



10/06/11

Technical Report for

KRW Consulting, Inc.

FRU-297-17A

1108-13A

Accutest Job Number: D28212

Sampling Date: 09/30/11

Report to:

KRW Consulting, Inc.
8000 West 14th Avenue Suite 200
Lakewood, CO 80214
jhess@krwconsulting.com; dknudson@krwconsulting.com;
gknell@krwconsulting.com; crachak@krwconsulting.com
ATTN: Joe Hess

Total number of pages in report: 89



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.


Brad Madadian
Laboratory Director

Client Service contact: 303-425-6021

Certifications: CO, ID, NE, NM, ND (R-027) (PW) UT (NELAP CO00049)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.
Test results relate only to samples analyzed.

Table of Contents

-1-

Section 1: Sample Summary	3
Section 2: Case Narrative/Conformance Summary	4
Section 3: Sample Results	8
3.1: D28212-1: CUTTINGS #2 FRU 297-17A	9
3.2: D28212-1A: CUTTINGS #2 FRU 297-17A	15
3.3: D28212-2: RESERVE PIT FRU 297-17A	17
3.4: D28212-2A: RESERVE PIT FRU 297-17A	23
3.5: D28212-3: CUTTINGS #1 FRU 297-17A	25
3.6: D28212-3A: CUTTINGS #1 FRU 297-17A	31
Section 4: Misc. Forms	33
4.1: Chain of Custody	34
Section 5: GC/MS Volatiles - QC Data Summaries	36
5.1: Method Blank Summary	37
5.2: Blank Spike Summary	38
5.3: Matrix Spike/Matrix Spike Duplicate Summary	39
Section 6: GC/MS Semi-volatiles - QC Data Summaries	40
6.1: Method Blank Summary	41
6.2: Blank Spike Summary	42
6.3: Matrix Spike/Matrix Spike Duplicate Summary	43
Section 7: GC Volatiles - QC Data Summaries	44
7.1: Method Blank Summary	45
7.2: Blank Spike Summary	46
7.3: Matrix Spike/Matrix Spike Duplicate Summary	47
Section 8: GC Semi-volatiles - QC Data Summaries	48
8.1: Method Blank Summary	49
8.2: Blank Spike Summary	50
8.3: Matrix Spike/Matrix Spike Duplicate Summary	51
Section 9: Metals Analysis - QC Data Summaries	52
9.1: Prep QC MP5925: Ba,Cd,Cr,Cu,Pb,Ni,Se,Ag,Zn	53
9.2: Prep QC MP5926: As	63
9.3: Prep QC MP5928: Hg	68
9.4: Prep QC MP5929: Ca,Mg,Na,Sodium Adsorption Ratio	72
Section 10: General Chemistry - QC Data Summaries	80
10.1: Method Blank and Spike Results Summary	81
10.2: Duplicate Results Summary	82
Section 11: Misc. Forms (Accutest Labs of New England, Inc.)	83
11.1: Chain of Custody	84
Section 12: General Chemistry - QC Data (Accutest Labs of New England, Inc.)	86
12.1: Method Blank and Spike Results Summary	87
12.2: Duplicate Results Summary	88
12.3: Matrix Spike Results Summary	89



Sample Summary

KRW Consulting, Inc.

Job No: D28212

FRU-297-17A
Project No: 1108-13A

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
D28212-1	09/30/11	11:00 DK	10/01/11	SO	Soil	CUTTINGS #2 FRU 297-17A
D28212-1A	09/30/11	11:00 DK	10/01/11	SO	Soil	CUTTINGS #2 FRU 297-17A
D28212-2	09/30/11	11:40 DK	10/01/11	SO	Soil	RESERVE PIT FRU 297-17A
D28212-2A	09/30/11	11:40 DK	10/01/11	SO	Soil	RESERVE PIT FRU 297-17A
D28212-3	09/30/11	11:15 DK	10/01/11	SO	Soil	CUTTINGS #1 FRU 297-17A
D28212-3A	09/30/11	11:15 DK	10/01/11	SO	Soil	CUTTINGS #1 FRU 297-17A

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

CASE NARRATIVE / CONFORMANCE SUMMARY

Client: KRW Consulting, Inc.

Job No D28212

Site: FRU-297-17A

Report Dat 10/6/2011 5:06:16 PM

On 10/01/2011, 3 sample(s), 0 Trip Blank(s), and 0 Field Blank(s) were received at Accutest Mountain States (AMS) at a temperature of 2.1 °C. The samples were intact and properly preserved, unless noted below. An AMS Job Number of D28212 was assigned to the project. The lab sample IDs, client sample IDs, and date of sample collection are detailed in the report's Results Summary.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Volatiles by GCMS By Method SW846 8260B

Matrix SO	Batch ID: V5V1060
------------------	--------------------------

- All samples were analyzed within the recommended method holding time.
- Sample(s) D28214-1MS, D28214-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

Extractables by GCMS By Method SW846 8270C BY SIM

Matrix SO	Batch ID: OP4590
------------------	-------------------------

- All samples were extracted and analyzed within the recommended method holding time.
- Sample(s) D28212-1MS, D28212-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- The matrix spike (MS) and matrix spike duplicate (MSD) recovery(s) of several analytes are outside control limits. Outside control limits due to matrix interference. Refer to Blank Spike.
- Sample(s) OP4590-MS, OP4590-MSD have surrogates outside control limits. Outside control limits due to dilution.

Volatiles by GC By Method SW846 8015B

Matrix SO	Batch ID: GGB755
------------------	-------------------------

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D28162-4MS, D28162-4MSD were used as the QC samples indicated.

Extractables by GC By Method SW846-8015B

Matrix SO	Batch ID: OP4585
------------------	-------------------------

- All samples were extracted and analyzed within the recommended method holding time.
- Sample(s) D28215-1MS, D28215-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

Metals By Method SW846 6010B

Matrix AQ

Batch ID: MP5929

- All samples were digested and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D28212-1AMS, D28212-1AMSD were used as the QC samples for the metals analysis.

Matrix SO

Batch ID: MP5925

- All samples were digested and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D28126-5MS, D28126-5MSD, D28126-5SDL were used as the QC samples for the metals analysis.
- The matrix spike (MS) recovery(s) of Nickel, Zinc are outside control limits. Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.
- The matrix spike duplicate (MSD) recovery(s) of Zinc are outside control limits. Probable cause due to matrix interference.
- The serial dilution RPD(s) for Cadmium, Selenium are outside control limits for sample MP5925-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- MP5925-S1 for Zinc: Spike recovery indicates possible matrix interference.
- The serial dilution RPD(s) for Nickel, Zinc are outside control limits for sample MP5925-SD1. Serial dilution indicates possible matrix interference.
- D28212-2, D28212-3 for Selenium: Elevated reporting limit(s) due to matrix interference.

Metals By Method SW846 6020

Matrix SO

Batch ID: MP5926

- All samples were digested and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D28126-5MS, D28126-5MSD, D28126-5SDL were used as the QC samples for the metals analysis.
- The serial dilution RPD(s) for Arsenic are outside control limits for sample MP5926-SD1. Serial dilution indicates possible matrix interference.

Metals By Method SW846 7471A

Matrix SO

Batch ID: MP5928

- All samples were digested and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D28126-5MSD, D28126-5MS were used as the QC samples for the metals analysis.
- The matrix spike (MS) and matrix spike duplicate (MSD) recovery(s) of Mercury are outside control limits. Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.

Wet Chemistry By Method ASTM D1498-76M

Matrix SO

Batch ID: GN11861

- Sample(s) D28251-1DUP were used as the QC samples for the Redox Potential Vs H2 analysis.

Wet Chemistry By Method SM19 2540B M

Matrix SO

Batch ID: GN11834

- The data for SM19 2540B M meets quality control requirements.

Wet Chemistry By Method SW846 3060/7196A M

Matrix SO	Batch ID: R10047
------------------	-------------------------

- The data for SW846 3060/7196A M meets quality control requirements.
- Chromium, Trivalent: Calculated as: (Chromium) - (Chromium, Hexavalent)

Wet Chemistry By Method SW846 3060A/7196A

Matrix SO	Batch ID: M:GP13591
------------------	----------------------------

- The data for SW846 3060A/7196A meets quality control requirements.
- Chromium, Hexavalent: Analysis performed at Accutest Laboratories, Marlborough, MA.

Wet Chemistry By Method SW846 9045C

Matrix SO	Batch ID: GN11857
------------------	--------------------------

- The following sample was run outside of holding time for method SW846 9045C: D28212-1.

Matrix SO	Batch ID: GN11858
------------------	--------------------------

- The following sample was run outside of holding time for method SW846 9045C: D28212-2, D28212-3.

Wet Chemistry By Method USDA HANDBOOK 60

Matrix SO	Batch ID: MP5929
------------------	-------------------------

- Sodium Adsorption Ratio: Calculated as: $(\text{Na meq/L}) / \sqrt{[(\text{Ca meq/L}) + (\text{Mg meq/L})/2]}$

AMS certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting AMS's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

AMS is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. This report is authorized by AMS indicated via signature on the report cover.

