

## ANALYTICAL REPORT

Job Number: 280-4826-1

Job Description: Nelson Well, Peete CO

For:

Terracon Consulting Eng & Scientists  
10625 W I-70 Frontage Rd. N.  
Wheatridge, CO 80033

Attention: John Dellaport



Approved for release.  
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cc: Jared C Geissler

The test results in this report relate only to the samples in this report and meet all requirements of NELAC, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Denver Project Manager.

The Lab Certification ID# is E87667.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

TestAmerica Laboratories, Inc.

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## CASE NARRATIVE

**Client: Terracon Consulting Eng & Scientists**

**Project: Nelson Well, Peete CO**

**Report Number: 280-4826-1**

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

### **RECEIPT**

The samples were received on 06/25/2010; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 5.3 degrees C.

The laboratory noted two trip blank vials were received but not listed on the Chain-of-Custody. The vials were logged in for BTEX analysis by 8021B.

### **VOLATILE ORGANIC COMPOUNDS (GC)**

Samples NELSON 1 (280-4826-1) and TRIP BLANK (280-4826-2) were analyzed for volatile organic compounds (GC) in accordance with EPA SW-846 Method 8021B. The samples were analyzed on 07/06/2010.

TestAmerica Denver's practice for the reporting of dual column data is to report the surrogates from both columns, and the preferred result for any given target analyte from the analyst selected column. The preferred results for target analytes and surrogates are reported as PRIMARY on the Sample Datasheets.

A Continuing Calibration Verification (CCV) standard associated with analytical batch 22048 exhibited %Ds >15%, for benzene, o-xylene, m&p-xylene, total xylenes. The overall mean %D is ≤15%; therefore, method criteria have been met and corrective action was deemed unnecessary.

No difficulties were encountered during the VOC analyses.

All quality control parameters were within the acceptance limits.

### **DISSOLVED GASES**

Sample NELSON 1 (280-4826-1) was analyzed for dissolved gases in accordance with RSK\_175. The samples were analyzed on 07/01/2010.

TestAmerica Denver's practice for the reporting of dual column data is to report the results from both columns, and the preferred result for any given target analyte from the analyst selected column. The preferred results for target analytes are reported as PRIMARY on the Sample Datasheets.

No difficulties were encountered during the dissolved gases analysis.

All quality control parameters were within the acceptance limits.

### **TOTAL METALS**

Sample NELSON 1 (280-4826-1) was analyzed for total metals in accordance with EPA SW-846 Method 6010B. The samples were prepared on 06/30/2010 and analyzed on 07/01/2010.

No other difficulties were encountered during the metals analysis.

All other quality control parameters were within the acceptance limits.

### **ANIONS**

Sample NELSON 1 (280-4826-1) was analyzed for anions in accordance with EPA Method 300.0. The samples were analyzed on 07/06/2010.

Sample NELSON 1 (280-4826-1)[5X] required dilution prior to analysis for sulfate. The reporting limits have been adjusted accordingly.

No difficulties were encountered during the anions analysis.

All quality control parameters were within the acceptance limits.

#### **NITRATE-NITRITE AS NITROGEN**

Sample NELSON 1 (280-4826-1) was analyzed for nitrate-nitrite as nitrogen in accordance with EPA Method 353.2. The samples were analyzed on 07/02/2010.

No difficulties were encountered during the nitrate-nitrite analysis.

All quality control parameters were within the acceptance limits.

#### **CATION ANION BALANCE**

Sample NELSON 1 (280-4826-1) was analyzed for Cation Anion Balance in accordance with Cation Anion Balance. The samples were analyzed on 07/14/2010.

Anion/Cation Balance and Percent Difference were detected in method blank MB 280-22892/1 at levels exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

No other difficulties were encountered during the Cation Anion Balance analysis.

All other quality control parameters were within the acceptance limits.

#### **SPECIFIC CONDUCTIVITY**

Sample NELSON 1 (280-4826-1) was analyzed for specific conductivity in accordance with SM20 2510B. The samples were analyzed on 07/07/2010.

No difficulties were encountered during the specific conductivity analysis.

All quality control parameters were within the acceptance limits.

#### **TOTAL DISSOLVED SOLIDS**

Sample NELSON 1 (280-4826-1) was analyzed for total dissolved solids in accordance with SM20 2540C. The samples were analyzed on 07/01/2010.

Total Dissolved Solids was detected in method blank MB 280-21379/1 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

No other difficulties were encountered during the TDS analysis.

All other quality control parameters were within the acceptance limits.

#### **ALKALINITY**

Sample NELSON 1 (280-4826-1) was analyzed for Alkalinity in accordance with SM20 2320B. The samples were analyzed on 07/07/2010.

No difficulties were encountered during the alkalinity analysis.

All quality control parameters were within the acceptance limits.

#### **CORROSIVITY (PH)**

Sample NELSON 1 (280-4826-1) was analyzed for corrosivity (pH) in accordance with SM20 4500 H+ B. The samples were analyzed on 06/26/2010.

No difficulties were encountered during the pH analysis.

All quality control parameters were within the acceptance limits.

## GC VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica DenverJob No.: 280-4826-1

SDG No.: \_\_\_\_\_

Instrument ID: GCV\_P Analysis Batch Number: 12345Lab Sample ID: IC 280-12345/1 Client Sample ID: \_\_\_\_\_Date Analyzed: 04/22/10 15:05 Lab File ID: 110F0501.D GC Column: RTX 502.2 ID: 0.45 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methyl tert-butyl ether	5.55	Analyte not Identified by the Data System	reamb	04/23/10 08:11

## SAMPLE SUMMARY

Client: Terracon Consulting Eng & Scientists

Job Number: 280-4826-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
280-4826-1	NELSON 1	Water	06/25/2010 1125	06/25/2010 1407
280-4826-2TB	TRIP BLANK	Water	06/25/2010 0000	06/25/2010 1407

## EXECUTIVE SUMMARY - Detections

Client: Terracon Consulting Eng & Scientists

Job Number: 280-4826-1

Lab Sample ID Analyte	Client Sample ID NELSON 1	Result / Qualifier	Reporting Limit	Units	Method
Toluene	2.8		0.50	ug/L	8021B
Methane	47		5.0	ug/L	RSK-175
Calcium	12000		200	ug/L	6010B
Potassium	9800		3000	ug/L	6010B
Magnesium	4000		200	ug/L	6010B
Manganese	10		10	ug/L	6010B
Sodium	280000		1000	ug/L	6010B
Bromide	0.77		0.20	mg/L	300.0
Chloride	46		3.0	mg/L	300.0
Fluoride	1.0		0.50	mg/L	300.0
Sulfate	160		25	mg/L	300.0
Total Anions	13			meq/L	SM 1030F
Total Cations	13			meq/L	SM 1030F
Percent Difference	1.8			%	SM 1030F
Anion/Cation Balance	1.8			%	SM 1030F
Alkalinity	410		5.0	mg/L	SM 2320B
Bicarbonate Alkalinity as CaCO <sub>3</sub>	410		5.0	mg/L	SM 2320B
Specific Conductance	1200		2.0	umhos/cm	SM 2510B
Total Dissolved Solids	810	B	10	mg/L	SM 2540C
pH adj. to 25 deg C	8.00	HF	0.100	SU	SM 4500 H+ B

## METHOD SUMMARY

Client: Terracon Consulting Eng & Scientists

Job Number: 280-4826-1

Description	Lab Location	Method	Preparation Method
<b>Matrix: Water</b>			
Volatile Organic Compounds (GC)	TAL DEN	SW846 8021B	
Purge and Trap	TAL DEN		SW846 5030B
Dissolved Gases (GC)	TAL DEN	RSK RSK-175	
Metals (ICP)	TAL DEN	SW846 6010B	
Preparation, Total Metals	TAL DEN		SW846 3010A
Anions, Ion Chromatography	TAL DEN	MCAWW 300.0	
Nitrogen, Nitrate-Nitrite	TAL DEN	MCAWW 353.2	
Cation Anion Balance	TAL DEN	SM SM 1030F	
Alkalinity	TAL DEN	SM SM 2320B	
Conductivity, Specific Conductance	TAL DEN	SM SM 2510B	
Solids, Total Dissolved (TDS)	TAL DEN	SM SM 2540C	
pH	TAL DEN	SM SM 4500 H+ B	

### Lab References:

TAL DEN = TestAmerica Denver

### Method References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

## METHOD / ANALYST SUMMARY

Client: Terracon Consulting Eng & Scientists

Job Number: 280-4826-1

Method	Analyst	Analyst ID
SW846 8021B	Ream, Brian E	BER
RSK RSK-175	Ream, Brian E	BER
SW846 6010B	Harre, John K	JKH
MCAWW 300.0	Kudla, Ewa	EK
MCAWW 353.2	Jarusewic, Lara E	LEJ
SM SM 1030F	Sullivan, Roxanne	RS
SM SM 2320B	Derosia, Marcia R	MRD
SM SM 2510B	Derosia, Marcia R	MRD
SM SM 2540C	Domnick, Brandon J	BJD
SM SM 4500 H+ B	Kilker, Lorelei M	LMK

**Analytical Data**

Client: Terracon Consulting Eng &amp; Scientists

Job Number: 280-4826-1

**Client Sample ID:** NELSON 1

Lab Sample ID: 280-4826-1

Date Sampled: 06/25/2010 1125

Client Matrix: Water

Date Received: 06/25/2010 1407

**8021B Volatile Organic Compounds (GC)**

Method:	8021B	Analysis Batch: 280-22048	Instrument ID:	GCV_P
Preparation:	5030B		Initial Weight/Volume:	5 mL
Dilution:	1.0		Final Weight/Volume:	5 mL
Date Analyzed:	07/06/2010 1246		Injection Volume:	5 mL
Date Prepared:	07/06/2010 1246		Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Benzene	ND		0.065	0.50
Ethylbenzene	ND		0.10	0.50
Toluene	2.8		0.17	0.50
m-Xylene & p-Xylene	ND		0.19	0.50
o-Xylene	ND		0.23	0.50
Xylenes, Total	ND		0.19	0.50
Surrogate	%Rec	Qualifier	Acceptance Limits	
a,a,a-Trifluorotoluene	96		85 - 115	

**Analytical Data**

Client: Terracon Consulting Eng &amp; Scientists

Job Number: 280-4826-1

**Client Sample ID:** NELSON 1Lab Sample ID: 280-4826-1  
Client Matrix: WaterDate Sampled: 06/25/2010 1125  
Date Received: 06/25/2010 1407**8021B Volatile Organic Compounds (GC)**

Method:	8021B	Analysis Batch:	280-22048	Instrument ID:	GCV_P
Preparation:	5030B	Initial Weight/Volume:		5 mL	
Dilution:	1.0	Final Weight/Volume:		5 mL	
Date Analyzed:	07/06/2010 1246	Injection Volume:		5 mL	
Date Prepared:	07/06/2010 1246	Result Type:		SECONDARY	

Surrogate	%Rec	Qualifier	Acceptance Limits
a,a,a-Trifluorotoluene	95		85 - 115

**Analytical Data**

Client: Terracon Consulting Eng &amp; Scientists

Job Number: 280-4826-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 280-4826-2TB  
Client Matrix: WaterDate Sampled: 06/25/2010 0000  
Date Received: 06/25/2010 1407**8021B Volatile Organic Compounds (GC)**

Method:	8021B	Analysis Batch:	280-22048	Instrument ID:	GCV_P
Preparation:	5030B			Initial Weight/Volume:	5 mL
Dilution:	1.0			Final Weight/Volume:	5 mL
Date Analyzed:	07/06/2010 1322			Injection Volume:	5 mL
Date Prepared:	07/06/2010 1322			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Benzene	ND		0.065	0.50
Ethylbenzene	ND		0.10	0.50
Toluene	ND		0.17	0.50
m-Xylene & p-Xylene	ND		0.19	0.50
o-Xylene	ND		0.23	0.50
Xylenes, Total	ND		0.19	0.50
Surrogate	%Rec	Qualifier	Acceptance Limits	
a,a,a-Trifluorotoluene	94		85 - 115	

**Analytical Data**

Client: Terracon Consulting Eng &amp; Scientists

Job Number: 280-4826-1

**Client Sample ID:** TRIP BLANKLab Sample ID: 280-4826-2TB  
Client Matrix: WaterDate Sampled: 06/25/2010 0000  
Date Received: 06/25/2010 1407**8021B Volatile Organic Compounds (GC)**

Method:	8021B	Analysis Batch:	280-22048	Instrument ID:	GCV_P
Preparation:	5030B			Initial Weight/Volume:	5 mL
Dilution:	1.0			Final Weight/Volume:	5 mL
Date Analyzed:	07/06/2010 1322			Injection Volume:	5 mL
Date Prepared:	07/06/2010 1322			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
a,a,a-Trifluorotoluene	94		85 - 115

**Analytical Data**

Client: Terracon Consulting Eng &amp; Scientists

Job Number: 280-4826-1

**Client Sample ID:** NELSON 1

Lab Sample ID: 280-4826-1

Date Sampled: 06/25/2010 1125

Client Matrix: Water

Date Received: 06/25/2010 1407

**RSK-175 Dissolved Gases (GC)**

Method:	RSK-175	Analysis Batch:	280-21521	Instrument ID:	GCV_J
Preparation:	N/A	Initial Weight/Volume:		18 mL	
Dilution:	1.0	Final Weight/Volume:		18 mL	
Date Analyzed:	07/01/2010 1606	Injection Volume:			
Date Prepared:		Result Type:		PRIMARY	

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methane	47		0.22	5.0

**Analytical Data**

Client: Terracon Consulting Eng &amp; Scientists

Job Number: 280-4826-1

**Client Sample ID:** NELSON 1

Lab Sample ID: 280-4826-1

Date Sampled: 06/25/2010 1125

Client Matrix: Water

Date Received: 06/25/2010 1407

**RSK-175 Dissolved Gases (GC)**

Method:	RSK-175	Analysis Batch:	280-21521	Instrument ID:	GCV_J
Preparation:	N/A	Initial Weight/Volume:		18 mL	
Dilution:	1.0	Final Weight/Volume:		18 mL	
Date Analyzed:	07/01/2010 1606	Injection Volume:			
Date Prepared:		Result Type:		SECONDARY	

