



Technical Report for

KRW Consulting, Inc.

1001-03

Accutest Job Number: D10498

Sampling Date: 01/19/10

Report to:

gknell@krwconsulting.com

ATTN: Distribution1

Total number of pages in report: 53



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.

Client Service contact: 303-425-6021

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

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Test results relate only to samples analyzed.

Gary K. Ward
Laboratory Director



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Sample Summary

KRW Consulting, Inc.

Job No: D10498

1001-03

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
D10498-1	01/19/10	09:30	01/21/10	SO	Soil	PCU 35-2 B1A
D10498-1A	01/19/10	09:30	01/21/10	SO	Soil	PCU 35-2 B1A
D10498-2	01/19/10	10:10	01/21/10	SO	Soil	PCU 35-2 B1B
D10498-2A	01/19/10	10:10	01/21/10	SO	Soil	PCU 35-2 B1B
D10498-3	01/19/10	10:50	01/21/10	SO	Soil	PCU 35-2 B2A
D10498-3A	01/19/10	10:50	01/21/10	SO	Soil	PCU 35-2 B2A
D10498-4	01/19/10	13:50	01/21/10	SO	Soil	PCU 35-2 B2B
D10498-4A	01/19/10	13:50	01/21/10	SO	Soil	PCU 35-2 B2B
D10498-5	01/19/10	14:45	01/21/10	SO	Soil	PCU 35-2 B3A
D10498-5A	01/19/10	14:45	01/21/10	SO	Soil	PCU 35-2 B3A
D10498-6	01/19/10	15:20	01/21/10	SO	Soil	PCU 35-2 B3B
D10498-6A	01/19/10	15:20	01/21/10	SO	Soil	PCU 35-2 B3B
D10498-7	01/19/10	09:40	01/21/10	SO	Soil	PCU 35-2 RP

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



Sample Summary

(continued)

KRW Consulting, Inc.

Job No: D10498

1001-03

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
D10498-7A	01/19/10	09:40	01/21/10	SO	Soil	PCU 35-2 RP
D10498-8	01/19/10	11:15	01/21/10	SO	Soil	PCU 35-2 FWP
D10498-8A	01/19/10	11:15	01/21/10	SO	Soil	PCU 35-2 FWP
D10498-9	01/19/10	12:45	01/21/10	SO	Soil	PCU 35-2 CTS
D10498-9A	01/19/10	12:45	01/21/10	SO	Soil	PCU 35-2 CTS

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

CASE NARRATIVE / CONFORMANCE SUMMARY

Client: KRW Consulting, Inc.

Job No D10498

Site: 1001-03

Report Dat 2/17/2010 1:00:00 PM

On 01/21/2010, 9 Samples were received at Accutest Laboratories at a temperature of 4°C. The samples were intact and properly preserved, unless noted below. The Accutest Job Number of D10498 was assigned to the project. The laboratory sample IDs, client sample IDs, and dates of sample collection are detailed in the report's Results Summary Section.

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.

Extractables by GCMS By Method SW846 8270C

Matrix SO	Batch ID: OP1332
------------------	-------------------------

- All samples were extracted 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.
- Samples D10497-7AMS and D10497-7AMSD were used as the QC samples indicated.
- Samples D10498-8A, OP1332-MS, OP1332-MSD, and D10498-7A have surrogates outside control limits. Probable cause due to matrix interference.
- D10498-7A: Analyzed at a dilution due to matrix interference.
- D10498-7A: Confirmation run.
- D10498-7A for Nitrobenzene-d5: Outside control limits due to dilution.
- D10498-7A for 2-Fluorobiphenyl: Outside control limits due to dilution.
- D10498-7A for Terphenyl-d14: Outside control limits due to dilution.
- D10498-8A for Nitrobenzene-d5: Outside control limits due to dilution.

Volatiles by GC By Method SW846 8015B

Matrix SO	Batch ID: GGA250
------------------	-------------------------

- All samples were analyzed within the recommended method holding time.
- Samples D10522-4MS and D10522-4MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Samples D10498-7A, D10498-7AMS, D10498-7AMSD, and D10498-8A have surrogates outside control limits. Probable cause due to matrix interference.

Matrix SO	Batch ID: GGA251
------------------	-------------------------

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Samples D10498-7AMSD, D10498-7AMS, and D10498-7AMSD were used as the QC samples indicated.
- The matrix spike and duplicate recoveries for TPH-GRO (C6-C10) are outside control limits. Outside control limits due to high level in sample relative to spike amount.
- Samples D10498-7A, D10498-7AMS, D10498-7AMSD, and D10498-8A have surrogates outside control limits. Probable cause due to matrix interference.
- D10498-7A, D10498-7AMS, and D10498-7AMSD for 1,2,4 Trichlorobenzene: Outside control limits due to matrix interference.
- D10498-8A for 1,2,4 Trichlorobenzene: Outside control limits due to matrix interference.

Volatiles by GC By Method SW846 8021B

Matrix SO**Batch ID:** GTA250

- All samples were analyzed within the recommended method holding time.
- Samples D10522-4MS and D10522-4MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Samples D10498-7A, D10498-8A, D10498-7A, D10498-7AMS, D10498-7AMSD, D10523-1MS, and D10523-1MSD have surrogates outside control limits. Probable cause due to matrix interference.

Matrix SO**Batch ID:** GTA251

- All samples were analyzed within the recommended method holding time.
- Samples D10498-7AMS, D10498-7AMSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- the matrix spike recoveries for Benzene, Ethylbenzene, o-Xylene, and Toluene are outside control limits. Outside control limits due to matrix interference.
- The matrix spike recovery for m,p-Xylene are outside control limits. Outside control limits due to high level in sample relative to spike amount.
- the matrix spike duplicate RPD(s) for Benzene, Ethylbenzene, o-Xylene, and Toluene are outside control limits for sample D10498-7AMSD. Probable cause due to sample homogeneity.
- Samples D10498-7A, D10498-8A, D10498-7A, D10498-7AMS, D10498-7AMSD, D10523-1MS, and D10523-1MSD have surrogates outside control limits. Probable cause due to matrix interference.
- D10498-7AMSD for Benzene, Ethylbenzene, o-Xylene, 1,2,4-Trichlorobenzene, and Toluene: Outside control limits due to matrix interference.
- D10498-7AMS for 1,2,4-Trichlorobenzene: Outside control limits due to matrix interference.