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Accutest Mountain States**Job No** D28212**Site:** KRWCCOL: FRU-297-17A**Report Date** 10/5/2011 1:12:26 PM

3 Sample(s) were collected on 09/30/2011 and were received at Accutest on 10/01/2011 properly preserved, at 2.3 Deg. C and intact. These Samples received an Accutest job number of D28212. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Wet Chemistry By Method SW846 3060A/7196A

Matrix SO**Batch ID:** GP13591

- All samples were distilled within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D28126-5MS, D28126-5DUP were used as the QC samples for Chromium, Hexavalent.
- RPD(s) for Duplicate for Chromium, Hexavalent are outside control limits for sample GP13591-D1. RPD acceptable due to low duplicate and sample concentrations.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety. The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(D28212).

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	CUTTINGS #2 FRU 297-17A	Date Sampled:	09/30/11
Lab Sample ID:	D28212-1	Date Received:	10/01/11
Matrix:	SO - Soil	Percent Solids:	78.5
Method:	SW846 8260B		
Project:	FRU-297-17A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V17819.D	1	10/03/11	DC	n/a	n/a	V5V1060
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.03 g	5.0 ml	100 ul
Run #2			

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	883	77	34	ug/kg	
108-88-3	Toluene	1850	150	77	ug/kg	
100-41-4	Ethylbenzene	182	150	38	ug/kg	
1330-20-7	Xylene (total)	1430	310	150	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	98%		61-130%
460-00-4	4-Bromofluorobenzene	95%		53-131%
17060-07-0	1,2-Dichloroethane-D4	95%		62-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	CUTTINGS #2 FRU 297-17A	Date Sampled:	09/30/11
Lab Sample ID:	D28212-1	Date Received:	10/01/11
Matrix:	SO - Soil	Percent Solids:	78.5
Method:	SW846 8270C BY SIM SW846 3546		
Project:	FRU-297-17A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3G06330.D	10	10/04/11	TMB	10/03/11	OP4590	E3G230
Run #2							

	Initial Weight	Final Volume
Run #1	30.0 g	1.0 ml
Run #2		

COGCC Table 910-1 PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	85	68	ug/kg	
120-12-7	Anthracene	ND	85	76	ug/kg	
56-55-3	Benzo(a)anthracene	ND	210	110	ug/kg	
50-32-8	Benzo(a)pyrene	ND	210	150	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	210	160	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	210	93	ug/kg	
218-01-9	Chrysene	97.0	210	93	ug/kg	J
53-70-3	Dibenzo(a,h)anthracene	ND	210	160	ug/kg	
206-44-0	Fluoranthene	ND	85	85	ug/kg	
86-73-7	Fluorene	190	85	72	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	250	230	ug/kg	
91-20-3	Naphthalene	909	85	81	ug/kg	
129-00-0	Pyrene	ND	85	81	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	129%		10-145%
321-60-8	2-Fluorobiphenyl	84%		10-130%
1718-51-0	Terphenyl-d14	84%		22-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	CUTTINGS #2 FRU 297-17A	Date Sampled:	09/30/11
Lab Sample ID:	D28212-1	Date Received:	10/01/11
Matrix:	SO - Soil	Percent Solids:	78.5
Method:	SW846 8015B		
Project:	FRU-297-17A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB13290.D	1	10/03/11	SK	n/a	n/a	GGB755
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.0 g	5.0 ml	50.0 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	24.3	31	15	mg/kg	J
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	73%		60-140%		

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: CUTTINGS #2 FRU 297-17A
Lab Sample ID: D28212-1
Matrix: SO - Soil
Method: SW846-8015B SW846 3546
Project: FRU-297-17A

Date Sampled: 09/30/11
Date Received: 10/01/11
Percent Solids: 78.5

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FI03980.D	1	10/04/11	CS	10/02/11	OP4585	GFI282
Run #2							

	Initial Weight	Final Volume
Run #1	30.2 g	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	349	17	11	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	71%		61-142%		

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: CUTTINGS #2 FRU 297-17A**Lab Sample ID:** D28212-1**Matrix:** SO - Soil**Project:** FRU-297-17A**Date Sampled:** 09/30/11**Date Received:** 10/01/11**Percent Solids:** 78.5**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	9.3	0.51	mg/kg	5	10/03/11	10/04/11 GJ	SW846 6020 ¹	SW846 3050B ⁵
Barium	3170	1.3	mg/kg	1	10/03/11	10/03/11 JM	SW846 6010B ²	SW846 3050B ⁴
Cadmium	< 1.3	1.3	mg/kg	1	10/03/11	10/03/11 JM	SW846 6010B ²	SW846 3050B ⁴
Chromium	11.1	1.3	mg/kg	1	10/03/11	10/03/11 JM	SW846 6010B ²	SW846 3050B ⁴
Copper	32.9	1.3	mg/kg	1	10/03/11	10/03/11 JM	SW846 6010B ²	SW846 3050B ⁴
Lead	30.2	6.4	mg/kg	1	10/03/11	10/03/11 JM	SW846 6010B ²	SW846 3050B ⁴
Mercury	< 0.12	0.12	mg/kg	1	10/04/11	10/04/11 JB	SW846 7471A ³	SW846 7471A ⁶
Nickel	18.9	3.8	mg/kg	1	10/03/11	10/03/11 JM	SW846 6010B ²	SW846 3050B ⁴
Selenium	< 6.4	6.4	mg/kg	1	10/03/11	10/03/11 JM	SW846 6010B ²	SW846 3050B ⁴
Silver	< 3.8	3.8	mg/kg	1	10/03/11	10/03/11 JM	SW846 6010B ²	SW846 3050B ⁴
Zinc	52.2	3.8	mg/kg	1	10/03/11	10/03/11 JM	SW846 6010B ²	SW846 3050B ⁴

(1) Instrument QC Batch: MA1867

(2) Instrument QC Batch: MA1868

(3) Instrument QC Batch: MA1870

(4) Prep QC Batch: MP5925

(5) Prep QC Batch: MP5926

(6) Prep QC Batch: MP5928

RL = Reporting Limit

Report of Analysis

Client Sample ID: CUTTINGS #2 FRU 297-17A**Lab Sample ID:** D28212-1**Matrix:** SO - Soil**Project:** FRU-297-17A**Date Sampled:** 09/30/11**Date Received:** 10/01/11**Percent Solids:** 78.5

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chromium, Hexavalent ^a	0.85	0.50	mg/kg	1	10/04/11 17:20	AMA	SW846 3060A/7196A
Chromium, Trivalent ^b	10.3	1.8	mg/kg	1	10/04/11 17:20	AMA	SW846 3060/7196A M
Redox Potential Vs H2	74.0		mv	1	10/04/11	JD	ASTM D1498-76M
Solids, Percent	78.5		%	1	10/03/11	RC	SM19 2540B M
Specific Conductivity	726	1.0	umhos/cm	1	10/06/11	JD	DEPT.OF AG, BOOK N9
pH	10.31		su	1	10/04/11 12:55	JD	SW846 9045C

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

(b) Calculated as: (Chromium) - (Chromium, Hexavalent)

RL = Reporting Limit

Report of Analysis

Client Sample ID: CUTTINGS #2 FRU 297-17A**Lab Sample ID:** D28212-1A**Matrix:** SO - Soil**Project:** FRU-297-17A**Date Sampled:** 09/30/11**Date Received:** 10/01/11**Percent Solids:** 78.5

SAR Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	19.7	2.0	mg/l	1	10/04/11	10/06/11 JB	SW846 6010B ¹	EPA 200.7 ²
Magnesium	1.44	1.0	mg/l	1	10/04/11	10/06/11 JB	SW846 6010B ¹	EPA 200.7 ²
Sodium	137	2.0	mg/l	1	10/04/11	10/06/11 JB	SW846 6010B ¹	EPA 200.7 ²

(1) Instrument QC Batch: MA1877

(2) Prep QC Batch: MP5929

RL = Reporting Limit

Report of Analysis

Client Sample ID:	CUTTINGS #2 FRU 297-17A	Date Sampled:	09/30/11
Lab Sample ID:	D28212-1A	Date Received:	10/01/11
Matrix:	SO - Soil	Percent Solids:	78.5
Project:	FRU-297-17A		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Sodium Adsorption Ratio ^a	8.02		ratio	1	10/06/11 10:50	JB	USDA HANDBOOK 60

(a) Calculated as: (Na meq/L) / sqrt [(Ca meq/L)+ (Mg meq/L)/2]

RL = Reporting Limit

Report of Analysis

Client Sample ID:	RESERVE PIT FRU 297-17A	
Lab Sample ID:	D28212-2	Date Sampled: 09/30/11
Matrix:	SO - Soil	Date Received: 10/01/11
Method:	SW846 8260B	Percent Solids: 57.8
Project:	FRU-297-17A	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V17820.D	1	10/03/11	DC	n/a	n/a	V5V1060
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.02 g	5.0 ml	100 ul
Run #2			