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methane	47		0.22	5.0

**Analytical Data**

Client: Terracon Consulting Eng &amp; Scientists

Job Number: 280-4826-1

**Client Sample ID:** NELSON 1Lab Sample ID: 280-4826-1  
Client Matrix: WaterDate Sampled: 06/25/2010 1125  
Date Received: 06/25/2010 1407**6010B Metals (ICP)**

Method:	6010B	Analysis Batch:	280-21428	Instrument ID:	MT_025
Preparation:	3010A	Prep Batch:	280-21225	Lab File ID:	25A5063010.txt
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	07/01/2010 0931			Final Weight/Volume:	50 mL
Date Prepared:	06/30/2010 1500				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Calcium	12000		34	200
Iron	ND		22	100
Potassium	9800		240	3000
Magnesium	4000		11	200
Manganese	10		0.25	10
Sodium	280000		92	1000
Selenium	ND		4.9	15

**Analytical Data**

Client: Terracon Consulting Eng &amp; Scientists

Job Number: 280-4826-1

**General Chemistry****Client Sample ID:** NELSON 1

Lab Sample ID: 280-4826-1

Date Sampled: 06/25/2010 1125

Client Matrix: Water

Date Received: 06/25/2010 1407

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Bromide	0.77		mg/L	0.11	0.20	1.0	300.0
	Analysis Batch: 280-22017		Date Analyzed: 07/06/2010 1510				
Chloride	46		mg/L	0.25	3.0	1.0	300.0
	Analysis Batch: 280-22017		Date Analyzed: 07/06/2010 1510				
Fluoride	1.0		mg/L	0.060	0.50	1.0	300.0
	Analysis Batch: 280-22017		Date Analyzed: 07/06/2010 1510				
Sulfate	160		mg/L	1.2	25	5.0	300.0
	Analysis Batch: 280-22017		Date Analyzed: 07/06/2010 2029				
Nitrate Nitrite as N	ND		mg/L	0.019	0.10	1.0	353.2
	Analysis Batch: 280-21671		Date Analyzed: 07/02/2010 1050				
Alkalinity	410		mg/L	1.1	5.0	1.0	SM 2320B
	Analysis Batch: 280-22204		Date Analyzed: 07/07/2010 2322				
Bicarbonate Alkalinity as CaCO <sub>3</sub>	410		mg/L	1.1	5.0	1.0	SM 2320B
	Analysis Batch: 280-22204		Date Analyzed: 07/07/2010 2322				
Carbonate Alkalinity as CaCO <sub>3</sub>	ND		mg/L	1.1	5.0	1.0	SM 2320B
	Analysis Batch: 280-22204		Date Analyzed: 07/07/2010 2322				
Hydroxide Alkalinity	ND		mg/L	1.1	5.0	1.0	SM 2320B
	Analysis Batch: 280-22204		Date Analyzed: 07/07/2010 2322				
Total Dissolved Solids	810	B	mg/L	4.7	10	1.0	SM 2540C
	Analysis Batch: 280-21379		Date Analyzed: 07/01/2010 0939				

Analyte	Result	Qual	Units		Dil	Method
Total Anions	13		meq/L		1.0	SM 1030F
	Analysis Batch: 280-22892		Date Analyzed: 07/14/2010 0953			
Total Cations	13		meq/L		1.0	SM 1030F
	Analysis Batch: 280-22892		Date Analyzed: 07/14/2010 0953			
Percent Difference	1.8		%		1.0	SM 1030F
	Analysis Batch: 280-22892		Date Analyzed: 07/14/2010 0953			
Anion/Cation Balance	1.8		%		1.0	SM 1030F
	Analysis Batch: 280-22892		Date Analyzed: 07/14/2010 0953			

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Specific Conductance	1200		umhos/cm	2.0	2.0	1.0	SM 2510B
	Analysis Batch: 280-22051		Date Analyzed: 07/07/2010 1356				
pH adj. to 25 deg C	8.00	HF	SU	0.100	0.100	1.0	SM 4500 H+ B
	Analysis Batch: 280-20855		Date Analyzed: 06/26/2010 1148				

**Surrogate Recovery Report****8021B Volatile Organic Compounds (GC)****Client Matrix: Water**

Lab Sample ID	Client Sample ID	TFT1 %Rec	TFT2 %Rec
280-4826-1	NELSON 1	96	95
280-4826-2	TRIP BLANK	94	94
MB 280-22048/4		98	98
LCS 280-22048/2		98	96
LCSD 280-22048/3		95	93
280-4872-G-1 MS		97	96
280-4872-G-1 MSD		96	95

Surrogate

TFT = a,a,a-Trifluorotoluene

Acceptance Limits

85-115

## Quality Control Results

Client: Terracon Consulting Eng & Scientists

Job Number: 280-4826-1

**Method Blank - Batch: 280-22048****Method: 8021B****Preparation: 5030B**

Lab Sample ID: MB 280-22048/4  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 07/06/2010 1150  
Date Prepared: 07/06/2010 1150

Analysis Batch: 280-22048  
Prep Batch: N/A  
Units: ug/L

Instrument ID: GCV\_P  
Lab File ID: 110F0501.D  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL  
Injection Volume: 5 mL  
Column ID: PRIMARY

Analyte	Result	Qual	MDL	RL
Benzene	ND		0.065	0.50
Ethylbenzene	ND		0.10	0.50
Toluene	ND		0.17	0.50
m-Xylene & p-Xylene	ND		0.19	0.50
o-Xylene	ND		0.23	0.50
Xylenes, Total	ND		0.19	0.50
Surrogate	% Rec		Acceptance Limits	
a,a,a-Trifluorotoluene	98		85 - 115	
Surrogate	% Rec		Acceptance Limits	
a,a,a-Trifluorotoluene	98		85 - 115	

## Quality Control Results

Client: Terracon Consulting Eng & Scientists

Job Number: 280-4826-1

**Lab Control Sample/  
Lab Control Sample Duplicate Recovery Report - Batch: 280-22048**

**Method: 8021B  
Preparation: 5030B**

LCS Lab Sample ID:	LCS 280-22048/2	Analysis Batch:	280-22048	Instrument ID:	GCV_P
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	108F0301.D
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	5 mL
Date Analyzed:	07/06/2010 1038			Final Weight/Volume:	5 mL
Date Prepared:	07/06/2010 1038			Injection Volume:	5 mL
				Column ID:	PRIMARY

LCSD Lab Sample ID:	LCSD 280-22048/3	Analysis Batch:	280-22048	Instrument ID:	GCV_P
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	109F0401.D
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	5 mL
Date Analyzed:	07/06/2010 1114			Final Weight/Volume:	5 mL
Date Prepared:	07/06/2010 1114			Injection Volume:	5 mL
				Column ID:	PRIMARY

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Benzene	93	97	75 - 117	4	45		
Ethylbenzene	98	98	79 - 115	0	46		
Toluene	97	95	77 - 115	1	45		
m-Xylene & p-Xylene	98	99	79 - 116	0	46		
o-Xylene	100	101	79 - 116	1	46		
Xylenes, Total	99	99	79 - 116	1	46		
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits		
a,a,a-Trifluorotoluene	98		95		85 - 115		
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits		
a,a,a-Trifluorotoluene	96		93		85 - 115		

## Quality Control Results

Client: Terracon Consulting Eng & Scientists

Job Number: 280-4826-1

### Laboratory Control/

Laboratory Duplicate Data Report - Batch: 280-22048

**Method: 8021B**

**Preparation: 5030B**

LCS Lab Sample ID: LCS 280-22048/2      Units: ug/L  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 07/06/2010 1038  
Date Prepared: 07/06/2010 1038

LCSD Lab Sample ID: LCSD 280-22048/3  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 07/06/2010 1114  
Date Prepared: 07/06/2010 1114

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Benzene	20.0	20.0	18.7	19.4
Ethylbenzene	20.0	20.0	19.6	19.7
Toluene	20.0	20.0	19.3	19.1
m-Xylene & p-Xylene	40.0	40.0	39.4	39.5
o-Xylene	20.0	20.0	20.0	20.1
Xylenes, Total	60.0	60.0	59.3	59.6

## Quality Control Results

Client: Terracon Consulting Eng &amp; Scientists

Job Number: 280-4826-1

**Matrix Spike/  
Matrix Spike Duplicate Recovery Report - Batch: 280-22048****Method: 8021B  
Preparation: 5030B**

MS Lab Sample ID:	280-4872-G-1 MS	Analysis Batch:	280-22048	Instrument ID:	GCV_P
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	114F0901.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	07/06/2010 1434			Final Weight/Volume:	5 mL
Date Prepared:	07/06/2010 1434			Injection Volume:	5 mL
				Column ID:	PRIMARY

MSD Lab Sample ID:	280-4872-G-1 MSD	Analysis Batch:	280-22048	Instrument ID:	GCV_P
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	115F1001.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	07/06/2010 1510			Final Weight/Volume:	5 mL
Date Prepared:	07/06/2010 1510			Injection Volume:	5 mL
				Column ID:	PRIMARY

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Benzene	98	96	75 - 117	2	45		
Ethylbenzene	100	99	79 - 115	1	46		
Toluene	100	99	77 - 115	1	45		
m-Xylene & p-Xylene	101	100	79 - 116	1	46		
o-Xylene	103	102	79 - 116	1	46		
Xylenes, Total	102	101	79 - 116	1	46		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
a,a,a-Trifluorotoluene	97	96	85 - 115

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
a,a,a-Trifluorotoluene	96	95	85 - 115

## Quality Control Results

Client: Terracon Consulting Eng & Scientists

Job Number: 280-4826-1

**Matrix Spike/  
Matrix Spike Duplicate Data Report - Batch: 280-22048**

**Method: 8021B**

**Preparation: 5030B**

MS Lab Sample ID: 280-4872-G-1 MS                          Units: ug/L  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 07/06/2010 1434  
Date Prepared: 07/06/2010 1434

MSD Lab Sample ID: 280-4872-G-1 MSD  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 07/06/2010 1510  
Date Prepared: 07/06/2010 1510

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Benzene	ND	20.0	20.0	19.5	19.2
Ethylbenzene	0.17 J	20.0	20.0	20.2	19.9
Toluene	ND	20.0	20.0	20.0	19.8
m-Xylene & p-Xylene	ND	40.0	40.0	40.5	40.2
o-Xylene	ND	20.0	20.0	20.6	20.5
Xylenes, Total	ND	60.0	60.0	61.1	60.7

## Quality Control Results

Client: Terracon Consulting Eng & Scientists

Job Number: 280-4826-1

**Method Blank - Batch: 280-21521****Method: RSK-175****Preparation: N/A**

Lab Sample ID: MB 280-21521/4  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 07/01/2010 1442  
Date Prepared: N/A

Analysis Batch: 280-21521  
Prep Batch: N/A  
Units: ug/L

Instrument ID: GCV\_J  
Lab File ID: 006F0601.D  
Initial Weight/Volume: 18 mL  
Final Weight/Volume: 18 mL  
Injection Volume:  
Column ID: PRIMARY

Analyte	Result	Qual	MDL	RL
Methane	ND		0.22	5.0

**Method Blank - Batch: 280-21521****Method: RSK-175****Preparation: N/A**

Lab Sample ID: MB 280-21521/4  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 07/01/2010 1442  
Date Prepared: N/A

Analysis Batch: 280-21521  
Prep Batch: N/A  
Units: ug/L

Instrument ID: GCV\_J  
Lab File ID: 006F0601.D  
Initial Weight/Volume: 18 mL  
Final Weight/Volume: 18 mL  
Injection Volume:  
Column ID: SECONDARY

Analyte	Result	Qual	MDL	RL
Methane	ND		0.22	5.0

## Quality Control Results

Client: Terracon Consulting Eng & Scientists

Job Number: 280-4826-1

**Lab Control Sample/  
Lab Control Sample Duplicate Recovery Report - Batch: 280-21521**

**Method: RSK-175**

**Preparation: N/A**

LCS Lab Sample ID:	LCS 280-21521/2	Analysis Batch:	280-21521	Instrument ID:	GCV_J
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	004F0401.D
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	18 mL
Date Analyzed:	07/01/2010 1434			Final Weight/Volume:	18 mL
Date Prepared:	N/A			Injection Volume:	
				Column ID:	PRIMARY

LCSD Lab Sample ID:	LCSD 280-21521/3	Analysis Batch:	280-21521	Instrument ID:	GCV_J
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	005F0501.D
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	18 mL
Date Analyzed:	07/01/2010 1438			Final Weight/Volume:	18 mL
Date Prepared:	N/A			Injection Volume:	
				Column ID:	PRIMARY

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Methane	99	107	75 - 125	7	20		

**Lab Control Sample/  
Lab Control Sample Duplicate Recovery Report - Batch: 280-21521**

**Method: RSK-175**

**Preparation: N/A**

LCS Lab Sample ID:	LCS 280-21521/2	Analysis Batch:	280-21521	Instrument ID:	GCV_J
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	004F0401.D
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	18 mL
Date Analyzed:	07/01/2010 1434			Final Weight/Volume:	18 mL
Date Prepared:	N/A			Injection Volume:	
				Column ID:	SECONDARY

LCSD Lab Sample ID:	LCSD 280-21521/3	Analysis Batch:	280-21521	Instrument ID:	GCV_J
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	005F0501.D
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	18 mL
Date Analyzed:	07/01/2010 1438			Final Weight/Volume:	18 mL
Date Prepared:	N/A			Injection Volume:	
				Column ID:	SECONDARY

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Methane	99	107	75 - 125	7	20		

## Quality Control Results

Client: Terracon Consulting Eng & Scientists

Job Number: 280-4826-1

### Laboratory Control/

Laboratory Duplicate Data Report - Batch: 280-21521

**Method: RSK-175**

**Preparation: N/A**

LCS Lab Sample ID: LCS 280-21521/2

Units: ug/L

Client Matrix: Water

Dilution: 1.0

Date Analyzed: 07/01/2010 1434

Date Prepared: N/A

LCSD Lab Sample ID: LCSD 280-21521/3

Client Matrix: Water

Dilution: 1.0

Date Analyzed: 07/01/2010 1438

Date Prepared: N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Methane	73.0	73.0	72.5	77.9

### Laboratory Control/

Laboratory Duplicate Data Report - Batch: 280-21521

**Method: RSK-175**

**Preparation: N/A**

LCS Lab Sample ID: LCS 280-21521/2

Units: ug/L

Client Matrix: Water

Dilution: 1.0

Date Analyzed: 07/01/2010 1434

Date Prepared: N/A

LCSD Lab Sample ID: LCSD 280-21521/3

Client Matrix: Water

Dilution: 1.0

Date Analyzed: 07/01/2010 1438

Date Prepared: N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Methane	73.0	73.0	72.5	78.0

