Geomatrix

# APPENDIX C

## Analytical Results and Data Validation Memorandum

Geomatrix

# Memorandum

| | | | |
|---|---|---|---|
| **TO:** | John Long | **DATE:** | July 11, 2006 |
| **FROM:** | Tasya Gray | **PROJ. NO.:** | 8769 |
| **CC:** | Project File | **PROJ. NAME:** | Former Rhone-Poulenc Site |
| **SUBJECT:** | **Western Parcel Redevelopment Soil Sampling Summary Data Quality Review – SDGs K0604573, K0604574, and K0604601** | | |

This memorandum presents Geomatrix Consultants, Inc. (Geomatrix's), summary data quality review of 61 primary samples and three composite samples (composited by the laboratory from 117 original discrete samples) collected on June 2 and 5, 2006. The samples were submitted to Columbia Analytical Services (CAS), a Washington State Department of Ecology (Ecology)-accredited laboratory, located in Kelso, Washington. The three composite samples were initially analyzed and reported by CAS as sample delivery group (SDG) K0604573. Subsequently, 50 of the original 117 samples submitted to CAS for K0604573 were analyzed and reported by CAS as discrete samples in SDG K0604601. The samples were analyzed for one or more of the following organic and/or inorganic analyses:

- Metals (copper, arsenic, barium, cadmium, chromium, lead, and/or selenium) by EPA Method 6020,
- Mercury by EPA Method 7471A,
- Silver by EPA Method 200.8,
- Flashpoint by Method 1020,
- Total Petroleum Hydrocarbons (TPH) diesel range by Method NWTPH-Dx,
- TPH gasoline range by Method NWTPH-Gx,
- TPH hydrocarbon identification screen (HCID) by Method NWTPH-HCID,
- Semivolatile organic compounds (SVOCs) by EPA Method 8270C.

The analyses were performed in general accordance with methods specified in U.S. Environmental Protection Agency's (EPA) Test Methods for Evaluating Solid Waste (SW-846), January 1995 and associated revisions.

Laboratory SDGs associated with the June 2006 sampling event are listed below:

| Laboratory SDG | Date(s) Collected |
|---|---|
| K0604573 | June 2 and 5, 2006 |
| K0604574 | June 2 and 5, 2006 |
| K0604601 | June 2 and 5, 2006 |

The samples associated with each SDG are tabulated at the end of this memeorandum. Upon receipt by CAS, the sample jar information was compared to the chain-of-custody form. Discrepancies were noted by CAS and addressed with Geomatrix personnel prior to sample analyses. The temperatures of the coolers were recorded as part of the check-in procedure. The temperatures of the coolers were within the acceptable range of 4 +/- 2 °C.

Data review is based on method performance criteria and QC criteria as documented in the Soil Sampling Quality Assurance Project Plan (QAPP), May 2006. The laboratory provided validatable packages containing summarized sample results and associated QA/QC data as well as instrument printouts and sample preparation and injection log pages as required by the QAPP. The data review conducted on these SDGs included a review of summarized results and QA/QC data per the requirements set forth in Section D.1 of the QAPP. The control limits provided in the QAPP are advisory limits; therefore, the most current control limits provided by the laboratory were used to evaluate the quality control data. In cases where the laboratory did not track limits for an analyte, the limits in the QAPP were used. Hold times, calibration verification, method blanks, surrogate recoveries, laboratory control samples (LCS), matrix spike/matrix spike duplicate (MS/MSD) results, laboratory duplicate results, field QC results, and reporting limits were reviewed to assess compliance with applicable methods and the QAPP. If data qualification was required, data were qualified in general accordance with the definitions and use of qualifying flags outlined in the following EPA documents: USEPA Contract Laboratory Program (CLP) National Functional Guidelines for Organic Data Review, October 1999, and USEPA Contract Laboratory Program (CLP) National Functional Guidelines for Inorganic Data Review, October 2004.

The following qualifiers may be added to the data:

- U: The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- J: The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- UJ: The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

- R: The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

**ORGANIC ANALYSES**

Samples were analyzed for TPH diesel and gasoline range, TPH HCID, and SVOCs by the methods identified in the introduction to this report and were evaluated for the following criteria.

1. Holding Times – Acceptable

2. Calibration Verification – Acceptable except as noted:

   SVOCs by EPA Method 8270C: The laboratory noted in the case narrative that the initial calibration verification exceeded the hold time by one day. Since all analytes were within the method specified criteria, the laboratory determined that the calibration was still valid and no associated data were qualified.

3. Blanks – Acceptable except as noted:

   A method blank was prepared with each laboratory sample batch. The laboratory inadvertently did not collect an equipment blank from the grinding equipment as specified in the QAPP.

   TPH diesel range by Method NWTPH-Dx: Residual range organics were detected at a concentration between the MDL and the MRL in the method blank for SDG K0604574, at 4.7 mg/kg. This is considered reportable as non-detect (U) at the MRL.

   TPH gasoline range by Method NWTPH-Gx: Gasoline was detected at a concentration between the MDL and the MRL in the method blank for SDG K0604574, at 4.5 mg/kg. This is considered reportable as non-detect (U) at the MRL.

   SVOCs by EPA Method 8270C: Di-n-butyl phthalate and bis(2-ethylhexyl) phthalate were detected at concentrations between the MDL and the MRL in the method blank for SDG K0604574. These are considered reportable as non-detect (U) at the MRL.

4. Surrogates – Acceptable except as noted:

   TPH diesel range by Method NWTPH-Dx: The o-terphenyl surrogate recovery for NWC-2-36W was 49%, slightly below the 50% control limit. Since all other surrogate recoveries were within control limits, no associated data were qualified.

TPH gasoline range by Method NWTPH-Gx: The 4-bromofluorobenzene surrogate recoveries for samples NWC-2-6W, NWC-2-7W, NWC-2-8W, NWC-2-36W, and NWC-2-42W in SDG K0604574 were all above the control limit. The laboratory reported in the case narrative that these elevated recoveries are due to dilutions required by the analyte concentrations in the sample, which resulted in surrogate concentrations below the calibration range.

TPH HCID by Method NWTPH-HCID: One surrogate recovery was outside the control limits for samples NWC-2-6W, NWC-2-36W, and NWC-2-42W. Since each of these samples was additionally run for full TPH analysis by NWTPH-Dx and NWTPH-Gx and all other surrogates were within control limits, associated results were not qualified.

5. Laboratory Control Samples (LCS or Blank Spike) – Acceptable except as noted:

   The LCS recovery for benzoic acid in SDG K0604574 was 9%, below the 10% control limit, and the associated relative percentage difference (RPD) for the LCS/LCSD was 56%, above the 40% limit. Since benzoic acid is not a required LCS analyte and is used for advisory purposes only, associated results were not qualified. The RPD for the LCS/LCSD was also above the 40% limit for 2,4-dimethylphenol, at 53%. Since neither benzoic acid nor 2,4-dimethylphenol was detected in the associated samples, data were not qualified based on the RPD exceedances.

6. Laboratory Duplicates – Acceptable except as noted:

   A laboratory duplicate was performed on 10% of samples, as specified in the QAPP, with the exception of SVOCs. A LCS duplicate was reported for SVOCs, but not a laboratory project duplicate. The RPDs for all duplicates were below the project-specific control limit of 30%.

7. Field Duplicates – Acceptable:

   Field duplicates were not collected in the field. They were collected in the laboratory after the composite samples were ground and homogenized. A field duplicate was collected by the laboratory for this sampling event for sample NWC-2-42W and was given the sample ID, NWC-2-42WDUP. The RPDs for all duplicates were below the project specific control limit of 30%, as shown in the table below.

| Sample ID/ Lab Duplicate ID | SDG | Analyte | Primary Result (mg/kg) | Duplicate Result (mg/kg) | RPD (%) |
|---|---|---|---|---|---|
| NWC-2-42W/NWC-2-42WDUP | K0604574 | diesel | 1500 | 1400 | 7 |
| | | residual range | 210 | 190 | 7 |
| | | gasoline | 71 | 74 | 5 |

8. Matrix Spike (MS) – Acceptable except as noted:

   A matrix spike was not reported with SDG K0604574. Data were reviewed based on the lab control spike, which was within control limits and no associated data were qualified.

9. Reporting Limits – Acceptable except as noted:

   TPH diesel range by Method NWTPH-Dx: The laboratory flagged all results in SDG K0604574 for the chromatographic fingerprint not resembling a petroleum product. This result should be evaluated during use of the data.

   TPH gasoline range by Method NWTPH-Gx: The laboratory flagged all results in SDG K0604574 as resembling a petroleum product, but the elution pattern does not match the calibration standard.

   SVOCs by EPA Method 8270C: The reporting limits for many SVOCs reported in SDG K0604574 are elevated due to high levels of non-target analytes requiring dilution of the samples prior to analysis.

## INORGANIC ANALYSES

Samples were analyzed for metals by the methods identified in the introduction to this report and were evaluated for the following criteria.

1. Holding Times – Acceptable.

2. Calibration Verification – Acceptable.

3. Blanks – Acceptable except as noted:

A method blank was prepared with each laboratory sample batch. Copper was detected at concentrations between the MDL and the MRL in all of the method blanks, ranging from 0.09 to 0.12 mg/kg. Chromium was also detected at a concentration between the MDL and the MRL in the method blank for SDG K0604574. These are considered reportable as non-detect (U) at the MRL. The laboratory inadvertently did not collect an equipment blank from the grinding equipment as specified in the QAPP.

4. Laboratory Control Samples (LCS or Blank Spike) – Acceptable.

5. Laboratory Duplicates – Acceptable except as noted:

   Metals by EPA 6020: A laboratory duplicate was performed on 10% of samples, as specified in the QAPP. The relative percent differences (RPDs) were below the project-specific control limit of 30%, except for copper in NWC-2-1A and duplicate NWC-2-1AD, and in NWC-1-22W and duplicate NWC-1-22WD, as shown in bold type in the table below. The results for copper in these samples were qualified as estimated and flagged with a "J" because the duplicate RPD was greater than 30 percent.

| Sample ID/ Lab Duplicate ID | SDG | Analyte | Primary Result (mg/kg) | Duplicate Result (mg/kg) | RPD (%) |
|---|---|---|---|---|---|
| NWC-1 Composite/NWC-1 CompositeD | K0604573 | copper | 1200 | 1340 | 11 |
| NWC-1-22W/NWC-1-22WD | K0604574 | arsenic | 3.63 | 4.34 | 18 |
| | | barium | 46.2 | 49.6 | 7 |
| | | cadmium | 0.160 | 0.207 | 25 |
| | | chromium | 14.4 | 16.9 | 16 |
| | | copper | **2150** | **2940** | **31** |
| | | lead | 23.3 | 27.9 | 18 |
| | | mercury | 1.910 | 1.630 | 16 |
| | | selenium | 0.3 | 0.4 | 9 |
| | | silver | 0.129 | 0.146 | 12 |
| NWC-1-37A/NWC-1-37AD | K0604601 | copper | 3880 | 3610 | 7 |
| NWC-2-11A/NWC-2-11AD | K0604601 | copper | 32.9 | 36.5 | 10 |
| NWC-2-1A/NWC-2-1AD | K0604601 | copper | **14.7** | **23.8** | **47** |
| NWC-2-20A/NWC-2-20AD | K0604601 | copper | 45.5 | 38 | 18 |
| NWC-2-30A/NWC-2-30AD | K0604601 | copper | 28 | 22.9 | 20 |

6. Matrix Spike (MS) – Acceptable except as noted:

   Metals by EPA 6020: Matrix spikes were performed on samples NWC-1 Composite (SDG K0604573), NWC-1-22-W (SDG K0604574), and NWC-1-37AS (SDG K0604601). The percentage recoveries for copper and mercury are not applicable, because the spike concentrations were much lower than the sample analyte concentrations.

   The recovery for the spike sample performed on sample NWC-2-30AS (SDG K0604601) was 5%, below the control limit of 52%. A post-digest spike was performed on other samples in the SDG, but not on NWC-2-30AS. The associated result is qualified as estimated low and flagged "J-". Since all other spike recoveries were within control, no other results are qualified based on the spike results.