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	273	120	54	ug/kg	
108-88-3	Toluene	633	250	120	ug/kg	
100-41-4	Ethylbenzene	73.9	250	61	ug/kg	J
1330-20-7	Xylene (total)	632	490	250	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	93%		61-130%
460-00-4	4-Bromofluorobenzene	94%		53-131%
17060-07-0	1,2-Dichloroethane-D4	92%		62-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	RESERVE PIT FRU 297-17A	
Lab Sample ID:	D28212-2	Date Sampled: 09/30/11
Matrix:	SO - Soil	Date Received: 10/01/11
Method:	SW846 8270C BY SIM SW846 3546	Percent Solids: 57.8
Project:	FRU-297-17A	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3G06333.D	10	10/04/11	TMB	10/03/11	OP4590	E3G230
Run #2							

	Initial Weight	Final Volume
Run #1	30.0 g	1.0 ml
Run #2		

COGCC Table 910-1 PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	120	92	ug/kg	
120-12-7	Anthracene	ND	120	100	ug/kg	
56-55-3	Benzo(a)anthracene	ND	290	150	ug/kg	
50-32-8	Benzo(a)pyrene	ND	290	210	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	290	210	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	290	130	ug/kg	
218-01-9	Chrysene	ND	290	130	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	290	210	ug/kg	
206-44-0	Fluoranthene	ND	120	120	ug/kg	
86-73-7	Fluorene	229	120	98	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	350	320	ug/kg	
91-20-3	Naphthalene	451	120	110	ug/kg	
129-00-0	Pyrene	ND	120	110	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	124%		10-145%
321-60-8	2-Fluorobiphenyl	62%		10-130%
1718-51-0	Terphenyl-d14	72%		22-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	RESERVE PIT FRU 297-17A	Date Sampled:	09/30/11
Lab Sample ID:	D28212-2	Date Received:	10/01/11
Matrix:	SO - Soil	Percent Solids:	57.8
Method:	SW846 8015B		
Project:	FRU-297-17A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB13291.D	1	10/03/11	SK	n/a	n/a	GGB755
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.0 g	5.0 ml	50.0 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	68.6	49	25	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	86%		60-140%		

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID:	RESERVE PIT FRU 297-17A			Date Sampled:	09/30/11
Lab Sample ID:	D28212-2			Date Received:	10/01/11
Matrix:	SO - Soil			Percent Solids:	57.8
Method:	SW846-8015B SW846 3546				
Project:	FRU-297-17A				

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FI03981.D	1	10/04/11	CS	10/02/11	OP4585	GFI282
Run #2							

	Initial Weight	Final Volume
Run #1	30.2 g	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	1120	23	15	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	83%		61-142%		

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: RESERVE PIT FRU 297-17A**Lab Sample ID:** D28212-2**Matrix:** SO - Soil**Project:** FRU-297-17A**Date Sampled:** 09/30/11**Date Received:** 10/01/11**Percent Solids:** 57.8

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	4.8	0.68	mg/kg	5	10/03/11	10/04/11 GJ	SW846 6020 ¹	SW846 3050B ⁵
Barium	11600	8.5	mg/kg	5	10/03/11	10/04/11 JM	SW846 6010B ²	SW846 3050B ⁴
Cadmium	< 1.7	1.7	mg/kg	1	10/03/11	10/03/11 JM	SW846 6010B ²	SW846 3050B ⁴
Chromium	10.6	1.7	mg/kg	1	10/03/11	10/03/11 JM	SW846 6010B ²	SW846 3050B ⁴
Copper	52.9	1.7	mg/kg	1	10/03/11	10/03/11 JM	SW846 6010B ²	SW846 3050B ⁴
Lead	27.6	8.5	mg/kg	1	10/03/11	10/03/11 JM	SW846 6010B ²	SW846 3050B ⁴
Mercury	< 0.16	0.16	mg/kg	1	10/04/11	10/04/11 JB	SW846 7471A ³	SW846 7471A ⁶
Nickel	11.6	5.1	mg/kg	1	10/03/11	10/03/11 JM	SW846 6010B ²	SW846 3050B ⁴
Selenium ^a	< 42	42	mg/kg	5	10/03/11	10/04/11 JM	SW846 6010B ²	SW846 3050B ⁴
Silver	< 5.1	5.1	mg/kg	1	10/03/11	10/03/11 JM	SW846 6010B ²	SW846 3050B ⁴
Zinc	36.4	5.1	mg/kg	1	10/03/11	10/03/11 JM	SW846 6010B ²	SW846 3050B ⁴

(1) Instrument QC Batch: MA1867

(2) Instrument QC Batch: MA1868

(3) Instrument QC Batch: MA1870

(4) Prep QC Batch: MP5925

(5) Prep QC Batch: MP5926

(6) Prep QC Batch: MP5928

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit

Report of Analysis

Client Sample ID: RESERVE PIT FRU 297-17A**Lab Sample ID:** D28212-2**Matrix:** SO - Soil**Project:** FRU-297-17A**Date Sampled:** 09/30/11**Date Received:** 10/01/11**Percent Solids:** 57.8

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chromium, Hexavalent ^a	< 0.69	0.69	mg/kg	1	10/04/11 17:20	AMA	SW846 3060A/7196A
Chromium, Trivalent ^b	10.1	2.4	mg/kg	1	10/04/11 17:20	AMA	SW846 3060/7196A M
Redox Potential Vs H2	-5.4		mv	1	10/04/11	JD	ASTM D1498-76M
Solids, Percent	57.8		%	1	10/03/11	RC	SM19 2540B M
Specific Conductivity	532	1.0	umhos/cm	1	10/06/11	JD	DEPT.OF AG, BOOK N9
pH	10.71		su	1	10/04/11 12:55	JD	SW846 9045C

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

(b) Calculated as: (Chromium) - (Chromium, Hexavalent)

RL = Reporting Limit

Report of Analysis

Client Sample ID:	RESERVE PIT FRU 297-17A	Date Sampled:	09/30/11
Lab Sample ID:	D28212-2A	Date Received:	10/01/11
Matrix:	SO - Soil	Percent Solids:	57.8
Project:	FRU-297-17A		

SAR Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	9.73	2.0	mg/l	1	10/04/11	10/06/11 JB	SW846 6010B ¹	EPA 200.7 ²
Magnesium	< 1.0	1.0	mg/l	1	10/04/11	10/06/11 JB	SW846 6010B ¹	EPA 200.7 ²
Sodium	113	2.0	mg/l	1	10/04/11	10/06/11 JB	SW846 6010B ¹	EPA 200.7 ²

(1) Instrument QC Batch: MA1877
(2) Prep QC Batch: MP5929

RL = Reporting Limit

Report of Analysis

Client Sample ID:	RESERVE PIT FRU 297-17A	Date Sampled:	09/30/11
Lab Sample ID:	D28212-2A	Date Received:	10/01/11
Matrix:	SO - Soil	Percent Solids:	57.8
Project:	FRU-297-17A		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Sodium Adsorption Ratio ^a	9.32		ratio	1	10/06/11 11:09	JB	USDA HANDBOOK 60

(a) Calculated as: (Na meq/L) / sqrt [(Ca meq/L)+ (Mg meq/L)/2]

RL = Reporting Limit

Report of Analysis

Client Sample ID:	CUTTINGS #1 FRU 297-17A	Date Sampled:	09/30/11
Lab Sample ID:	D28212-3	Date Received:	10/01/11
Matrix:	SO - Soil	Percent Solids:	82.0
Method:	SW846 8260B		
Project:	FRU-297-17A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V17821.D	1	10/03/11	DC	n/a	n/a	V5V1060
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.03 g	5.0 ml	100 ul
Run #2			

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	439	72	32	ug/kg	
108-88-3	Toluene	1960	140	72	ug/kg	
100-41-4	Ethylbenzene	598	140	36	ug/kg	
1330-20-7	Xylene (total)	2770	290	140	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	106%		61-130%
460-00-4	4-Bromofluorobenzene	103%		53-131%
17060-07-0	1,2-Dichloroethane-D4	104%		62-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	CUTTINGS #1 FRU 297-17A	Date Sampled:	09/30/11
Lab Sample ID:	D28212-3	Date Received:	10/01/11
Matrix:	SO - Soil	Percent Solids:	82.0
Method:	SW846 8270C BY SIM SW846 3546		
Project:	FRU-297-17A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3G06334.D	10	10/04/11	TMB	10/03/11	OP4590	E3G230
Run #2							

	Initial Weight	Final Volume
Run #1	30.0 g	1.0 ml
Run #2		

COGCC Table 910-1 PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	81	65	ug/kg	
120-12-7	Anthracene	ND	81	73	ug/kg	
56-55-3	Benzo(a)anthracene	ND	200	110	ug/kg	
50-32-8	Benzo(a)pyrene	ND	200	150	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	200	150	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	200	89	ug/kg	
218-01-9	Chrysene	ND	200	89	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	200	150	ug/kg	
206-44-0	Fluoranthene	ND	81	81	ug/kg	
86-73-7	Fluorene	79.1	81	69	ug/kg	J
193-39-5	Indeno(1,2,3-cd)pyrene	ND	240	220	ug/kg	
91-20-3	Naphthalene	470	81	77	ug/kg	
129-00-0	Pyrene	ND	81	77	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	108%		10-145%
321-60-8	2-Fluorobiphenyl	60%		10-130%
1718-51-0	Terphenyl-d14	83%		22-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: CUTTINGS #1 FRU 297-17A**Lab Sample ID:** D28212-3**Matrix:** SO - Soil**Method:** SW846 8015B**Project:** FRU-297-17A**Date Sampled:** 09/30/11**Date Received:** 10/01/11**Percent Solids:** 82.0