## Quality Control Results

Client: Terracon Consulting Eng &amp; Scientists

Job Number: 280-4826-1

**Matrix Spike/  
Matrix Spike Duplicate Recovery Report - Batch: 280-21521****Method: RSK-175****Preparation: N/A**

MS Lab Sample ID:	280-4759-A-1 MS	Analysis Batch:	280-21521	Instrument ID:	GCV_J
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	026F2601.D
Dilution:	10			Initial Weight/Volume:	18 mL
Date Analyzed:	07/01/2010 1649			Final Weight/Volume:	18 mL
Date Prepared:	N/A			Injection Volume:	
				Column ID:	PRIMARY

MSD Lab Sample ID:	280-4759-A-1 MSD	Analysis Batch:	280-21521	Instrument ID:	GCV_J
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	027F2701.D
Dilution:	10			Initial Weight/Volume:	18 mL
Date Analyzed:	07/01/2010 1653			Final Weight/Volume:	18 mL
Date Prepared:	N/A			Injection Volume:	
				Column ID:	PRIMARY

Analyte	% Rec.				RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD	Limit					
Methane	91	68	52 - 145		5	20		

**Matrix Spike/  
Matrix Spike Duplicate Recovery Report - Batch: 280-21521****Method: RSK-175****Preparation: N/A**

MS Lab Sample ID:	280-4759-A-1 MS	Analysis Batch:	280-21521	Instrument ID:	GCV_J
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	026F2601.D
Dilution:	10			Initial Weight/Volume:	18 mL
Date Analyzed:	07/01/2010 1649			Final Weight/Volume:	18 mL
Date Prepared:	N/A			Injection Volume:	
				Column ID:	SECONDARY

MSD Lab Sample ID:	280-4759-A-1 MSD	Analysis Batch:	280-21521	Instrument ID:	GCV_J
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	027F2701.D
Dilution:	10			Initial Weight/Volume:	18 mL
Date Analyzed:	07/01/2010 1653			Final Weight/Volume:	18 mL
Date Prepared:	N/A			Injection Volume:	
				Column ID:	SECONDARY

Analyte	% Rec.				RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD	Limit					
Methane	90	67	52 - 145		5	20		

## Quality Control Results

Client: Terracon Consulting Eng & Scientists

Job Number: 280-4826-1

**Matrix Spike/  
Matrix Spike Duplicate Data Report - Batch: 280-21521**

**Method: RSK-175**

**Preparation: N/A**

MS Lab Sample ID: 280-4759-A-1 MS                          Units: ug/L  
Client Matrix: Water  
Dilution: 10  
Date Analyzed: 07/01/2010 1649  
Date Prepared: N/A

MSD Lab Sample ID: 280-4759-A-1 MSD  
Client Matrix: Water  
Dilution: 10  
Date Analyzed: 07/01/2010 1653  
Date Prepared: N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Methane	2600	730	730	3220	3060

**Matrix Spike/  
Matrix Spike Duplicate Data Report - Batch: 280-21521**

**Method: RSK-175**

**Preparation: N/A**

MS Lab Sample ID: 280-4759-A-1 MS                          Units: ug/L  
Client Matrix: Water  
Dilution: 10  
Date Analyzed: 07/01/2010 1649  
Date Prepared: N/A

MSD Lab Sample ID: 280-4759-A-1 MSD  
Client Matrix: Water  
Dilution: 10  
Date Analyzed: 07/01/2010 1653  
Date Prepared: N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Methane	2600	730	730	3220	3060

## Quality Control Results

Client: Terracon Consulting Eng & Scientists

Job Number: 280-4826-1

### Method Blank - Batch: 280-21225

**Method: 6010B**

**Preparation: 3010A**

Lab Sample ID: MB 280-21225/1-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 07/01/2010 0927  
Date Prepared: 06/30/2010 1500

Analysis Batch: 280-21428  
Prep Batch: 280-21225  
Units: ug/L

Instrument ID: MT\_025  
Lab File ID: 25A5063010.txt  
Initial Weight/Volume: 50 mL  
Final Weight/Volume: 50 mL

Analyte	Result	Qual	MDL	RL
Calcium	ND		34	200
Iron	ND		22	100
Potassium	ND		240	3000
Magnesium	ND		11	200
Manganese	ND		0.25	10
Sodium	ND		92	1000
Selenium	ND		4.9	15

### Lab Control Sample - Batch: 280-21225

**Method: 6010B**

**Preparation: 3010A**

Lab Sample ID: LCS 280-21225/2-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 07/01/2010 0929  
Date Prepared: 06/30/2010 1500

Analysis Batch: 280-21428  
Prep Batch: 280-21225  
Units: ug/L

Instrument ID: MT\_025  
Lab File ID: 25A5063010.txt  
Initial Weight/Volume: 50 mL  
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Calcium	50000	48600	97	90 - 111	
Iron	1000	984	98	89 - 115	
Potassium	50000	50000	100	89 - 114	
Magnesium	50000	47800	96	90 - 113	
Manganese	500	477	95	90 - 110	
Sodium	50000	53300	107	90 - 115	
Selenium	2000	2030	102	85 - 112	

## Quality Control Results

Client: Terracon Consulting Eng & Scientists

Job Number: 280-4826-1

**Matrix Spike/  
Matrix Spike Duplicate Recovery Report - Batch: 280-21225**

**Method: 6010B**

**Preparation: 3010A**

MS Lab Sample ID:	280-4826-1	Analysis Batch:	280-21428	Instrument ID:	MT_025
Client Matrix:	Water	Prep Batch:	280-21225	Lab File ID:	25A5063010.txt
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	07/01/2010 0936			Final Weight/Volume:	50 mL
Date Prepared:	06/30/2010 1500				

MSD Lab Sample ID:	280-4826-1	Analysis Batch:	280-21428	Instrument ID:	MT_025
Client Matrix:	Water	Prep Batch:	280-21225	Lab File ID:	25A5063010.txt
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	07/01/2010 0938			Final Weight/Volume:	50 mL
Date Prepared:	06/30/2010 1500				

Analyte	% Rec.						
	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Calcium	93	99	48 - 153	5	25		
Iron	95	99	52 - 155	4	25		
Potassium	96	101	76 - 132	5	25		
Magnesium	91	94	62 - 146	3	25		
Manganese	92	95	79 - 121	2	25		
Sodium	89	130	70 - 203	6	40	4	4
Selenium	97	101	71 - 140	4	25		

**Matrix Spike/  
Matrix Spike Duplicate Data Report - Batch: 280-21225**

**Method: 6010B**

**Preparation: 3010A**

MS Lab Sample ID:	280-4826-1	Units: ug/L	MSD Lab Sample ID:	280-4826-1
Client Matrix:	Water		Client Matrix:	Water
Dilution:	1.0		Dilution:	1.0
Date Analyzed:	07/01/2010 0936		Date Analyzed:	07/01/2010 0938
Date Prepared:	06/30/2010 1500		Date Prepared:	06/30/2010 1500

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Calcium	12000	50000	50000	58600	61600
Iron	ND	1000	1000	948	986
Potassium	9800	50000	50000	57600	60200
Magnesium	4000	50000	50000	49500	50900
Manganese	10	500	500	472	483
Sodium	280000	50000	50000	322000	342000
Selenium	ND	2000	2000	1930	2010

## Quality Control Results

Client: Terracon Consulting Eng & Scientists

Job Number: 280-4826-1

### Method Blank - Batch: 280-22017

**Method: 300.0**

**Preparation: N/A**

Lab Sample ID: MB 280-22017/6  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 07/06/2010 1131  
Date Prepared: N/A

Analysis Batch: 280-22017  
Prep Batch: N/A  
Units: mg/L

Instrument ID: WC\_IC8  
Lab File ID: 115.TXT  
Initial Weight/Volume: 1.0 mL  
Final Weight/Volume: 1.0 mL

Analyte	Result	Qual	MDL	RL
Bromide	ND		0.11	0.20
Chloride	ND		0.25	3.0
Fluoride	ND		0.060	0.50
Sulfate	ND		0.23	5.0

### Method Reporting Limit Check - Batch: 280-22017

**Method: 300.0**

**Preparation: N/A**

Lab Sample ID: MRL 280-22017/3  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 07/06/2010 0958  
Date Prepared: N/A

Analysis Batch: 280-22017  
Prep Batch: N/A  
Units: mg/L

Instrument ID: WC\_IC8  
Lab File ID: 112.TXT  
Initial Weight/Volume: 1.0 mL  
Final Weight/Volume: 5 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Bromide	0.200	0.200	100	50 - 150	
Chloride	1.00	0.970	97	50 - 150	J
Fluoride	0.200	0.190	95	50 - 150	J
Sulfate	1.00	0.910	91	50 - 150	J

## Quality Control Results

Client: Terracon Consulting Eng & Scientists

Job Number: 280-4826-1

### Lab Control Sample/ Lab Control Sample Duplicate Recovery Report - Batch: 280-22017

**Method: 300.0**

**Preparation: N/A**

LCS Lab Sample ID:	LCS 280-22017/4	Analysis Batch:	280-22017	Instrument ID:	WC_IC8
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	113.TXT
Dilution:	1.0	Units:	mg/L	Initial Weight/Volume:	1.0 mL
Date Analyzed:	07/06/2010 1057			Final Weight/Volume:	1.0 mL
Date Prepared:	N/A				

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LCSD Lab Sample ID:	LCSD 280-22017/5	Analysis Batch:	280-22017	Instrument ID:	WC_IC8
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	114.TXT
Dilution:	1.0	Units:	mg/L	Initial Weight/Volume:	1.0 mL
Date Analyzed:	07/06/2010 1114			Final Weight/Volume:	1.0 mL
Date Prepared:	N/A				

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Bromide	98	98	90 - 110	0	10		
Chloride	98	98	90 - 110	1	10		
Fluoride	100	100	90 - 110	0	10		
Sulfate	97	96	90 - 110	1	10		

### Laboratory Control/ Laboratory Duplicate Data Report - Batch: 280-22017

**Method: 300.0**

**Preparation: N/A**

LCS Lab Sample ID:	LCS 280-22017/4	Units:	mg/L	LCSD Lab Sample ID:	LCSD 280-22017/5
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Date Analyzed:	07/06/2010 1057			Date Analyzed:	07/06/2010 1114
Date Prepared:	N/A			Date Prepared:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Bromide	5.00	5.00	4.88	4.88
Chloride	25.0	25.0	24.6	24.5
Fluoride	5.00	5.00	5.00	5.01
Sulfate	25.0	25.0	24.1	24.0

## Quality Control Results

Client: Terracon Consulting Eng &amp; Scientists

Job Number: 280-4826-1

**Matrix Spike/  
Matrix Spike Duplicate Recovery Report - Batch: 280-22017****Method: 300.0****Preparation: N/A**

MS Lab Sample ID:	280-4872-B-1 MS	Analysis Batch:	280-22017	Instrument ID:	WC_IC8
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	124.TXT
Dilution:	1.0			Initial Weight/Volume:	1.0 mL
Date Analyzed:	07/06/2010 1402			Final Weight/Volume:	5 mL
Date Prepared:	N/A				

MSD Lab Sample ID:	280-4872-B-1 MSD	Analysis Batch:	280-22017	Instrument ID:	WC_IC8
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	125.TXT
Dilution:	1.0			Initial Weight/Volume:	1.0 mL
Date Analyzed:	07/06/2010 1419			Final Weight/Volume:	5 mL
Date Prepared:	N/A				

Analyte	% Rec.						
	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Bromide	101	102	80 - 120	1	20		
Chloride	100	101	80 - 120	1	20		
Fluoride	96	98	80 - 120	1	20		

**Matrix Spike/  
Matrix Spike Duplicate Recovery Report - Batch: 280-22017****Method: 300.0****Preparation: N/A**

MS Lab Sample ID:	280-4872-B-1 MS	Analysis Batch:	280-22017	Instrument ID:	WC_IC8
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	144.TXT
Dilution:	5.0			Initial Weight/Volume:	1.0 mL
Date Analyzed:	07/06/2010 1956			Final Weight/Volume:	5 mL
Date Prepared:	N/A				

MSD Lab Sample ID:	280-4872-B-1 MSD	Analysis Batch:	280-22017	Instrument ID:	WC_IC8
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	145.TXT
Dilution:	5.0			Initial Weight/Volume:	1.0 mL
Date Analyzed:	07/06/2010 2013			Final Weight/Volume:	5 mL
Date Prepared:	N/A				

Analyte	% Rec.						
	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Sulfate	93	94	80 - 120	0	20		

## Quality Control Results

Client: Terracon Consulting Eng & Scientists

Job Number: 280-4826-1

**Matrix Spike/  
Matrix Spike Duplicate Data Report - Batch: 280-22017**

**Method: 300.0**

**Preparation: N/A**

MS Lab Sample ID: 280-4872-B-1 MS                          Units: mg/L  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 07/06/2010 1402  
Date Prepared: N/A

MSD Lab Sample ID: 280-4872-B-1 MSD  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 07/06/2010 1419  
Date Prepared: N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Bromide	ND	5.00	5.00	5.03	5.09
Chloride	3.2	25.0	25.0	28.2	28.5
Fluoride	0.47 J	5.00	5.00	5.29	5.35

**Matrix Spike/  
Matrix Spike Duplicate Data Report - Batch: 280-22017**

**Method: 300.0**

**Preparation: N/A**

MS Lab Sample ID: 280-4872-B-1 MS                          Units: mg/L  
Client Matrix: Water  
Dilution: 5.0  
Date Analyzed: 07/06/2010 1956  
Date Prepared: N/A

MSD Lab Sample ID: 280-4872-B-1 MSD  
Client Matrix: Water  
Dilution: 5.0  
Date Analyzed: 07/06/2010 2013  
Date Prepared: N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Sulfate	61	125	125	178	178