Matrix SO**Batch ID:** GTA253

- All samples were analyzed within the recommended method holding time.
- Samples D10523-1MS and D10523-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Samples D10498-7A, D10498-8A, D10498-7A, D10498-7AMS, D10498-7AMSD, D10523-1MS, and D10523-1MSD have surrogates outside control limits. Probable cause due to matrix interference.
- D10498-7A, D10523-1MS, and D10523-1MSD for 1,2,4-Trichlorobenzene: Outside control limits due to matrix interference.

Extractables by GC By Method SW846-8015B

Matrix SO**Batch ID:** OP1330

- All samples were extracted 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.
- Samples D10496-7AMS and D10496-7AMSD were used as the QC samples indicated.
- Samples D10498-7A and D10498-8A have surrogates outside control limits. Probable cause due to matrix interference.
- D10498-8A for t-Butylbenzene: Outside control limits due to matrix interference.
- D10498-7A for t-Butylbenzene: Outside control limits due to matrix interference.

Metals By Method SW846 6010B

Matrix AQ**Batch ID:** MP1188

- All samples were digested 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.

Matrix SO**Batch ID:** MP1186

- All samples were digested 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.
- Samples D10503-1MS, D10503-1MSD, and D10503-1SDL were used as the QC samples for metals.
- The matrix spike recovery for Silver is outside control limits. The spike recovery indicates possible matrix interference.
- The matrix spike duplicate recovery for Selenium is outside control limits. Probable cause due to matrix interference.
- Serial Dilution RPDs for Copper, Selenium, Silver, and Barium are outside control limits for sample MP1186-SD1. The percent difference is acceptable due to low initial sample concentration (< 50 times IDL).
- MP1186-SD1 for Barium: Serial dilution indicates possible matrix interference.

Matrix SO**Batch ID:** MP1258

- All samples were digested 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.
- Samples D10498-9AMS, D10498-9AMSD, D10498-9APS, and D10498-9ASDL were used as the QC samples for metals.
- The matrix spike and duplicate recoveries for Zinc and Nickel are outside control limits. The spike recovery indicates possible matrix interference and/or sample nonhomogeneity.
- The serial dilution RPDs for Lead, Nickel, Cadmium, and Zinc are outside control limits for sample MP1258-SD1. The percent difference is acceptable due to low initial sample concentration (< 50 times IDL).
- MP1258-SD1 for Zinc: Serial dilution indicates possible matrix interference.
- MP1258-S1 for Nickel: Spike recovery indicates possible matrix interference.

Metals By Method SW846 6020

Matrix SO**Batch ID:** MP1187

- All samples were digested 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.
- Samples D10503-1DUP, D10503-1MS, D10503-1MSD, and D10503-1SDL were used as the QC samples for metals.

Metals By Method SW846 7471A

Matrix SO**Batch ID:** MP1196

- All samples were digested 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.
- Samples D10496-7AMS and D10496-7AMSD were used as the QC samples for metals.
- The matrix spike duplicate recovery for Mercury are outside control limits. Probable cause due to matrix interference.

Wet Chemistry By Method ASTM E1498-76M

Matrix SO	Batch ID: M:GN30950
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- The data for ASTM E1498-76M meets quality control requirements.
- The following samples were run outside of holding time for method ASTM E1498-76M: D10498-7A, D10498-8A, and D10498-9A
- D10498-7A, D10498-8A, and D10498-9A for Redox Potential Vs H2: Analysis performed at Accutest Laboratories, Marlborough, MA.

Wet Chemistry By Method LADNR29B

Matrix SO	Batch ID: R1155
------------------	------------------------

- The data for LADNR29B meets quality control requirements.
- D10498-1 through D10498-6, and D10498-9 for Sodium Adsorption Ratio: Calculated as: $(\text{Na meq/L}) / \sqrt{[(\text{Ca meq/L}) + (\text{Mg meq/L})/2]}$

Wet Chemistry By Method SM19 2540B M

Matrix SO	Batch ID: GN2953
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- The data for SM19 2540B M meets quality control requirements.

Wet Chemistry By Method SW846 3060/7196A M

Matrix SO	Batch ID: R1107
------------------	------------------------

- The data for SW846 3060/7196A M meets quality control requirements.
- D10498-7A through D10498-9 for Chromium, Trivalent: Calculated as: $(\text{Chromium}) - (\text{Chromium, Hexavalent})$

Wet Chemistry By Method SW846 3060A/7196A

Matrix SO	Batch ID: M:GP11222
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- D10498-7A, D10498-8A and D10498-9A for Chromium, Hexavalent: Analysis performed at Accutest Laboratories, Marlborough, MA.

Wet Chemistry By Method SW846 9045C

Matrix SO	Batch ID: GN2960
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- The following samples were run outside of holding time for method SW846 9045C: D10498-1, D10498-2, D10498-3, D10498-4, D10498-5, D10498-6, D10498-7, and D10498-8

Matrix SO	Batch ID: GN2962
------------------	-------------------------

- The following samples were run outside of holding time for method SW846 9045C: D10498-9

Accutest certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting Accutest'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.

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

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Accutest Mountain States

Job No D10498

Site: KRWCCOL: 1001-03

Report Date 1/29/2010 12:03:12 PM

3 Sample(s) were collected on 01/19/2010 and were received at Accutest on 01/21/2010 properly preserved, at 2.3 Deg. C and intact. These Samples received an Accutest job number of D10498. 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 ASTM E1498-76M

Matrix SO

Batch ID: GN30950

- Sample(s) M88649-1RDUP were used as the QC samples for Redox Potential Vs H2.

Wet Chemistry By Method SW846 3060A/7196A

Matrix SO

Batch ID: GP11222

- 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) M88649-1RDUP, M88649-1RMS were used as the QC samples for Chromium, Hexavalent.

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(D10498).