7. Field Duplicates – Acceptable

   Field duplicates were not collected in the field. They were collected in the laboratory after the composite samples were ground and homogenized. The composite samples are evaluated under separate SDGs, though they are a part of this sampling event. The field duplicate frequency of 10% was achieved for this sampling event, though field duplicates were not submitted for inorganic analysis with the samples evaluated in these SDGs.

8. Reporting Limits – Acceptable except as noted:

   Selenium was detected at levels between the MDL and the MRL in samples collected as part of SDG 0604574. Associated results are qualified as estimated and flagged "J" (replacing the laboratory qualifier "B").

## OVERALL ASSESSMENT OF DATA

The CAS SDGs K0604573, K0604574, and K0604601 are 100 percent complete. The data usability is based on EPA's guidance documents and the QAPP referenced in the introduction to this report. Few problems were identified and analytical performance was generally within specified limits. The data, as qualified, are acceptable and meet the project's data quality objectives.

| Sample | SDG | Qualified Analyte | Qualified Result | Units | Qualifier Reason |
|---|---|---|---|---|---|
| NWC-1 Composite | K0604573 | none | | | |
| NWC-2 Composite | K0604573 | none | | | |
| NWC-3 Composite | K0604573 | none | | | |
| NWC-2-1A | K0604601 | copper | 14.7 J | mg/kg | elevated duplicate RPD |
| NWC-2-3A | K0604601 | none | | | |
| NWC-2-4A | K0604601 | none | | | |
| NWC-2-5A | K0604601 | none | | | |
| NWC-2-6A | K0604601 | none | | | |
| NWC-2-7A | K0604601 | none | | | |
| NWC-1-8A | K0604601 | none | | | |
| NWC-2-8A | K0604601 | none | | | |
| NWC-2-9A | K0604601 | none | | | |
| NWC-2-10A | K0604601 | none | | | |
| NWC-2-11A | K0604601 | none | | | |
| NWC-1-13A | K0604601 | none | | | |
| NWC-2-13A | K0604601 | none | | | |
| NWC-2-14A | K0604601 | none | | | |
| NWC-2-15A | K0604601 | none | | | |
| NWC-1-16A | K0604601 | none | | | |
| NWC-2-16A | K0604601 | none | | | |
| NWC-2-17A | K0604601 | none | | | |
| NWC-2-18A | K0604601 | none | | | |
| NWC-2-19A | K0604601 | none | | | |
| NWC-2-20A | K0604601 | none | | | |
| NWC-2-21 | K0604601 | none | | | |
| NWC-2-22A | K0604601 | none | | | |
| NWC-2-23A | K0604601 | none | | | |
| NWC-2-24A | K0604601 | none | | | |
| NWC-2-25A | K0604601 | none | | | |
| NWC-2-26A | K0604601 | none | | | |
| NWC-2-27A | K0604601 | none | | | |
| NWC-2-28A | K0604601 | none | | | |
| NWC-2-29A | K0604601 | none | | | |
| NWC-2-30A | K0604601 | copper | 28.0 J- | mg/kg | low spike recovery |
| NWC-2-31A | K0604601 | none | | | |
| NWC-1-32A | K0604601 | none | | | |
| NWC-2-32A | K0604601 | none | | | |
| NWC-2-33A | K0604601 | none | | | |
| NWC-2-34A | K0604601 | none | | | |
| NWC-1-35A | K0604601 | none | | | |
| NWC-2-35A | K0604601 | none | | | |
| NWC-1-36A | K0604601 | none | | | |
| NWC-2-36A | K0604601 | none | | | |
| NWC-1-37A | K0604601 | none | | | |
| NWC-2-37A | K0604601 | none | | | |

| Sample | SDG | Qualified Analyte | Qualified Result | Units | Qualifier Reason |
|---|---|---|---|---|---|
| NWC-1-38A | K0604601 | none | | | |
| NWC-2-38A | K0604601 | none | | | |
| NWC-1-40A | K0604601 | none | | | |
| NWC-2-40A | K0604601 | none | | | |
| NWC-1-41A | K0604601 | none | | | |
| NWC-2-41A | K0604601 | none | | | |
| NWC-1-42A | K0604601 | none | | | |
| NWC-2-42A | K0604601 | none | | | |
| NWC-2-5W | K0604574 | none | | | |
| NWC-2-6W | K0604574 | none | | | |
| NWC-2-7W | K0604574 | none | | | |
| NWC-3-24W | K0604574 | none | | | |
| NWC-1-22W | K0604574 | copper | 2150 J | mg/kg | elevated duplicate RPD |
| | | selenium | 0.3 J | mg/kg | between MDL and MRL |
| NWC-1-2W | K0604574 | selenium | 0.8 J | mg/kg | between MDL and MRL |
| NWC-2-8W | K0604574 | none | | | |
| NWC-2-36W | K0604574 | none | | | |
| NWC-1-12W | K0604574 | selenium | 0.4 J | mg/kg | between MDL and MRL |
| NWC-2-39W | K0604574 | selenium | 0.3 J | mg/kg | between MDL and MRL |
| NWC-2-42W | K0604574 | none | | | |

1317 South 13th Avenue P.O. Box 479 Kelso, Washington 98626 (360) 577-7222 ph (360) 636-1068 fax

Columbia Analytical Services INC.
An Employee - Owned Company

June 16, 2006 Service Request No: K0604573

GEOMATRIX Received JUN 19 2006 SEATTLE

John Long
Geomatrix Consultants, Incorporated
One Union Square
600 University Street, Suite 1020
Seattle, WA 98101

**RE: NW Corner - FRP/8769.005/4**

Dear John:

Enclosed are the results of the rush sample(s) submitted to our laboratory on June 06, 2006. For your reference, these analyses have been assigned our service request number K0604573.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAC standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please call if you have any questions. My extension is 3376.

Respectfully submitted,

**Columbia Analytical Services, Inc.**

Gregory Salata, Ph.D. for
Project Chemist

GS/lmb



NELAP Accredited ACIL Seal of Excellence Award

## Acronyms

| | |
|---|---|
| ASTM | American Society for Testing and Materials |
| A2LA | American Association for Laboratory Accreditation |
| CARB | California Air Resources Board |
| CAS Number | Chemical Abstract Service registry Number |
| CFC | Chlorofluorocarbon |
| CFU | Colony-Forming Unit |
| DEC | Department of Environmental Conservation |
| DEQ | Department of Environmental Quality |
| DHS | Department of Health Services |
| DOE | Department of Ecology |
| DOH | Department of Health |
| EPA | U. S. Environmental Protection Agency |
| ELAP | Environmental Laboratory Accreditation Program |
| GC | Gas Chromatography |
| GC/MS | Gas Chromatography/Mass Spectrometry |
| LUFT | Leaking Underground Fuel Tank |
| M | Modified |
| MCL | Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA. |
| MDL | Method Detection Limit |
| MPN | Most Probable Number |
| MRL | Method Reporting Limit |
| NA | Not Applicable |
| NC | Not Calculated |
| NCASI | National Council of the Paper Industry for Air and Stream Improvement |
| ND | Not Detected |
| NIOSH | National Institute for Occupational Safety and Health |
| PQL | Practical Quantitation Limit |
| RCRA | Resource Conservation and Recovery Act |
| SIM | Selected Ion Monitoring |
| TPH | Total Petroleum Hydrocarbons |
| tr | Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL. |

## Inorganic Data Qualifiers

| | |
|---|---|
| * | The result is an outlier. See case narrative. |
| # | The control limit criteria is not applicable. See case narrative. |
| B | The analyte was found in the associated method blank at a level that is significant relative to the sample result. |
| E | The result is an estimate amount because the value exceeded the instrument calibration range. |
| J | The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL. |
| U | The compound was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. |
| i | The MRL/MDL has been elevated due to a matrix interference. |
| X | See case narrative. |

## Metals Data Qualifiers

| | |
|---|---|
| # | The control limit criteria is not applicable. See case narrative. |
| B | The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL. |
| E | The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample. |
| M | The duplicate injection precision was not met. |
| N | The Matrix Spike sample recovery is not within control limits. See case narrative. |
| S | The reported value was determined by the Method of Standard Additions (MSA). |
| U | The compound was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. |
| W | The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance. |
| i | The MRL/MDL has been elevated due to a matrix interference. |
| X | See case narrative. |
| * | The duplicate analysis not within control limits. See case narrative. |
| + | The correlation coefficient for the MSA is less than 0.995. |

## Organic Data Qualifiers

| | |
|---|---|
| * | The result is an outlier. See case narrative. |
| # | The control limit criteria is not applicable. See case narrative. |
| A | A tentatively identified compound, a suspected aldol-condensation product. |
| B | The analyte was found in the associated method blank at a level that is significant relative to the sample result. |
| C | The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data. |
| D | The reported result is from a dilution. |
| E | The result is an estimate amount because the value exceeded the instrument calibration range. |
| J | The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL. |
| N | The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed. |
| P | The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results (25% for CLP Pesticides). |
| U | The compound was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. |
| i | The MRL/MDL has been elevated due to a chromatographic interference. |
| X | See case narrative. |

## Additional Petroleum Hydrocarbon Specific Qualifiers

| | |
|---|---|
| F | The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard. |
| L | The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard. |
| H | The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard. |
| O | The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard. |
| Y | The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard. |
| Z | The chromatographic fingerprint does not resemble a petroleum product. |

# Case Narrative

COLUMBIA ANALYTICAL SERVICES, INC.

| | | | |
|---|---|---|---|
| **Client:** | Geomatrix Consultants, Inc. | **Service Request No.:** | K0604573 |
| **Project:** | NW Corner-FRP/8769.005/4 | **Date Received:** | 06/06/06 |
| **Sample Matrix:** | Soil | | |

## CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier III validation deliverables including summary forms and all of the associated raw data for each of the analyses. When appropriate to the method, method blank results have been reported with each analytical test.

### Sample Receipt

One hundred seventeen soil samples were received for analysis at Columbia Analytical Services on 06/06/06. As instructed, the discreet samples were composited at the laboratory to create 3 composite samples, NWC-1 Composite, NWC-2 Composite, and NWC-3 Composite. The samples were received in good condition and consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

### Total Metals

**Matrix Spike Recovery Exceptions:**
The control criteria for matrix spike recovery of Copper for sample NWC-1 Composite is not applicable. The analyte concentration in the sample was significantly higher than the added spike concentration, preventing accurate evaluation of the spike recovery.

No other anomalies associated with the analysis of these samples were observed.