## Quality Control Results

Client: Terracon Consulting Eng & Scientists

Job Number: 280-4826-1

### Duplicate - Batch: 280-22017

**Method: 300.0**

**Preparation: N/A**

Lab Sample ID:	280-4872-B-1 DU	Analysis Batch:	280-22017	Instrument ID:	WC_IC8
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	123.TXT
Dilution:	1.0	Units:	mg/L	Initial Weight/Volume:	1.0 mL
Date Analyzed:	07/06/2010 1346			Final Weight/Volume:	1.0 mL
Date Prepared:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Bromide	ND	ND	NC	15	
Chloride	3.2	3.17	1	15	
Fluoride	0.47	J	0.460	2	15

### Duplicate - Batch: 280-22017

**Method: 300.0**

**Preparation: N/A**

Lab Sample ID:	280-4872-B-1 DU	Analysis Batch:	280-22017	Instrument ID:	WC_IC8
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	143.TXT
Dilution:	5.0	Units:	mg/L	Initial Weight/Volume:	1.0 mL
Date Analyzed:	07/06/2010 1939			Final Weight/Volume:	1.0 mL
Date Prepared:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Sulfate	61	60.3	1	15	

## Quality Control Results

Client: Terracon Consulting Eng & Scientists

Job Number: 280-4826-1

### Method Blank - Batch: 280-21671

Method: 353.2

Preparation: N/A

Lab Sample ID: MB 280-21671/18      Analysis Batch: 280-21671  
Client Matrix: Water      Prep Batch: N/A  
Dilution: 1.0      Units: mg/L  
Date Analyzed: 07/02/2010 1036  
Date Prepared: N/A

Instrument ID: WC\_Alp 2  
Lab File ID: C:\FLOW\_4\0702NXN.RST  
Initial Weight/Volume: 1.0 mL  
Final Weight/Volume: 1.0 mL

Analyte	Result	Qual	MDL	RL
Nitrate Nitrite as N	ND		0.019	0.10

### Lab Control Sample/ Lab Control Sample Duplicate Recovery Report - Batch: 280-21671

Method: 353.2

Preparation: N/A

LCS Lab Sample ID: LCS 280-21671/19      Analysis Batch: 280-21671  
Client Matrix: Water      Prep Batch: N/A  
Dilution: 1.0      Units: mg/L  
Date Analyzed: 07/02/2010 1038  
Date Prepared: N/A

Instrument ID: WC\_Alp 2  
Lab File ID: C:\FLOW\_4\0702NXN.RST  
Initial Weight/Volume: 100 mL  
Final Weight/Volume: 100 mL

LCSD Lab Sample ID:	Analysis Batch:	Instrument ID:
LCSD 280-21671/20	280-21671	WC_Alp 2
Client Matrix:	Prep Batch:	Lab File ID:
Water	N/A	C:\FLOW_4\0702NXN.RST
Dilution:	Units:	Initial Weight/Volume:
1.0	mg/L	100 mL
Date Analyzed:		Final Weight/Volume:
07/02/2010 1039		100 mL
Date Prepared:		
N/A		

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Nitrate Nitrite as N	105	106	90 - 110	1	10		

## Quality Control Results

Client: Terracon Consulting Eng & Scientists

Job Number: 280-4826-1

### Laboratory Control/

#### Laboratory Duplicate Data Report - Batch: 280-21671

**Method: 353.2**

**Preparation: N/A**

LCS Lab Sample ID: LCS 280-21671/19

Units: mg/L

Client Matrix: Water

Dilution: 1.0

Date Analyzed: 07/02/2010 1038

Date Prepared: N/A

LCSD Lab Sample ID: LCSD 280-21671/20

Client Matrix: Water

Dilution: 1.0

Date Analyzed: 07/02/2010 1039

Date Prepared: N/A

### Analyte

LCS Spike Amount

LCSD Spike Amount

LCS Result/Qual

LCSD Result/Qual

Nitrate Nitrite as N

5.00

5.00

5.25

5.31

### Matrix Spike/

#### Matrix Spike Duplicate Recovery Report - Batch: 280-21671

**Method: 353.2**

**Preparation: N/A**

MS Lab Sample ID: 280-4891-B-1 MS

Analysis Batch: 280-21671

Instrument ID: WC\_Alp 2

Client Matrix: Water

Prep Batch: N/A

Lab File ID: C:\FLOW\_40702NXN.RST

Dilution: 1.0

Initial Weight/Volume: 5 mL

Date Analyzed: 07/02/2010 1042

Final Weight/Volume: 5 mL

Date Prepared: N/A

MSD Lab Sample ID: 280-4891-B-1 MSD

Analysis Batch: 280-21671

Instrument ID: WC\_Alp 2

Client Matrix: Water

Prep Batch: N/A

Lab File ID: C:\FLOW\_40702NXN.RST

Dilution: 1.0

Initial Weight/Volume: 5 mL

Date Analyzed: 07/02/2010 1044

Final Weight/Volume: 5 mL

Date Prepared: N/A

### Analyte

MS % Rec.

MSD

Limit

RPD

RPD Limit

MS Qual

MSD Qual

Nitrate Nitrite as N

107

106

72 - 113

0

17

## Quality Control Results

Client: Terracon Consulting Eng & Scientists

Job Number: 280-4826-1

**Matrix Spike/  
Matrix Spike Duplicate Data Report - Batch: 280-21671**

**Method: 353.2**

**Preparation: N/A**

MS Lab Sample ID:	280-4891-B-1 MS	Units:	mg/L	MSD Lab Sample ID:	280-4891-B-1 MSD
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Date Analyzed:	07/02/2010 1042			Date Analyzed:	07/02/2010 1044
Date Prepared:	N/A			Date Prepared:	N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Nitrate Nitrite as N	2.1	4.00	4.00	6.39	6.35

## Quality Control Results

Client: Terracon Consulting Eng & Scientists

Job Number: 280-4826-1

**Method Blank - Batch: 280-22892****Method: SM 1030F****Preparation: N/A**

Lab Sample ID: MB 280-22892/1  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 07/14/2010 0953  
Date Prepared: N/A

Analysis Batch: 280-22892  
Prep Batch: N/A  
Units: %

Instrument ID: No Equipment Assigned  
Lab File ID: N/A  
Initial Weight/Volume:  
Final Weight/Volume: 1.0 mL

Analyte	Result	Qual	NONE	NONE
Percent Difference	0.000			
Anion/Cation Balance	0.000			

**Method Blank - Batch: 280-22892****Method: SM 1030F****Preparation: N/A**

Lab Sample ID: MB 280-22892/1  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 07/14/2010 0953  
Date Prepared: N/A

Analysis Batch: 280-22892  
Prep Batch: N/A  
Units: mg/L

Instrument ID: No Equipment Assigned  
Lab File ID: N/A  
Initial Weight/Volume:  
Final Weight/Volume: 1.0 mL

Analyte	Result	Qual	NONE	NONE
Total Anions	nd			
Total Cations	nd			

## Quality Control Results

Client: Terracon Consulting Eng & Scientists

Job Number: 280-4826-1

### Method Blank - Batch: 280-22204

Method: SM 2320B

Preparation: N/A

Lab Sample ID: MB 280-22204/35  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 07/07/2010 2222  
Date Prepared: N/A

Analysis Batch: 280-22204  
Prep Batch: N/A  
Units: mg/L

Instrument ID: WC\_AT2  
Lab File ID: 070710aa.TXT  
Initial Weight/Volume: 1.0 mL  
Final Weight/Volume: 1.0 mL

Analyte	Result	Qual	MDL	RL
Alkalinity	ND		1.1	5.0
Bicarbonate Alkalinity as CaCO <sub>3</sub>	ND		1.1	5.0
Carbonate Alkalinity as CaCO <sub>3</sub>	ND		1.1	5.0
Hydroxide Alkalinity	ND		1.1	5.0

### Lab Control Sample/

### Lab Control Sample Duplicate Recovery Report - Batch: 280-22204

Method: SM 2320B

Preparation: N/A

LCS Lab Sample ID: LCS 280-22204/33  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 07/07/2010 2204  
Date Prepared: N/A

Analysis Batch: 280-22204  
Prep Batch: N/A  
Units: mg/L

Instrument ID: WC\_AT2  
Lab File ID: 070710aa.TXT  
Initial Weight/Volume: 1.0 mL  
Final Weight/Volume: 1.0 mL

LCSD Lab Sample ID: LCSD 280-22204/34  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 07/07/2010 2214  
Date Prepared: N/A

Analysis Batch: 280-22204  
Prep Batch: N/A  
Units: mg/L

Instrument ID: WC\_AT2  
Lab File ID: 070710aa.TXT  
Initial Weight/Volume: 1.0 mL  
Final Weight/Volume: 1.0 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Alkalinity	103	102	90 - 110	0	10		

## Quality Control Results

Client: Terracon Consulting Eng & Scientists

Job Number: 280-4826-1

**Laboratory Control/  
Laboratory Duplicate Data Report - Batch: 280-22204**

**Method: SM 2320B  
Preparation: N/A**

LCS Lab Sample ID: LCS 280-22204/33  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 07/07/2010 2204  
Date Prepared: N/A

Units: mg/L

LCSD Lab Sample ID: LCSD 280-22204/34  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 07/07/2010 2214  
Date Prepared: N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Alkalinity	200	200	205	204

**Duplicate - Batch: 280-22204**

**Method: SM 2320B  
Preparation: N/A**

Lab Sample ID: 280-4911-B-1 DU  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 07/07/2010 2240  
Date Prepared: N/A

Analysis Batch: 280-22204  
Prep Batch: N/A  
Units: mg/L

Instrument ID: WC\_AT2  
Lab File ID: 070710aa.TXT  
Initial Weight/Volume: 1.0 mL  
Final Weight/Volume: 1.0 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Alkalinity	350	348	0	10	

## Quality Control Results

Client: Terracon Consulting Eng & Scientists

Job Number: 280-4826-1

**Method Blank - Batch: 280-22051****Method: SM 2510B****Preparation: N/A**

Lab Sample ID: MB 280-22051/5  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 07/07/2010 1356  
Date Prepared: N/A

Analysis Batch: 280-22051  
Prep Batch: N/A  
Units: umhos/cm

Instrument ID: No Equipment Assigned  
Lab File ID: N/A  
Initial Weight/Volume:  
Final Weight/Volume: 1.0 mL

Analyte	Result	Qual	RL	RL
Specific Conductance	ND		2.0	2.0

**Lab Control Sample/****Lab Control Sample Duplicate Recovery Report - Batch: 280-22051****Method: SM 2510B****Preparation: N/A**

LCS Lab Sample ID: LCS 280-22051/3  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 07/07/2010 1356  
Date Prepared: N/A

Analysis Batch: 280-22051  
Prep Batch: N/A  
Units: umhos/cm

Instrument ID: No Equipment Assigned  
Lab File ID: N/A  
Initial Weight/Volume:  
Final Weight/Volume: 1.0 mL

LCSD Lab Sample ID:	LCSD 280-22051/4	Analysis Batch:	280-22051	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Units:	umhos/cm	Initial Weight/Volume:	
Date Analyzed:	07/07/2010 1356			Final Weight/Volume:	1.0 mL
Date Prepared:	N/A				

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Specific Conductance	100	100	90 - 110	0	10		

## Quality Control Results

Client: Terracon Consulting Eng & Scientists

Job Number: 280-4826-1

### Laboratory Control/

Laboratory Duplicate Data Report - Batch: 280-22051

**Method: SM 2510B**

**Preparation: N/A**

LCS Lab Sample ID: LCS 280-22051/3  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 07/07/2010 1356  
Date Prepared: N/A

Units: umhos/cm

LCSD Lab Sample ID: LCSD 280-22051/4  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 07/07/2010 1356  
Date Prepared: N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Specific Conductance	1410	1410	1410	1410

Duplicate - Batch: 280-22051

**Method: SM 2510B**

**Preparation: N/A**

Lab Sample ID: 280-4787-D-1 DU  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 07/07/2010 1356  
Date Prepared: N/A

Analysis Batch: 280-22051  
Prep Batch: N/A  
Units: umhos/cm

Instrument ID: No Equipment Assigned  
Lab File ID: N/A  
Initial Weight/Volume:  
Final Weight/Volume: 1.0 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Specific Conductance	410	405	1	10	

## Quality Control Results

Client: Terracon Consulting Eng & Scientists

Job Number: 280-4826-1

### Method Blank - Batch: 280-21379

Method: SM 2540C

Preparation: N/A

Lab Sample ID: MB 280-21379/1  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 07/01/2010 0939  
Date Prepared: N/A

Analysis Batch: 280-21379  
Prep Batch: N/A  
Units: mg/L

Instrument ID: No Equipment Assigned  
Lab File ID: N/A  
Initial Weight/Volume: 100 mL  
Final Weight/Volume: 100 mL

Analyte	Result	Qual	MDL	RL
Total Dissolved Solids	8.00	J	4.7	10

### Lab Control Sample/ Lab Control Sample Duplicate Recovery Report - Batch: 280-21379

Method: SM 2540C

Preparation: N/A

LCS Lab Sample ID: LCS 280-21379/2  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 07/01/2010 0939  
Date Prepared: N/A

Analysis Batch: 280-21379  
Prep Batch: N/A  
Units: mg/L

Instrument ID: No Equipment Assigned  
Lab File ID: N/A  
Initial Weight/Volume: 100 mL  
Final Weight/Volume: 100 mL

LCSD Lab Sample ID: LCSD 280-21379/3  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 07/01/2010 0939  
Date Prepared: N/A

Analysis Batch: 280-21379  
Prep Batch: N/A  
Units: mg/L

Instrument ID: No Equipment Assigned  
Lab File ID: N/A  
Initial Weight/Volume: 100 mL  
Final Weight/Volume: 100 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Total Dissolved Solids	100	100	86 - 110	0	20		

## Quality Control Results

Client: Terracon Consulting Eng & Scientists

Job Number: 280-4826-1

### Laboratory Control/

Laboratory Duplicate Data Report - Batch: 280-21379

**Method: SM 2540C**

**Preparation: N/A**

LCS Lab Sample ID: LCS 280-21379/2

Units: mg/L

Client Matrix: Water

Dilution: 1.0

Date Analyzed: 07/01/2010 0939

Date Prepared: N/A

LCSD Lab Sample ID: LCSD 280-21379/3

Client Matrix: Water

Dilution: 1.0

Date Analyzed: 07/01/2010 0939

Date Prepared: N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Total Dissolved Solids	500	500	500	500