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB13292.D	1	10/03/11	SK	n/a	n/a	GGB755
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.0 g	5.0 ml	50.0 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	75.5	29	14	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	75%		60-140%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: CUTTINGS #1 FRU 297-17A
Lab Sample ID: D28212-3
Matrix: SO - Soil
Method: SW846-8015B SW846 3546
Project: FRU-297-17A

Date Sampled: 09/30/11
Date Received: 10/01/11
Percent Solids: 82.0

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FI03982.D	1	10/04/11	CS	10/02/11	OP4585	GFI282
Run #2							

	Initial Weight	Final Volume
Run #1	30.1 g	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	461	16	11	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	75%		61-142%		

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: CUTTINGS #1 FRU 297-17A**Lab Sample ID:** D28212-3**Matrix:** SO - Soil**Project:** FRU-297-17A**Date Sampled:** 09/30/11**Date Received:** 10/01/11**Percent Solids:** 82.0**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	8.9	0.47	mg/kg	5	10/03/11	10/04/11 GJ	SW846 6020 ¹	SW846 3050B ⁵
Barium	5440	5.9	mg/kg	5	10/03/11	10/04/11 JM	SW846 6010B ²	SW846 3050B ⁴
Cadmium	< 1.2	1.2	mg/kg	1	10/03/11	10/03/11 JM	SW846 6010B ²	SW846 3050B ⁴
Chromium	10.5	1.2	mg/kg	1	10/03/11	10/03/11 JM	SW846 6010B ²	SW846 3050B ⁴
Copper	33.2	1.2	mg/kg	1	10/03/11	10/03/11 JM	SW846 6010B ²	SW846 3050B ⁴
Lead	19.9	5.9	mg/kg	1	10/03/11	10/03/11 JM	SW846 6010B ²	SW846 3050B ⁴
Mercury	< 0.12	0.12	mg/kg	1	10/04/11	10/04/11 JB	SW846 7471A ³	SW846 7471A ⁶
Nickel	15.9	3.5	mg/kg	1	10/03/11	10/03/11 JM	SW846 6010B ²	SW846 3050B ⁴
Selenium ^a	< 29	29	mg/kg	5	10/03/11	10/04/11 JM	SW846 6010B ²	SW846 3050B ⁴
Silver	< 3.5	3.5	mg/kg	1	10/03/11	10/03/11 JM	SW846 6010B ²	SW846 3050B ⁴
Zinc	49.1	3.5	mg/kg	1	10/03/11	10/03/11 JM	SW846 6010B ²	SW846 3050B ⁴

(1) Instrument QC Batch: MA1867

(2) Instrument QC Batch: MA1868

(3) Instrument QC Batch: MA1870

(4) Prep QC Batch: MP5925

(5) Prep QC Batch: MP5926

(6) Prep QC Batch: MP5928

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit

Report of Analysis

Client Sample ID: CUTTINGS #1 FRU 297-17A**Lab Sample ID:** D28212-3**Matrix:** SO - Soil**Project:** FRU-297-17A**Date Sampled:** 09/30/11**Date Received:** 10/01/11**Percent Solids:** 82.0

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chromium, Hexavalent ^a	< 0.47	0.47	mg/kg	1	10/04/11 17:20	AMA	SW846 3060A/7196A
Chromium, Trivalent ^b	10.5	1.7	mg/kg	1	10/04/11 17:20	AMA	SW846 3060/7196A M
Redox Potential Vs H2	-4.0		mv	1	10/04/11	JD	ASTM D1498-76M
Solids, Percent	82		%	1	10/03/11	RC	SM19 2540B M
Specific Conductivity	1080	1.0	umhos/cm	1	10/06/11	JD	DEPT.OF AG, BOOK N9
pH	10.77		su	1	10/04/11 12:55	JD	SW846 9045C

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

(b) Calculated as: (Chromium) - (Chromium, Hexavalent)

RL = Reporting Limit

Report of Analysis

Client Sample ID:	CUTTINGS #1 FRU 297-17A	Date Sampled:	09/30/11
Lab Sample ID:	D28212-3A	Date Received:	10/01/11
Matrix:	SO - Soil	Percent Solids:	82.0
Project:	FRU-297-17A		

SAR Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	196	2.0	mg/l	1	10/04/11	10/06/11 JB	SW846 6010B ¹	EPA 200.7 ²
Magnesium	33.3	1.0	mg/l	1	10/04/11	10/06/11 JB	SW846 6010B ¹	EPA 200.7 ²
Sodium	270	2.0	mg/l	1	10/04/11	10/06/11 JB	SW846 6010B ¹	EPA 200.7 ²

(1) Instrument QC Batch: MA1877
(2) Prep QC Batch: MP5929

RL = Reporting Limit

Report of Analysis

Client Sample ID:	CUTTINGS #1 FRU 297-17A	Date Sampled:	09/30/11
Lab Sample ID:	D28212-3A	Date Received:	10/01/11
Matrix:	SO - Soil	Percent Solids:	82.0
Project:	FRU-297-17A		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Sodium Adsorption Ratio ^a	4.69		ratio	1	10/06/11 11:15	JB	USDA HANDBOOK 60

(a) Calculated as: (Na meq/L) / sqrt [(Ca meq/L)+ (Mg meq/L)/2]

RL = Reporting Limit

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

Accutest Laboratories Mountain States
4036 Youngfield Street, Wheat Ridge, CO 80033
TEL: 303-425-6021 877-737-4521
FAX: 303-425-6021

FED-EX Tracking #		Bottle Order Control #	
Accutest Quote #		Accutest Job # 028212	
Requested Analysis (see TEST CODE sheet)			Matrix Codes
<div style="writing-mode: vertical-rl; transform: rotate(180deg);">TABLE 910-1</div>			DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank
			LAB USE ONLY
Turnaround Time (Business days) <input type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day R/SH <input checked="" type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY Emergency & Rush T/A data available VIA LabLink			
Approved By (Accutest PM): Date: _____ _____		Data Deliverable Information <input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> State Forms <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> EDD Format <input type="checkbox"/> Commercial "B" + Narrative <input type="checkbox"/> PDF <input type="checkbox"/> FULLT1 (Level 3+4) Commercial "A" = Results Only Commercial "B" = Results + QC Summary	
Comments / Special Instructions PLS EMAIL RESULTS TO KRW PICEANCE CREEK XOM TEAM			
Sample Custody must be documented below each time samples change possession, including courier delivery.			
Relinquished by Sampler: 1. Traci Tsu Date Time: 9/30/11 1600	Received By: 1. PACE SERVICE CENTER Date Time: _____	Relinquished By: 2. [Signature] Date Time: _____	Received By: 2. [Signature] Date Time: 09/30/11
Relinquished by Sampler: 3 Date Time: _____	Received By: 3 Date Time: _____	Relinquished By: 4 Date Time: _____	Received By: 4 Date Time: _____
Relinquished by: 5 Date Time: _____	Received By: 5 Date Time: _____	Custody Seal # <input checked="" type="checkbox"/> Intact <input type="checkbox"/> Not Intact	Preserved where applicable <input type="checkbox"/> On Ice <input checked="" type="checkbox"/> Cooler Temp. 2.1

D28212: Chain of Custody

Page 1 of 2

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: D28212

Client: KRW CONSULTING INC

Immediate Client Services Action Required: No

Date / Time Received: 10/1/2011 8:45:00 AM

No. Coolers: 1

Client Service Action Required at Login: No

Project: FRU 297-17A

Airbill #'s: Fedex

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	3. COC Present:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. Custody Seals Intact:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	4. Smpl Dates/Time OK	<input checked="" type="checkbox"/>		<input type="checkbox"/>

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. Cooler temp verification:			Infrared gun
3. Cooler media:			Ice (bag)

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	<input type="checkbox"/>		<input type="checkbox"/>	
2. Trip Blank listed on COC:	<input type="checkbox"/>		<input type="checkbox"/>	
3. Samples preserved properly:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
4. VOCs headspace free:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. Container labeling complete:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
3. Sample container label / COC agree:	<input checked="" type="checkbox"/>		<input type="checkbox"/>

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. All containers accounted for:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
3. Condition of sample:			Intact

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
2. Bottles received for unspecified tests	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
3. Sufficient volume rec'd for analysis:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
4. Compositing instructions clear:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Filtering instructions clear:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>

Comments

Accutest Laboratories
V:(303) 425-6021

4036 Youngfield Street
F: (303) 425-6854

Wheat Ridge, CO
www.accutest.com

GC/MS Volatiles

5

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Page 1 of 1

Job Number: D28212
Account: KRWCCOL KRW Consulting, Inc.
Project: FRU-297-17A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5V1060-MB	5V17801.D	1	10/03/11	DC	n/a	n/a	V5V1060

The QC reported here applies to the following samples:

Method: SW846 8260B

D28212-1, D28212-2, D28212-3

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	50	22	ug/kg	
100-41-4	Ethylbenzene	ND	100	25	ug/kg	
108-88-3	Toluene	ND	100	50	ug/kg	
1330-20-7	Xylene (total)	ND	200	100	ug/kg	

CAS No.	Surrogate Recoveries	Limits
2037-26-5	Toluene-D8	105% 61-130%
460-00-4	4-Bromofluorobenzene	94% 53-131%
17060-07-0	1,2-Dichloroethane-D4	104% 62-130%

Blank Spike Summary

Page 1 of 1

Job Number: D28212

Account: KRWCCOL KRW Consulting, Inc.