Sample Results

Report of Analysis

Report of Analysis

Client Sample ID: PCU 35-2 B1A	Date Sampled: 01/19/10
Lab Sample ID: D10498-1	Date Received: 01/21/10
Matrix: SO - Soil	Percent Solids: n/a
Project: 1001-03	

SAR Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	23.1	2.0	mg/l	1	02/01/10	02/03/10 JM	SW846 6010B ¹	SW846 3005A ³
Magnesium	5.33	1.0	mg/l	1	02/01/10	02/03/10 JM	SW846 6010B ¹	SW846 3005A ³
Sodium	148	2.0	mg/l	1	02/01/10	02/05/10 JM	SW846 6010B ²	SW846 3005A ³

- (1) Instrument QC Batch: MA370
- (2) Instrument QC Batch: MA381
- (3) Prep QC Batch: MP1188

RL = Reporting Limit

Report of Analysis

Client Sample ID: PCU 35-2 B1A	Date Sampled: 01/19/10
Lab Sample ID: D10498-1	Date Received: 01/21/10
Matrix: SO - Soil	Percent Solids: n/a
Project: 1001-03	

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Sodium Adsorption Ratio ^a	7.21		ratio	1	02/05/10 15:10	JM	LADNR29B
Specific Conductivity	745	1.0	umhos/cm	1	02/01/10	JK	DEPT.OF AG, BOOK N9
pH	9.46		su	1	01/21/10 13:30	JK	SW846 9045C

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

RL = Reporting Limit

Report of Analysis

Client Sample ID: PCU 35-2 B1A	Date Sampled: 01/19/10
Lab Sample ID: D10498-1A	Date Received: 01/21/10
Matrix: SO - Soil	Percent Solids: 84.2
Project: 1001-03	

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	8.2	0.37	mg/kg	1	02/01/10	02/02/10 SES	SW846 6020 ¹	SW846 3050B ²

(1) Instrument QC Batch: MA367

(2) Prep QC Batch: MP1187

RL = Reporting Limit

Report of Analysis

Client Sample ID: PCU 35-2 B1B Lab Sample ID: D10498-2 Matrix: SO - Soil Project: 1001-03	Date Sampled: 01/19/10 Date Received: 01/21/10 Percent Solids: n/a
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SAR Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	40.0	2.0	mg/l	1	02/01/10 02/03/10	JM	SW846 6010B ¹	SW846 3005A ³
Magnesium	4.96	1.0	mg/l	1	02/01/10 02/03/10	JM	SW846 6010B ¹	SW846 3005A ³
Sodium	12.3	2.0	mg/l	1	02/01/10 02/05/10	JM	SW846 6010B ²	SW846 3005A ³

- (1) Instrument QC Batch: MA370
- (2) Instrument QC Batch: MA381
- (3) Prep QC Batch: MP1188

RL = Reporting Limit

Report of Analysis

Client Sample ID: PCU 35-2 B1B	Date Sampled: 01/19/10
Lab Sample ID: D10498-2	Date Received: 01/21/10
Matrix: SO - Soil	Percent Solids: n/a
Project: 1001-03	

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Sodium Adsorption Ratio ^a	0.488		ratio	1	02/05/10 15:16	JM	LADNR29B
Specific Conductivity	276	1.0	umhos/cm	1	02/01/10	JK	DEPT.OF AG, BOOK N9
pH	9.27		su	1	01/21/10 13:30	JK	SW846 9045C

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

RL = Reporting Limit

Report of Analysis

Client Sample ID: PCU 35-2 B1B	Date Sampled: 01/19/10
Lab Sample ID: D10498-2A	Date Received: 01/21/10
Matrix: SO - Soil	Percent Solids: 86.0
Project: 1001-03	

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	9.6	0.35	mg/kg	1	02/01/10	02/02/10 SES	SW846 6020 ¹	SW846 3050B ²

(1) Instrument QC Batch: MA367

(2) Prep QC Batch: MP1187

RL = Reporting Limit

Report of Analysis

3.5
3

Client Sample ID: PCU 35-2 B2A Lab Sample ID: D10498-3 Matrix: SO - Soil Project: 1001-03	Date Sampled: 01/19/10 Date Received: 01/21/10 Percent Solids: n/a
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SAR Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	43.9	2.0	mg/l	1	02/01/10 02/03/10	JM	SW846 6010B ¹	SW846 3005A ³
Magnesium	7.34	1.0	mg/l	1	02/01/10 02/03/10	JM	SW846 6010B ¹	SW846 3005A ³
Sodium	21.1	2.0	mg/l	1	02/01/10 02/05/10	JM	SW846 6010B ²	SW846 3005A ³

- (1) Instrument QC Batch: MA370
- (2) Instrument QC Batch: MA381
- (3) Prep QC Batch: MP1188

RL = Reporting Limit

Report of Analysis

Client Sample ID: PCU 35-2 B2A	Date Sampled: 01/19/10
Lab Sample ID: D10498-3	Date Received: 01/21/10
Matrix: SO - Soil	Percent Solids: n/a
Project: 1001-03	

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Sodium Adsorption Ratio ^a	0.776		ratio	1	02/05/10 15:22	JM	LADNR29B
Specific Conductivity	345	1.0	umhos/cm	1	02/01/10	JK	DEPT.OF AG, BOOK N9
pH	9.04		su	1	01/21/10 13:30	JK	SW846 9045C

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

RL = Reporting Limit

Report of Analysis

Client Sample ID: PCU 35-2 B2A	Date Sampled: 01/19/10
Lab Sample ID: D10498-3A	Date Received: 01/21/10
Matrix: SO - Soil	Percent Solids: 88.5
Project: 1001-03	

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	5.1	0.33	mg/kg	1	02/01/10	02/02/10 SES	SW846 6020 ¹	SW846 3050B ²

(1) Instrument QC Batch: MA367

(2) Prep QC Batch: MP1187

RL = Reporting Limit

Report of Analysis

Client Sample ID: PCU 35-2 B2B	Date Sampled: 01/19/10
Lab Sample ID: D10498-4	Date Received: 01/21/10
Matrix: SO - Soil	Percent Solids: n/a
Project: 1001-03	

SAR Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	13.9	2.0	mg/l	1	02/01/10 02/03/10	JM	SW846 6010B ¹	SW846 3005A ³
Magnesium	7.07	1.0	mg/l	1	02/01/10 02/03/10	JM	SW846 6010B ¹	SW846 3005A ³
Sodium	62.9	2.0	mg/l	1	02/01/10 02/05/10	JM	SW846 6010B ²	SW846 3005A ³

