.093	1	1.04	95
Be	ND	1	1.05	105
Cd	ND	1	0.91	91
Cr	ND	1	0.96	96
Co	ND	1	0.90	90
Cu	ND	1	0.93	93
Mo	ND	1	0.96	96
Ni	ND	1	0.88	88
Ag	0.007	0.5	0.44	87
V	ND	1	0.98	98
Zn	ND	1	0.90	90
Al	0.123	1	1.03	91
Fe	0.401	1	1.36	96
Mn	0.025	1	0.97	95
B	0.118	1	1.03	91
Ca	85.800	10	96.80	NC
Mg	36.800	10	46.50	97
K	4.340	10	14.80	105
Na	99.300	10	107.00	NC

\* = Outside QC limits, due to matrix Interference  
 If Sample Result > 4 times Spike Added, then "NC"

% REC LIMITS = 75 -125 RPD LIMITS = 20
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**ASSOCIATED LABORATORIES**  
**LCS REPORT FORM - METHOD 200.7 / 6010**

**LCS RECOVERY / METHOD BLANK**

Test	LCS Result	True Value	LCS %Rec	QC Limit %REC	Method Blank
Ag	1.01	1	101	80-120	< 0.005
Al	1.96	2	98	80-120	< 0.03
As	1.85	2	93	80-120	< 0.005
B	2.08	2	104	80-120	< 0.05
Ba	2.06	2	103	80-120	< 0.01
Be	2.09	2	105	80-120	< 0.005
Cd	2.02	2	101	80-120	< 0.005
Co	2.07	2	104	80-120	< 0.005
Cr	2.08	2	104	80-120	< 0.01
Cu	2.00	2	100	80-120	< 0.01
Fe	2.15	2	108	80-120	< 0.02
Mn	2.01	2	101	80-120	< 0.01
Mo	2.04	2	102	80-120	< 0.01
Ni	2.07	2	104	80-120	< 0.015
Pb	2.06	2	103	80-120	< 0.005
Sb	1.94	2	97	80-120	< 0.006
Se	1.89	2	95	80-120	< 0.006
Tl	2.01	2	101	80-120	< 0.005
V	2.09	2	105	80-120	< 0.005
Zn	2.07	2	104	80-120	< 0.01
Ca	1.91	2	96	80-120	< 0.1
Mg	2.25	2	113	80-120	< 0.1
K	21.20	20	106	80-120	< 0.5
Na	1.97	2	99	80-120	< 0.1

**ASSOCIATED LABORATORIES**  
**QA REPORT FORM - METHOD 200.7 / 6010**

QC Sample: LR233261-989222 H#042409W1

Matrix: WATER

Prep. Date: April 24, 2009

Analysis Date: April 27, 2009

Lab ID#'s in Batch: LR233261,233263,233264,233279,233265,233311,233251,233300,233336,233332,233266,  
 LR233262,233277,233317.

Reporting Units = mg/L

**MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULT**

Test	Sample Result	Spike Added	Matrix Spike	%Rec MS
As	0.024	1	0.94	92
Se	ND	1	0.79	79
Tl	ND	1	0.89	89
Pb	ND	1	0.85	85
Sb	ND	1	0.89	89
Ba	0.111	1	1.05	94
Be	ND	1	0.99	99
Cd	ND	1	0.91	91
Cr	ND	1	0.94	94
Co	ND	1	0.88	88
Cu	ND	1	0.92	92
Mo	ND	1	0.94	94
Ni	ND	1	0.88	88
Ag	0.007	0.5	0.44	87
V	ND	1	0.99	99
Zn	ND	1	0.87	87
Al	ND	1	0.87	87
Fe	0.049	1	1.09	104
Mn	ND	1	0.94	94
B	0.139	1	1.03	89
Ca	70.300	10	74.50	NC
Mg	26.300	10	34.10	78
K	4.820	10	14.20	94
Na	89.800	10	92.50	NC

\* = Outside QC limits, due to matrix Interference  
 If Sample Result > 4 times Spike Added, then "NC"

% REC LIMITS = 75 -125 RPD LIMITS = 20
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**ASSOCIATED LABORATORIES**  
**LCS REPORT FORM - METHOD 200.7 / 6010**