Project: FRU-297-17A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5V1060-BS	5V17802.D	1	10/03/11	DC	n/a	n/a	V5V1060

The QC reported here applies to the following samples:

Method: SW846 8260B

D28212-1, D28212-2, D28212-3

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
71-43-2	Benzene	50	55.1	110	70-130
100-41-4	Ethylbenzene	50	53.7	107	70-130
108-88-3	Toluene	50	56.1	112	70-130
1330-20-7	Xylene (total)	150	165	110	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
2037-26-5	Toluene-D8	107%	61-130%
460-00-4	4-Bromofluorobenzene	106%	53-131%
17060-07-0	1,2-Dichloroethane-D4	100%	62-130%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D28212
Account: KRWCCOL KRW Consulting, Inc.
Project: FRU-297-17A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D28214-1MS	5V17814.D	1	10/03/11	DC	n/a	n/a	V5V1060
D28214-1MSD	5V17815.D	1	10/03/11	DC	n/a	n/a	V5V1060
D28214-1	5V17813.D	1	10/03/11	DC	n/a	n/a	V5V1060

The QC reported here applies to the following samples:

Method: SW846 8260B

D28212-1, D28212-2, D28212-3

CAS No.	Compound	D28214-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	153		4230	4360	99	5020	115	14	70-134/30
100-41-4	Ethylbenzene	98.5	J	4230	4250	98	4900	114	14	70-137/30
108-88-3	Toluene	536		4230	4760	100	5410	115	13	70-130/30
1330-20-7	Xylene (total)	557		12700	13700	104	15600	119	13	61-131/30

CAS No.	Surrogate Recoveries	MS	MSD	D28214-1	Limits
2037-26-5	Toluene-D8	105%	106%	103%	61-130%
460-00-4	4-Bromofluorobenzene	113%	114%	104%	53-131%
17060-07-0	1,2-Dichloroethane-D4	103%	101%	108%	62-130%

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Page 1 of 1

Job Number: D28212
Account: KRWCCOL KRW Consulting, Inc.
Project: FRU-297-17A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP4590-MB	3G06328.D	1	10/04/11	TMB	10/03/11	OP4590	E3G230

The QC reported here applies to the following samples:

Method: SW846 8270C BY SIM

D28212-1, D28212-2, D28212-3

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	6.7	5.3	ug/kg	
120-12-7	Anthracene	ND	6.7	6.0	ug/kg	
56-55-3	Benzo(a)anthracene	ND	17	8.7	ug/kg	
50-32-8	Benzo(a)pyrene	ND	17	12	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	17	12	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	17	7.3	ug/kg	
218-01-9	Chrysene	ND	17	7.3	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	17	12	ug/kg	
206-44-0	Fluoranthene	ND	6.7	6.7	ug/kg	
86-73-7	Fluorene	ND	6.7	5.7	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	20	18	ug/kg	
91-20-3	Naphthalene	ND	6.7	6.3	ug/kg	
129-00-0	Pyrene	ND	6.7	6.3	ug/kg	

CAS No.	Surrogate Recoveries	Limits
4165-60-0	Nitrobenzene-d5	101% 10-145%
321-60-8	2-Fluorobiphenyl	93% 10-130%
1718-51-0	Terphenyl-d14	116% 22-130%

Blank Spike Summary

Page 1 of 1

Job Number: D28212

Account: KRWCCOL KRW Consulting, Inc.

Project: FRU-297-17A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP4590-BS	3G06329.D	1	10/04/11	TMB	10/03/11	OP4590	E3G230

The QC reported here applies to the following samples:

Method: SW846 8270C BY SIM

D28212-1, D28212-2, D28212-3

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
83-32-9	Acenaphthene	83.3	69.6	84	34-130
120-12-7	Anthracene	83.3	74.9	90	35-130
56-55-3	Benzo(a)anthracene	83.3	76.8	92	36-130
50-32-8	Benzo(a)pyrene	83.3	66.5	80	36-130
205-99-2	Benzo(b)fluoranthene	83.3	61.6	74	35-130
207-08-9	Benzo(k)fluoranthene	83.3	86.6	104	37-130
218-01-9	Chrysene	83.3	77.1	93	40-130
53-70-3	Dibenzo(a,h)anthracene	83.3	71.0	85	32-130
206-44-0	Fluoranthene	83.3	72.3	87	38-130
86-73-7	Fluorene	83.3	73.2	88	35-130
193-39-5	Indeno(1,2,3-cd)pyrene	83.3	69.6	84	28-130
91-20-3	Naphthalene	83.3	74.2	89	35-130
129-00-0	Pyrene	83.3	78.0	94	37-130

CAS No.	Surrogate Recoveries	BSP	Limits
4165-60-0	Nitrobenzene-d5	99%	10-145%
321-60-8	2-Fluorobiphenyl	89%	10-130%
1718-51-0	Terphenyl-d14	102%	22-130%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D28212
Account: KRWCCOL KRW Consulting, Inc.
Project: FRU-297-17A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP4590-MS	3G06331.D	10	10/04/11	TMB	10/03/11	OP4590	E3G230
OP4590-MSD	3G06332.D	10	10/04/11	TMB	10/03/11	OP4590	E3G230
D28212-1	3G06330.D	10	10/04/11	TMB	10/03/11	OP4590	E3G230

The QC reported here applies to the following samples:

Method: SW846 8270C BY SIM

D28212-1, D28212-2, D28212-3

CAS No.	Compound	D28212-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND		106	90.7	86	99.0	93	9	10-155/30
120-12-7	Anthracene	ND		106	103	97	106	100	3	10-155/30
56-55-3	Benzo(a)anthracene	ND		106	151	143	165	156	9	10-175/30
50-32-8	Benzo(a)pyrene	ND		106	ND	0* a	ND	0* a	nc	10-164/30
205-99-2	Benzo(b)fluoranthene	ND		106	164	155	172	162	5	10-165/30
207-08-9	Benzo(k)fluoranthene	ND		106	135	127	135	127	0	10-178/30
218-01-9	Chrysene	97.0	J	106	188	86	205	102	9	10-147/30
53-70-3	Dibenzo(a,h)anthracene	ND		106	ND	0* a	ND	0* a	nc	10-144/30
206-44-0	Fluoranthene	ND		106	152	143	149	141	2	10-207/30
86-73-7	Fluorene	190		106	300	104	376	176* a	22	10-163/30
193-39-5	Indeno(1,2,3-cd)pyrene	ND		106	ND	0* a	ND	0* a	nc	10-180/30
91-20-3	Naphthalene	909		106	1050	133	1210	284* b	14	10-198/30
129-00-0	Pyrene	ND		106	175	165	171	161	2	10-189/30

CAS No.	Surrogate Recoveries	MS	MSD	D28212-1	Limits
4165-60-0	Nitrobenzene-d5	155%* c	161%* c	129%	10-145%
321-60-8	2-Fluorobiphenyl	81%	79%	84%	10-130%
1718-51-0	Terphenyl-d14	88%	90%	84%	22-130%

- (a) Outside control limits due to matrix interference. Refer to Blank Spike.
(b) Outside control limits due to high level in sample relative to spike amount.
(c) Outside control limits due to dilution.

GC Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Page 1 of 1

Job Number: D28212
Account: KRWCCOL KRW Consulting, Inc.
Project: FRU-297-17A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGB755-MB	GB13281.D	1	10/03/11	SK	n/a	n/a	GGB755

The QC reported here applies to the following samples:

Method: SW846 8015B

D28212-1, D28212-2, D28212-3

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	10	5.0	mg/kg	

CAS No.	Surrogate Recoveries	Limits
120-82-1	1,2,4-Trichlorobenzene	82% 60-140%

Blank Spike Summary

Job Number: D28212
Account: KRWCCOL KRW Consulting, Inc.
Project: FRU-297-17A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGB755-BS	GB13282.D	1	10/03/11	SK	n/a	n/a	GGB755

The QC reported here applies to the following samples: Method: SW846 8015B

D28212-1, D28212-2, D28212-3

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-GRO (C6-C10)	110	121	110	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
120-82-1	1,2,4-Trichlorobenzene	89%	60-140%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D28212
Account: KRWCCOL KRW Consulting, Inc.
Project: FRU-297-17A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D28162-4MS	GB13284.D	1	10/03/11	SK	n/a	n/a	GGB755
D28162-4MSD	GB13285.D	1	10/03/11	SK	n/a	n/a	GGB755
D28162-4	GB13283.D	1	10/03/11	SK	n/a	n/a	GGB755

The QC reported here applies to the following samples: Method: SW846 8015B

D28212-1, D28212-2, D28212-3

CAS No.	Compound	D28162-4 mg/kg	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	ND	127	142	111	139	109	2	70-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D28162-4	Limits
120-82-1	1,2,4-Trichlorobenzene	89%	85%	78%	60-140%

GC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Page 1 of 1

Job Number: D28212

Account: KRWCCOL KRW Consulting, Inc.