- (1) Instrument QC Batch: MA370
- (2) Instrument QC Batch: MA381
- (3) Prep QC Batch: MP1188

RL = Reporting Limit

Report of Analysis

Client Sample ID: PCU 35-2 B2B	Date Sampled: 01/19/10
Lab Sample ID: D10498-4	Date Received: 01/21/10
Matrix: SO - Soil	Percent Solids: n/a
Project: 1001-03	

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Sodium Adsorption Ratio ^a	3.43		ratio	1	02/05/10 15:40	JM	LADNR29B
Specific Conductivity	386	1.0	umhos/cm	1	02/01/10	JK	DEPT.OF AG, BOOK N9
pH	9.44		su	1	01/21/10 13:30	JK	SW846 9045C

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

RL = Reporting Limit

Report of Analysis

Client Sample ID: PCU 35-2 B2B	Date Sampled: 01/19/10
Lab Sample ID: D10498-4A	Date Received: 01/21/10
Matrix: SO - Soil	Percent Solids: 84.2
Project: 1001-03	

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	12.2	0.36	mg/kg	1	02/01/10	02/02/10 SES	SW846 6020 ¹	SW846 3050B ²

(1) Instrument QC Batch: MA367

(2) Prep QC Batch: MP1187

RL = Reporting Limit

Report of Analysis

3.9
3

Client Sample ID: PCU 35-2 B3A Lab Sample ID: D10498-5 Matrix: SO - Soil Project: 1001-03	Date Sampled: 01/19/10 Date Received: 01/21/10 Percent Solids: n/a
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SAR Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	8.28	2.0	mg/l	1	02/01/10	02/03/10 JM	SW846 6010B ¹	SW846 3005A ³
Magnesium	3.52	1.0	mg/l	1	02/01/10	02/03/10 JM	SW846 6010B ¹	SW846 3005A ³
Sodium	126	2.0	mg/l	1	02/01/10	02/05/10 JM	SW846 6010B ²	SW846 3005A ³

- (1) Instrument QC Batch: MA370
- (2) Instrument QC Batch: MA381
- (3) Prep QC Batch: MP1188

RL = Reporting Limit

Report of Analysis

Client Sample ID: PCU 35-2 B3A	Date Sampled: 01/19/10
Lab Sample ID: D10498-5	Date Received: 01/21/10
Matrix: SO - Soil	Percent Solids: n/a
Project: 1001-03	

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Sodium Adsorption Ratio ^a	9.24		ratio	1	02/05/10 15:46	JM	LADNR29B
Specific Conductivity	631	1.0	umhos/cm	1	02/01/10	JK	DEPT.OF AG, BOOK N9
pH	9.82		su	1	01/21/10 13:30	JK	SW846 9045C

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

RL = Reporting Limit

Report of Analysis

Client Sample ID: PCU 35-2 B3A	Date Sampled: 01/19/10
Lab Sample ID: D10498-5A	Date Received: 01/21/10
Matrix: SO - Soil	Percent Solids: 85.3
Project: 1001-03	

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	3.2	0.37	mg/kg	1	02/01/10	02/02/10 SES	SW846 6020 ¹	SW846 3050B ²

(1) Instrument QC Batch: MA367

(2) Prep QC Batch: MP1187

RL = Reporting Limit

Report of Analysis

Client Sample ID: PCU 35-2 B3B	Date Sampled: 01/19/10
Lab Sample ID: D10498-6	Date Received: 01/21/10
Matrix: SO - Soil	Percent Solids: n/a
Project: 1001-03	

SAR Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	8.10	2.0	mg/l	1	02/01/10	02/03/10 JM	SW846 6010B ¹	SW846 3005A ³
Magnesium	2.98	1.0	mg/l	1	02/01/10	02/03/10 JM	SW846 6010B ¹	SW846 3005A ³
Sodium	161	2.0	mg/l	1	02/01/10	02/05/10 JM	SW846 6010B ²	SW846 3005A ³

- (1) Instrument QC Batch: MA370
- (2) Instrument QC Batch: MA381
- (3) Prep QC Batch: MP1188

RL = Reporting Limit

Report of Analysis

Client Sample ID: PCU 35-2 B3B	Date Sampled: 01/19/10
Lab Sample ID: D10498-6	Date Received: 01/21/10
Matrix: SO - Soil	Percent Solids: n/a
Project: 1001-03	

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Sodium Adsorption Ratio ^a	12.3		ratio	1	02/05/10 15:52	JM	LADNR29B
Specific Conductivity	838	1.0	umhos/cm	1	02/01/10	JK	DEPT.OF AG, BOOK N9
pH	9.83		su	1	01/21/10 13:30	JK	SW846 9045C

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

RL = Reporting Limit

Report of Analysis

Client Sample ID: PCU 35-2 B3B	Date Sampled: 01/19/10
Lab Sample ID: D10498-6A	Date Received: 01/21/10
Matrix: SO - Soil	Percent Solids: 85.0
Project: 1001-03	

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	3.2	0.38	mg/kg	1	02/01/10	02/02/10 SES	SW846 6020 ¹	SW846 3050B ²

(1) Instrument QC Batch: MA367

(2) Prep QC Batch: MP1187

RL = Reporting Limit

Report of Analysis

Client Sample ID: PCU 35-2 RP	Date Sampled: 01/19/10
Lab Sample ID: D10498-7	Date Received: 01/21/10
Matrix: SO - Soil	Percent Solids: n/a
Project: 1001-03	

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
pH	7.34		su	1	01/21/10 13:30	JK	SW846 9045C

RL = Reporting Limit

Report of Analysis

Client Sample ID:	PCU 35-2 RP	Date Sampled:	01/19/10
Lab Sample ID:	D10498-7A	Date Received:	01/21/10
Matrix:	SO - Soil	Percent Solids:	53.2
Method:	SW846 8270C SW846 3540C		
Project:	1001-03		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	1G05467.D	20	02/02/10	TMB	01/25/10	OP1332	E1G165
Run #2 ^b	1G05452.D	5	02/02/10	TMB	01/25/10	OP1332	E1G164