**LCS RECOVERY / METHOD BLANK**

Test	LCS Result	True Value	LCS %Rec	QC Limit %REC	Method Blank
Ag	1.01	1	101	80-120	< 0.005
Al	1.96	2	98	80-120	< 0.03
As	1.85	2	93	80-120	< 0.005
B	2.08	2	104	80-120	< 0.05
Ba	2.06	2	103	80-120	< 0.01
Be	2.09	2	105	80-120	< 0.005
Cd	2.02	2	101	80-120	< 0.005
Co	2.07	2	104	80-120	< 0.005
Cr	2.08	2	104	80-120	< 0.01
Cu	2.00	2	100	80-120	< 0.01
Fe	2.15	2	108	80-120	< 0.02
Mn	2.01	2	101	80-120	< 0.01
Mo	2.04	2	102	80-120	< 0.01
Ni	2.07	2	104	80-120	< 0.015
Pb	2.06	2	103	80-120	< 0.005
Sb	1.94	2	97	80-120	< 0.006
Se	1.89	2	95	80-120	< 0.006
Tl	2.01	2	101	80-120	< 0.005
V	2.09	2	105	80-120	< 0.005
Zn	2.07	2	104	80-120	< 0.01
Ca	1.91	2	96	80-120	< 0.1
Mg	2.25	2	113	80-120	< 0.1
K	21.20	20	106	80-120	< 0.5
Na	1.97	2	99	80-120	< 0.1

**ASSOCIATED LABORATORIES  
QA REPORT FORM - METHOD 200.8**

QC Sample: LR233279-989258

H#042709W10A

Matrix: WATER

Prep. Date: April 27, 2009

Analysis Date: April 27, 2009

Lab ID#'s in Batch: LR233261,233265,233264,233263,233262,233266,233277,233290,233343,233279.

Reporting Units = mg/L

**MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULT**

Test	Sample Result	Spike Added	Matrix Spike	%Rec MS
As	ND	0.05	0.059	118
Se	0.003	0.05	0.064	122
Tl	ND	0.05	0.052	104
Pb	ND	0.05	0.051	102
Sb	ND	0.05	0.055	110
Cd	ND	0.05	0.052	104
Cr	0.005	0.05	0.066	122
Cu	ND	0.05	0.056	112
Ni	ND	0.05	0.056	112

\* = Outside QC limits, due to matrix Interference  
If Sample Result > 4 times Spike Added, then "NC"

% REC LIMITS = 70 - 130 RPD LIMITS = 20
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**ASSOCIATED LABORATORIES**  
**LCS REPORT FORM - METHOD 200.8**

**LCS RECOVERY / METHOD BLANK**

Test	LCS Result	True Value	LCS %Rec	QC Limit %REC	Method Blank
As	0.054	0.05	108	80-120	< 0.002
Cd	0.052	0.05	104	80-120	< 0.001
Cr	0.057	0.05	114	80-120	< 0.002
Cu	0.053	0.05	106	80-120	< 0.005
Ni	0.053	0.05	106	80-120	< 0.005
Pb	0.056	0.05	112	80-120	< 0.005
Sb	0.054	0.05	108	80-120	< 0.002
Se	0.056	0.05	112	80-120	< 0.005
Tl	0.056	0.05	112	80-120	< 0.001

**ASSOCIATED LABORATORIES  
QA REPORT FORM**

QC Sample: LR 233261-989222

Matrix: Water

Prep. Date: April 27, 2009

Analysis Date: April 27, 2009

Lab ID#'s in Batch: 233261, 233262, 233263, 233264, 233265, 233277, 233266

**MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULT**

Reporting Units = mg/L

Test	Method	Sample Result	Spike Added	Matrix Spike	Matrix Spike Dup	%Rec MS	%Rec MSD	RPD
MERCURY	245.1 / 7470A	0.0004	0.002	0.0024	0.0021	100	85	13

*RPD = Relative Percent Difference of Matrix Spike and Matrix Spike Duplicate*  
*%REC-MS & MSD = Percent Recovery of Matrix Spike & Matrix Spike Duplicate*

<i>%REC LIMITS = 75 - 125</i>
<i>RPD LIMITS = 20</i>

**PREPARATION BLANK / LAB CONTROL SAMPLE RESULTS**

PREP BLK LCS					
Value	Result	True	%Rec	L.Limit	H.Limit
ND	0.0048	0.0050	96	80%	120%

*Value = Preparation Blank Value; ND = Not-Detected*  
*LCS Result = Lab Control Sample Result*  
*True = True Value of LCS*  
*L.Limit / H.Limit = LCS Control Limits*