Duplicate - Batch: 280-21379

**Method: SM 2540C**

**Preparation: N/A**

Lab Sample ID: 280-4824-B-3 DU

Analysis Batch: 280-21379

Instrument ID: No Equipment Assigned

Client Matrix: Water

Prep Batch: N/A

Lab File ID: N/A

Dilution: 1.0

Units: mg/L

Initial Weight/Volume: 100 mL

Date Analyzed: 07/01/2010 0939

Final Weight/Volume: 100 mL

Date Prepared: N/A

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Total Dissolved Solids	320	320	1	20	

## Quality Control Results

Client: Terracon Consulting Eng & Scientists

Job Number: 280-4826-1

**Lab Control Sample/  
Lab Control Sample Duplicate Recovery Report - Batch: 280-20855**

**Method: SM 4500 H+ B  
Preparation: N/A**

LCS Lab Sample ID: LCS 280-20855/26      Analysis Batch: 280-20855  
Client Matrix: Water      Prep Batch: N/A  
Dilution: 1.0      Units: SU  
Date Analyzed: 06/26/2010 1135  
Date Prepared: N/A

Instrument ID: WC\_pH Probe  
Lab File ID: 062610.txt  
Initial Weight/Volume:  
Final Weight/Volume: 1.0 mL

---

LCSD Lab Sample ID: LCSD 280-20855/27      Analysis Batch: 280-20855  
Client Matrix: Water      Prep Batch: N/A  
Dilution: 1.0      Units: SU  
Date Analyzed: 06/26/2010 1135  
Date Prepared: N/A

Instrument ID: WC\_pH Probe  
Lab File ID: 062610.txt  
Initial Weight/Volume:  
Final Weight/Volume: 1.0 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
pH adj. to 25 deg C	100	100	99 - 101	0	5		

**Laboratory Control/  
Laboratory Duplicate Data Report - Batch: 280-20855**

**Method: SM 4500 H+ B  
Preparation: N/A**

LCS Lab Sample ID: LCS 280-20855/26      Units: SU  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 06/26/2010 1135  
Date Prepared: N/A

LCSD Lab Sample ID: LCSD 280-20855/27  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 06/26/2010 1135  
Date Prepared: N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
pH adj. to 25 deg C	7.00	7.00	7.030	7.030

## Quality Control Results

Client: Terracon Consulting Eng & Scientists

Job Number: 280-4826-1

**Duplicate - Batch: 280-20855**

**Method: SM 4500 H+ B**

Lab Sample ID:	280-4817-A-1 DU	Analysis Batch:	280-20855	Instrument ID:	WC_pH Probe
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	062610.txt
Dilution:	1.0	Units:	SU	Initial Weight/Volume:	
Date Analyzed:	06/26/2010 1143			Final Weight/Volume:	1.0 mL
Date Prepared:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
pH adj. to 25 deg C	7.19	7.210	0	5	

## DATA REPORTING QUALIFIERS

Client: Terracon Consulting Eng & Scientists

Job Number: 280-4826-1

Lab Section	Qualifier	Description
Metals		
	4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
General Chemistry		
	B	Compound was found in the blank and sample.
	HF	Field parameter with a holding time of 15 minutes
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Quality Control Results

Client: Terracon Consulting Eng & Scientists

Job Number: 280-4826-1

### QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
<b>GC VOA</b>					
<b>Analysis Batch:280-21521</b>					
LCS 280-21521/2	Lab Control Sample	T	Water	RSK-175	
LCSD 280-21521/3	Lab Control Sample Duplicate	T	Water	RSK-175	
MB 280-21521/4	Method Blank	T	Water	RSK-175	
280-4759-A-1 MS	Matrix Spike	T	Water	RSK-175	
280-4759-A-1 MSD	Matrix Spike Duplicate	T	Water	RSK-175	
280-4826-1	NELSON 1	T	Water	RSK-175	
<b>Analysis Batch:280-22048</b>					
LCS 280-22048/2	Lab Control Sample	T	Water	8021B	
LCSD 280-22048/3	Lab Control Sample Duplicate	T	Water	8021B	
MB 280-22048/4	Method Blank	T	Water	8021B	
280-4826-1	NELSON 1	T	Water	8021B	
280-4826-2TB	TRIP BLANK	T	Water	8021B	
280-4872-G-1 MS	Matrix Spike	T	Water	8021B	
280-4872-G-1 MSD	Matrix Spike Duplicate	T	Water	8021B	

#### Report Basis

T = Total

### Metals

Prep Batch: 280-21225	Lab Control Sample	T	Water	3010A	
LCS 280-21225/2-A	Method Blank	T	Water	3010A	
MB 280-21225/1-A	NELSON 1	T	Water	3010A	
280-4826-1	Matrix Spike	T	Water	3010A	
280-4826-1MS	Matrix Spike Duplicate	T	Water	3010A	
<b>Analysis Batch:280-21428</b>					
LCS 280-21225/2-A	Lab Control Sample	T	Water	6010B	280-21225
MB 280-21225/1-A	Method Blank	T	Water	6010B	280-21225
280-4826-1	NELSON 1	T	Water	6010B	280-21225
280-4826-1MS	Matrix Spike	T	Water	6010B	280-21225
280-4826-1MSD	Matrix Spike Duplicate	T	Water	6010B	280-21225

#### Report Basis

T = Total

## Quality Control Results

Client: Terracon Consulting Eng & Scientists

Job Number: 280-4826-1

### QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
<b>General Chemistry</b>					
<b>Analysis Batch:280-20855</b>					
LCS 280-20855/26	Lab Control Sample	T	Water	SM 4500 H+ B	
LCSD 280-20855/27	Lab Control Sample Duplicate	T	Water	SM 4500 H+ B	
280-4817-A-1 DU	Duplicate		Water	SM 4500 H+ B	
280-4826-1	NELSON 1	T	Water	SM 4500 H+ B	
<b>Analysis Batch:280-21379</b>					
LCS 280-21379/2	Lab Control Sample	T	Water	SM 2540C	
LCSD 280-21379/3	Lab Control Sample Duplicate	T	Water	SM 2540C	
MB 280-21379/1	Method Blank	T	Water	SM 2540C	
280-4824-B-3 DU	Duplicate	T	Water	SM 2540C	
280-4826-1	NELSON 1	T	Water	SM 2540C	
<b>Analysis Batch:280-21671</b>					
LCS 280-21671/19	Lab Control Sample	T	Water	353.2	
LCSD 280-21671/20	Lab Control Sample Duplicate	T	Water	353.2	
MB 280-21671/18	Method Blank	T	Water	353.2	
280-4826-1	NELSON 1	T	Water	353.2	
280-4891-B-1 MS	Matrix Spike	T	Water	353.2	
280-4891-B-1 MSD	Matrix Spike Duplicate	T	Water	353.2	
<b>Analysis Batch:280-22017</b>					
LCS 280-22017/4	Lab Control Sample	T	Water	300.0	
LCSD 280-22017/5	Lab Control Sample Duplicate	T	Water	300.0	
MB 280-22017/6	Method Blank	T	Water	300.0	
280-4826-1	NELSON 1	T	Water	300.0	
280-4872-B-1 DU	Duplicate	T	Water	300.0	
280-4872-B-1 MS	Matrix Spike	T	Water	300.0	
280-4872-B-1 MSD	Matrix Spike Duplicate	T	Water	300.0	
<b>Analysis Batch:280-22051</b>					
LCS 280-22051/3	Lab Control Sample	T	Water	SM 2510B	
LCSD 280-22051/4	Lab Control Sample Duplicate	T	Water	SM 2510B	
MB 280-22051/5	Method Blank	T	Water	SM 2510B	
280-4787-D-1 DU	Duplicate	T	Water	SM 2510B	
280-4826-1	NELSON 1	T	Water	SM 2510B	
<b>Analysis Batch:280-22204</b>					
LCS 280-22204/33	Lab Control Sample	T	Water	SM 2320B	
LCSD 280-22204/34	Lab Control Sample Duplicate	T	Water	SM 2320B	
MB 280-22204/35	Method Blank	T	Water	SM 2320B	
280-4826-1	NELSON 1	T	Water	SM 2320B	
280-4911-B-1 DU	Duplicate	T	Water	SM 2320B	

## Quality Control Results

Client: Terracon Consulting Eng & Scientists

Job Number: 280-4826-1

### QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
<b>General Chemistry</b>					
<b>Analysis Batch:280-22892</b>					
MB 280-22892/1 280-4826-1	Method Blank NELSON 1	T T	Water Water	SM 1030F SM 1030F	

**Report Basis**

T = Total

# Quality Control Results

Client: Terracon Consulting Eng & Scientists

Job Number: 280-4826-1

## Laboratory Chronicle

**Lab ID:** 280-4826-1

**Client ID:** NELSON 1

Sample Date/Time: 06/25/2010 11:25 Received Date/Time: 06/25/2010 14:07

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	280-4826-E-1		280-22048		07/06/2010 12:46	1	TAL DEN	BER
A:8021B	280-4826-E-1		280-22048		07/06/2010 12:46	1	TAL DEN	BER
A:RSK-175	280-4826-J-1		280-21521		07/01/2010 16:06	1	TAL DEN	BER
P:3010A	280-4826-C-1-A		280-21428	280-21225	06/30/2010 15:00	1	TAL DEN	CGG
A:6010B	280-4826-C-1-A		280-21428	280-21225	07/01/2010 09:31	1	TAL DEN	JKH
A:300.0	280-4826-B-1		280-22017		07/06/2010 15:10	1	TAL DEN	EK
A:300.0	280-4826-B-1		280-22017		07/06/2010 20:29	5	TAL DEN	EK
A:353.2	280-4826-D-1		280-21671		07/02/2010 10:50	1	TAL DEN	LEJ
A:SM 1030F	280-4826-A-1		280-22892		07/14/2010 09:53	1	TAL DEN	RS
A:SM 2320B	280-4826-A-1		280-22204		07/07/2010 23:22	1	TAL DEN	MRD
A:SM 2510B	280-4826-A-1		280-22051		07/07/2010 13:56	1	TAL DEN	MRD
A:SM 2540C	280-4826-A-1		280-21379		07/01/2010 09:39	1	TAL DEN	BJD
A:SM 4500 H+ B	280-4826-A-1		280-20855		06/26/2010 11:48	1	TAL DEN	LMK

**Lab ID:** 280-4826-1 MS

**Client ID:** NELSON 1

Sample Date/Time: 06/25/2010 11:25 Received Date/Time: 06/25/2010 14:07

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3010A	280-4826-C-1-B MS		280-21428	280-21225	06/30/2010 15:00	1	TAL DEN	CGG
A:6010B	280-4826-C-1-B MS		280-21428	280-21225	07/01/2010 09:36	1	TAL DEN	JKH

**Lab ID:** 280-4826-1 MSD

**Client ID:** NELSON 1

Sample Date/Time: 06/25/2010 11:25 Received Date/Time: 06/25/2010 14:07

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3010A	280-4826-C-1-C MSD		280-21428	280-21225	06/30/2010 15:00	1	TAL DEN	CGG
A:6010B	280-4826-C-1-C MSD		280-21428	280-21225	07/01/2010 09:38	1	TAL DEN	JKH

**Lab ID:** 280-4826-1 SD

**Client ID:** NELSON 1

Sample Date/Time: 06/25/2010 11:25 Received Date/Time: 06/25/2010 14:07

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3010A	280-4826-C-1-A SD		280-21428	280-21225	06/30/2010 15:00	5	TAL DEN	CGG
A:6010B	280-4826-C-1-A SD		280-21428	280-21225	07/01/2010 09:34	5	TAL DEN	JKH

# Quality Control Results

Client: Terracon Consulting Eng & Scientists

Job Number: 280-4826-1

## Laboratory Chronicle

Lab ID: 280-4826-2

Client ID: TRIP BLANK

Sample Date/Time: 06/25/2010 00:00 Received Date/Time: 06/25/2010 14:07

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	280-4826-A-2		280-22048		07/06/2010 13:22	1	TAL DEN	BER
A:8021B	280-4826-A-2		280-22048		07/06/2010 13:22	1	TAL DEN	BER

Lab ID: MB

Client ID: N/A

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	MB 280-22048/4		280-22048		07/06/2010 11:50	1	TAL DEN	BER
A:8021B	MB 280-22048/4		280-22048		07/06/2010 11:50	1	TAL DEN	BER
A:RSK-175	MB 280-21521/4		280-21521		07/01/2010 14:42	1	TAL DEN	BER
P:3010A	MB 280-21225/1-A		280-21428	280-21225	06/30/2010 15:00	1	TAL DEN	CGG
A:6010B	MB 280-21225/1-A		280-21428	280-21225	07/01/2010 09:27	1	TAL DEN	JKH
A:300.0	MB 280-22017/6		280-22017		07/06/2010 11:31	1	TAL DEN	EK
A:353.2	MB 280-21671/18		280-21671		07/02/2010 10:36	1	TAL DEN	LEJ
A:SM 1030F	MB 280-22892/1		280-22892		07/14/2010 09:53	1	TAL DEN	RS
A:SM 2320B	MB 280-22204/35		280-22204		07/07/2010 22:22	1	TAL DEN	MRD
A:SM 2510B	MB 280-22051/5		280-22051		07/07/2010 13:56	1	TAL DEN	MRD
A:SM 2540C	MB 280-21379/1		280-21379		07/01/2010 09:39	1	TAL DEN	BJD

Lab ID: LCS

Client ID: N/A

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	LCS 280-22048/2		280-22048		07/06/2010 10:38	1	TAL DEN	BER
A:8021B	LCS 280-22048/2		280-22048		07/06/2010 10:38	1	TAL DEN	BER
A:RSK-175	LCS 280-21521/2		280-21521		07/01/2010 14:34	1	TAL DEN	BER
P:3010A	LCS 280-21225/2-A		280-21428	280-21225	06/30/2010 15:00	1	TAL DEN	CGG
A:6010B	LCS 280-21225/2-A		280-21428	280-21225	07/01/2010 09:29	1	TAL DEN	JKH
A:300.0	LCS 280-22017/4		280-22017		07/06/2010 10:57	1	TAL DEN	EK
A:353.2	LCS 280-21671/19		280-21671		07/02/2010 10:38	1	TAL DEN	LEJ
A:SM 2320B	LCS 280-22204/33		280-22204		07/07/2010 22:04	1	TAL DEN	MRD
A:SM 2510B	LCS 280-22051/3		280-22051		07/07/2010 13:56	1	TAL DEN	MRD
A:SM 2540C	LCS 280-21379/2		280-21379		07/01/2010 09:39	1	TAL DEN	BJD
A:SM 4500 H+ B	LCS 280-20855/26		280-20855		06/26/2010 11:35	1	TAL DEN	LMK