	Initial Weight	Final Volume
Run #1	30.0 g	25.0 ml
Run #2	30.0 g	25.0 ml

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	34000	27000	ug/kg	
208-96-8	Acenaphthylene	ND	34000	31000	ug/kg	
120-12-7	Anthracene	ND	34000	23000	ug/kg	
56-55-3	Benzo(a)anthracene	ND	34000	27000	ug/kg	
50-32-8	Benzo(a)pyrene	ND	34000	23000	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	38000	34000	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	34000	23000	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	44000	38000	ug/kg	
218-01-9	Chrysene	ND	44000	38000	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	38000	28000	ug/kg	
206-44-0	Fluoranthene	ND	66000	34000	ug/kg	
86-73-7	Fluorene	231000	38000	31000	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	34000	25000	ug/kg	
90-12-0	1-Methylnaphthalene	576000	44000	34000	ug/kg	
91-57-6	2-Methylnaphthalene	2220000	34000	26000	ug/kg	
91-20-3	Naphthalene	579000	66000	31000	ug/kg	
85-01-8	Phenanthrene	135000	66000	34000	ug/kg	
129-00-0	Pyrene	ND	38000	34000	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	1370% ^c	10133% ^c	33-130%
321-60-8	2-Fluorobiphenyl	171% ^c	137% ^c	37-130%
1718-51-0	Terphenyl-d14	0% ^c	166% ^c	48-130%

(a) Analyzed at a dilution due to matrix interference.

(b) Confirmation run.

(c) Outside control limits due to dilution.

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: PCU 35-2 RP	
Lab Sample ID: D10498-7A	Date Sampled: 01/19/10
Matrix: SO - Soil	Date Received: 01/21/10
Method: SW846 8015B	Percent Solids: 53.2
Project: 1001-03	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GA4618.D	1	01/28/10	SD	n/a	n/a	GGA251
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.0 g	10.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	3470	46	46	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	1713% ^a		60-140%		

(a) Outside control limits due to matrix interference.

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:	PCU 35-2 RP	Date Sampled:	01/19/10
Lab Sample ID:	D10498-7A	Date Received:	01/21/10
Matrix:	SO - Soil	Percent Solids:	53.2
Method:	SW846 8021B		
Project:	1001-03		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TA4618.D	1	01/28/10	SD	n/a	n/a	GTA251
Run #2	TA4668.D	1	01/29/10	SD	n/a	n/a	GTA253

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.0 g	10.0 ml	100 ul
Run #2	5.0 g	10.0 ml	10.0 ul

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	831	230	ug/kg	
108-88-3	Toluene	14300	460	ug/kg	
100-41-4	Ethylbenzene	6490	460	ug/kg	
	m,p-Xylene	239000 ^a	4600	ug/kg	
95-47-6	o-Xylene	50700	460	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	1163%	475% ^b	60-140%

(a) Result is from Run# 2

(b) Outside control limits due to matrix interference.

ND = Not detected
 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: PCU 35-2 RP	
Lab Sample ID: D10498-7A	Date Sampled: 01/19/10
Matrix: SO - Soil	Date Received: 01/21/10
Method: SW846-8015B SW846 3550B	Percent Solids: 53.2
Project: 1001-03	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FC1610.D	20	01/23/10	LAC	01/22/10	OP1330	GFC93
Run #2							

	Initial Weight	Final Volume
Run #1	30.0 g	15.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH-DRO (C10-C28)	700000	3800	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
98-06-6	t-Butylbenzene	4568% ^a		39-130%	

(a) Outside control limits due to matrix interference.

ND = Not detected
 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: PCU 35-2 RP	Date Sampled: 01/19/10
Lab Sample ID: D10498-7A	Date Received: 01/21/10
Matrix: SO - Soil	Percent Solids: 53.2
Project: 1001-03	

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	18.6	0.59	mg/kg	1	02/01/10	02/02/10 SES	SW846 6020 ¹	SW846 3050B ⁸
Barium	6490	29	mg/kg	20	02/04/10	02/08/10 JM	SW846 6010B ⁴	SW846 3050B ⁷
Boron	87.7	7.3	mg/kg	1	02/01/10	02/03/10 JM	SW846 6010B ²	SW846 3050B ⁷
Cadmium	< 1.4	1.4	mg/kg	1	02/10/10	02/11/10 JM	SW846 6010B ⁵	SW846 3050B ¹⁰
Chromium	112	1.5	mg/kg	1	02/01/10	02/03/10 JM	SW846 6010B ²	SW846 3050B ⁷
Copper	111	1.4	mg/kg	1	02/01/10	02/03/10 JM	SW846 6010B ²	SW846 3050B ⁷
Lead	21.0	7.0	mg/kg	1	02/10/10	02/11/10 JM	SW846 6010B ⁵	SW846 3050B ¹⁰
Mercury	1.3	0.22	mg/kg	5	02/02/10	02/04/10 CM	SW846 7471A ³	SW846 7471A ⁹
Nickel	41.0	4.2	mg/kg	1	02/10/10	02/11/10 JM	SW846 6010B ⁵	SW846 3050B ¹⁰
Selenium	< 7.3	7.3	mg/kg	1	02/01/10	02/03/10 JM	SW846 6010B ²	SW846 3050B ⁷
Silver	< 4.4	4.4	mg/kg	1	02/01/10	02/03/10 JM	SW846 6010B ²	SW846 3050B ⁷
Zinc	60.0	5.5	mg/kg	1	02/10/10	02/15/10 JM	SW846 6010B ⁶	SW846 3050B ¹⁰

- (1) Instrument QC Batch: MA367
- (2) Instrument QC Batch: MA373
- (3) Instrument QC Batch: MA375
- (4) Instrument QC Batch: MA380
- (5) Instrument QC Batch: MA397
- (6) Instrument QC Batch: MA403
- (7) Prep QC Batch: MP1186
- (8) Prep QC Batch: MP1187
- (9) Prep QC Batch: MP1196
- (10) Prep QC Batch: MP1258