Approved by _____ Date 6/16/06

# Chain of Custody Documentation

Columbia Analytical Services INC.
An Employee - Owned Company

# CHAIN OF CUSTODY

1317 South 13th Ave. • Kelso, WA 98626 • (360) 577-7222 • (800) 695-7222x07 • FAX (360) 636-1068

SR#: K0604573

PAGE 1 OF 1 (2AS) COC #

PROJECT NAME: NW corner - FRP
PROJECT NUMBER: 8769.005/4
PROJECT MANAGER: John Long
COMPANY/ADDRESS: Geomatrix, 600 University St, Suite 1020
CITY/STATE/ZIP: Seattle, WA 98101
E-MAIL ADDRESS: jlong@geomatrix.com
PHONE #: 206 342 1779 FAX#: 206 342 1761
SAMPLER'S SIGNATURE:

| | SAMPLE I.D. | DATE | TIME | LAB I.D. | MATRIX | NUMBER OF CONTAINERS | Semivolatile Organics by GC/MS 625☐ 8270☐ 8270LL☐ | Volatile Organics 624☐ 8260☐ 8021☐ BTEX☐ | Hydrocarbons (*see below) Gas☐ Diesel☐ Oil☐ ☐ Fuel Fingerprint (FIQ) ☐ NW-HCID Screen | Oil & Grease/TRPH 1664 HEM☐ 1664 SGT☐ | PCB's Aroclors☐ Congeners☐ | Pesticides/Herbicides 608☐ 8081A☐ 8141A☐ 8151A☐ | Chlorophenolics - 8151M Tri☐ Tetra☐ PCP☐ | PAHS 8310☐ SIM☐ | Metals, Total or Dissolved (See list below) (Cu) | Cyanide☐ Hex-Chrom☐ | pH, Cond., Cl, SO4, PO4, F, NO2, NO3, BOD, TSS, TDS (circle) | NH3-N, COD, Total-P, TKN, TOC, DOC (circle) NO2+NO3 | TOX 9020☐ AOX 1650☐ 506☐ | | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | NWC-1-1 | 6/2/06 | 0923 | | S | 1 | | | | | | | | | X | | | | | | | | | |
| 2 | NWC-2-1 | | 0924 | | | | | | | | | | | | X | | | | | | | | | |
| 3 | NWC-3-1 | | 0927 | | | | | | | | | | | | X | | | | | | | | | |
| 2AS | ~~NWC-1-2~~ | | | | | | | | | | | | | | X | | | | | | | | | |
| 2AS | ~~NWC-2-2~~ | | | | | | | | | | | | | | X | | | | | | | | | |
| 2AS | ~~NWC-3-2~~ | | | | | | | | | | | | | | X | | | | | | | | | |
| 4 | NWC-1-3 | | 1033 | | | | | | | | | | | | X | | | | | | | | | |
| 5 | NWC-2-3 | | 1035 | | | | | | | | | | | | X | | | | | | | | | |
| 6 | NWC-3-3 | | 1037 | | | | | | | | | | | | X | | | | | | | | | |
| 7 | NWC-1-4 | | 1117 | | | | | | | | | | | | X | | | | | | | | | |

**REPORT REQUIREMENTS**

___ I. Routine Report: Method Blank, Surrogate, as required
X II. Report Dup., MS, MSD as required
___ III. Data Validation Report (includes all raw data)
___ IV. CLP Deliverable Report
___ V. EDD

**INVOICE INFORMATION**
P.O. # 8769.005/4
Bill To: Geomatrix (John Long)

**TURNAROUND REQUIREMENTS**
___ 24 hr. ___ 48 hr.
___ 5 Day (72 hr)
___ Standard (10-15 working days)
___ Provide FAX Results
Requested Report Date

Circle which metals are to be analyzed:
Total Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Tl Sn V Zn Hg
Dissolved Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Tl Sn V Zn Hg

*INDICATE STATE HYDROCARBON PROCEDURE: AK CA WI NORTHWEST OTHER:_____ (CIRCLE ONE)

SPECIAL INSTRUCTIONS/COMMENTS: Please composite all samples into three multiincremental samples (NWC-1-1 + NWC-1-2 + NWC-1-3 + NWC-1-4 + ....) (NWC-2-1 + NWC-2-2 + NWC-2-3 + NWC-2-4 + ....). Please grind composite samples in accordance w/ QAPP + Grinding SOP.

| RELINQUISHED BY: | RECEIVED BY: | RELINQUISHED BY: | RECEIVED BY: |
|---|---|---|---|
| Signature: [signature] Date/Time: 6/6/06 705 | Signature: [signature] Date/Time: 6-6-06 0725 | Signature: Date/Time: | Signature: [signature] Date/Time: 6/6/6 1500 |
| Printed Name: Lanna Sallenulite Firm: Geomatrix | Printed Name: Robert Shockey Firm: MC Deliver | Printed Name: Firm: | Printed Name: [signature] Firm: CAS |

Columbia Analytical Services INC.
An Employee - Owned Company

# CHAIN OF CUSTODY

1317 South 13th Ave. • Kelso, WA 98626 • (360) 577-7222 • (800) 695-7222x07 • FAX (360) 636-1068

SR#: K060 4573

PAGE 2 OF 143 (ZAS) COC #

PROJECT NAME: NW Corner - FRP
PROJECT NUMBER:
PROJECT MANAGER:
COMPANY/ADDRESS:
CITY/STATE/ZIP:
E-MAIL ADDRESS:
PHONE #: FAX#:
SAMPLER'S SIGNATURE: [signature]

| | SAMPLE I.D. | DATE | TIME | LAB I.D. | MATRIX | NUMBER OF CONTAINERS | Semivolatile Organics by GC/MS 625☐ 8270☐ 8270LL☐ | Volatile Organics 624☐ 8260☐ 8021☐ BTEX☐ | Hydrocarbons (*see below) Gas☐ Diesel☐ Oil☐ | ☐ Fuel Fingerprint (FIQ) ☐ NW-HCID Screen | Oil & Grease/TRPH 1664 HEM☐ 1664 SGT☐ | PCB's Aroclors☐ Congeners☐ | Pesticides/Herbicides 608☐ 8081A☐ 8141A☐ 8151A☐ | Chlorophenolics - 8151M Tri☐ Tetra☐ PCP☐ | PAHS 8310☐ SIM☐ | Metals, Total or Dissolved (See list below) (Cu) | Cyanide☐ Hex-Chrom☐ | pH, Cond., Cl, SO4, PO4, F, NO2, NO3, BOD, TSS, TDS (circle) | NH3-N, COD, Total-P, TKN, TOC, DOC (circle) NO2+NO3 | TOX 9020☐ AOX 1650☐ 506☐ | | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8 | NWC-2-4 | 6/2/06 | 1118 | | S | 1 | | | | | | | | | | X | | | | | | | | | |
| 9 | NWC-3-4 | 6/2/06 | 1120 | | ↓ | ↓ | | | | | | | | | | X | | | | | | | | | |
| 10 | NWC-1-5 | 6/2/06 | 1155 | | ↓ | ↓ | | | | | | | | | | X | | | | | | | | | |
| 11 | NWC-2-5 | 6/2/06 | 1158 | | ↓ | ↓ | | | | | | | | | | X | | | | | | | | | |
| 12 | NWC-3-5 | 6/2/06 | 1200 | | ↓ | ↓ | | | | | | | | | | X | | | | | | | | | |
| 13 | NWC-1-6 | 6/2/06 | 1303 | | ↓ | ↓ | | | | | | | | | | X | | | | | | | | | |
| 14 | NWC-2-6 | 6/2/06 | 1305 | | ↓ | ↓ | | | | | | | | | | X | | | | | | | | | |
| 15 | NWC-3-6 | 6/2/06 | 1304 | | ↓ | ↓ | | | | | | | | | | X | | | | | | | | | |
| 16 | NWC-1-7 | 6/2/06 | 1339 | | ↓ | ↓ | | | | | | | | | | X | | | | | | | | | |
| 17 | NWC-2-7 | 6/2/06 | 1341 | | ↓ | ↓ | | | | | | | | | | X | | | | | | | | | |

**REPORT REQUIREMENTS**

___ I. Routine Report: Method Blank, Surrogate, as required
X II. Report Dup., MS, MSD as required
___ III. Data Validation Report (includes all raw data)
___ IV. CLP Deliverable Report
___ V. EDD

**INVOICE INFORMATION**
P.O. # 8769.005/4
Bill To: John Long, GMX

**TURNAROUND REQUIREMENTS**
___ 24 hr. ~~48 hr.~~
___ 5 Day 72 hr.
___ Standard ~~(10-15 working days)~~
___ Provide FAX Results

Requested Report Date

Circle which metals are to be analyzed:

Total Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Tl Sn V Zn Hg

Dissolved Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Tl Sn V Zn Hg

*INDICATE STATE HYDROCARBON PROCEDURE: AK CA WI NORTHWEST OTHER:_____ (CIRCLE ONE)

SPECIAL INSTRUCTIONS/COMMENTS: See p. 1

| RELINQUISHED BY: | RECEIVED BY: | RELINQUISHED BY: | RECEIVED BY: |
|---|---|---|---|
| Signature: [signature] Date/Time: 6/6/06 705 | Signature: [signature] Date/Time: 6-6-06 0725 | Signature: Date/Time: | Signature: [signature] Date/Time: 6/6/6 1500 |
| Printed Name: Zanna Sallenwhite Firm: Geomatrix | Printed Name: Robert Sbelly Firm: MC Delivery | Printed Name: Firm: | Printed Name: [signature] Firm: CAS |

8/1000

PCOC #1 06/02

Columbia Analytical Services INC.
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# CHAIN OF CUSTODY

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SR#: K0604573

PAGE 3 OF 13 COC.# 2AS

PROJECT NAME: NW Corner - FRP
PROJECT NUMBER:
PROJECT MANAGER:
COMPANY/ADDRESS:
CITY/STATE/ZIP:
E-MAIL ADDRESS:
PHONE #: FAX#:
SAMPLER'S SIGNATURE: [signature]

| | SAMPLE I.D. | DATE | TIME | LAB I.D. | MATRIX | NUMBER OF CONTAINERS | Semivolatile Organics by GC/MS 625☐ 8270☐ 8270LL☐ | Volatile Organics 624☐ 8260☐ 8021☐ BTEX☐ | Hydrocarbons (*see below) Gas☐ Diesel☐ Oil☐ | ☐ Fuel Fingerprint (FIQ) ☐ NW-HCID Screen | Oil & Grease/TRPH 1664 HEM☐ 1664 SGT☐ | PCB's Aroclors☐ Congeners☐ | Pesticides/Herbicides 608☐ 8081A☐ 8141A☐ 8151A☐ | Chlorophenolics - 8151M Tri☐ Tetra☐ PCP☐ | PAHS 8310☐ SIM☐ | Metals, Total or Dissolved (See list below) | Cyanide☐ Hex-Chrom☐ (Cu) | pH, Cond., Cl, SO4, PO4, F, NO2, NO3, BOD, TSS, TDS (circle) | NH3-N, COD, Total-P, TKN, TOC, DOC (circle) NO2+NO3 | TOX 9020☐ AOX 1650☐ 506☐ | | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 18 | NWC-3-7 | 6/2/06 | 1343 | | S | 1 | | | | | | | | | | X | | | | | | | | | |
| 19 | NWC-1-8 | 6/5/06 | 0807 | | | | | | | | | | | | | X | | | | | | | | | |
| 20 | NWC-2-8 | 6/5/06 | 0809 | | | | | | | | | | | | | X | | | | | | | | | |
| 21 | NWC-3-8 | 6/5/06 | 0810 | | | | | | | | | | | | | X | | | | | | | | | |
| 22 | NWC-1-9 | 6/5/06 | 0838 | | | | | | | | | | | | | X | | | | | | | | | |
| 23 | NWC-2-9 | 6/5/06 | 0837 | | | | | | | | | | | | | X | | | | | | | | | |
| 24 | NWC-3-9 | 6/5/06 | 0839 | | | | | | | | | | | | | X | | | | | | | | | |
| 25 | NWC-1-10 | 6/5/06 | 0908 | | | | | | | | | | | | | X | | | | | | | | | |
| 26 | NWC-2-10 | 6/5/06 | 0909 | | | | | | | | | | | | | X | | | | | | | | | |
| 27 | NWC-3-10 | 6/5/06 | 0910 | | | | | | | | | | | | | X | | | | | | | | | |

**REPORT REQUIREMENTS**

___ I. Routine Report: Method Blank, Surrogate, as required
X II. Report Dup., MS, MSD as required
___ III. Data Validation Report (includes all raw data)
___ IV. CLP Deliverable Report
___ V. EDD

**INVOICE INFORMATION**
P.O. # 8769.005/4
Bill To: John Long, GUX

**TURNAROUND REQUIREMENTS**
___ 24 hr. ___ 48 hr
___ 5 Day 72 hr
___ Standard (10-15 working days)
___ Provide FAX Results

Requested Report Date

Circle which metals are to be analyzed:

Total Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Tl Sn V Zn Hg

Dissolved Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Tl Sn V Zn Hg

*INDICATE STATE HYDROCARBON PROCEDURE: AK CA WI NORTHWEST OTHER:_____ (CIRCLE ONE)

SPECIAL INSTRUCTIONS/COMMENTS:

See p. 1

| RELINQUISHED BY: | RECEIVED BY: | RELINQUISHED BY: | RECEIVED BY: |
|---|---|---|---|
| [signature] Signature — 6/6/06 705 Date/Time | [signature] Signature — 6.6.06 0725 Date/Time | Signature — Date/Time | [signature] Signature — 6/6/06 1500 Date/Time |
| Lanna Satterwhite Printed Name — Geomatrix Firm | Robert Shockey Printed Name — MC Delivery Firm | Printed Name — Firm | [signature] Printed Name — CAS Firm |