## Quality Control Results

Client: Terracon Consulting Eng & Scientists

Job Number: 280-4826-1

### Laboratory Chronicle

Lab ID: LCSD

Client ID: N/A

Sample Date/Time: N/A

Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	LCSD 280-22048/3		280-22048		07/06/2010 11:14	1	TAL DEN	BER
A:8021B	LCSD 280-22048/3		280-22048		07/06/2010 11:14	1	TAL DEN	BER
A:RSK-175	LCSD 280-21521/3		280-21521		07/01/2010 14:38	1	TAL DEN	BER
A:300.0	LCSD 280-22017/5		280-22017		07/06/2010 11:14	1	TAL DEN	EK
A:353.2	LCSD 280-21671/20		280-21671		07/02/2010 10:39	1	TAL DEN	LEJ
A:SM 2320B	LCSD 280-22204/34		280-22204		07/07/2010 22:14	1	TAL DEN	MRD
A:SM 2510B	LCSD 280-22051/4		280-22051		07/07/2010 13:56	1	TAL DEN	MRD
A:SM 2540C	LCSD 280-21379/3		280-21379		07/01/2010 09:39	1	TAL DEN	BJD
A:SM 4500 H+ B	LCSD 280-20855/27		280-20855		06/26/2010 11:35	1	TAL DEN	LMK

Lab ID: MRL

Client ID: N/A

Sample Date/Time: N/A

Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:300.0	MRL 280-22017/3		280-22017		07/06/2010 09:58	1	TAL DEN	EK

Lab ID: MS

Client ID: N/A

Sample Date/Time: 06/28/2010 12:30

Received Date/Time: 06/28/2010 14:18

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	280-4872-G-1 MS		280-22048		07/06/2010 14:34	1	TAL DEN	BER
A:8021B	280-4872-G-1 MS		280-22048		07/06/2010 14:34	1	TAL DEN	BER
A:RSK-175	280-4759-A-1 MS		280-21521		07/01/2010 16:49	10	TAL DEN	BER
A:300.0	280-4872-B-1 MS		280-22017		07/06/2010 14:02	1	TAL DEN	EK
A:300.0	280-4872-B-1 MS		280-22017		07/06/2010 19:56	5	TAL DEN	EK
A:353.2	280-4891-B-1 MS		280-21671		07/02/2010 10:42	1	TAL DEN	LEJ

Lab ID: MSD

Client ID: N/A

Sample Date/Time: 06/28/2010 12:30

Received Date/Time: 06/28/2010 14:18

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	280-4872-G-1 MSD		280-22048		07/06/2010 15:10	1	TAL DEN	BER
A:8021B	280-4872-G-1 MSD		280-22048		07/06/2010 15:10	1	TAL DEN	BER
A:RSK-175	280-4759-A-1 MSD		280-21521		07/01/2010 16:53	10	TAL DEN	BER
A:300.0	280-4872-B-1 MSD		280-22017		07/06/2010 14:19	1	TAL DEN	EK
A:300.0	280-4872-B-1 MSD		280-22017		07/06/2010 20:13	5	TAL DEN	EK
A:353.2	280-4891-B-1 MSD		280-21671		07/02/2010 10:44	1	TAL DEN	LEJ

# Quality Control Results

Client: Terracon Consulting Eng & Scientists

Job Number: 280-4826-1

## Laboratory Chronicle

Lab ID: DU

Client ID: N/A

Sample Date/Time: 06/28/2010 12:30 Received Date/Time: 06/28/2010 14:18

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:300.0	280-4872-B-1 DU		280-22017		07/06/2010 13:46	1	TAL DEN	EK
A:300.0	280-4872-B-1 DU		280-22017		07/06/2010 19:39	5	TAL DEN	EK
A:SM 2320B	280-4911-B-1 DU		280-22204		07/07/2010 22:40	1	TAL DEN	MRD
A:SM 2510B	280-4787-D-1 DU		280-22051		07/07/2010 13:56	1	TAL DEN	MRD
A:SM 2540C	280-4824-B-3 DU		280-21379		07/01/2010 09:39	1	TAL DEN	BJD
A:SM 4500 H+ B	280-4817-A-1 DU		280-20855		06/26/2010 11:43	1	TAL DEN	LMK

### Lab References:

TAL DEN = TestAmerica Denver

# **Method 8021B**

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**Volatile Organic Compounds (GC) by  
Method 8021B**

Data File: \\DenSvr03\Public\chem\GCV\GC\_P.i\0706101.B\111F0601.D Page 1  
Report Date: 07-Jul-2010 12:23

TestAmerica

VOLATILE REPORT SOW 3/90

Data file : \\DenSvr03\Public\chem\GCV\GC\_P.i\0706101.B\111F0601.D  
Lab Smp Id: 280-4826-E-1 Client Smp ID: NELSON 1  
Inj Date : 06-JUL-2010 12:46  
Operator : BR Inst ID: GC\_P.i  
Smp Info : 280-4826-e-1  
Misc Info : 280-4826-E-1  
Comment : REV. OLM01.1.1  
Method : \\DenSvr03\Public\chem\GCV\GC\_P.i\0706101.B\P1.m  
Meth Date : 07-Jul-2010 11:13 reamb Quant Type: ISTD  
Cal Date : 22-APR-2010 18:48 Cal File: 116F1101.D  
Als bottle: 111  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: Arom.A.01.sub  
Target Version: 4.14  
Processing Host: DENPC252

Concentration Formula: Amt \* DF \* Vp/Vs \* CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vp	5.000	final purge volume (ml)
Vs	5.000	vlm of sample added to purge vessel (ml)
Cpnd Variable		Local Compound Variable

Compounds	CONCENTRATIONS					
	RT	EXP RT	REL RT	RESPONSE	( ug/l)	FINAL
1 Methyl tert-butylether				Compound Not Detected.		
2 Benzene				Compound Not Detected.		
\$ 3 Trifluorotoluene	8.936	8.960 (0.711)		159055	28.7176	28.7176
4 Toluene	10.573	10.603 (0.841)		41258	2.79925	2.79925
* 5 1-Chloro-4-fluorobenzene	12.570	12.616 (1.000)		243015	30.0000	
6 Chlorobenzene				Compound Not Detected.		
7 Ethylbenzene				Compound Not Detected.		
8 m+p-Xylene				Compound Not Detected.		
9 o-Xylene				Compound Not Detected.		
10 1,3-Dichlorobenzene	17.963	18.000 (1.429)		2667	0.19776	0.197759(a)
11 1,4-Dichlorobenzene				Compound Not Detected.		
12 1,2-Dichlorobenzene				Compound Not Detected.		
M 15 Total Xylene				Compound Not Detected.		

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

Data File: 111F0601.D

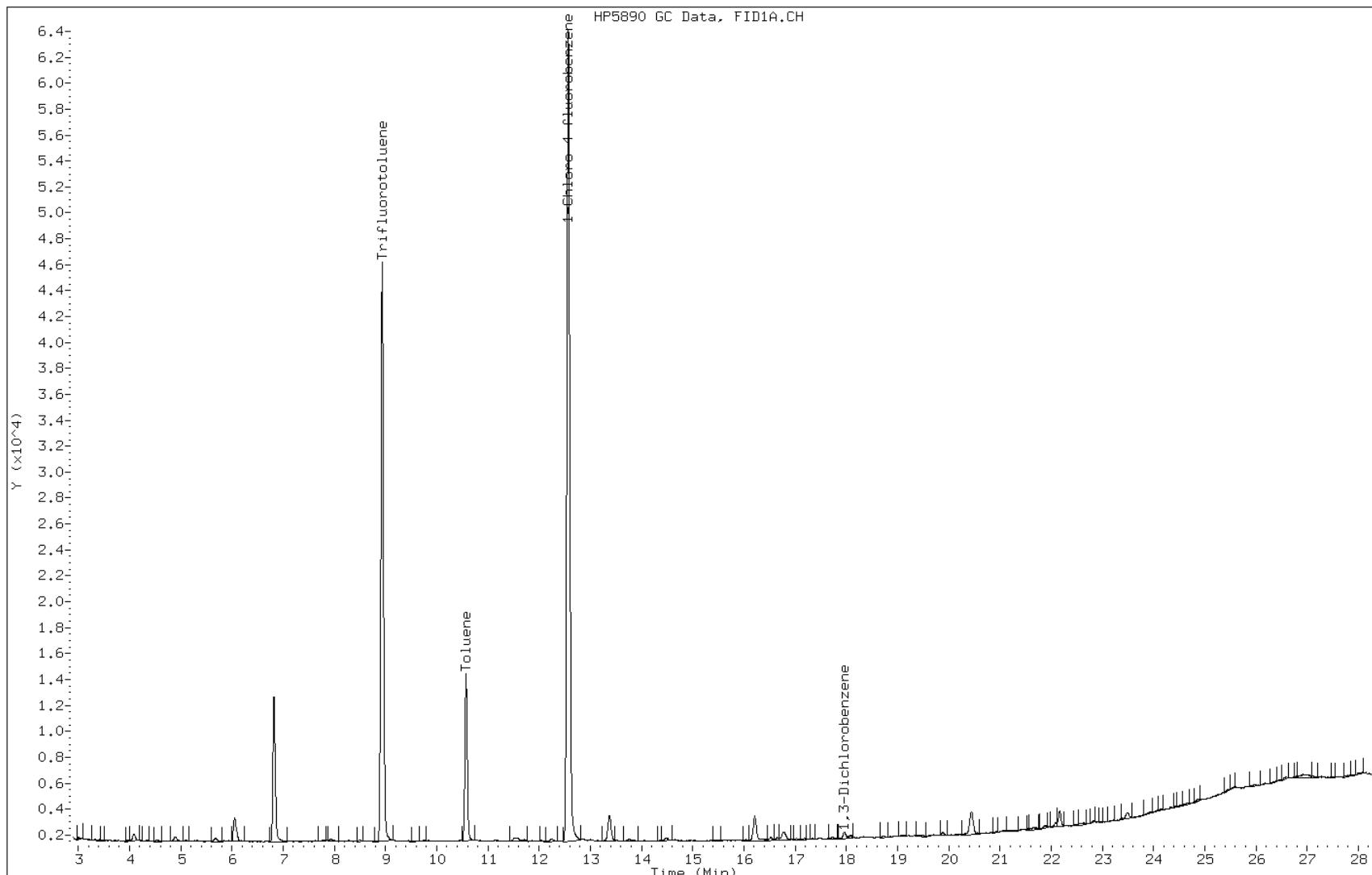
Date: 06-JUL-2010 12:46

Client ID: NELSON 1

Instrument: GC\_P.i

Sample Info: 280-4826-e-1

Operator: BR



Data File: \\DenSvr03\Public\chem\GCV\GC\_P.i\0706102.B\111F0601.D Page 1  
Report Date: 07-Jul-2010 12:23

TestAmerica

VOLATILE REPORT SOW 3/90

Data file : \\DenSvr03\Public\chem\GCV\GC\_P.i\0706102.B\111F0601.D  
Lab Smp Id: 280-4826-E-1 Client Smp ID: NELSON 1  
Inj Date : 06-JUL-2010 12:46  
Operator : BR Inst ID: GC\_P.i  
Smp Info : 280-4826-e-1  
Misc Info : 280-4826-E-1  
Comment : REV. OLM01.1.1  
Method : \\DenSvr03\Public\chem\GCV\GC\_P.i\0706102.B\P2.m  
Meth Date : 07-Jul-2010 11:22 reamb Quant Type: ISTD  
Cal Date : 22-APR-2010 15:05 Cal File: 110F0501.D  
Als bottle: 111  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: Arom.A.01.sub  
Target Version: 4.14

Concentration Formula: Amt \* DF \* Vp/Vs \* CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vp	5.000	final purge volume (ml)
Vs	5.000	vlm of sample added to purge vessel (ml)
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
					( ug/l)	( ug/L)
1 Methyl tert-butylether				Compound Not Detected.		
2 Benzene				Compound Not Detected.		
\$ 3 Trifluorotoluene	9.436	9.473 (0.672)		208161	28.4677	28.4677
4 Toluene	11.336	11.383 (0.807)		51866	2.69848	2.69848
* 5 1-Chloro-4-fluorobenzene	14.050	14.113 (1.000)		324743	30.0000	
6 Chlorobenzene				Compound Not Detected.		
7 Ethylbenzene				Compound Not Detected.		
8 m+p-Xylene				Compound Not Detected.		
9 o-Xylene				Compound Not Detected.		
10 1,3-Dichlorobenzene				Compound Not Detected.		
11 1,4-Dichlorobenzene				Compound Not Detected.		
12 1,2-Dichlorobenzene				Compound Not Detected.		
M 15 Total Xylene				Compound Not Detected.		