RL = Reporting Limit

Report of Analysis

Client Sample ID: PCU 35-2 RP**Lab Sample ID:** D10498-7A**Matrix:** SO - Soil**Project:** 1001-03**Date Sampled:** 01/19/10**Date Received:** 01/21/10**Percent Solids:** 53.2**General Chemistry**

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chromium, Hexavalent ^a	< 2.1	2.1	mg/kg	1	01/27/10 18:00	AMA	SW846 3060A/7196A
Chromium, Trivalent ^b	111	3.6	mg/kg	1	02/03/10 18:50	JM	SW846 3060/7196A M
Redox Potential Vs H2 ^a	186		mv	1	01/22/10	AMA	ASTM E1498-76M
Solids, Percent	53.2		%	1	01/21/10	SWT	SM19 2540B M

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

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

RL = Reporting Limit

Report of Analysis

Client Sample ID: PCU 35-2 FWP	Date Sampled: 01/19/10
Lab Sample ID: D10498-8	Date Received: 01/21/10
Matrix: SO - Soil	Percent Solids: n/a
Project: 1001-03	

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
pH	6.87		su	1	01/21/10 13:30	JK	SW846 9045C

RL = Reporting Limit

Report of Analysis

Client Sample ID:	PCU 35-2 FWP	Date Sampled:	01/19/10
Lab Sample ID:	D10498-8A	Date Received:	01/21/10
Matrix:	SO - Soil	Percent Solids:	49.0
Method:	SW846 8270C SW846 3540C		
Project:	1001-03		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G05453.D	10	02/02/10	TMB	01/25/10	OP1332	E1G164
Run #2							

Run #	Initial Weight	Final Volume
Run #1	30.0 g	25.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	19000	15000	ug/kg	
208-96-8	Acenaphthylene	ND	19000	17000	ug/kg	
120-12-7	Anthracene	ND	19000	13000	ug/kg	
56-55-3	Benzo(a)anthracene	ND	19000	15000	ug/kg	
50-32-8	Benzo(a)pyrene	ND	19000	13000	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	20000	19000	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	19000	13000	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	24000	20000	ug/kg	
218-01-9	Chrysene	ND	24000	20000	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	20000	15000	ug/kg	
206-44-0	Fluoranthene	ND	36000	19000	ug/kg	
86-73-7	Fluorene	151000	20000	17000	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	19000	14000	ug/kg	
90-12-0	1-Methylnaphthalene	224000	24000	19000	ug/kg	
91-57-6	2-Methylnaphthalene	810000	19000	14000	ug/kg	
91-20-3	Naphthalene	121000	36000	17000	ug/kg	
85-01-8	Phenanthrene	110000	36000	19000	ug/kg	
129-00-0	Pyrene	ND	20000	19000	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	1119% ^a		33-130%
321-60-8	2-Fluorobiphenyl	58%		37-130%
1718-51-0	Terphenyl-d14	83%		48-130%

(a) Outside control limits due to dilution.

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: PCU 35-2 FWP	
Lab Sample ID: D10498-8A	Date Sampled: 01/19/10
Matrix: SO - Soil	Date Received: 01/21/10
Method: SW846 8015B	Percent Solids: 49.0
Project: 1001-03	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GA4620.D	1	01/28/10	SD	n/a	n/a	GGA251
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.0 g	10.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	489	51	51	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	1003% ^a		60-140%		

(a) Outside control limits due to matrix interference.

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: PCU 35-2 FWP	
Lab Sample ID: D10498-8A	Date Sampled: 01/19/10
Matrix: SO - Soil	Date Received: 01/21/10
Method: SW846 8021B	Percent Solids: 49.0
Project: 1001-03	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TA4620.D	1	01/28/10	SD	n/a	n/a	GTA251
Run #2							

Run #	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.0 g	10.0 ml	100 ul
Run #2			

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	742	260	ug/kg	
108-88-3	Toluene	4800	510	ug/kg	
100-41-4	Ethylbenzene	889	510	ug/kg	
	m,p-Xylene	21400	510	ug/kg	
95-47-6	o-Xylene	5180	510	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	1003%		60-140%
120-82-1	1,2,4-Trichlorobenzene	649%		60-140%

ND = Not detected
 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: PCU 35-2 FWP	
Lab Sample ID: D10498-8A	Date Sampled: 01/19/10
Matrix: SO - Soil	Date Received: 01/21/10
Method: SW846-8015B SW846 3550B	Percent Solids: 49.0
Project: 1001-03	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FC1611.D	20	01/23/10	LAC	01/22/10	OP1330	GFC93
Run #2							

	Initial Weight	Final Volume
Run #1	30.1 g	15.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH-DRO (C10-C28)	675000	4100	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
98-06-6	t-Butylbenzene	747% ^a		39-130%	

(a) Outside control limits due to matrix interference.

ND = Not detected
 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: PCU 35-2 FWP	
Lab Sample ID: D10498-8A	Date Sampled: 01/19/10
Matrix: SO - Soil	Date Received: 01/21/10
	Percent Solids: 49.0
Project: 1001-03	

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	14.4	0.60	mg/kg	1	02/01/10	02/02/10 SES	SW846 6020 ¹	SW846 3050B ⁸
Barium	11600	30	mg/kg	20	02/04/10	02/08/10 JM	SW846 6010B ⁴	SW846 3050B ⁷
Boron	83.6	7.4	mg/kg	1	02/01/10	02/03/10 JM	SW846 6010B ²	SW846 3050B ⁷
Cadmium	< 1.6	1.6	mg/kg	1	02/10/10	02/11/10 JM	SW846 6010B ⁵	SW846 3050B ¹⁰
Chromium	124	1.5	mg/kg	1	02/01/10	02/03/10 JM	SW846 6010B ²	SW846 3050B ⁷
Copper	111	1.4	mg/kg	1	02/01/10	02/03/10 JM	SW846 6010B ²	SW846 3050B ⁷
Lead	29.2	8.0	mg/kg	1	02/10/10	02/11/10 JM	SW846 6010B ⁵	SW846 3050B ¹⁰
Mercury	2.6	0.45	mg/kg	10	02/02/10	02/03/10 CM	SW846 7471A ³	SW846 7471A ⁹
Nickel	44.2	4.8	mg/kg	1	02/10/10	02/11/10 JM	SW846 6010B ⁵	SW846 3050B ¹⁰
Selenium	< 7.4	7.4	mg/kg	1	02/01/10	02/03/10 JM	SW846 6010B ²	SW846 3050B ⁷
Silver	< 4.5	4.5	mg/kg	1	02/01/10	02/03/10 JM	SW846 6010B ²	SW846 3050B ⁷
Zinc	182	4.8	mg/kg	1	02/10/10	02/16/10 JM	SW846 6010B ⁶	SW846 3050B ¹⁰