Columbia Analytical Services INC.
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# CHAIN OF CUSTODY

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SR#: K0604573

PAGE 4 OF 1~~2~~3 COC # 2AS

PROJECT NAME: NW Corner - FRT
PROJECT NUMBER:
PROJECT MANAGER:
COMPANY/ADDRESS:
CITY/STATE/ZIP:
E-MAIL ADDRESS:
PHONE #: FAX#:
SAMPLER'S SIGNATURE: [signature]

| | SAMPLE I.D. | DATE | TIME | LAB I.D. | MATRIX | NUMBER OF CONTAINERS | Semivolatile Organics by GC/MS 625 ☐ 8270 ☐ 8270LL ☐ | Volatile Organics 624 ☐ 8260 ☐ 8021 ☐ BTEX ☐ | Hydrocarbons (*see below) Gas ☐ Diesel ☐ Oil ☐ | ☐ Fuel Fingerprint (FIQ) ☐ NW-HCID Screen | Oil & Grease/TRPH 1664 HEM ☐ 1664 SGT ☐ | PCB's Aroclors ☐ Congeners ☐ | Pesticides/Herbicides 608 ☐ 8081A ☐ 8141A ☐ 8151A ☐ | Chlorophenolics - 8151M Tri ☐ Tetra ☐ PCP ☐ | PAHS 8310 ☐ SIM ☐ | Metals, Total or Dissolved (See list below) (Cu) | Cyanide ☐ Hex-Chrom ☐ | pH, Cond., Cl, SO4, PO4, F, NO2, NO3, BOD, TSS, TDS (circle) | NH3-N, COD, Total-P, TKN, TOC, DOC (circle) NO2+NO3 | TOX 9020 ☐ AOX 1650 ☐ 506 ☐ | | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 28 | NWC-1-11 | 6/5/06 | 0915 | | S | 1 | | | | | | | | | | X | | | | | | | | | |
| 29 | NWC-2-11 | | 0916 | | | | | | | | | | | | | X | | | | | | | | | |
| 30 | NWC-3-11 | | 0920 | | | | | | | | | | | | | X | | | | | | | | | |
| ~~JN~~ | ~~NWC-1-12~~ | | | | | | | | | | | | | | | X | | | | | | | | | |
| ~~245~~ | ~~NWC-2-12~~ | | | | | | | | | | | | | | | X | | | | | | | | | |
| ~~245~~ | ~~NWC-3-12~~ | | | | | | | | | | | | | | | X | | | | | | | | | |
| 31 | NWC-1-13 | | 1004 | | | | | | | | | | | | | X | | | | | | | | | |
| 32 | NWC-2-13 | | 1006 | | | | | | | | | | | | | X | | | | | | | | | |
| 33 | NWC-3-13 | | 1009 | | | | | | | | | | | | | X | | | | | | | | | |
| 34 | NWC-1-14 | | 0858 | | | | | | | | | | | | | X | | | | | | | | | |

**REPORT REQUIREMENTS**

- ___ I. Routine Report: Method Blank, Surrogate, as required
- X II. Report Dup., MS, MSD as required
- ___ III. Data Validation Report (includes all raw data)
- ___ IV. CLP Deliverable Report
- ___ V. EDD

**INVOICE INFORMATION**

P.O. # 8769.005/4
Bill To: John Long, Geomatrix

**TURNAROUND REQUIREMENTS**

- ___ 24 hr. ___ 48 hr.
- ___ 5 Day 72 hr
- ___ Standard (10-15 working days)
- ___ Provide FAX Results

Requested Report Date

Circle which metals are to be analyzed:

Total Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Tl Sn V Zn Hg

Dissolved Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Tl Sn V Zn Hg

*INDICATE STATE HYDROCARBON PROCEDURE: AK CA WI NORTHWEST OTHER:_____ (CIRCLE ONE)

SPECIAL INSTRUCTIONS/COMMENTS:

See p. 1

00010

| RELINQUISHED BY: | RECEIVED BY: | RELINQUISHED BY: | RECEIVED BY: |
|---|---|---|---|
| [signature] Signature — 6/6/06 705 Date/Time | [signature] Signature — 6.6.06 0725 Date/Time | Signature — Date/Time | [signature] Signature — 6/6/6 1500 Date/Time |
| Zanna Satterwhite Printed Name — Geomatrix Firm | Robert Shocky Printed Name — Mc Delivery Firm | Printed Name — Firm | [signature] Printed Name — CAS Firm |

RCOC #1 06/03

Columbia Analytical Services INC.
An Employee - Owned Company

# CHAIN OF CUSTODY

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SR#: K060 4573

PAGE 5 OF 13 COC # 2AS

PROJECT NAME: NW Corner - FRP
PROJECT NUMBER:
PROJECT MANAGER:
COMPANY/ADDRESS:
CITY/STATE/ZIP:
E-MAIL ADDRESS:
PHONE #: FAX#:
SAMPLER'S SIGNATURE: [signature]

| | SAMPLE I.D. | DATE | TIME | LAB I.D. | MATRIX | NUMBER OF CONTAINERS | Semivolatile Organics by GC/MS 625☐ 8270☐ 8270LL☐ | Volatile Organics 624☐ 8260☐ 8021☐ BTEX☐ | Hydrocarbons (*see below) Gas☐ Diesel☐ Oil☐ | ☐ Fuel Fingerprint (FIQ) ☐ NW-HCID Screen | Oil & Grease/TRPH 1664 HEM☐ 1664 SGT☐ | PCB's Aroclors☐ Congeners☐ | Pesticides/Herbicides 608☐ 8081A☐ 8141A☐ 8151A☐ | Chlorophenolics - 8151M Tri☐ Tetra☐ PCP☐ | PAHS 8310☐ SIM☐ | Metals, Total or Dissolved (See list below) (Cu) | Cyanide☐ Hex-Chrom☐ | pH, Cond., Cl, SO4, PO4, F, NO2, NO3, BOD, TSS, TDS (circle) | NH3-N, COD, Total-P, TKN, TOC, DOC (circle) NO2+NO3 | TOX 9020☐ AOX 1650☐ 506☐ | | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 35 | NWC-2-14 | 6/5/06 | 0857 | | S | 1 | | | | | | | | | | X | | | | | | | | | |
| 36 | NWC-3-14 | ↓ | 0859 | | ↓ | ↓ | | | | | | | | | | X | | | | | | | | | |
| 37 | NWC-1-15 | ↓ | 0826 | | ↓ | ↓ | | | | | | | | | | X | | | | | | | | | |
| 38 | NWC-2-15 | ↓ | 0827 | | ↓ | ↓ | | | | | | | | | | X | | | | | | | | | |
| 39 | NWC-3-15 | ↓ | 0829 | | ↓ | ↓ | | | | | | | | | | X | | | | | | | | | |
| 40 | NWC-1-16 | ↓ | 0800 | | ↓ | ↓ | | | | | | | | | | X | | | | | | | | | |
| 41 | NWC-2-16 | ↓ | 0801 | | ↓ | ↓ | | | | | | | | | | X | | | | | | | | | |
| 42 | NWC-3-16 | ↓ | 0802 | | ↓ | ↓ | | | | | | | | | | X | | | | | | | | | |
| 43 | NWC-1-17 | 6/2/06 | 1324 | | ↓ | ↓ | | | | | | | | | | X | | | | | | | | | |
| 44 | NWC-2-17 | 6/2/06 | 1330 | | ↓ | ↓ | | | | | | | | | | X | | | | | | | | | |

**REPORT REQUIREMENTS**

___ I. Routine Report: Method Blank, Surrogate, as required
X II. Report Dup., MS, MSD as required
___ III. Data Validation Report (includes all raw data)
___ IV. CLP Deliverable Report
___ V. EDD

**INVOICE INFORMATION**
P.O. # 8769.005/4
Bill To: John Long, Geomatrix

**TURNAROUND REQUIREMENTS**
___ 24 hr. ___ ~~48 hr.~~
___ 5 Day 72 hr
___ Standard (10-15 working days)
___ Provide FAX Results

Requested Report Date

Circle which metals are to be analyzed:

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Dissolved Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Tl Sn V Zn Hg

*INDICATE STATE HYDROCARBON PROCEDURE: AK CA WI NORTHWEST OTHER:_____ (CIRCLE ONE)

SPECIAL INSTRUCTIONS/COMMENTS:

See p. 1

| RELINQUISHED BY: | | RECEIVED BY: | | RELINQUISHED BY: | | RECEIVED BY: | |
|---|---|---|---|---|---|---|---|
| [signature] Signature | 6/6/06 705 Date/Time | [signature] Signature | 6.6.06 0720 Date/Time | Signature | Date/Time | [signature] Signature | 6/6/6 1500 Date/Time |
| Zanna Sattlemhile Printed Name | Geomatrix Firm | Robert Shooky Printed Name | MC Delivery Firm | Printed Name | Firm | A Payne Printed Name | CTS Firm |

Columbia Analytical Services INC.
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# CHAIN OF CUSTODY

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SR#: K0604573

PAGE 6 OF 13 COC # 2+5

PROJECT NAME: NW Corner - FRP
PROJECT NUMBER:
PROJECT MANAGER:
COMPANY/ADDRESS:
CITY/STATE/ZIP:
E-MAIL ADDRESS:
PHONE #: FAX#:
SAMPLER'S SIGNATURE: [signature]

| | SAMPLE I.D. | DATE | TIME | LAB I.D. | MATRIX | NUMBER OF CONTAINERS | Semivolatile Organics by GC/MS 625☐ 8270☐ 8270LL☐ | Volatile Organics 624☐ 8260☐ 8021☐ BTEX☐ | Hydrocarbons (*see below) Gas☐ Diesel☐ Oil☐ | ☐ Fuel Fingerprint (FIQ) ☐ NW-HCID Screen | Oil & Grease/TRPH 1664 HEM☐ 1664 SGT☐ | PCB's Aroclors☐ Congeners☐ | Pesticides/Herbicides 608☐ 8081A☐ 8141A☐ 8151A☐ | Chlorophenolics - 8151M Tri☐ Tetra☐ PCP☐ | PAHS 8310☐ SIM☐ | Metals, Total or Dissolved (See list below) | Cyanide☐ Hex-Chrom☐ (Cu) | pH, Cond., Cl, SO4, PO4, F, NO2, NO3, BOD, TSS, TDS (circle) | NH3-N, COD, Total-P, TKN, TOC, DOC (circle) NO2+NO3 | TOX 9020☐ AOX 1650☐ 506☐ | | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 45 | NWC-3-17 | 6/2/06 | 1331 | | S | 1 | | | | | | | | | | X | | | | | | | | | |
| 46 | NWC-1-18 | 6/2/06 | 1253 | | | | | | | | | | | | | X | | | | | | | | | |
| 47 | NWC-2-18 | 6/2/06 | 1255 | | | | | | | | | | | | | X | | | | | | | | | |
| 48 | NWC-3-18 | 6/2/06 | 1257 | | | | | | | | | | | | | X | | | | | | | | | |
| 49 | NWC-1-19 | 6/2/06 | 1140 | | | | | | | | | | | | | X | | | | | | | | | |
| 50 | NWC-2-19 | 6/2/06 | 1143 | | | | | | | | | | | | | X | | | | | | | | | |
| 51 | NWC-3-19 | 6/2/06 | 1145 | | | | | | | | | | | | | X | | | | | | | | | |
| 52 | NWC-1-20 | 6/2/06 | 1105 | | | | | | | | | | | | | X | | | | | | | | | |
| 53 | NWC-2-20 | 6/2/06 | 1107 | | | | | | | | | | | | | X | | | | | | | | | |
| 54 | NWC-3-20 | 6/2/06 | 1109 | | | | | | | | | | | | | X | | | | | | | | | |