Data File: 111F0601.D

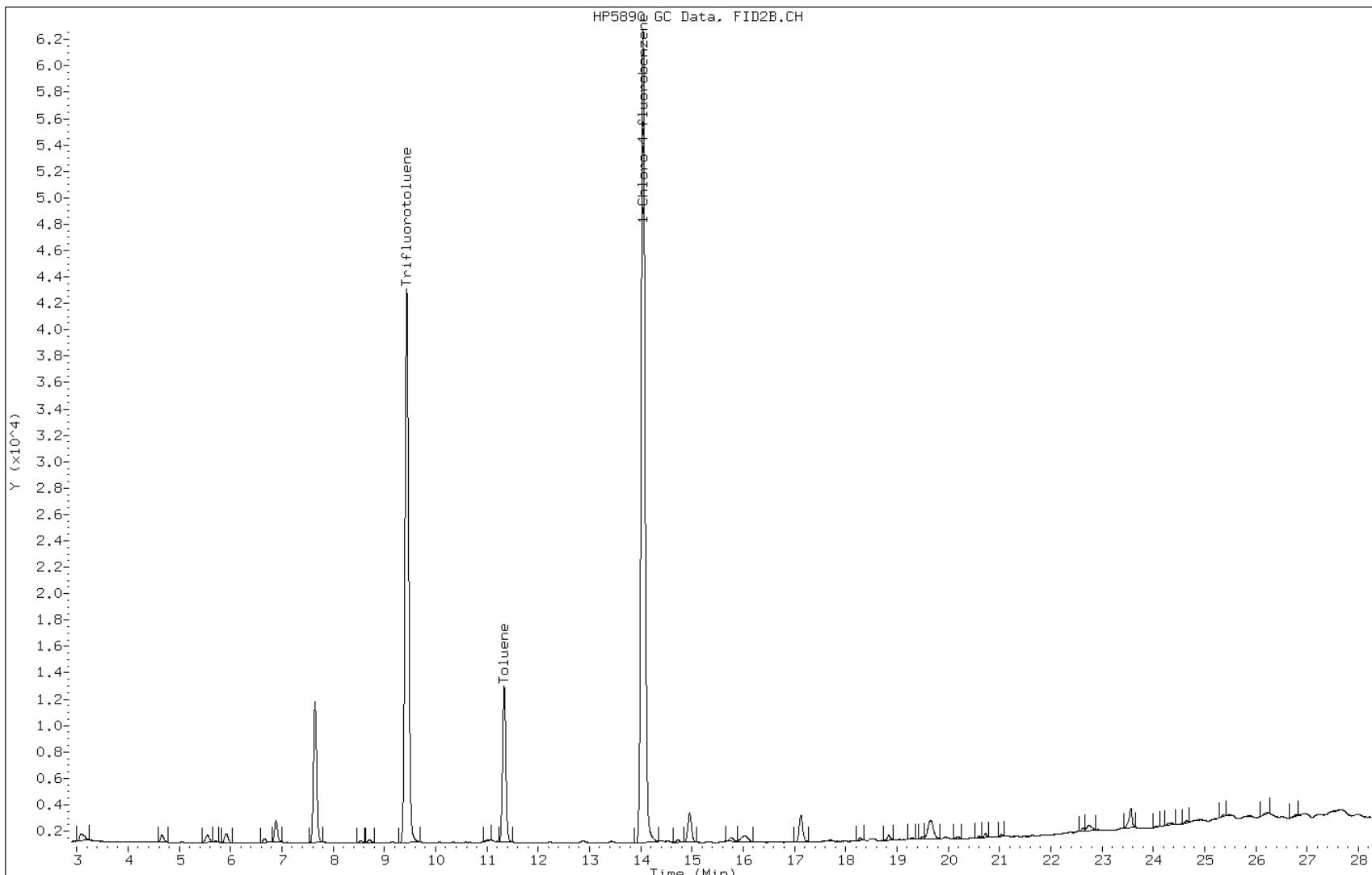
Date: 06-JUL-2010 12:46

Client ID: NELSON 1

Instrument: GC\_P.i

Sample Info: 280-4826-e-1

Operator: BR



Data File: \\DenSvr03\Public\chem\GCV\GC\_P.i\0706101.B\112F0701.D Page 1  
Report Date: 07-Jul-2010 12:23

TestAmerica

VOLATILE REPORT SOW 3/90

Data file : \\DenSvr03\Public\chem\GCV\GC\_P.i\0706101.B\112F0701.D  
Lab Smp Id: 280-4826-A-2 Client Smp ID: TRIP BLANK  
Inj Date : 06-JUL-2010 13:22  
Operator : BR Inst ID: GC\_P.i  
Smp Info : 280-4826-a-2  
Misc Info : 280-4826-A-2  
Comment : REV. OLM01.1.1  
Method : \\DenSvr03\Public\chem\GCV\GC\_P.i\0706101.B\P1.m  
Meth Date : 07-Jul-2010 11:13 reamb Quant Type: ISTD  
Cal Date : 22-APR-2010 18:48 Cal File: 116F1101.D  
Als bottle: 112  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: Arom.A.01.sub  
Target Version: 4.14  
Processing Host: DENPC252

Concentration Formula: Amt \* DF \* Vp/Vs \* CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vp	5.000	final sample volume (ml)
Vs	5.000	vlm of sample added to purge vessel (ml)
Cpnd Variable		Local Compound Variable

Compounds	CONCENTRATIONS					
	RT	EXP RT	REL RT	RESPONSE	( ug/l)	FINAL ( ug/L)
1 Methyl tert-butylether				Compound Not Detected.		
2 Benzene				Compound Not Detected.		
\$ 3 Trifluorotoluene	8.953	8.960 (0.711)		155413	28.1008	28.1008
4 Toluene	10.590	10.603 (0.841)		2283	0.15512	0.155120(a)
* 5 1-Chloro-4-fluorobenzene	12.586	12.616 (1.000)		242663	30.0000	
6 Chlorobenzene				Compound Not Detected.		
7 Ethylbenzene	13.393	13.373 (1.064)		9659	0.13472	0.134724(a)
8 m+p-Xylene				Compound Not Detected.		
9 o-Xylene				Compound Not Detected.		
10 1,3-Dichlorobenzene	17.980	18.000 (1.428)		2601	0.19315	0.193145(a)
11 1,4-Dichlorobenzene				Compound Not Detected.		
12 1,2-Dichlorobenzene				Compound Not Detected.		
M 15 Total Xylene				Compound Not Detected.		

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

Data File: 112F0701.D

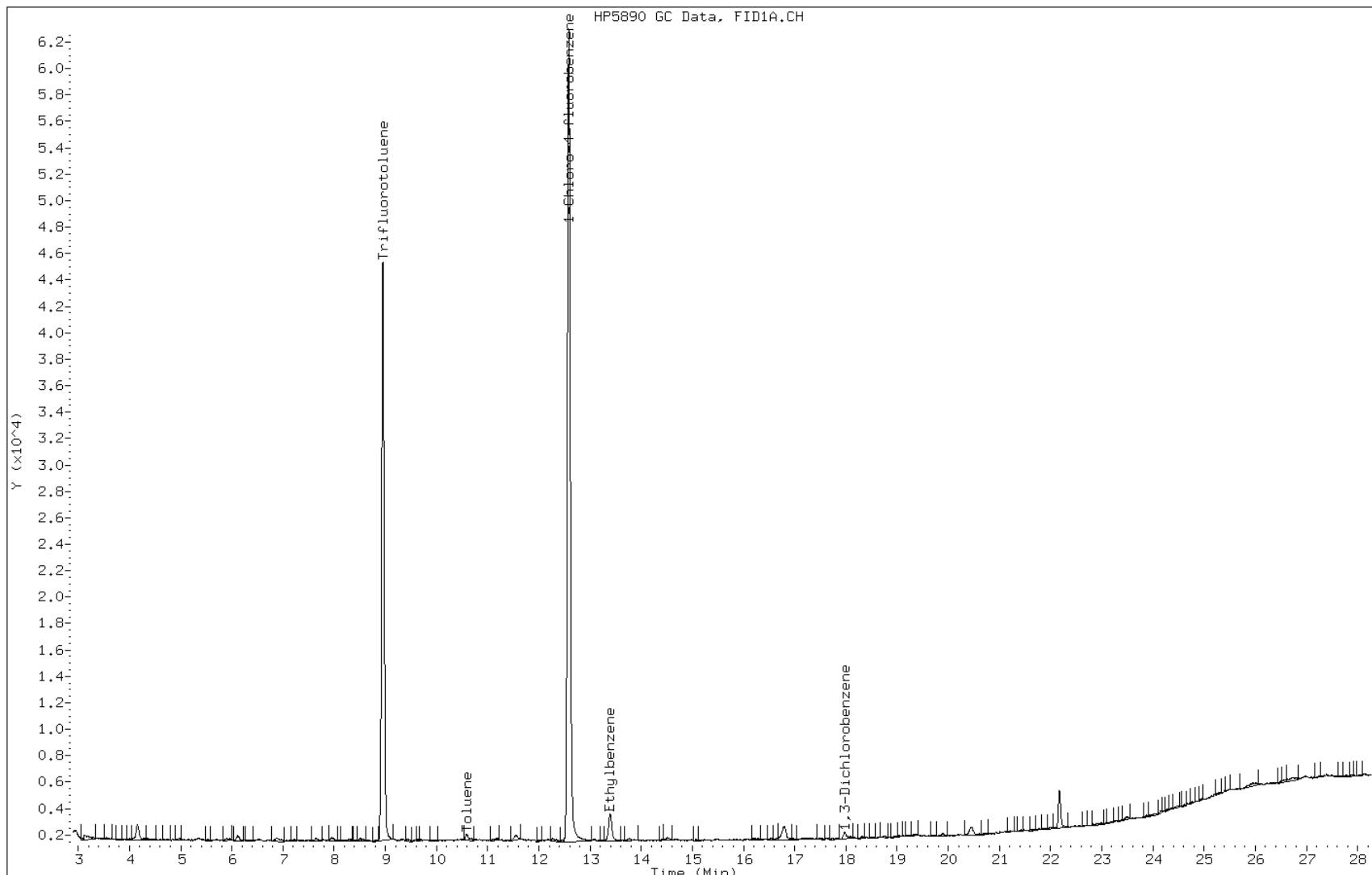
Date: 06-JUL-2010 13:22

Client ID: TRIP BLANK

Instrument: GC\_P.i

Sample Info: 280-4826-a-2

Operator: BR



Data File: \\DenSvr03\Public\chem\GCV\GC\_P.i\0706102.B\112F0701.D Page 1  
Report Date: 07-Jul-2010 12:23

TestAmerica

VOLATILE REPORT SOW 3/90

Data file : \\DenSvr03\Public\chem\GCV\GC\_P.i\0706102.B\112F0701.D  
Lab Smp Id: 280-4826-A-2 Client Smp ID: TRIP BLANK  
Inj Date : 06-JUL-2010 13:22  
Operator : BR Inst ID: GC\_P.i  
Smp Info : 280-4826-a-2  
Misc Info : 280-4826-A-2  
Comment : REV. OLM01.1.1  
Method : \\DenSvr03\Public\chem\GCV\GC\_P.i\0706102.B\P2.m  
Meth Date : 07-Jul-2010 11:22 reamb Quant Type: ISTD  
Cal Date : 22-APR-2010 15:05 Cal File: 110F0501.D  
Als bottle: 112  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: Arom.A.01.sub  
Target Version: 4.14

Concentration Formula: Amt \* DF \* Vp/Vs \* CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vp	5.000	final purge volume (ml)
Vs	5.000	vlm of sample added to purge vessel (ml)
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
					( ug/l)	( ug/L)
1 Methyl tert-butylether				Compound Not Detected.		
2 Benzene				Compound Not Detected.		
\$ 3 Trifluorotoluene	9.463	9.473 (0.672)		204678	28.3403	28.3403
4 Toluene				Compound Not Detected.		
* 5 1-Chloro-4-fluorobenzene	14.076	14.113 (1.000)		320745	30.0000	
6 Chlorobenzene				Compound Not Detected.		
7 Ethylbenzene				Compound Not Detected.		
8 m+p-Xylene				Compound Not Detected.		
9 o-Xylene				Compound Not Detected.		
10 1,3-Dichlorobenzene				Compound Not Detected.		
11 1,4-Dichlorobenzene				Compound Not Detected.		
12 1,2-Dichlorobenzene				Compound Not Detected.		
M 15 Total Xylene				Compound Not Detected.		

Data File: 112F0701.D

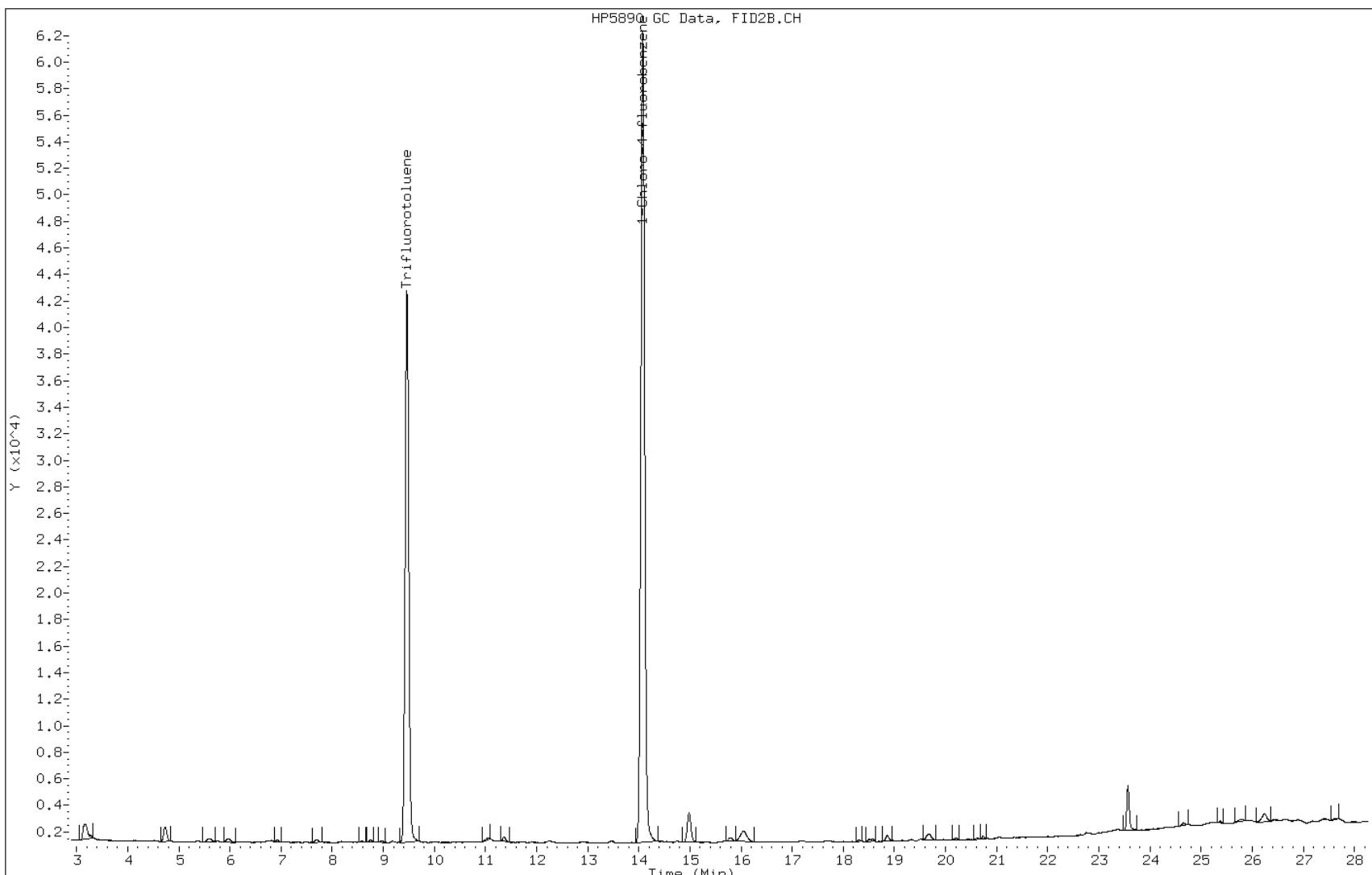
Date: 06-JUL-2010 13:22

Client ID: TRIP BLANK

Instrument: GC\_P.i

Sample Info: 280-4826-a-2

Operator: BR



# **Method RSK-175**

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**Dissolved Gases (GC) by Method  
RSK\_175**