**ASSOCIATED LABORATORIES  
QA REPORT FORM**

QC Sample: LR 233364-989641

Matrix: WATER

Prep. Date: 04/27/2009

Analysis Date: 04/27/2009

Lab ID#'s in Batch: LR 233364, 233185, 233317, 233261, 233262, 233263, 233264, 233265, 233266  
LR 233277

**MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULT**

Reporting Units = mg/L

Test	Method	Sample Result	Spike Added	Matrix Spike	Matrix Spike Dup	%Rec MS	%Rec MSD	RPD
FLUORIDE	4500-FC	0.10	0.25	0.33	0.33	92	92	0

ND = Not Detected

RPD = Relative Percent Difference of Matrix Spike and Matrix Spike Duplicate

%REC-MS & MSD = Percent Recovery of Matrix Spike & Matrix Spike Duplicate

%REC LIMITS = 75 - 125
RPD LIMITS = 20

**PREPARATION BLANK / LAB CONTROL SAMPLE RESULTS**

PREP BLK	LCS				
Value	Result	True	%Rec	L.Limit	H.Limit
ND	0.94	1.00	94	80%	120%

Value = Preparation Blank Value

LCS Result = Lab Control Sample Result

True = True Value of LCS

L.Limit / H.Limit = LCS Control Limits



ASSOCIATED LABORATORIES  
LCS REPORT FORM

QC Sample: Std. Sol

Matrix: WATER

Prep. Date: April 24, 2009

Analysis Date: April 29, 2009

Lab ID#'s in Batch: 233261, 233262, 233263, 233264, 233265, 233266, 233277, 233278, 233279, 233308

Reporting Units = mg/L

**PREPARATION BLANK / LAB CONTROL SAMPLE RESULTS**

Test	Method	PREP. BLANK	LCS				
		Value	Result	True	%Rec	L.Limit	H.Limit
BOD	405.1/5210B	ND	180.00	200	90	80%	120%

*Value = Preparation Blank Value; ND = Not-Detected*

*LCS Result = Lab Control Sample Result*

*True = True Value of LCS*

*L.Limit / H.Limit = LCS Control Limits*

**ASSOCIATED LABORATORIES  
QA REPORT FORM - INORGANICS**

QC Sample: LR 233103

Matrix: WATER

Prep. Date: 04/27/09

Analysis Date: 04/27/09

Lab ID#'s in Batch: LR 233103, 233261, 233262, 233263, 233264, 233265, 233266, 233277, 233278, 233279, 233280, 233349, 233364

**MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULT**

Reporting Units = mg/L

Test	Method	Sample Result	Spike Added	Matrix Spike	Matrix Spike Dup	%Rec MS	%Rec MSD	RPD
Total Phosphate (as P)	4500-P-E	0.10	0.40	0.51	0.51	103	102	1
Total Phosphate (as PO4)	4500-P-E	0.31	1.23	1.56	1.55	103	102	1

RPD = Relative Percent Difference of Matrix Spike and Matrix Spike Duplicate  
%REC-MS & MSD = Percent Recovery of Matrix Spike & Matrix Spike Duplicate

%REC LIMITS = 75-125
RPD LIMITS = 20

**PREPARATION BLANK / LAB CONTROL SAMPLE RESULTS**

Test	Method	PREP BLK	LCS				
		Value	Result	True	%Rec	L.Limit	H.Limit
Total Phosphate (as P)	4500-P-E	ND	0.33	0.33	100	80%	120%
Total Phosphate (as PO4)	4500-P-E	ND	1.00	1.00	100	80%	120%

Value = Preparation Blank Value; ND = Not-Detected

LCS Result = Lab Control Sample Result

True = True Value of LCS

L.Limit / H.Limit = LCS Control Limits

**ASSOCIATED LABORATORIES  
QA REPORT FORM - INORGANICS**

QC Sample: LR 233261

Matrix: WATER

Prep. Date: 04/24/09

Analysis Date: 04/24/09

Lab ID#'s in Batch: LR 233261, 233262, 233263, 233264, 233265, 233266, 233277, 233278, 233279  
233280, 233336

**MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULT**

Reporting Units = mg/L

Test	Method	Sample Result	Spike Added	Matrix Spike	Matrix Spike Dup	%Rec MS	%Rec MSD	RPD
Ortho-Phosphate (as PO <sub>4</sub> )	4500-P-E	ND	1.53	1.53	1.55	100	101	1
Ortho-Phosphate (as P)	4500-P-E	0.00	0.50	0.50	0.51	100	101	1

*RPD = Relative Percent Difference of Matrix Spike and Matrix Spike Duplicate*  
*%REC-MS & MSD = Percent Recovery of Matrix Spike & Matrix Spike Duplicate*

<i>%REC LIMITS = 75 - 125</i>
<i>RPD LIMITS = 20</i>

**PREPARATION BLANK / LAB CONTROL SAMPLE RESULTS**

Test	Method	PREP BLK	LCS				
		Value	Result	True	%Rec	L.Limit	H.Limit
Ortho-Phosphate (as PO <sub>4</sub> )	4500-P-E	ND	1.01	1.00	101	80%	120%
Ortho-Phosphate (as P)	4500-P-E	ND	0.33	0.33	101	80%	120%

*Value = Preparation Blank Value; ND = Not-Detected*  
*LCS Result = Lab Control Sample Result*  
*True = True Value of LCS*  
*L.Limit / H.Limit = LCS Control Limits*

# ASSOCIATED LABORATORIES QA REPORT FORM

QC Sample: 233261-989222

Matrix: WATER

Prep. Date: 04/25/09

Analysis Date: 04/26/09

Lab ID#'s in Batch: 233261, 233262, 233263, 233264, 233265, 233266, 233277,  
233278, 233279, 233341, Stetson 4/23

## MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULT

Reporting Units = mg/L

Test	Method	Sample Result	Spike Added	Matrix Spike	Matrix Spk. Dup	%Rec MS	%Rec MSD	RPD
TKN	351.2	ND	12.5	12.9	12.3	103	98	5

ND = Not Detected

RPD = Relative Percent Difference of Matrix Spike and Matrix Spike Duplicate

%REC-MS & MSD = Percent Recovery of Matrix Spike & Matrix Spike Duplicate

%REC LIMITS = 80 - 120
RPD LIMITS = 20

## PREPARATION BLANK / LAB CONTROL SAMPLE RESULTS

Test	Method	PREP BLK	LCS				
		Value	Result	True	%Rec	L.Limit	H.Limit
TKN	351.2	ND	2.38	2.50	95	80%	120%

Test	Method	DIG CHK				
		Result	True	%Rec	L.Limit	H.Limit
TKN	351.2	2.95	3.17	93	85%	115%

Value = Preparation Blank Value

LCS Result = Lab Control Sample Result

True = True Value of LCS

L.Limit / H.Limit = LCS Control Limits

**ASSOCIATED LABORATORIES  
QA REPORT FORM**

QC Sample: 233261-989222

Matrix: WATER

Prep. Date: 04/26/09

Analysis Date: 04/27/09

Lab ID#'s in Batch: 233261, 233262, 233263, 233264, 233265, 233266, 233277, 233278,  
233279, 233341, Stetson 4/24

**MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULT**

Reporting Units = mg/L

Test	Method	Sample Result	Spike Added	Matrix Spike	Matrix Spike Dup	%Rec MS	%Rec MSD	RPD
NH3-N	350.1	ND	5.00	5.07	5.13	101	103	1

*ND = Not Detected*

*RPD = Relative Percent Difference of Matrix Spike and Matrix Spike Duplicate*

*%REC-MS & MSD = Percent Recovery of Matrix Spike & Matrix Spike Duplicate*

<i>%REC LIMITS = 80 - 120</i>
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<i>RPD LIMITS = 20</i>
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**PREPARATION BLANK / LAB CONTROL SAMPLE RESULTS**

PREP BLK LCS					
Value	Result	True	%Rec	L.Limit	H.Limit
ND	5.30	5.00	106	80%	120%

*Value = Preparation Blank Value*

*LCS Result = Lab Control Sample Result*

*True = True Value of LCS*

*L.Limit / H.Limit = LCS Control Limits*

**ASSOCIATED LABORATORIES  
QA REPORT FORM**

QC Sample: 233129-988719

Matrix: WATER

Prep. Date: April 24, 2009

Analysis Date: April 24, 2009

ID#'s in Batch: 233129, 232941, 233151, 233180, 233187, 233207, 233261, 233263,  
233265, 233266, 233277

**MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULT**

Reporting Units = mg/L

Test	Method	Sample Result	Spike Added	Matrix Spike	Matrix Spike Dup	%Rec MS	%Rec MSD	RPD
CN	335.4 / 4500-CN	ND	0.500	0.490	0.490	98	98	0

*ND = Not Detected*

*RPD = Relative Percent Difference of Matrix Spike and Matrix Spike Duplicate*

*%REC-MS & MSD = Percent Recovery of Matrix Spike & Matrix Spike Duplicate*

<i>%REC LIMITS = 80-120</i>
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<i>RPD LIMITS = 20</i>
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**PREPARATION BLANK / LAB CONTROL SAMPLE RESULTS**

PREP BLK LCS					
Value	Result	True	%Rec	L.Limit	H.Limit
ND	0.104	0.10	104	85%	115%

*Value = Preparation Blank Value*

*LCS Result = Lab Control Sample Result*

*True = True Value of LCS*

*L.Limit / H.Limit = LCS Control Limits*

**ASSOCIATED LABORATORIES**  
**QA REPORT FORM**

QC Sample : 233317-989432

Matrix: WATER

Prep. Date: 04/24/09

Analysis Date: 04/24/09

Lab ID#'s in Batch: 233280, 233261, 233278, 233279, 233262, 233263, 233265, 233277, 233317

**MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULT**

Reporting Units = mg/L

Test	Method	Sample Result	Spike Added	Matrix Spike	Matrix Spike Dup	%Rec MS	%Rec MSD	RPD
CL	300.0	22.9	200	231	232	104	105	0
SO4	300.0	29.1	200	212	229	91	100	8
NO3	300.0	2.3	100	99.1	100	97	97	0
NO2	300.0	0.1	100	95.8	96.4	96	96	1

RPD = Relative Percent Difference of Matrix Spike and Matrix Spike Dup  
%REC-MS & MSD = Percent Recovery of Matrix Spike & Matrix Spike Duplicate

%Rec Limits = 80 - 120 RPD Limits = 20
---

**PREPARATION BLANK / LAB CONTROL SAMPLE RESULTS**

Test	Method	PREP BLK	LCS				
		Value	Result	True	%Rec	L.Limit	H.Limit
CL	300.0	ND	40.9	40	102	90%	110%
SO4	300.0	ND	40.8	40	102	90%	110%
NO3	300.0	ND	19.1	20	96	90%	110%
NO2	300.0	ND	18.9	20	95	90%	110%

VALUE = Preparation Blank Value; ND = Not-Detected  
LCS = Lab Control Sample Result  
TRUE = True Value of LCS  
L.LIMIT / H.LIMIT = LCS Control Limits

ASSOCIATED LABORATORIES  
QA REPORT FORM

QC Sample : LR 233241

Matrix: WATER

Prep.Date: April 24, 2009

Analysis Date: April 24, 2009

Lab ID#'s in Batch: LR 233240, 233241, 233242, 233243, 233206, 233298, 233289, 233287  
233284, 233283, 233294, 233299, 233261, 233263, 233265

REPORTING UNITS = mg/L

**PREPARATION BLANK / LAB CONTROL SAMPLE RESULTS**

Test	Method	PREP BLK	LCS			L.Limit	H.Limit
		Value	Result	True	%Rec		
O&G	1664	ND	38.60	40	97	78%	114%

VALUE = Preparation Blank Value; ND = Not-Detected

LCS = Lab Control Sample Result

TRUE = True Value of LCS

L.LIMIT / H.LIMIT = LCS Control Limits



**ASSOCIATED LABORATORIES**  
**QA REPORT FORM**

QC Sample: LR 233262

Matrix: WATER

Prep. Date: April 24, 2009

Analysis Date: April 24, 2009

Lab ID#'s in Batch: LR 233261, 233262, 233263, 233264, 233265, 233266, 233277, 233280

REPORTING UNITS = mg/L

**SAMPLE DUPLICATE RESULT**

Test	Method	Sample Result	Sample Duplicate	%RPD
TDS	160-1 / 2540C	1,030	1,025	0

*ND = "U" - Not Detected*

*RPD = Relative Percent Difference of Sample Result and Sample Duplicate*

<i>RPD LIMITS = 5%</i>
------------------------

**PREPARATION BLANK / LAB CONTROL SAMPLE RESULTS**

PREP BLANK	LCS				
Value	Result	True Value	% Rec	L. Limit	H. Limit
ND	288	293	98	90%	110%