**REPORT REQUIREMENTS**

___ I. Routine Report: Method Blank, Surrogate, as required
X II. Report Dup., MS, MSD as required
___ III. Data Validation Report (includes all raw data)
___ IV. CLP Deliverable Report
___ V. EDD

**INVOICE INFORMATION**
P.O. # 8769.005/4
Bill To: John Long, GMX

**TURNAROUND REQUIREMENTS**
___ 24 hr. ___ 48 hr.
___ 5 Day 72 hr
___ Standard (10-15 working days)
___ Provide FAX Results
Requested Report Date

Circle which metals are to be analyzed:
Total Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Tl Sn V Zn Hg
Dissolved Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Tl Sn V Zn Hg

*INDICATE STATE HYDROCARBON PROCEDURE: AK CA WI NORTHWEST OTHER:_____ (CIRCLE ONE)

SPECIAL INSTRUCTIONS/COMMENTS:

See p. 1

| RELINQUISHED BY: | RECEIVED BY: | RELINQUISHED BY: | RECEIVED BY: |
|---|---|---|---|
| Signature: [signature] Date/Time: 6/6/06 705 | Signature: [signature] Date/Time: 6.6.06 0720 | Signature: Date/Time: | Signature: [signature] Date/Time: 6/6/6 1500 |
| Printed Name: Zanna Sattenwhite Firm: Geomatrix | Printed Name: Robert Shockly Firm: MC Delivery | Printed Name: Firm: | Printed Name: [signature] Firm: CAS |

Columbia Analytical Services INC.
An Employee - Owned Company

# CHAIN OF CUSTODY

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SR#: K060 4573

PAGE 7 OF 123 245 COC #

PROJECT NAME: NW Corner - FRP
PROJECT NUMBER:
PROJECT MANAGER:
COMPANY/ADDRESS:
CITY/STATE/ZIP:
E-MAIL ADDRESS:
PHONE #: FAX#:
SAMPLER'S SIGNATURE: [signature]

| | SAMPLE I.D. | DATE | TIME | LAB I.D. | MATRIX | NUMBER OF CONTAINERS | Semivolatile Organics by GC/MS 625☐ 8270☐ 8270LL☐ | Volatile Organics 624☐ 8260☐ 8021☐ BTEX☐ | Hydrocarbons (*see below) Gas☐ Diesel☐ Oil☐ ☐ Fuel Fingerprint (FIQ) ☐ NW-HCID Screen | Oil & Grease/TRPH 1664 HEM☐ 1664 SGT☐ | PCB's Aroclors☐ Congeners☐ | Pesticides/Herbicides 608☐ 8081A☐ 8141A☐ 8151A☐ | Chlorophenolics - 8151M Tri☐ Tetra☐ PCP☐ | PAHS 8310☐ SIM☐ | Metals, Total or Dissolved (See list below) (Cu) | Cyanide☐ Hex-Chrom☐ | pH, Cond., Cl, $SO_4$, $PO_4$, F, $NO_2$, $NO_3$, BOD, TSS, TDS (circle) | $NH_3$-N, COD, Total-P, TKN, TOC, DOC (circle) $NO_2$+$NO_3$ | TOX 9020☐ AOX 1650☐ 506☐ | | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 55 | NWC-1-21 | 6/2/06 | 1024 | | S | 1 | | | | | | | | | X | | | | | | | | | |
| 56 | NWC-2-21 | 6/2/06 | 1025 | | ↓ | ↓ | | | | | | | | | X | | | | | | | | | |
| 57 | NWC-3-21 | 6/2/06 | 1026 | | | | | | | | | | | | X | | | | | | | | | |
| 58 | NWC-1-22 | 6/2/06 | 0948 | | | | | | | | | | | | X | | | | | | | | | |
| 59 | NWC-2-22 | 6/2/06 | 0955 | | | | | | | | | | | | X | | | | | | | | | |
| 60 | NWC-3-22 | 6/2/06 | 0958 | | | | | | | | | | | | X | | | | | | | | | |
| 61 | NWC-1-23 | 6/2/06 | 0914 | | | | | | | | | | | | X | | | | | | | | | |
| 62 | NWC-2-23 | 6/2/06 | 0915 | | | | | | | | | | | | X | | | | | | | | | |
| 63 | NWC-3-23 | 6/2/06 | 0916 | | | | | | | | | | | | X | | | | | | | | | |
| 64 | NWC-1-24 | 6/2/06 | 0831 | | ↓ | ↓ | | | | | | | | | X | | | | | | | | | |

**REPORT REQUIREMENTS**

___ I. Routine Report: Method Blank, Surrogate, as required
X II. Report Dup., MS, MSD as required
___ III. Data Validation Report (includes all raw data)
___ IV. CLP Deliverable Report
___ V. EDD

**INVOICE INFORMATION**
P.O. # 8769.005/4
Bill To: John Long, GMX

**TURNAROUND REQUIREMENTS**
___ 24 hr. ___ 48 hr.
___ 5 Day (72 hr)
___ Standard (~~10-15 working days~~)
___ Provide FAX Results
___ Requested Report Date

Circle which metals are to be analyzed:
Total Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Tl Sn V Zn Hg
Dissolved Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Tl Sn V Zn Hg

*INDICATE STATE HYDROCARBON PROCEDURE: AK CA WI NORTHWEST OTHER:_____ (CIRCLE ONE)

SPECIAL INSTRUCTIONS/COMMENTS:
See p. 1

| RELINQUISHED BY: | RECEIVED BY: | RELINQUISHED BY: | RECEIVED BY: |
|---|---|---|---|
| Signature: [signature] | Signature: [signature] | Signature: | Signature: [signature] |
| Date/Time: 6/6/06 705 | Date/Time: 6.6.06 0720 | Date/Time: | Date/Time: 6/6/6 1500 |
| Printed Name: Zanna Satterwhite | Printed Name: Robert Shockey | Printed Name: | Printed Name: A Pannon |
| Firm: Geomatrix | Firm: MC Delivery | Firm: | Firm: CAS |

Columbia Analytical Services INC.
An Employee - Owned Company

# CHAIN OF CUSTODY

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SR#: K0664573

PAGE 8 OF 13 COC.#

PROJECT NAME: NW Corner - FRP
PROJECT NUMBER:
PROJECT MANAGER:
COMPANY/ADDRESS:
CITY/STATE/ZIP:
E-MAIL ADDRESS:
PHONE #: FAX#:
SAMPLER'S SIGNATURE:

| | SAMPLE I.D. | DATE | TIME | LAB I.D. | MATRIX | NUMBER OF CONTAINERS | Semivolatile Organics by GC/MS 625☐ 8270☐ 8270LL☐ | Volatile Organics 624☐ 8260☐ 8021☐ BTEX☐ | Hydrocarbons (*see below) Gas☐ Diesel☐ Oil☐ ☐ Fuel Fingerprint (FIQ) ☐ NW-HCID Screen | Oil & Grease/TRPH 1664 HEM☐ 1664 SGT☐ | PCB's Aroclors☐ Congeners☐ | Pesticides/Herbicides 608☐ 8081A☐ 8141A☐ 8151A☐ | Chlorophenolics - 8151M Tri☐ Tetra☐ PCP☐ | PAHS 8310☐ SIM☐ | Metals, Total or Dissolved (See list below) (Cu) | Cyanide☐ Hex-Chrom☐ | pH, Cond, Cl, $SO_4$, $PO_4$, F, $NO_2$, $NO_3$, BOD, TSS, TDS (circle) | $NH_3$-N, COD, Total-P, TKN, TOC, DOC (circle) $NO_2$+$NO_3$ | TOX 9020☐ AOX 1650☐ 506☐ | | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 65 | NWC-2-24 | 6/2/06 | 0837 | | S | 1 | | | | | | | | | X | | | | | | | | | |
| 66 | NWC-3-24 | 6/2/06 | 0838 | | ↓ | ↓ | | | | | | | | | X | | | | | | | | | |
| 67 | NWC-1-25 | 6/2/06 | 0856 | | | | | | | | | | | | X | | | | | | | | | |
| 68 | NWC-2-25 | 6/2/06 | 0900 | | | | | | | | | | | | X | | | | | | | | | |
| 69 | NWC-3-25 | 6/2/06 | 0908 | | | | | | | | | | | | X | | | | | | | | | |
| 70 | NWC-1-26 | 6/2/06 | 0934 | | | | | | | | | | | | X | | | | | | | | | |
| 71 | NWC-2-26 | 6/2/06 | 0935 | | | | | | | | | | | | X | | | | | | | | | |
| 72 | NWC-3-26 | 6/2/06 | 0939 | | | | | | | | | | | | X | | | | | | | | | |
| 73 | NWC-1-27 | 6/2/06 | 1013 | | | | | | | | | | | | X | | | | | | | | | |
| 74 | NWC-2-27 | 6/2/06 | 1014 | | ↓ | ↓ | | | | | | | | | X | | | | | | | | | |

**REPORT REQUIREMENTS**

- ___ I. Routine Report: Method Blank, Surrogate, as required
- X II. Report Dup., MS, MSD as required
- ___ III. Data Validation Report (includes all raw data)
- ___ IV. CLP Deliverable Report
- ___ V. EDD

**INVOICE INFORMATION**

P.O. # 8769.005.14
Bill To: John Long, GMX

**TURNAROUND REQUIREMENTS**

- ___ 24 hr. ~~48 hr.~~
- ___ 5 Day (72 hr)
- ___ Standard ~~(10-15 working days)~~
- ___ Provide FAX Results

Requested Report Date

Circle which metals are to be analyzed:

Total Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Tl Sn V Zn Hg

Dissolved Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Tl Sn V Zn Hg

*INDICATE STATE HYDROCARBON PROCEDURE: AK CA WI NORTHWEST OTHER:_____ (CIRCLE ONE)

SPECIAL INSTRUCTIONS/COMMENTS:

See p. 1

| RELINQUISHED BY: | RECEIVED BY: | RELINQUISHED BY: | RECEIVED BY: |
|---|---|---|---|
| Signature: [signature] Date/Time: 6/6/06 705 | Signature: [signature] Date/Time: 6-6-06 0720 | Signature: Date/Time: | Signature: [signature] Date/Time: 6/6/6 1500 |
| Printed Name: Tanna Sattenwhite Firm: Geomatrix | Printed Name: Robert Shockley Firm: MC Delivery | Printed Name: Firm: | Printed Name: [signature] Firm: CAS |

Columbia Analytical Services INC.
An Employee - Owned Company

# CHAIN OF CUSTODY

1317 South 13th Ave. • Kelso, WA 98626 • (360) 577-7222 • (800) 695-7222x07 • FAX (360) 636-1068

SR#: K0604573

PAGE 9 OF 13 COC # 245

PROJECT NAME: NW Corner - FRP
PROJECT NUMBER:
PROJECT MANAGER:
COMPANY/ADDRESS:
CITY/STATE/ZIP:
E-MAIL ADDRESS:
PHONE #: FAX#:
SAMPLER'S SIGNATURE:

| | SAMPLE I.D. | DATE | TIME | LAB I.D. | MATRIX | NUMBER OF CONTAINERS | Semivolatile Organics by GC/MS 625☐ 8270☐ 8270LL☐ | Volatile Organics 624☐ 8260☐ 8021☐ BTEX☐ | Hydrocarbons (*see below) Gas☐ Diesel☐ Oil☐ ☐ Fuel Fingerprint (FIQ) ☐ NW-HCID Screen | Oil & Grease/TRPH 1664 HEM☐ 1664 SGT☐ | PCB's Aroclors☐ Congeners☐ | Pesticides/Herbicides 608☐ 8081A☐ 8141A☐ 8151A☐ | Chlorophenolics - 8151M Tri☐ Tetra☐ PCP☐ | PAHS 8310☐ SIM☐ | Metals, Total or Dissolved (See list below) (Cu) | Cyanide☐ Hex-Chrom☐ | pH, Cond., Cl, $SO_4$, $PO_4$, F, $NO_2$, $NO_3$, BOD, TSS, TDS (circle) $NH_3$-N, COD, Total-P, TKN, TOC, DOC (circle) $NO_2$+$NO_3$ | TOX 9020☐ AOX 1650☐ 506☐ | | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 75 | NWC-3-27 | 6/2/06 | 1017 | | S | 1 | | | | | | | | | X | | | | | | | | | |
| 76 | NWC-1-28 | 6/2/06 | 1052 | | | | | | | | | | | | X | | | | | | | | | |
| 77 | NWC-2-28 | 6/2/06 | 1053 | | | | | | | | | | | | X | | | | | | | | | |
| 78 | NWC-3-28 | 6/2/06 | 1056 | | | | | | | | | | | | X | | | | | | | | | |
| 79 | NWC-1-29 | 6/2/06 | 1128 | | | | | | | | | | | | X | | | | | | | | | |
| 80 | NWC-2-29 | 6/2/06 | 1129 | | | | | | | | | | | | X | | | | | | | | | |
| 81 | NWC-3-29 | 6/2/06 | 1132 | | | | | | | | | | | | X | | | | | | | | | |
| 82 | NWC-1-30 | 6/2/06 | 1244 | | | | | | | | | | | | X | | | | | | | | | |
| 83 | NWC-2-30 | 6/2/06 | 1245 | | | | | | | | | | | | X | | | | | | | | | |
| 84 | NWC-3-30 | 6/2/06 | 1247 | | | | | | | | | | | | X | | | | | | | | | |