- (1) Instrument QC Batch: MA367
- (2) Instrument QC Batch: MA373
- (3) Instrument QC Batch: MA374
- (4) Instrument QC Batch: MA380
- (5) Instrument QC Batch: MA397
- (6) Instrument QC Batch: MA406
- (7) Prep QC Batch: MP1186
- (8) Prep QC Batch: MP1187
- (9) Prep QC Batch: MP1196
- (10) Prep QC Batch: MP1258

RL = Reporting Limit

Report of Analysis

Client Sample ID: PCU 35-2 FWP	Date Sampled: 01/19/10
Lab Sample ID: D10498-8A	Date Received: 01/21/10
Matrix: SO - Soil	Percent Solids: 49.0
Project: 1001-03	

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chromium, Hexavalent ^a	< 2.0	2.0	mg/kg	1	01/27/10 18:00	AMA	SW846 3060A/7196A
Chromium, Trivalent ^b	123	3.5	mg/kg	1	02/03/10 18:58	JM	SW846 3060/7196A M
Redox Potential Vs H2 ^a	175		mv	1	01/22/10	AMA	ASTM E1498-76M
Solids, Percent	49		%	1	01/21/10	SWT	SM19 2540B M

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

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

RL = Reporting Limit

Report of Analysis

Client Sample ID: PCU 35-2 CTS	Date Sampled: 01/19/10
Lab Sample ID: D10498-9	Date Received: 01/21/10
Matrix: SO - Soil	Percent Solids: n/a
Project: 1001-03	

SAR Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	149	2.0	mg/l	1	02/01/10 02/03/10	JM	SW846 6010B ¹	SW846 3005A ³
Magnesium	1.48	1.0	mg/l	1	02/01/10 02/03/10	JM	SW846 6010B ¹	SW846 3005A ³
Sodium	1030	2.0	mg/l	1	02/01/10 02/05/10	JM	SW846 6010B ²	SW846 3005A ³

- (1) Instrument QC Batch: MA370
- (2) Instrument QC Batch: MA381
- (3) Prep QC Batch: MP1188

RL = Reporting Limit

Report of Analysis

Client Sample ID: PCU 35-2 CTS	Date Sampled: 01/19/10
Lab Sample ID: D10498-9	Date Received: 01/21/10
Matrix: SO - Soil	Percent Solids: n/a
Project: 1001-03	

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Sodium Adsorption Ratio ^a	23.0		ratio	1	02/05/10 15:58	JM	LADNR29B
Specific Conductivity	5450	1.0	umhos/cm	1	02/01/10	JK	DEPT.OF AG, BOOK N9
pH	10.83		su	1	01/21/10 13:30	JK	SW846 9045C

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

RL = Reporting Limit

Report of Analysis

Client Sample ID: PCU 35-2 CTS	
Lab Sample ID: D10498-9A	Date Sampled: 01/19/10
Matrix: SO - Soil	Date Received: 01/21/10
Method: SW846 8270C SW846 3540C	Percent Solids: 72.7
Project: 1001-03	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G05454.D	5	02/02/10	TMB	01/25/10	OP1332	E1G164
Run #2							

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

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	250	200	ug/kg	
208-96-8	Acenaphthylene	ND	250	230	ug/kg	
120-12-7	Anthracene	ND	250	170	ug/kg	
56-55-3	Benzo(a)anthracene	ND	250	200	ug/kg	
50-32-8	Benzo(a)pyrene	ND	250	170	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	280	250	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	250	170	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	320	280	ug/kg	
218-01-9	Chrysene	ND	320	280	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	280	210	ug/kg	
206-44-0	Fluoranthene	ND	480	250	ug/kg	
86-73-7	Fluorene	ND	280	230	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	250	190	ug/kg	
90-12-0	1-Methylnaphthalene	ND	320	250	ug/kg	
91-57-6	2-Methylnaphthalene	ND	250	190	ug/kg	
91-20-3	Naphthalene	ND	480	230	ug/kg	
85-01-8	Phenanthrene	ND	480	250	ug/kg	
129-00-0	Pyrene	ND	280	250	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	59%		33-130%
321-60-8	2-Fluorobiphenyl	68%		37-130%
1718-51-0	Terphenyl-d14	94%		48-130%

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: PCU 35-2 CTS	
Lab Sample ID: D10498-9A	Date Sampled: 01/19/10
Matrix: SO - Soil	Date Received: 01/21/10
Method: SW846 8015B	Percent Solids: 72.7
Project: 1001-03	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GA4603.D	1	01/27/10	SD	n/a	n/a	GGA250
Run #2							

	Initial Weight
Run #1	1.0 g
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	1.4	1.4	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	90%		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: PCU 35-2 CTS	
Lab Sample ID: D10498-9A	Date Sampled: 01/19/10
Matrix: SO - Soil	Date Received: 01/21/10
Method: SW846 8021B	Percent Solids: 72.7
Project: 1001-03	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TA4603.D	1	01/27/10	SD	n/a	n/a	GTA250
Run #2							

Run #	Initial Weight
Run #1	1.0 g
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	6.9	ug/kg	
108-88-3	Toluene	ND	14	ug/kg	
100-41-4	Ethylbenzene	ND	14	ug/kg	
	m,p-Xylene	ND	14	ug/kg	
95-47-6	o-Xylene	ND	14	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	91%		60-140%

ND = Not detected
 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: PCU 35-2 CTS	
Lab Sample ID: D10498-9A	Date Sampled: 01/19/10
Matrix: SO - Soil	Date Received: 01/21/10
Method: SW846-8015B SW846 3550B	Percent Solids: 72.7
Project: 1001-03	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FC1612.D	5	01/23/10	LAC	01/22/10	OP1330	GFC93
Run #2							