Project: FRU-297-17A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP4585-MB	FI03962.D	1	10/03/11	CS	10/02/11	OP4585	GFI282

The QC reported here applies to the following samples:

Method: SW846-8015B

D28212-1, D28212-2, D28212-3

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	13	8.7	mg/kg	

CAS No.	Surrogate Recoveries	Limits
84-15-1	o-Terphenyl	80% 61-142%

8.1.1

8

Blank Spike Summary

Page 1 of 1

Job Number: D28212
Account: KRWCCOL KRW Consulting, Inc.
Project: FRU-297-17A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP4585-BS	FI03963.D	1	10/03/11	CS	10/02/11	OP4585	GFI282

The QC reported here applies to the following samples:

Method: SW846-8015B

D28212-1, D28212-2, D28212-3

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-DRO (C10-C28)	667	558	84	60-130

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	84%	61-142%

8.2.1

8

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D28212
Account: KRWCCOL KRW Consulting, Inc.
Project: FRU-297-17A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP4585-MS	FI03964.D	1	10/03/11	CS	10/02/11	OP4585	GFI282
OP4585-MSD	FI03965.D	1	10/03/11	CS	10/02/11	OP4585	GFI282
D28215-1	FI03966.D	1	10/03/11	CS	10/02/11	OP4585	GFI282

The QC reported here applies to the following samples:

Method: SW846-8015B

D28212-1, D28212-2, D28212-3

CAS No.	Compound	D28215-1 mg/kg	Spike Q	mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-DRO (C10-C28)	205		769	828	81	816	80	1	24-157/35

CAS No.	Surrogate Recoveries	MS	MSD	D28215-1	Limits
84-15-1	o-Terphenyl	72%	70%	68%	61-142%

8.3.1
8

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D28212
Account: KRWCCOL - KRW Consulting, Inc.
Project: FRU-297-17A

QC Batch ID: MP5925
Matrix Type: SOLID

Methods: SW846 6010B
Units: mg/kg

Prep Date: 10/03/11

Metal	RL	IDL	MDL	MB raw	final
Aluminum	10	.59	.59		
Antimony	3.0	.31	.31		
Arsenic	2.5	.59	.59		
Barium	1.0	.11	.11	0.14	<1.0
Beryllium	1.0	.044	.1		
Boron	5.0	.48	.48		
Cadmium	1.0	.027	.27	0.0	<1.0
Calcium	40	.96	1.1		
Chromium	1.0	.018	.031	0.010	<1.0
Cobalt	0.50	.035	.035		
Copper	1.0	.085	.16	-0.050	<1.0
Iron	7.0	.34	2		
Lead	5.0	.16	.21	0.18	<5.0
Lithium	0.20	.028	.031		
Magnesium	20	.58	1.4		
Manganese	0.50	.0053	.012		
Molybdenum	1.0	.045	.054		
Nickel	3.0	.043	.099	0.010	<3.0
Phosphorus	10	1.1	1.2		
Potassium	200	5.5	9.2		
Selenium	5.0	.38	.5	-0.39	<5.0
Silicon	5.0	.38	.51		
Silver	3.0	.018	.051	-0.010	<3.0
Sodium	40	11	11		
Strontium	5.0		.017		
Thallium	1.0	.29	.34		
Tin	5.0	.55	1.3		
Titanium	1.0	.011	.1		
Uranium	5.0	.15	.2		
Vanadium	1.0	.016	.025		
Zinc	3.0	.028	.06	0.29	<3.0

Associated samples MP5925: D28212-1, D28212-2, D28212-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D28212
Account: KRWCCOL - KRW Consulting, Inc.
Project: FRU-297-17A

QC Batch ID: MP5925
Matrix Type: SOLID

Methods: SW846 6010B
Units: mg/kg

Prep Date:

Metal

(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D28212
Account: KRWCCOL - KRW Consulting, Inc.
Project: FRU-297-17A

QC Batch ID: MP5925
Matrix Type: SOLID

Methods: SW846 6010B
Units: mg/kg

Prep Date: 10/03/11

Metal	D28126-5 Original MS		SpikeLot MPICPALL % Rec		QC Limits
Aluminum	anr				
Antimony	anr				
Arsenic	anr				
Barium	2420	2690	245	110.0	75-125
Beryllium	anr				
Boron					
Cadmium	0.85	53.8	61.3	86.3	75-125
Calcium					
Chromium	23.3	72.6	61.3	80.4	75-125
Cobalt					
Copper	20.3	78.0	61.3	94.1	75-125
Iron	anr				
Lead	16.1	116	123	81.4	75-125
Lithium					
Magnesium	anr				
Manganese	anr				
Molybdenum	anr				
Nickel	16.8	62.4	61.3	74.3N(a)	75-125
Phosphorus	anr				
Potassium					
Selenium	3.2	110	123	87.0	75-125
Silicon					
Silver	0.0	23.2	24.5	94.5	75-125
Sodium					
Strontium					
Thallium	anr				
Tin					
Titanium					
Uranium	anr				
Vanadium					
Zinc	49.8	93.6	61.3	71.4N(b)	75-125

Associated samples MP5925: D28212-1, D28212-2, D28212-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D28212
Account: KRWCCOL - KRW Consulting, Inc.
Project: FRU-297-17A

QC Batch ID: MP5925
Matrix Type: SOLID

Methods: SW846 6010B
Units: mg/kg

Prep Date:

Metal

- (N) Matrix Spike Rec. outside of QC limits
- (anr) Analyte not requested
- (a) Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.
- (b) Spike recovery indicates possible matrix interference.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D28212
Account: KRWCCOL - KRW Consulting, Inc.
Project: FRU-297-17A

QC Batch ID: MP5925
Matrix Type: SOLID

Methods: SW846 6010B
Units: mg/kg

Prep Date: 10/03/11

	D28126-5		Spikelot		MSD	QC
Metal	Original	MSD	MPICPAL	% Rec	RPD	Limit
Aluminum	anr					
Antimony	anr					
Arsenic	anr					
Barium	2420	2510	236	38.1 (a)	6.9	20
Beryllium	anr					
Boron						
Cadmium	0.85	52.1	59	86.9	3.2	20
Calcium						
Chromium	23.3	73.2	59	84.6	0.8	20
Cobalt						
Copper	20.3	77.7	59	97.3	0.4	20
Iron	anr					
Lead	16.1	113	118	82.1	2.6	20
Lithium						
Magnesium	anr					
Manganese	anr					
Molybdenum	anr					
Nickel	16.8	61.7	59	76.1	1.1	20
Phosphorus	anr					
Potassium						
Selenium	3.2	107	118	88.0	2.8	20
Silicon						
Silver	0.0	22.6	23.6	95.8	2.6	20
Sodium						
Strontium						
Thallium	anr					
Tin						
Titanium						
Uranium	anr					
Vanadium						
Zinc	49.8	91.6	59	70.9N(b)	2.2	20

Associated samples MP5925: D28212-1, D28212-2, D28212-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D28212
Account: KRWCCOL - KRW Consulting, Inc.
Project: FRU-297-17A

QC Batch ID: MP5925
Matrix Type: SOLID

Methods: SW846 6010B
Units: mg/kg

Prep Date:

Metal

- (N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.
(b) Spike recovery indicates possible matrix interference.

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D28212
Account: KRWCCOL - KRW Consulting, Inc.
Project: FRU-297-17A

QC Batch ID: MP5925
Matrix Type: SOLID

Methods: SW846 6010B
Units: mg/kg

Prep Date: 10/03/11

Metal	BSP Result	Spikelot MPICPAL	% Rec	QC Limits
Aluminum	anr			
Antimony	anr			
Arsenic	anr			
Barium	176	200	88.0	80-120
Beryllium	anr			
Boron				
Cadmium	43.4	50	86.8	80-120
Calcium				
Chromium	43.4	50	86.8	80-120
Cobalt				
Copper	45.7	50	91.4	80-120
Iron	anr			
Lead	88.2	100	88.2	80-120
Lithium				
Magnesium	anr			
Manganese	anr			
Molybdenum	anr			
Nickel	42.3	50	84.6	80-120
Phosphorus	anr			
Potassium				
Selenium	88.1	100	88.1	80-120
Silicon				
Silver	18.9	20	94.5	80-120
Sodium				
Strontium				
Thallium	anr			
Tin				
Titanium				
Uranium	anr			
Vanadium				
Zinc	42.8	50	85.6	80-120

Associated samples MP5925: D28212-1, D28212-2, D28212-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D28212
Account: KRWCCOL - KRW Consulting, Inc.
Project: FRU-297-17A

QC Batch ID: MP5925
Matrix Type: SOLID

Methods: SW846 6010B
Units: mg/kg

Prep Date:

Metal

(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: D28212
Account: KRWCCOL - KRW Consulting, Inc.
Project: FRU-297-17A