**REPORT REQUIREMENTS**

___ I. Routine Report: Method Blank, Surrogate, as required
X II. Report Dup., MS, MSD as required
___ III. Data Validation Report (includes all raw data)
___ IV. CLP Deliverable Report
___ V. EDD

**INVOICE INFORMATION**
P.O. # 8769.005/4
Bill To: John Long GMX

**TURNAROUND REQUIREMENTS**
___ 24 hr. ___ 48 hr.
___ 5 Day 72 hr
___ Standard (10-15 working days)
___ Provide FAX Results
Requested Report Date

Circle which metals are to be analyzed:

Total Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Tl Sn V Zn Hg

Dissolved Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Tl Sn V Zn Hg

*INDICATE STATE HYDROCARBON PROCEDURE: AK CA WI NORTHWEST OTHER:_____ (CIRCLE ONE)

SPECIAL INSTRUCTIONS/COMMENTS:

See p. 1

| RELINQUISHED BY: | RECEIVED BY: | RELINQUISHED BY: | RECEIVED BY: |
|---|---|---|---|
| Signature: [signature] Date/Time: 6/6/06 705 | Signature: [signature] Date/Time: 6-6-06 0720 | Signature: Date/Time: | Signature: [signature] Date/Time: 6/6/6 1500 |
| Printed Name: Tanna Sattenduto Firm: Geomatrix | Printed Name: Robert Shocks Firm: MC Delivery | Printed Name: Firm: | Printed Name: [signature] Firm: CAS |

Columbia Analytical Services INC.
An Employee - Owned Company

# CHAIN OF CUSTODY

1317 South 13th Ave. • Kelso, WA 98626 • (360) 577-7222 • (800) 695-7222x07 • FAX (360) 636-1068

SR#: K0604573

PAGE 10 OF 1~~3~~ 24.5 COC #

PROJECT NAME: NW Corner - FRP
PROJECT NUMBER:
PROJECT MANAGER:
COMPANY/ADDRESS:
CITY/STATE/ZIP:
E-MAIL ADDRESS:
PHONE #: FAX#:
SAMPLER'S SIGNATURE: [signature]

| | SAMPLE I.D. | DATE | TIME | LAB I.D. | MATRIX | NUMBER OF CONTAINERS | Semivolatile Organics by GC/MS 625 ☐ 8270 ☐ 8270LL ☐ | Volatile Organics 624 ☐ 8260 ☐ 8021 ☐ BTEX ☐ | Hydrocarbons (*see below) Gas ☐ Diesel ☐ Oil ☐ | ☐ Fuel Fingerprint (FIQ) ☐ NW-HCID Screen | Oil & Grease/TRPH 1664 HEM ☐ 1664 SGT ☐ | PCB's Aroclors ☐ Congeners ☐ | Pesticides/Herbicides 608 ☐ 8081A ☐ 8141A ☐ 8151A ☐ | Chlorophenolics - 8151M Tri ☐ Tetra ☐ PCP ☐ | PAHS 8310 ☐ SIM ☐ | Metals, Total or Dissolved (See list below) (Cu) | Cyanide ☐ Hex-Chrom ☐ | pH, Cond, Cl, SO4, PO4, F, NO2, NO3, BOD, TSS, TDS (circle) | NH3-N, COD, Total-P, TKN, TOC, DOC (circle) NO2+NO3 | TOX 9020 ☐ AOX 1650 ☐ 506 ☐ | | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 85 | NWC-1-31 | 6/2/06 | 1316 | | S | 1 | | | | | | | | | | X | | | | | | | | | | |
| 86 | NWC-2-31 | 6/2/06 | 1317 | | | | | | | | | | | | | X | | | | | | | | | | |
| 87 | NWC-3-31 | 6/2/06 | 1318 | | | | | | | | | | | | | X | | | | | | | | | | |
| 88 | NWC-1-32 | 6/5/06 | 0751 | | | | | | | | | | | | | X | | | | | | | | | | |
| 89 | NWC-2-32 | | 0752 | | | | | | | | | | | | | X | | | | | | | | | | |
| 90 | NWC-3-32 | | 0755 | | | | | | | | | | | | | X | | | | | | | | | | |
| 91 | NWC-1-33 | | 0819 | | | | | | | | | | | | | X | | | | | | | | | | |
| 92 | NWC-2-33 | | 0820 | | | | | | | | | | | | | X | | | | | | | | | | |
| 93 | NWC-3-33 | | 0822 | | | | | | | | | | | | | X | | | | | | | | | | |
| 94 | NWC-1-34 | | 0849 | | | | | | | | | | | | | X | | | | | | | | | | |

**REPORT REQUIREMENTS**

___ I. Routine Report: Method Blank, Surrogate, as required
X II. Report Dup., MS, MSD as required
___ III. Data Validation Report (includes all raw data)
___ IV. CLP Deliverable Report
___ V. EDD

**INVOICE INFORMATION**
P.O. # 8769.005/4
Bill To: John Long (GMX)

**TURNAROUND REQUIREMENTS**
___ 24 hr. ~~48 hr.~~
___ 5 Day 72 hr
___ Standard (~~10-15~~ working days)
___ Provide FAX Results
Requested Report Date

Circle which metals are to be analyzed:
Total Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Tl Sn V Zn Hg
Dissolved Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Tl Sn V Zn Hg

*INDICATE STATE HYDROCARBON PROCEDURE: AK CA WI NORTHWEST OTHER:_____ (CIRCLE ONE)

SPECIAL INSTRUCTIONS/COMMENTS:

See p. 1

| RELINQUISHED BY: | RECEIVED BY: | RELINQUISHED BY: | RECEIVED BY: |
|---|---|---|---|
| [signature] Signature — 6/6/06 705 Date/Time | [signature] Signature — 6-6-06 0720 Date/Time | Signature — Date/Time | [signature] Signature — 6/6/6 1500 Date/Time |
| Laura Sattenwhite Printed Name — Geomatrix Firm | Robert Shocky Printed Name — MC Delivery Firm | Printed Name — Firm | [signature] Printed Name — CAS Firm |

00015

Columbia Analytical Services INC.
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# CHAIN OF CUSTODY

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SR#: K0604573

PAGE 11 OF 13 COC #

PROJECT NAME: NW Corner - FRP
PROJECT NUMBER:
PROJECT MANAGER:
COMPANY/ADDRESS:
CITY/STATE/ZIP:
E-MAIL ADDRESS:
PHONE #: FAX#:
SAMPLER'S SIGNATURE:

| | SAMPLE I.D. | DATE | TIME | LAB I.D. | MATRIX | NUMBER OF CONTAINERS | Semivolatile Organics by GC/MS 625 ☐ 8270 ☐ 8270LL ☐ | Volatile Organics 624 ☐ 8260 ☐ 8021 ☐ BTEX ☐ | Hydrocarbons (*see below) Gas ☐ Diesel ☐ Oil ☐ | ☐ Fuel Fingerprint (FIQ) ☐ NW-HCID Screen | Oil & Grease/TRPH 1664 HEM ☐ 1664 SGT ☐ | PCB's Aroclors ☐ Congeners ☐ | Pesticides/Herbicides 608 ☐ 8081A ☐ 8141A ☐ 8151A ☐ | Chlorophenolics - 8151M Tri ☐ Tetra ☐ PCP ☐ | PAHS 8310 ☐ SIM ☐ | Metals, Total or Dissolved (See list below) (Cu) | Cyanide ☐ Hex-Chrom ☐ | pH, Cond., Cl, SO4, PO4, F, NO2, NO3, BOD, TSS, TDS (circle) | NH3-N, COD, Total-P, TKN, TOC, DOC (circle) NO2+NO3 | TOX 9020 ☐ AOX 1650 ☐ 506 ☐ | | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 95 | NWC-2-34 | 6/5/06 | 0851 | | S | 1 | | | | | | | | | | X | | | | | | | | | |
| 96 | NWC-3-34 | | 0853 | | ↓ | ↓ | | | | | | | | | | X | | | | | | | | | |
| 97 | NWC-1-35 | | 0955 | | ↓ | ↓ | | | | | | | | | | X | | | | | | | | | |
| 98 | NWC-2-35 | | 0957 | | ↓ | ↓ | | | | | | | | | | X | | | | | | | | | |
| 99 | NWC-3-35 | | 1001 | | ↓ | ↓ | | | | | | | | | | X | | | | | | | | | |
| | ~~NWC-1~~ 2+5 | | | | | | | | | | | | | | | | | | | | | | | | |
| 100 | NWC-1-36 | | 0930 | | S | 1 | | | | | | | | | | X | | | | | | | | | |
| 101 | NWC-2-36 | | 0932 | | ↓ | ↓ | | | | | | | | | | X | | | | | | | | | |
| 102 | NWC-3-36 | | 0934 | | ↓ | ↓ | | | | | | | | | | X | | | | | | | | | |
| 103 | NWC-1-37 | | 1019 | | ↓ | ↓ | | | | | | | | | | X | | | | | | | | | |

**REPORT REQUIREMENTS**

- ___ I. Routine Report: Method Blank, Surrogate, as required
- X II. Report Dup., MS, MSD as required
- ___ III. Data Validation Report (includes all raw data)
- ___ IV. CLP Deliverable Report
- ___ V. EDD

**INVOICE INFORMATION**

P.O. # 8769.005/4
Bill To: John Long, GMX

**TURNAROUND REQUIREMENTS**

- ___ 24 hr. ___ 48 hr.
- ___ 5 Day 72 hr
- ___ Standard (10-15 working days)
- ___ Provide FAX Results

Requested Report Date

Circle which metals are to be analyzed:

Total Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Tl Sn V Zn Hg

Dissolved Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Tl Sn V Zn Hg

*INDICATE STATE HYDROCARBON PROCEDURE: AK CA WI NORTHWEST OTHER:_____ (CIRCLE ONE)

SPECIAL INSTRUCTIONS/COMMENTS:

See p. 1

| RELINQUISHED BY: | RECEIVED BY: | RELINQUISHED BY: | RECEIVED BY: |
|---|---|---|---|
| Signature: [signature] Date/Time: 6/6/06 705 | Signature: [signature] Date/Time: 6-6-06 0720 | Signature: Date/Time: | Signature: [signature] Date/Time: 6/6/6 1500 |
| Printed Name: Zanna Sattemule Firm: Geomatrix | Printed Name: Robert Shockey Firm: MC Delivery | Printed Name: Firm: | Printed Name: [signature] Firm: CAS |