Data File: \\DenSvr03\Public\chem\GCV\GC\_J.i\0701101.B\022F2201.D Page 1  
Report Date: 01-Jul-2010 16:14

TestAmerica

RSK-175 Dissolved Gasses in Water  
Data file : \\DenSvr03\Public\chem\GCV\GC\_J.i\0701101.B\022F2201.D  
Lab Smp Id: 280-4826-J-1 Client Smp ID: NELSON 1  
Inj Date : 01-JUL-2010 16:06  
Operator : BR Inst ID: GC\_J.i  
Smp Info : 280-4826-j-1  
Misc Info : 280-4826-J-1  
Comment : SOP: DV-GC-0025  
Method : \\DenSvr03\Public\chem\GCV\GC\_J.i\0701101.B\RSK-1\_7PT.m  
Meth Date : 01-Jul-2010 16:07 mooret Quant Type: ESTD  
Cal Date : 21-JUN-2010 13:16 Cal File: 008F0801.D  
Als bottle: 22  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: RSK175.01.sub  
Target Version: 4.14  
Processing Host: DENPC064

Concentration Formula: Amt \* DF \* 1 \* CpndVariable  
Cpnd Variable Local Compound Variable

Compounds	CONCENTRATIONS					
	RT	EXP RT	DLT RT	RESPONSE	ON-COLUMN ( ug/L)	FINAL ( ug/L)
	=====	=====	=====	=====	=====	=====
1 Methane	1.285	1.281	0.004	67145	47.2809	47.28
2 Ethene				Compound Not Detected.		
3 Ethane				Compound Not Detected.		
4 Acetylene				Compound Not Detected.		

Data File: 022F2201.D

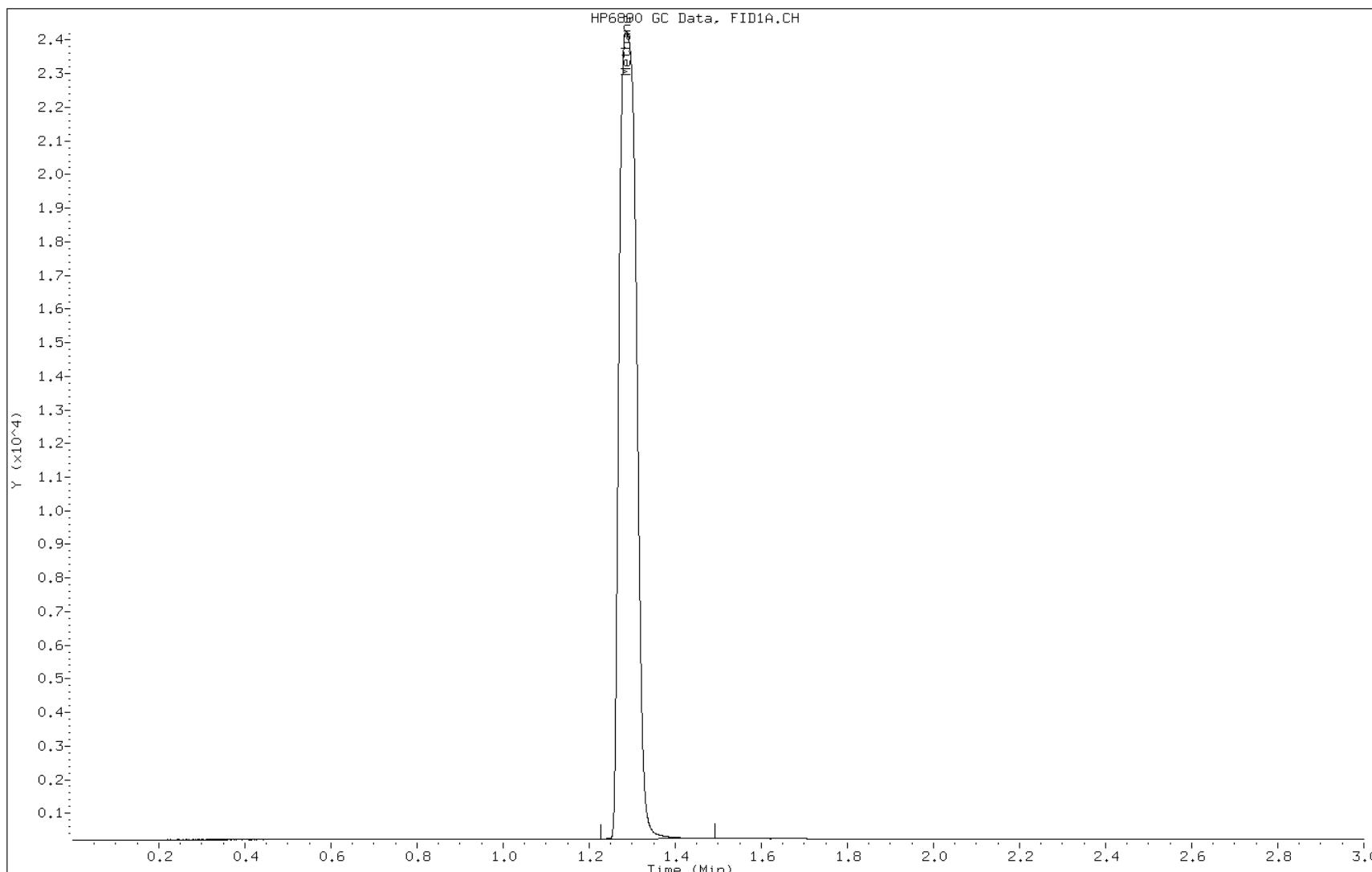
Date: 01-JUL-2010 16:06

Client ID: NELSON 1

Instrument: GC\_J.i

Sample Info: 280-4826-j-1

Operator: BR



Data File: \\DenSvr03\Public\chem\GCV\GC\_J.i\0701102.B\022F2201.D Page 1  
Report Date: 01-Jul-2010 16:14

TestAmerica

RSK-175 Dissolved Gasses in Water

Data file : \\DenSvr03\Public\chem\GCV\GC\_J.i\0701102.B\022F2201.D  
Lab Smp Id: 280-4826-J-1 Client Smp ID: NELSON 1  
Inj Date : 01-JUL-2010 16:06  
Operator : BR Inst ID: GC\_J.i  
Smp Info : 280-4826-j-1  
Misc Info : 280-4826-J-1  
Comment : SOP: DV-GC-0025  
Method : \\DenSvr03\Public\chem\GCV\GC\_J.i\0701102.B\RSK-2\_7PT.m  
Meth Date : 01-Jul-2010 16:09 mooret Quant Type: ESTD  
Cal Date : 21-JUN-2010 13:16 Cal File: 008F0801.D  
Als bottle: 22  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: RSK175.01.sub  
Target Version: 4.14  
Processing Host: DENPC064

Concentration Formula: Amt \* DF \* 1 \* CpndVariable  
Cpnd Variable Local Compound Variable

Compounds	CONCENTRATIONS					
				ON-COLUMN		FINAL
	RT	EXP RT	DLT RT	RESPONSE	( ug/L)	( ug/L)
1 Methane	1.711	1.711	0.000	40960	47.4641	47.46
2 Ethene	Compound Not Detected.					
3 AcetyleneEthane	Compound Not Detected.					

Data File: 022F2201.D

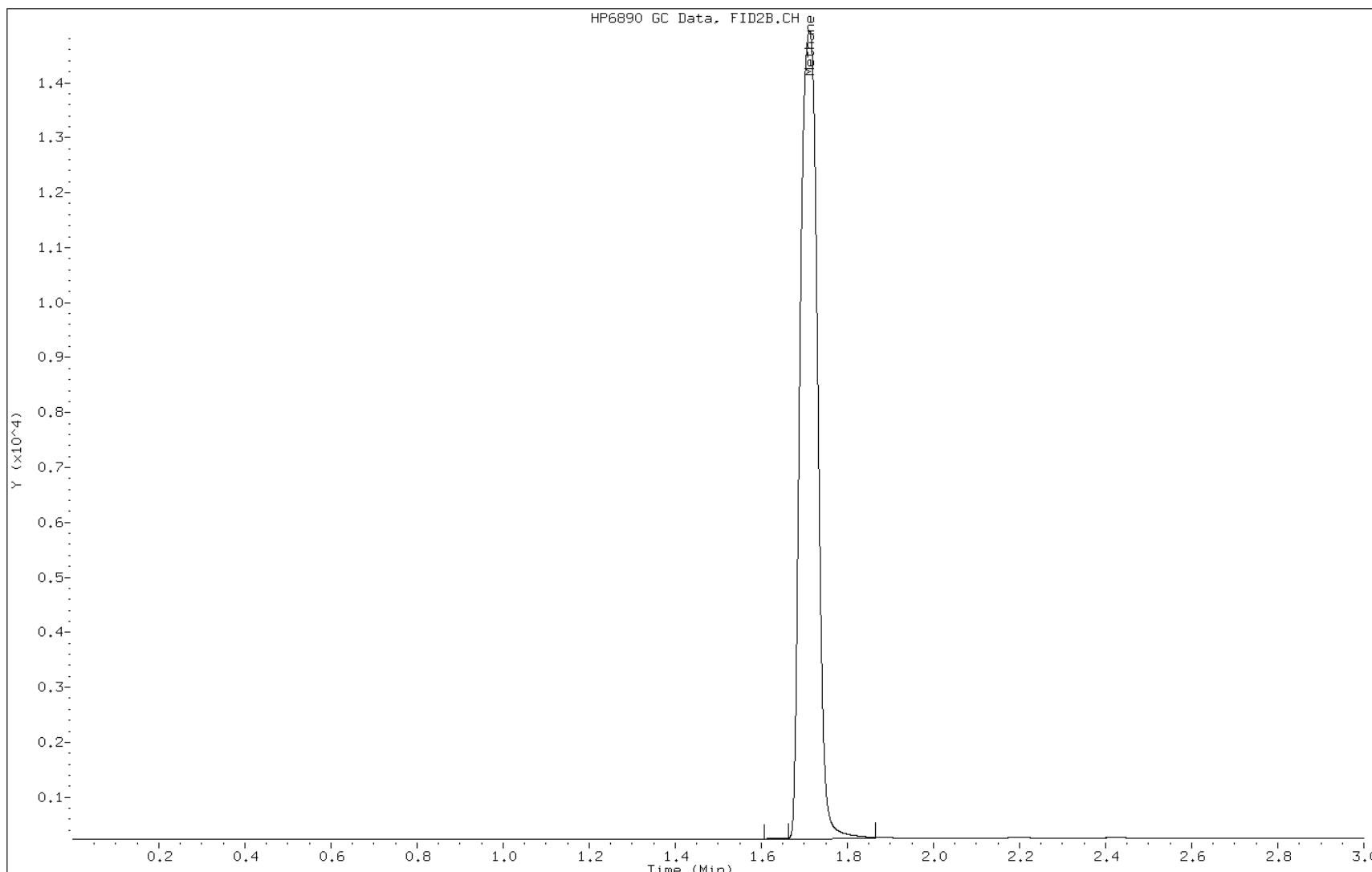
Date: 01-JUL-2010 16:06

Client ID: NELSON 1

Instrument: GC\_J.i

Sample Info: 280-4826-j-1

Operator: BR



# **Shipping and Receiving Documents**

**Chain of  
Custody Record**

Sampler ID \_\_\_\_\_  
 Temperature on Receipt 53° F  
 Drinking Water? Yes  No   
BB 6/25/10

**TestAmerica**  
 THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124-280 (0508)

Client <u>Terracon</u>	Project Manager <u>John Dellapart</u>	Date	Chain of Custody Number <u>131384</u>		
Address <u>10625 W. I-70 Front, Rd</u>	Telephone Number (Area Code)/Fax Number	Lab Number			
City <u>Wheat Ridge</u>	State <u>CO</u>	Zip Code <u>80033</u>	Site Contact <u>JARED G.</u>	Lab Contact <u>Lori P.</u>	Analysis (Attach list if more space is needed)
Project Name and Location (State) <u>Nelson Well, Peetz CO</u>			Carrier/Waybill Number		

Contract/Purchase Order/Quote No.  
Ref# 25087038 Com# 20011329

Sample I.D. No. and Description  
(Containers for each sample may be combined on one line)

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix			Containers & Preservatives													
			Air	Aqueous	Sed.	Soil	Unpres.	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	HCl	NaOH	ZnAc <sub>2</sub>	NaOH	Nitrate	Nitrite	BTEX	Amine, Alk.	PP, COD	f DS
<u>Nelson 1</u>	<u>6/25</u>	<u>1125</u>	<u>X</u>				<u>X</u>	<u>X</u>	<u>X</u>					<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>

Special Instructions/  
Conditions of Receipt

Awards/Citation  
balance summary  
report.

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Possible Hazard Identification      Sample Disposal      (A fee may be assessed if samples are retained longer than 1 month)

Non-Hazard     Flammable     Skin Irritant     Poison B     Unknown     Return To Client     Disposal By Lab     Archive For \_\_\_\_\_ Months

Turn Around Time Required

24 Hours     48 Hours     7 Days     14 Days     21 Days     Other \_\_\_\_\_

QC Requirements (Specify)

1. Relinquished By <u>Jared C. Finch</u> 07/15/2010	Date <u>6/25</u>	Time <u>1407</u>	1. Received By <u>Larry Brill</u>	Date <u>6/25/10</u>	Time <u>1407</u>
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

## Login Sample Receipt Check List

Client: Terracon Consulting Eng & Scientists

Job Number: 280-4826-1

**Login Number: 4826**

**List Source: TestAmerica Denver**

**Creator: Green, Angel L**

**List Number: 1**

Question	T / F/ NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified	True	