*Value = Preparation Blank Value; ND = Not-Detected*

*LCS Result = Lab Control Sample Result*

*True = True Value of LCS*

*L.Limit / H.Limit = LCS Control Limits*

**ASSOCIATED LABORATORIES  
QA REPORT FORM**

QC Sample: LR 233261-989222

Matrix: WATER

Prep. Date: 04/24/2009

Analysis Date: 04/24/2009

Lab ID#'s in Batch: LR 233261, 233262, 233263, 233264, 233265, 233266, 233277, 233317, 233185,  
LR 233364

**MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULT**

Reporting Units = mg/L

Test	Method	Sample Result	Spike Added	Matrix Spike	Matrix Spike Dup	%Rec MS	%Rec MSD	RPD
MBAS	5540C	ND	1.00	0.97	0.99	97	99	2

ND = "U" - Not Detected

RPD = Relative Percent Difference of Matrix Spike and Matrix Spike Duplicate

%REC-MS & MSD = Percent Recovery of Matrix Spike & Matrix Spike Duplicate

%REC LIMITS = 75 - 125

RPD LIMITS = 20

**PREPARATION BLANK / LAB CONTROL SAMPLE RESULTS**

PREP BLK	LCS				
Value	Result	True	%Rec	L.Limit	H.Limit
ND	0.96	1.00	96	80%	120%

Value = Preparation Blank Value

LCS Result = Lab Control Sample Result

True = True Value of LCS

L.Limit / H.Limit = LCS Control Limits

**ASSOCIATED LABORATORIES  
QA REPORT FORM**

QC Sample: 233261

Matrix: WATER

Prep. Date: April 24, 2009

Analysis Date: April 24, 2009

Lab ID#'s in Batch: 233261, 233262, 233263, 233264, 233265, 233266, 233277

**MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULT**

Reporting Units = mg/L

Test	Method	Sample Result Dup	Spike Added	Matrix Spike	Matrix Spike Dup	%Rec MS	%Rec MSD	RPD
TOC	5310B / 9060	3.20	10.00	12.90	12.90	97	97	0

ND = "U" - Not Detected

RPD = Relative Percent Difference of Matrix Spike and Matrix Spike Duplicate

%REC-MS & MSD = Percent Recovery of Matrix Spike & Matrix Spike Duplicate

%REC LIMITS = 80 - 120
------------------------

RPD LIMITS = 20
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**PREPARATION BLANK / LAB CONTROL SAMPLE RESULTS**

PREP BLK	LCS				
Value	Result	True	%Rec	L.Limit	H.Limit
ND	9.80	10.00	98	80%	120%

Value = Preparation Blank Value; ND = Not-Detected

LCS Result = Lab Control Sample Result

True = True Value of LCS

L.Limit / H.Limit = LCS Control Limits

# CHAIN OF CUSTODY FOR LOWER SANTA MARGARITA RIVER WATERSHED MONITORING PROGRAM

233 265

Client Name/Account #: Stetson Engineers Inc.

Address: 861 Village Oaks Dr., Suite 100

City/State/Zip: Covina, CA 91724

Project Manager: Ken Reich

Telephone Number: 626-967-6202

Sampler Name: (Print) Joel Barnard / Ken Reich

Report To: Ken Reich

Invoice To: Ken Reich

TA Quote #:

Project ID: Lower SMR Watershed

Project #: 2258

Sampler Signature:

Sample ID / Description	Sampling Information			Preservative						Analyze For:										Reporting						
APRIL 09 QUARTERLY SAMPLING	Date Sampled	Time Sampled	No. of Containers Shipped	Grab	Composite	Field Filtered	Ice	HNO <sub>3</sub>	HCl	NaOH	H <sub>2</sub> SO <sub>4</sub>	None	Other	Aluminum, Antimony, Arsenic, Beryllium, Boron, Cadmium, Calcium, Total Chromium, Copper, Lead, Iron, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc	Bicarbonate, Chloride, Conductivity, Fluoride, Nitrate, Ortho Phosphate, pH, Sulfate, TDS, Turbidity, Nitrite	BOD <sub>5</sub>	Cyanide	Fecal Coliform	TKN, Ammonia, Total Phosphorous	TOC	Oil and Grease	MBAS	RUSH TAT	Standard TAT	Fax Results	Send QC with report
	4/23/12	12:15	1	X			X	X						X										X	X	X
			2	X			X					X												X	X	X
			1	X			X						X											X	X	X
			1	X			X			X								X						X	X	X
			1	X			X						X						X					X	X	X
			1	X			X					X								X				X	X	X
			1	X			X							X							X			X	X	X
			1	X			X			X												X		X	X	X
			1	X			X															X		X	X	X
			1	X			X						X										X	X	X	X