RCOC #1 06/02

Columbia Analytical Services INC.
An Employee - Owned Company

# CHAIN OF CUSTODY

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SR#: 1C0604573

PAGE 12 OF 13 COC #

PROJECT NAME: NW Corner - FRP
PROJECT NUMBER: 9769.005 / 4
PROJECT MANAGER: John Long
COMPANY/ADDRESS:
CITY/STATE/ZIP:
E-MAIL ADDRESS:
PHONE #: FAX#:
SAMPLER'S SIGNATURE:

| | SAMPLE I.D. | DATE | TIME | LAB I.D. | MATRIX | NUMBER OF CONTAINERS | Semivolatile Organics by GC/MS 625☐ 8270☐ 8270LL☐ | Volatile Organics 624☐ 8260☐ 8021☐ BTEX☐ | Hydrocarbons (*see below) Gas☐ Diesel☐ Oil☐ ☐ Fuel Fingerprint (FIQ) ☐ NW-HCID Screen | Oil & Grease/TRPH 1664 HEM☐ 1664 SGT☐ | PCB's Aroclors☐ Congeners☐ | Pesticides/Herbicides 608☐ 8081A☐ 8141A☐ 8151A☐ | Chlorophenolics - 8151M Tri☐ Tetra☐ PCP☐ | PAHS 8310☐ SIM☐ | Metals: Total or Dissolved (See list below) Cu | Cyanide☐ Hex-Chrom☐ | pH, Cond., Cl, SO4, PO4, F, NO2, NO3, BOD, TSS, TDS (circle) | NH3-N, COD, Total-P, TKN, TOC, DOC (circle) NO2+NO3 | TOX 9020☐ AOX 1650☐ 506☐ | | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 104 | NWC-2-37 | 6/5/06 | 1020 | | S | 1 | | | | | | | | | X | | | | | | | | | |
| 105 | NWC-3-37 | | 1021 | | | | | | | | | | | | X | | | | | | | | | |
| 106 | NWC-1-38 | | 1028 | | | | | | | | | | | | X | | | | | | | | | |
| 107 | NWC-2-38 | | 1030 | | | | | | | | | | | | X | | | | | | | | | |
| 108 | NWC-3-38 | | 1032 | | | | | | | | | | | | X | | | | | | | | | |
| 109 | NWC-1-40 | | 1059 | | | | | | | | | | | | X | | | | | | | | | |
| 110 | NWC-2-40 | | 1100 | | | | | | | | | | | | X | | | | | | | | | |
| 111 | NWC-3-40 | | 1101 | | | | | | | | | | | | X | | | | | | | | | |
| 112 | NWC-1-41 | | 1106 | | | | | | | | | | | | X | | | | | | | | | |
| 113 | NWC-2-41 | | 1108 | | | | | | | | | | | | X | | | | | | | | | |

**REPORT REQUIREMENTS**

___ I. Routine Report: Method Blank, Surrogate, as required
X II. Report Dup., MS, MSD as required
___ III. Data Validation Report (includes all raw data)
___ IV. CLP Deliverable Report
___ V. EDD

**INVOICE INFORMATION**
P.O. # 9769.005/4
Bill To: John Long
GPX

**TURNAROUND REQUIREMENTS**
___ 24 hr. 48 hr.
___ 5 Day 72 hr
___ Standard (10-15 working days)
___ Provide FAX Results
Requested Report Date

Circle which metals are to be analyzed:

Total Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Tl Sn V Zn Hg

Dissolved Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Tl Sn V Zn Hg

*INDICATE STATE HYDROCARBON PROCEDURE: AK CA WI NORTHWEST OTHER:_____ (CIRCLE ONE)

SPECIAL INSTRUCTIONS/COMMENTS:
see pg 1

| RELINQUISHED BY: | RECEIVED BY: | RELINQUISHED BY: | RECEIVED BY: |
|---|---|---|---|
| Signature: [signature] Date/Time: 6/6/06 705 | Signature: [signature] Date/Time: 6/6/06 0715 | Signature: Date/Time: | Signature: [signature] Date/Time: 6/6/6 1500 |
| Printed Name: Tanna Sattenwhite Firm: Geomatrix | Printed Name: Robert Sheely Firm: MC Delivery | Printed Name: Firm: | Printed Name: [signature] Firm: CAS |

Columbia Analytical Services INC.
An Employee - Owned Company

# CHAIN OF CUSTODY

1317 South 13th Ave. • Kelso, WA 98626 • (360) 577-7222 • (800) 695-7222x07 • FAX (360) 636-1068

SR#: K0604573

PAGE 13 OF 13 COC #

PROJECT NAME: NW Corner - FRP
PROJECT NUMBER: 8769.005/4
PROJECT MANAGER: John Long
COMPANY/ADDRESS:
CITY/STATE/ZIP:
E-MAIL ADDRESS:
PHONE #: FAX#:
SAMPLER'S SIGNATURE: [signature]

| | SAMPLE I.D. | DATE | TIME | LAB I.D. | MATRIX | NUMBER OF CONTAINERS | Semivolatile Organics by GC/MS 625☐ 8270☐ 8270LL☐ | Volatile Organics 624☐ 8260☐ 8021☐ BTEX☐ | Hydrocarbons (*see below) Gas☐ Diesel☐ Oil☐ | ☐ Fuel Fingerprint (FIQ) ☐ NW-HCID Screen | Oil & Grease/TRPH 1664 HEM☐ 1664 SGT☐ | PCB's Aroclors☐ Congeners☐ | Pesticides/Herbicides 608☐ 8081A☐ 8141A☐ 8151A☐ | Chlorophenolics - 8151M Tri☐ Tetra☐ PCP☐ | PAHS 8310☐ SIM☐ | Metals, Total or Dissolved (See list below) Cu | Cyanide☐ Hex-Chrom☐ | pH, Cond., Cl, SO4, PO4, F, NO2, NO3, BOD, TSS, TDS (circle) | NH3-N, COD, Total-P, TKN, TOC, DOC (circle) NO2+NO3 | TOX 9020☐ AOX 1650☐ 506☐ | | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 14 | NWL-3-A1 | 6/5/06 | 1110 | | S | 1 | | | | | | | | | | X | | | | | | | | | |
| 115 | NWL-1-A2 | ↓ | 1118 | | ↓ | ↓ | | | | | | | | | | X | | | | | | | | | |
| 116 | NWL-2-A2 | ↓ | 1120 | | ↓ | ↓ | | | | | | | | | | X | | | | | | | | | |
| 117 | NWL-3-A2 | ↓ | 1122 | | ↓ | ↓ | | | | | | | | | | X | | | | | | | | | |

245 6/5/06

**REPORT REQUIREMENTS**

___ I. Routine Report: Method Blank, Surrogate, as required
X II. Report Dup., MS, MSD as required
___ III. Data Validation Report (includes all raw data)
___ IV. CLP Deliverable Report
___ V. EDD

**INVOICE INFORMATION**
P.O. # 8769.005/4
Bill To: John Long
GMX

**TURNAROUND REQUIREMENTS**
___ 24 hr. ___ 48 hr.
___ 5 Day (72 hr)
___ Standard (10-15 working days)
___ Provide FAX Results

Requested Report Date

Circle which metals are to be analyzed:

Total Metals: Al As Sb Ba Be B Ca Cd Co Cr (Cu) Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Tl Sn V Zn Hg

Dissolved Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Tl Sn V Zn Hg

*INDICATE STATE HYDROCARBON PROCEDURE: AK CA WI NORTHWEST OTHER:_____ (CIRCLE ONE)

SPECIAL INSTRUCTIONS/COMMENTS:
See page 1.

| RELINQUISHED BY: | RECEIVED BY: | RELINQUISHED BY: | RECEIVED BY: |
|---|---|---|---|
| [signature] 6/6/06 705 | [signature] 6.6.06 0715 | | [signature] 6/6/6 1500 |
| Signature / Date/Time | Signature / Date/Time | Signature / Date/Time | Signature / Date/Time |
| Zanna Satterwhite / Geomatrix | Robert Shockey / MC Delivery | | A Paynter / CAS |
| Printed Name / Firm | Printed Name / Firm | Printed Name / Firm | Printed Name / Firm |

Columbia Analytical Services Inc.
Cooler Receipt and Preservation Form

PC_____

Project/Client GEOMATRIX Service Request K06_____

Cooler received on 6/6/6 and opened on 6/6/6 by AP

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1. | Were custody seals on outside of coolers? | | | | MCD | Y | (N) |
| | If yes, how many and where?_____ | | | | | | |
| 2. | Were custody seals intact? | | | | | ~~Y~~ | ~~N~~ |
| 3. | Were signature and date present on the custody seals? | | | | | ~~Y~~ | ~~N~~ |
| 4. | Is the shipper's airbill available and filed? If no, record airbill number:_____ | | | | | (Y) | N |
| 5. | COC# | | | | | | |
| | Temperature of cooler(s) upon receipt: (°C) | 5.4 | 3.5 | 3.7 | 4.4 | 3.5 | |
| | Temperature Blank: (°C) | 5.1 | 2.6 | 2.1 | N/p | 5.8 | |
| | Were samples hand delivered on the same day as collection? | | | | | ~~Y~~ | ~~N~~ |
| 6. | Were custody papers properly filled out (ink, signed, etc.)? | | | | | (Y) | N |
| 7. | Type of packing material present FOAM, CARDBOARD, ICE | | | | | | |
| 8. | **Did all bottles arrive in good condition (unbroken)?** | | | | | (Y) | N |
| 9. | Were all bottle labels complete (i.e analysis, preservation, etc.)? | | | | | (Y) | N |
| 10. | Did all bottle labels and tags agree with custody papers? | | | | | (Y) | N |
| 11. | **Were the correct types of bottles used for the tests indicated?** | | | | | (Y) | N |
| 12. | Were all of the preserved bottles received at the lab with the appropriate pH? | | | | | ~~Y~~ | ~~N~~ |
| 13. | Were VOA vials checked for absence of air bubbles, and if present, noted below? | | | | | (Y) | N |
| 14. | Were the 1631 Mercury bottles checked for absence of air bubbles, and if present, noted below? | | | | | ~~Y~~ | ~~N~~ |
| 15. | Did the bottles originate from CAS/K or a branch laboratory? | | | | | Y | (N) |
| 16. | **Are CWA Microbiology samples received with >1/2 the 24hr. hold time remaining from collection?** | | | | | ~~Y~~ | ~~N~~ |
| 17. | Was C12/Res negative? | | | | | ~~Y~~ | ~~N~~ |

Explain any discrepancies:_____

RESOLUTION:_____

Samples that required preservation or received out of temperature:

| Sample ID | Reagent | Volume | Lot Number | Bottle Type | Rec'd out of Temperature | Initials |
|---|---|---|---|---|---|---|
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
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| | | | | | | |

# Metals

*Columbia Analytical Services*

# METALS

## - Cover Page -
## INORGANIC ANALYSIS DATA PACKAGE

Client: Geomatrix Consultants, Incorporated  Service Request: K0604573

Project No.: 8769.005/4

Project Name: NW Corner - FRP

| Sample No. | Lab Sample ID. |
|---|---|
| NWC-1 Composite | K0604573-118 |
| NWC-1 CompositeD | K0604573-118D |
| NWC-1 CompositeS | K0604573-118S |
| NWC-2 Composite | K0604573-119 |
| NWC-3 Composite | K0604573-120 |
| Method Blank | K0604573-MB |

Were ICP interelement corrections applied? Yes/No YES

Were ICP background corrections applied? Yes/No YES

If yes-were raw data generated before application of background corrections? Yes/No NO

Comments:

Signature: [illegible]  Date: 6/13/06

# METALS
-1-
## INORGANIC ANALYSIS DATA SHEET

Client: Geomatrix Consultants, Incorporated
Project No.: 8769.005/4
Project Name: NW Corner - FRP
Matrix: SOIL

Service Request: K0604573
Date Collected: 06/02/06
Date Received: 06/06/06
Units: mg/kg
Basis: Dry

Sample Name: NWC-1 Composite
Lab Code: K0604573-118

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 6020 | 1.91 | 0.38 | 100 | 6/9/06 | 06/13/06 | 1200 | | |

Comments:

# METALS

-1-

## INORGANIC ANALYSIS DATA SHEET

Client: Geomatrix Consultants, Incorporated
Project No.: 8769.005/4
Project Name: NW Corner - FRP
Matrix: SOIL

Service Request: K0604573
Date Collected: 06/02/06
Date Received: 06/06/06
Units: mg/kg
Basis: Dry