QC Batch ID: MP5925
Matrix Type: SOLID

Methods: SW846 6010B
Units: ug/l

Prep Date: 10/03/11

Metal	D28126-5 Original	SDL 1:5	%DIF	QC Limits
Aluminum	anr			
Antimony	anr			
Arsenic	anr			
Barium	19700	20900	6.1	0-10
Beryllium	anr			
Boron				
Cadmium	6.90	4.00	42.0 (a)	0-10
Calcium				
Chromium	190	201	6.0	0-10
Cobalt				
Copper	165	157	5.0	0-10
Iron	anr			
Lead	131	128	2.4	0-10
Lithium				
Magnesium	anr			
Manganese	anr			
Molybdenum	anr			
Nickel	137	154	11.8*(b)	0-10
Phosphorus	anr			
Potassium				
Selenium	26.2	0.00	100.0(a)	0-10
Silicon				
Silver	0.00	2.00		0-10
Sodium				
Strontium				
Thallium	anr			
Tin				
Titanium				
Uranium	anr			
Vanadium				
Zinc	406	463	14.1*(b)	0-10

Associated samples MP5925: D28212-1, D28212-2, D28212-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

SERIAL DILUTION RESULTS SUMMARY

Login Number: D28212
Account: KRWCCOL - KRW Consulting, Inc.
Project: FRU-297-17A

QC Batch ID: MP5925
Matrix Type: SOLID

Methods: SW846 6010B
Units: ug/l

Prep Date:

Metal

(anr) Analyte not requested

(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

(b) Serial dilution indicates possible matrix interference.

9.1.4

9

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D28212
Account: KRWCCOL - KRW Consulting, Inc.
Project: FRU-297-17A

QC Batch ID: MP5926
Matrix Type: SOLID

Methods: SW846 6020
Units: mg/kg

Prep Date: 10/03/11

Metal	RL	IDL	MDL	MB raw	final
Aluminum	25	.14	1.2		
Antimony	0.20	.001	.0095		
Arsenic	0.40	.049	.22	0.26	<0.40
Barium	1.0	.0035	.1		
Beryllium	0.10	.0075	.014		
Boron	20	.97	1		
Cadmium	0.050	.023	.048		
Calcium	200	1.8	8.2		
Chromium	1.0	.021	.24		
Cobalt	0.10	.0033	.003		
Copper	1.0	.011	.063		
Iron	20	.81	3.7		
Lead	0.25	.0012	.015		
Magnesium	50	.067	2.6		
Manganese	0.50	.007	.029		
Molybdenum	0.50	.0044	.023		
Nickel	1.0	.0029	.031		
Phosphorus	30	1.8	3.5		
Potassium	100	2	3.2		
Selenium	0.20	.075	.19		
Silver	0.050	.0008	.002		
Sodium	250	.8	4.4		
Strontium	10	.004	.04		
Thallium	0.10	.015	.02		
Tin	5.0	.006	.028		
Titanium	1.0	.035	.062		
Uranium	0.25	.00038	.0009		
Vanadium	2.0	.052	.29		
Zinc	5.0	.039	.12		

Associated samples MP5926: D28212-1, D28212-2, D28212-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D28212
Account: KRWCCOL - KRW Consulting, Inc.
Project: FRU-297-17A

QC Batch ID: MP5926
Matrix Type: SOLID

Methods: SW846 6020
Units: mg/kg

Prep Date: 10/03/11

Metal	D28126-5 Original MS		SpikeLot MPICPALL % Rec		QC Limits
Aluminum					
Antimony					
Arsenic	9.2	132	123	100.1	60-119
Barium					
Beryllium					
Boron					
Cadmium					
Calcium					
Chromium					
Cobalt					
Copper					
Iron					
Lead					
Magnesium					
Manganese					
Molybdenum					
Nickel					
Phosphorus					
Potassium					
Selenium					
Silver					
Sodium					
Strontium					
Thallium					
Tin					
Titanium					
Uranium					
Vanadium					
Zinc					

Associated samples MP5926: D28212-1, D28212-2, D28212-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D28212
Account: KRWCCOL - KRW Consulting, Inc.
Project: FRU-297-17A

QC Batch ID: MP5926
Matrix Type: SOLID

Methods: SW846 6020
Units: mg/kg

Prep Date: 10/03/11

Metal	D28126-5 Original	MSD	Spikelot MPICPAL	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic	9.2	115	118	89.7	13.8	20
Barium						
Beryllium						
Boron						
Cadmium						
Calcium						
Chromium						
Cobalt						
Copper						
Iron						
Lead						
Magnesium						
Manganese						
Molybdenum						
Nickel						
Phosphorus						
Potassium						
Selenium						
Silver						
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Uranium						
Vanadium						
Zinc						

Associated samples MP5926: D28212-1, D28212-2, D28212-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D28212
 Account: KRWCCOL - KRW Consulting, Inc.
 Project: FRU-297-17A

QC Batch ID: MP5926
 Matrix Type: SOLID

Methods: SW846 6020
 Units: mg/kg

Prep Date: 10/03/11

Metal	BSP Result	Spikelot MPICPALL	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	91.3	100	91.3	80-120
Barium				
Beryllium				
Boron				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron				
Lead				
Magnesium				
Manganese				
Molybdenum				
Nickel				
Phosphorus				
Potassium				
Selenium				
Silver				
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Uranium				
Vanadium				
Zinc				

Associated samples MP5926: D28212-1, D28212-2, D28212-3

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: D28212
 Account: KRWCCOL - KRW Consulting, Inc.
 Project: FRU-297-17A

QC Batch ID: MP5926
 Matrix Type: SOLID

Methods: SW846 6020
 Units: ug/l

Prep Date: 10/03/11

Metal	D28126-5			QC	
	Original	SDL 5:25	%DIF	Limits	
Aluminum					
Antimony					
Arsenic	75.3	88.7	17.7*(a)	0-10	
Barium					
Beryllium					
Boron					
Cadmium					
Calcium					
Chromium					
Cobalt					
Copper					
Iron					
Lead					
Magnesium					
Manganese					
Molybdenum					
Nickel					
Phosphorus					
Potassium					
Selenium					
Silver					
Sodium					
Strontium					
Thallium					
Tin					
Titanium					
Uranium					
Vanadium					
Zinc					

Associated samples MP5926: D28212-1, D28212-2, D28212-3

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (anr) Analyte not requested
 (a) Serial dilution indicates possible matrix interference.

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D28212
Account: KRWCCOL - KRW Consulting, Inc.
Project: FRU-297-17A

QC Batch ID: MP5928
Matrix Type: SOLID

Methods: SW846 7471A
Units: mg/kg

Prep Date: 10/04/11

Metal	RL	IDL	MDL	MB	
				raw	final
Mercury	0.10	.0011	.013	-0.0033	<0.10

Associated samples MP5928: D28212-1, D28212-2, D28212-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D28212
 Account: KRWCCOL - KRW Consulting, Inc.
 Project: FRU-297-17A

QC Batch ID: MP5928
 Matrix Type: SOLID

Methods: SW846 7471A
 Units: mg/kg

Prep Date: 10/04/11

Metal	D28126-5 Original MS	Spikelot HGWSR1	% Rec	QC Limits
-------	-------------------------	--------------------	-------	--------------

Mercury	0.031	0.36	0.454	72.4N(a)	85-115
---------	-------	------	-------	----------	--------

Associated samples MP5928: D28212-1, D28212-2, D28212-3

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

(a) Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D28212
 Account: KRWCCOL - KRW Consulting, Inc.
 Project: FRU-297-17A

QC Batch ID: MP5928
 Matrix Type: SOLID

Methods: SW846 7471A
 Units: mg/kg

Prep Date: 10/04/11

Metal	D28126-5 Original MSD	Spikelot HGWSR1	% Rec	MSD RPD	QC Limit
-------	--------------------------	--------------------	-------	------------	-------------

Mercury	0.031	0.43	0.472	84.5	17.7	20
---------	-------	------	-------	------	------	----

Associated samples MP5928: D28212-1, D28212-2, D28212-3

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D28212
 Account: KRWCCOL - KRW Consulting, Inc.
 Project: FRU-297-17A

QC Batch ID: MP5928
 Matrix Type: SOLID

Methods: SW846 7471A
 Units: mg/kg

Prep Date: 10/04/11

Metal	BSP Result	Spikelot HGWSR1	% Rec	QC Limits
Mercury	0.36	0.4	90.0	80-120

Associated samples MP5928: D28212-1, D28212-2, D28212-3

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D28212
Account: KRWCCOL - KRW Consulting, Inc.
Project: FRU-297-17A