## Special Instructions:

- Electronic Data Deliverable Required
- "J" flag results between the MDL and the reporting limit
- Metals by EPA 200.8 except Al, Be, B, Ca, Fe, Mn, Na, Zn which are 200.7, Hg by 245.1

Relinquished by: *[Signature]* Date: 4/23/09 Time: 17:40 Received by: *[Signature]* Date: 4-23-09 Time: 18:01

Relinquished by: *[Signature]* Date: 4/23/09 Time: 17:40 Received by: *[Signature]* Date: 4-23-09 Time: 18:01

Relinquished by: *[Signature]* Date: 4/23/09 Time: 17:40 Received by: *[Signature]* Date: 4-23-09 Time: 18:01

Relinquished by: *[Signature]* Date: 4/23/09 Time: 17:40 Received by: *[Signature]* Date: 4-23-09 Time: 18:01

Relinquished by: *[Signature]* Date: 4/23/09 Time: 17:40 Received by: *[Signature]* Date: 4-23-09 Time: 18:01

Relinquished by: *[Signature]* Date: 4/23/09 Time: 17:40 Received by: *[Signature]* Date: 4-23-09 Time: 18:01

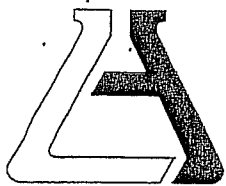
Relinquished by: *[Signature]* Date: 4/23/09 Time: 17:40 Received by: *[Signature]* Date: 4-23-09 Time: 18:01

Relinquished by: *[Signature]* Date: 4/23/09 Time: 17:40 Received by: *[Signature]* Date: 4-23-09 Time: 18:01

## Laboratory Comments:

Temperature Upon Receipt:  
Sample Containers Intact?  
VOCs Free of Headspace?

Y Y N

**ASSOCIATED LABORATORIES**

806 North Batavia – Orange, California 92868 – 714-771-6900

FAX 714-538-1209

**SAMPLE ACCEPTANCE CHECKLIST****Section 1**Client: Stetson

Project: \_\_\_\_\_

Date Received: 4-23-09

Sampler's Name: Yes No

Sample(s) received in cooler: Yes

No (Skip Section 2)

Shipping Information: \_\_\_\_\_

**Section 2**Was the cooler packed with: ☒ Ice ☐ Ice Packs ☒ Bubble Wrap ☐ Styrofoam  
☐ Paper ☐ None ☐ Other \_\_\_\_\_Cooler or box temperature: 4.00

(Acceptance range is 2 to 6 Deg. C.)

Section 3	YES	NO	N/A
Was a COC received?	<input checked="" type="checkbox"/>		
Is it properly completed? (IDs, sampling date and time, signature, test)	<input checked="" type="checkbox"/>		
Were custody seals present?			<input checked="" type="checkbox"/>
If Yes – were they intact?			<input checked="" type="checkbox"/>
Were all samples sealed in plastic bags?	<input checked="" type="checkbox"/>		
Did all samples arrive intact? If no, indicate below.	<input checked="" type="checkbox"/>		
Did all bottle labels agree with COC? (ID, dates and times)	<input checked="" type="checkbox"/>		
Were correct containers used for the tests required?	<input checked="" type="checkbox"/>		
Was a sufficient amount of sample sent for tests indicated?	<input checked="" type="checkbox"/>		
Was there headspace in VOA vials?			<input checked="" type="checkbox"/>
Were the containers labeled with correct preservatives?	<input checked="" type="checkbox"/>		
Was total residual chlorine measured (Fish Bioassay samples only)? *			<input checked="" type="checkbox"/>

\*: If the answer is no, please inform Fish Bioassay Dept. immediately.

**Section 4**

Explanations/Comments

**Section 5**

Was Project Manager notified of discrepancies: Y / N N/A

Completed By: M. Echee Date: 4-23-09