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

CAS No.	Compound	Result	RL	Units	Q
	TPH-DRO (C10-C28)	223	92	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
98-06-6	t-Butylbenzene	55%		39-130%	

ND = Not detected
 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: PCU 35-2 CTS	Date Sampled: 01/19/10
Lab Sample ID: D10498-9A	Date Received: 01/21/10
Matrix: SO - Soil	Percent Solids: 72.7
Project: 1001-03	

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	5.3	0.41	mg/kg	1	02/01/10	02/03/10 SES	SW846 6020 ¹	SW846 3050B ⁷
Barium	333	1.0	mg/kg	1	02/01/10	02/03/10 JM	SW846 6010B ²	SW846 3050B ⁶
Boron	18.6	5.1	mg/kg	1	02/01/10	02/03/10 JM	SW846 6010B ²	SW846 3050B ⁶
Cadmium	1.7	1.1	mg/kg	1	02/10/10	02/11/10 JM	SW846 6010B ⁴	SW846 3050B ⁹
Chromium	30.6	1.0	mg/kg	1	02/01/10	02/03/10 JM	SW846 6010B ²	SW846 3050B ⁶
Copper	16.1	1.0	mg/kg	1	02/01/10	02/03/10 JM	SW846 6010B ²	SW846 3050B ⁶
Lead	25.9	5.6	mg/kg	1	02/10/10	02/11/10 JM	SW846 6010B ⁴	SW846 3050B ⁹
Mercury	< 0.12	0.12	mg/kg	1	02/02/10	02/03/10 CM	SW846 7471A ³	SW846 7471A ⁸
Nickel	13.6	3.4	mg/kg	1	02/10/10	02/11/10 JM	SW846 6010B ⁴	SW846 3050B ⁹
Selenium	5.9	5.1	mg/kg	1	02/01/10	02/03/10 JM	SW846 6010B ²	SW846 3050B ⁶
Silver	< 3.1	3.1	mg/kg	1	02/01/10	02/03/10 JM	SW846 6010B ²	SW846 3050B ⁶
Zinc	40.7	4.4	mg/kg	1	02/10/10	02/15/10 JM	SW846 6010B ⁵	SW846 3050B ⁹

- (1) Instrument QC Batch: MA372
- (2) Instrument QC Batch: MA373
- (3) Instrument QC Batch: MA374
- (4) Instrument QC Batch: MA397
- (5) Instrument QC Batch: MA403
- (6) Prep QC Batch: MP1186
- (7) Prep QC Batch: MP1187
- (8) Prep QC Batch: MP1196
- (9) Prep QC Batch: MP1258

RL = Reporting Limit

Report of Analysis

Client Sample ID: PCU 35-2 CTS	
Lab Sample ID: D10498-9A	Date Sampled: 01/19/10
Matrix: SO - Soil	Date Received: 01/21/10
	Percent Solids: 72.7
Project: 1001-03	

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chromium, Hexavalent ^a	< 2.7	2.7	mg/kg	1	01/27/10 18:00	AMA	SW846 3060A/7196A
Chromium, Trivalent ^b	29.0	3.7	mg/kg	1	02/03/10 19:23	JM	SW846 3060/7196A M
Redox Potential Vs H2 ^a	273		mv	1	01/22/10	AMA	ASTM E1498-76M
Solids, Percent	72.7		%	1	01/21/10	SWT	SM19 2540B M

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

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

RL = Reporting Limit



Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Chain of Custody (Accutest Labs of New England, Inc.)



CHAIN OF CUSTODY

4036 Youngfield St., Wheat Ridge, CO 80033
 303-425-6021 FAX: 303-425-6854

Accutest Job #:	D10498
Accutest Quote #:	
AMS P.O. #:	
Project No.:	1001-03

Client Information			Subcontract Laboratory Information						Analytical Information					Comments		
Name			Name						Hexavalent Chromium							
Accutest Mountain States (AMS)			Accutest - New England													
Address			Address													
4036 Youngfield St.			495 Technology Center West, BLDG O													
City	State	Zip	City	State	Zip											
Wheat Ridge,	CO	80033	Marlborough	MA	01752											
Send Report to:			Contact:													
Carl Smits			Sample Management													
Any questions contact:			Phone:													
Andrea Engelbrecht			(508) 481-6200													
Phone/Fax #:			Collection						Preservation							
(303) 425-6021; (303) 425-6854																
Field ID / Point of Collection	Date	Time	Matrix	# of bottles	HCL	NaOH	HNO3	H2SO4	None	Hexavalent Chromium					Comments	
D10498 -7	1/19/10	9:40 AM	Soil							X						
-8	1/19/10	11:15 AM	Soil							X						
-9	1/19/10	12:45 PM	Soil							X						
-																
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Turnaround Information			Data Deliverable Information						Comments / Remarks							
<input checked="" type="checkbox"/> 10 Business Day Standard <input type="checkbox"/> Other _____ (Days)			Approved By: _____			<input type="checkbox"/> Commercial "A" <input checked="" type="checkbox"/> Commercial "B" <input type="checkbox"/> Reduced Tier 1 <input type="checkbox"/> Full Tier 1 <input type="checkbox"/> Other (Specify) _____			<input type="checkbox"/> PDF <input type="checkbox"/> Compact Disk Deliverable <input type="checkbox"/> Electronic Delivery: _____ <input type="checkbox"/> State Forms			Please use Colorado regulations and RLs. 12F				
10 Day Turnaround Hardcopy, RUSH is FAX Data unless previously approved.																
Sample Custody must be documented below each time samples change possession, including courier delivery.										For Subcontract Laboratory Use Only						
Relinquished by:	Date & Time:	Received By:	Date & Time:	Seal #:	Headspace:											
1	1/21/10	1 UPS	1		Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>											
Relinquished by:	Date & Time:	Received By:	Date & Time:	Preserved where applicable:												
2	1/22/10 10:15	2	1/22/10 10:15	<input type="checkbox"/>												
Relinquished by:	Date & Time:	Received By:	Date & Time:	Temperature °C	On Ice											
3		3			<input checked="" type="checkbox"/>	2.3										

4.2
4

D10498: Chain of Custody
 Page 1 of 1
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