QC Batch ID: MP5929
Matrix Type: AQUEOUS

Methods: SW846 6010B, USDA HANDBOOK 60
Units: ug/l

Prep Date: 10/04/11

Metal	RL	IDL	MDL	MB raw	final
Aluminum	500	30	30		
Antimony	150	16	16		
Arsenic	130	30	30		
Barium	50	5.5	5.5		
Beryllium	50	2.2	2.5		
Boron	250	24	24		
Cadmium	50	1.4	1.4		
Calcium	2000	48	75	20.5	<2000
Chromium	50	.9	4		
Cobalt	25	1.8	1.8		
Copper	50	4.3	14		
Iron	350	17	65		
Lead	250	8	11		
Lithium	10	1.4	6		
Magnesium	1000	29	50	-7.5	<1000
Manganese	25	.27	1.6		
Molybdenum	50	2.3	4.4		
Nickel	150	2.2	5		
Phosphorus	500	55	100		
Potassium	5000	280	280		
Selenium	250	19	19		
Silicon	250	19	19		
Silver	150	.9	1.6		
Sodium	2000	570	570	-66	<2000
Strontium	25		1.3		
Thallium	50	15	15		
Tin	250	28	50		
Titanium	50	.55	1.6		
Uranium	250	7.5	18		
Vanadium	50	.8	1.1		
Zinc	150	1.4	9		

Associated samples MP5929: D28212-1A, D28212-2A, D28212-3A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D28212
Account: KRWCCOL - KRW Consulting, Inc.
Project: FRU-297-17A

QC Batch ID: MP5929
Matrix Type: AQUEOUS

Methods: SW846 6010B, USDA HANDBOOK 60
Units: ug/l

Prep Date:

Metal

(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D28212
 Account: KRWCCOL - KRW Consulting, Inc.
 Project: FRU-297-17A

QC Batch ID: MP5929
 Matrix Type: AQUEOUS

Methods: SW846 6010B, USDA HANDBOOK 60
 Units: ug/l

Prep Date: 10/04/11

Metal	D28212-1A Original MS		SpikeLot MPICPALL % Rec		QC Limits
Aluminum					
Antimony					
Arsenic					
Barium					
Beryllium					
Boron					
Cadmium					
Calcium	19700	157000	125000	109.8	75-125
Chromium					
Cobalt					
Copper					
Iron					
Lead					
Lithium					
Magnesium	1440	130000	125000	102.8	75-125
Manganese					
Molybdenum					
Nickel					
Phosphorus					
Potassium					
Selenium					
Silicon					
Silver					
Sodium	137000	262000	125000	100.0	75-125
Strontium					
Thallium					
Tin					
Titanium					
Uranium					
Vanadium					
Zinc					

Associated samples MP5929: D28212-1A, D28212-2A, D28212-3A

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D28212
Account: KRWCCOL - KRW Consulting, Inc.
Project: FRU-297-17A

QC Batch ID: MP5929
Matrix Type: AQUEOUS

Methods: SW846 6010B, USDA HANDBOOK 60
Units: ug/l

Prep Date:

Metal

(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D28212
Account: KRWCCOL - KRW Consulting, Inc.
Project: FRU-297-17A

QC Batch ID: MP5929
Matrix Type: AQUEOUS

Methods: SW846 6010B, USDA HANDBOOK 60
Units: ug/l

Prep Date: 10/04/11

Metal	D28212-1A Original MSD		Spikelot MPICPAL % Rec		MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic						
Barium						
Beryllium						
Boron						
Cadmium						
Calcium	19700	157000	125000	109.8	0.0	20
Chromium						
Cobalt						
Copper						
Iron						
Lead						
Lithium						
Magnesium	1440	128000	125000	101.2	1.6	20
Manganese						
Molybdenum						
Nickel						
Phosphorus						
Potassium						
Selenium						
Silicon						
Silver						
Sodium	137000	269000	125000	105.6	2.6	20
Strontium						
Thallium						
Tin						
Titanium						
Uranium						
Vanadium						
Zinc						

Associated samples MP5929: D28212-1A, D28212-2A, D28212-3A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D28212
Account: KRWCCOL - KRW Consulting, Inc.
Project: FRU-297-17A

QC Batch ID: MP5929
Matrix Type: AQUEOUS

Methods: SW846 6010B, USDA HANDBOOK 60
Units: ug/l

Prep Date:

Metal

(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D28212
Account: KRWCCOL - KRW Consulting, Inc.
Project: FRU-297-17A

QC Batch ID: MP5929
Matrix Type: AQUEOUS

Methods: SW846 6010B, USDA HANDBOOK 60
Units: ug/l

Prep Date: 10/04/11

Metal	BSP Result	Spikelot MPICPALL	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Boron				
Cadmium				
Calcium	137000	125000	109.6	80-120
Chromium				
Cobalt				
Copper				
Iron				
Lead				
Lithium				
Magnesium	126000	125000	100.8	80-120
Manganese				
Molybdenum				
Nickel				
Phosphorus				
Potassium				
Selenium				
Silicon				
Silver				
Sodium	125000	125000	100.0	80-120
Strontium				
Thallium				
Tin				
Titanium				
Uranium				
Vanadium				
Zinc				

Associated samples MP5929: D28212-1A, D28212-2A, D28212-3A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D28212
Account: KRWCCOL - KRW Consulting, Inc.
Project: FRU-297-17A

QC Batch ID: MP5929
Matrix Type: AQUEOUS

Methods: SW846 6010B, USDA HANDBOOK 60
Units: ug/l

Prep Date:

Metal

(anr) Analyte not requested

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D28212
Account: KRWCCOL - KRW Consulting, Inc.
Project: FRU-297-17A

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Specific Conductivity	GP5637/GN11896			umhos/cm	9980	9940	99.6	90-110%
pH	GN11857			su	8.00	7.96	99.5	99.3-100.7%
pH	GN11858			su	8.00	8.00	100.0	99.3-100.7%

Associated Samples:

Batch GN11857: D28212-1

Batch GN11858: D28212-2, D28212-3

Batch GP5637: D28212-1, D28212-2, D28212-3

(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D28212
Account: KRWCCOL - KRW Consulting, Inc.
Project: FRU-297-17A

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Redox Potential Vs H2	GN11861	D28251-1	mv	385	395	1.3	0-20%

Associated Samples:

Batch GN11861: D28212-1, D28212-2, D28212-3

(*) Outside of QC limits

Misc. Forms

Custody Documents and Other Forms

(Accutest Labs of New England, Inc.)

Includes the following where applicable:

- Chain of Custody

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: D28212

Client: AMS

Immediate Client Services Action Required: No

Date / Time Received: 10/4/2011

Delivery Method:

Client Service Action Required at Login: No

Project:

No. Coolers: 1

Airbill #'s:

Cooler Security

Y or N

Y or N

- | | | | | | |
|---------------------------|-------------------------------------|--------------------------|-----------------------|-------------------------------------|--------------------------|
| 1. Custody Seals Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 3. COC Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Custody Seals Intact: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 4. Smpl Dates/Time OK | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Cooler Temperature

Y or N

- | | | |
|------------------------------|-------------------------------------|--------------------------|
| 1. Temp criteria achieved: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Cooler temp verification: | Infrared gun | |
| 3. Cooler media: | Ice (bag) | |

Quality Control Preservation

Y or N

N/A

- | | | | |
|---------------------------------|-------------------------------------|--------------------------|-------------------------------------|
| 1. Trip Blank present / cooler: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 2. Trip Blank listed on COC: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 3. Samples preserved properly: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 4. VOCs headspace free: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Sample Integrity - Documentation

Y or N

- | | | |
|--|-------------------------------------|--------------------------|
| 1. Sample labels present on bottles: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Container labeling complete: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Sample container label / COC agree: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Sample Integrity - Condition

Y or N

- | | | |
|----------------------------------|-------------------------------------|--------------------------|
| 1. Sample recvd within HT: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. All containers accounted for: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Condition of sample: | Intact | |

Sample Integrity - Instructions

Y or N N/A

- | | | | |
|---|-------------------------------------|-------------------------------------|-------------------------------------|
| 1. Analysis requested is clear: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 2. Bottles received for unspecified tests | <input type="checkbox"/> | <input checked="" type="checkbox"/> | |
| 3. Sufficient volume recvd for analysis: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 4. Compositing instructions clear: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 5. Filtering instructions clear: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Comments

General Chemistry

QC Data Summaries

(Accutest Labs of New England, Inc.)

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D28212
Account: ALMS - Accutest Mountain States
Project: KRWCCOL: FRU-297-17A

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Chromium, Hexavalent	GP13591/GN36384	0.40	0.0	mg/kg	40	40.0	100.0	80-120%
Chromium, Hexavalent	GP13591/GN36384			mg/kg	1170	1150	98.3	80-120%

Associated Samples:

Batch GP13591: D28212-1, D28212-2, D28212-3

(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D28212
Account: ALMS - Accutest Mountain States
Project: KRWCCOL: FRU-297-17A

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Chromium, Hexavalent	GP13591/GN36384	D28126-5	mg/kg	0.28	0.48	52.6(a)	0-20%

Associated Samples:

Batch GP13591: D28212-1, D28212-2, D28212-3

(*) Outside of QC limits

(a) RPD acceptable due to low duplicate and sample concentrations.

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D28212
Account: ALMS - Accutest Mountain States
Project: KRWCCOL: FRU-297-17A

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Chromium, Hexavalent	GP13591/GN36384	D28126-5	mg/kg	0.28	48.3	37.6	77.3	75-125%
Chromium, Hexavalent	GP13591/GN36384	D28126-5	mg/kg	0.28	910	1040	114.2	75-125%

Associated Samples:

Batch GP13591: D28212-1, D28212-2, D28212-3

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

12.3
12