Sample Name: NWC-2 Composite
Lab Code: K0604573-119

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 6020 | 1.71 | 0.34 | 100 | 6/9/06 | 06/13/06 | 181 | | |

Comments:

# METALS
-1-
## INORGANIC ANALYSIS DATA SHEET

| | | | |
|---|---|---|---|
| Client: | Geomatrix Consultants, Incorporated | Service Request: | K0604573 |
| Project No.: | 8769.005/4 | Date Collected: | 06/02/06 |
| Project Name: | NW Corner - FRP | Date Received: | 06/06/06 |
| Matrix: | SOIL | Units: | mg/kg |
| | | Basis: | Dry |

Sample Name: NWC-3 Composite  Lab Code: K0604573-120

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 6020 | 1.71 | 0.34 | 100 | 6/9/06 | 06/13/06 | 21.0 | | |

Comments:

# METALS
## -2a-
## INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Geomatrix Consultants, Incorporated  Service Request: K0604573

Project No.: 8769.005/4

Project Name: NW Corner - FRP

ICV Source:  CCV Source: Various

Concentration Units: ug/l

| Analyte | Initial Calibration True | Initial Calibration Found | Initial Calibration %R(1) | Continuing Calibration True | Continuing Calibration Found | Continuing Calibration %R(1) | Continuing Calibration Found | Continuing Calibration %R(1) | Method |
|---|---|---|---|---|---|---|---|---|---|
| Copper | | | | 25.0 | 25.3 | 101 | 24.9 | 100 | 6020 |

# METALS
## - 2b -
## CRDL STANDARD FOR AA AND ICP

Client: Geomatrix Consultants, Incorporated  Service Request: K0604573

Project No.: 8769.005/4

Project Name: NW Corner - FRP

Concentration Units: ug/I

| Analyte | CRDL Standard for AA | | | CRDL Standard for ICP | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | Initial | | | Final | |
| | True | Found | %R | True | Found | %R | Found | %R |
| Copper | | | | 0.20 | 0.28 | 142 | | |

# METALS
-1-
## INORGANIC ANALYSIS DATA SHEET

Client: Geomatrix Consultants, Incorporated
Project No.: 8769.005/4
Project Name: NW Corner - FRP
Matrix: SOIL

Service Request: K0604573
Date Collected: NA
Date Received: NA
Units: mg/kg
Basis: Dry

Sample Name: Method Blank
Lab Code: K0604573-MB

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 6020 | 0.10 | 0.02 | 5 | 6/9/06 | 06/13/06 | 0.09 | B | |

Comments:

# METALS
## - 2a -
## INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Geomatrix Consultants, Incorporated  Service Request: K0604573

Project No.: 8769.005/4

Project Name: NW Corner - FRP

ICV Source: Inorganic Ventures  CCV Source: Various

Concentration Units: ug/I

| Analyte | Initial Calibration | | | Continuing Calibration | | | | | Method |
|---|---|---|---|---|---|---|---|---|---|
| | True | Found | %R(1) | True | Found | %R(1) | Found | %R(1) | |
| Copper | 12.5 | 12.2 | 98 | 25.0 | 24.9 | 100 | 25.1 | 100 | 6020 |

# METALS
## -3-
## BLANKS

Client: Geomatrix Consultants, Incorporated  Service Request: K0604573

Project No.: 8769.005/4

Project Name: NW Corner - FRP

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

| Analyte | Initial Calib. Blank (ug/L) | C | Continuing Calibration Blank (ug/L) 1 | C | 2 | C | 3 | C | | Preparation Blank C | | | Method |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Copper | 0.04 | U | 0.04 | U | 0.04 | U | 0.08 | B | | | | | 6020 |

# METALS
## -3-
## BLANKS

Client: Geomatrix Consultants, Incorporated  Service Request: K0604573

Project No.: 8769.005/4

Project Name: NW Corner - FRP

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

| Analyte | Initial Calib. Blank (ug/L) | C | Continuing Calibration Blank (ug/L) 1 | C | 2 | C | 3 | C | | Preparation Blank | C | | | Method |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Copper | | | 0.05 | B | | | | | | | | | | 6020 |

# METALS

-4-

## ICP INTERFERENCE CHECK SAMPLE

Client: Geomatrix Consultants, Incorporated

Service Request:K0604573

Project No.: 8769.005/4

Project Name: NW Corner - FRP

ICP ID Number: PQ-S

ICS Source: Inorganic Ventures

Concentration Units): ug/L

| Analyte | True | | Initial Found | | | Final Found | | |
|---|---|---|---|---|---|---|---|---|
| | Sol.A | Sol.AB | Sol.A | Sol.AB | %R | Sol.A | Sol.AB | %R |
| Copper | | 20 | 0.33 | 18.0 | 90 | | | |

# METALS
## -5a-
## SPIKE SAMPLE RECOVERY

Client: Geomatrix Consultants, Incorporated
Service Request: K0604573
Project No.: 8769.005/4
Units: mg/kg
Project Name: NW Corner - FRP
Basis: Dry
Matrix: SOIL

Sample Name: NWC-1 CompositeS
Lab Code: K0604573-118S

| Analyte | Control Limit %R | Spike Result | C | Sample Result | C | Spike Added | %R | Q | Method |
|---|---|---|---|---|---|---|---|---|---|
| Copper | | 1340 | | 1200 | | 49.2 | 285 | | 6020 |

An empty field in the Control Limit column indicates the control limit is not applicable.

# METALS
## -5b-
## POST DIGEST SPIKE SAMPLE RECOVERY

Client: Geomatrix Consultants, Incorporated
Service Request: K0604573
Project No.: 8769.005/4
Units: ug/L
Project Name: NW Corner - FRP
Matrix: SOIL

Sample Name: NWC-1 CompositeA
Lab Code: K0604573-118A

| Analyte | Control Limit %R | Spiked Sample Result (SSR) | C | Sample Result (SR) | C | Spike Added (SA) | %R | Q | M |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 75-125 | 153 | | 126 | | 25.0 | 108 | | MS |

Comments:

# METALS
## -6-
## DUPLICATES

Client: Geomatrix Consultants, Incorporated
Service Request: K0604573
Project No.: 8769.005/4
Units: mg/kg
Project Name: NW Corner - FRP
Basis: Dry
Matrix: SOIL

Sample Name:NWC-1 CompositeD
Lab Code: K0604573-118D

| Analyte | Control Limit(%) | Sample (S) | C | Duplicate (D) | C | RPD | Q | Method |
|---|---|---|---|---|---|---|---|---|
| Copper | 30 | 1200 | | 1340 | | 11 | | 6020 |

An empty field in the Control Limit column indicates the control limit is not applicable.



Form VI - IN

# METALS

-7-

## LABORATORY CONTROL SAMPLE

Client: Geomatrix Consultants, Incorporated  Service Request: K0604573

Project No.: 8769.005/4

Project Name: NW Corner - FRP

Aqueous LCS Source: Inorganic Ventures  Solid LCS Source: ERA Lot No. D045540

| Analyte | Aqueous mg/L True | Aqueous mg/L Found | Aqueous mg/L %R | Solid (mg/kg) True | Solid (mg/kg) Found | C | Limits | | %R |
|---|---|---|---|---|---|---|---|---|---|
| Copper | | | | 67.0 | 66.8 | | 53.8 | 80.2 | 100 |

00035

# METALS
-9-
## ICP SERIAL DILUTIONS

Client: Geomatrix Consultants, Incorporated
Service Request: K0604573
Project No.: 8769.005/4
Units: ug/L
Project Name: NW Corner - FRP

Sample Name: NWC-1 CompositeL
Lab Code: K0604573-118L

| Analyte | Initial Sample Result (I) | C | Serial Dilution Result (S) | C | % Differ- | Q | Method |
|---|---|---|---|---|---|---|---|
| Copper | 126 | | 141 | | 12 | E | 6020 |

# METALS
-10-
## METHOD DETECTION LIMITS

Client: Geomatrix Consultants, Incorporated  Service Request: K0604573

Project No.: 8769.005/4

Project Name: NW Corner - FRP

ICP/ICP-MS ID #: PQ-S

GFAA ID #:  AA ID #:

| Analyte | Mass | Back-ground | MRL (ug/L) | MDL (ug/L) | Method |
|---|---|---|---|---|---|
| Copper | 65 | | 0.20 | 0.04 | 6020 |

Comments

# METALS

-12-

## ICP LINEAR RANGES (QUARTERLY)

Client: Geomatrix Consultants, Incorporated Service Request: K0604573

Project No.: 8769.005/4

Project Name: NW Corner - FRP

ICP ID Number: PQ-S

| Analyte | Integ. Time (Sec.) | Concentration (ug/L) | Method |
|---|---|---|---|
| Copper | 15.00 | 400.0 | 6020 |

Comments:

1317 South 13th Avenue P.O. Box 479 Kelso, Washington 98626 (360) 577-7222 (360) 636-1068 fax

Columbia Analytical Services INC
An Employee - Owned Company

June 26, 2006

Service Request No: K0604574

John Long
Geomatrix Consultants, Incorporated
One Union Square
600 University Street, Suite 1020
Seattle, WA 98101

GEOMATRIX Received JUN 27 2006 SEATTLE

**RE: NW Corner-FRP/8769.005/4**

Dear John:

Enclosed are the results of the rush sample(s) submitted to our laboratory on June 06, 2006. For your reference, these analyses have been assigned our service request number K0604574.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAC standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please call if you have any questions. My extension is 3376.

Respectfully submitted,

**Columbia Analytical Services, Inc.**

Gregory Salata, Ph.D.
Project Chemist

GS/afs



NELAP Accredited ACIL Seal of Excellence Award 100% Recycled

## Acronyms

| | |
|---|---|
| ASTM | American Society for Testing and Materials |
| A2LA | American Association for Laboratory Accreditation |
| CARB | California Air Resources Board |
| CAS Number | Chemical Abstract Service registry Number |
| CFC | Chlorofluorocarbon |
| CFU | Colony-Forming Unit |
| DEC | Department of Environmental Conservation |
| DEQ | Department of Environmental Quality |
| DHS | Department of Health Services |
| DOE | Department of Ecology |
| DOH | Department of Health |
| EPA | U. S. Environmental Protection Agency |
| ELAP | Environmental Laboratory Accreditation Program |
| GC | Gas Chromatography |
| GC/MS | Gas Chromatography/Mass Spectrometry |
| LUFT | Leaking Underground Fuel Tank |
| M | Modified |
| MCL | Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA. |
| MDL | Method Detection Limit |
| MPN | Most Probable Number |
| MRL | Method Reporting Limit |
| NA | Not Applicable |
| NC | Not Calculated |
| NCASI | National Council of the Paper Industry for Air and Stream Improvement |
| ND | Not Detected |
| NIOSH | National Institute for Occupational Safety and Health |
| PQL | Practical Quantitation Limit |
| RCRA | Resource Conservation and Recovery Act |
| SIM | Selected Ion Monitoring |
| TPH | Total Petroleum Hydrocarbons |
| tr | Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL. |

## Inorganic Data Qualifiers

| | |
|---|---|
| * | The result is an outlier. See case narrative. |
| # | The control limit criteria is not applicable. See case narrative. |
| B | The analyte was found in the associated method blank at a level that is significant relative to the sample result. |
| E | The result is an estimate amount because the value exceeded the instrument calibration range. |
| J | The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL. |
| U | The compound was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. |
| i | The MRL/MDL has been elevated due to a matrix interference. |
| X | See case narrative. |

## Metals Data Qualifiers

| | |
|---|---|
| # | The control limit criteria is not applicable. See case narrative. |
| B | The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL. |
| E | The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample. |
| M | The duplicate injection precision was not met. |
| N | The Matrix Spike sample recovery is not within control limits. See case narrative. |
| S | The reported value was determined by the Method of Standard Additions (MSA). |
| U | The compound was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. |
| W | The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance. |
| i | The MRL/MDL has been elevated due to a matrix interference. |
| X | See case narrative. |
| * | The duplicate analysis not within control limits. See case narrative. |
| + | The correlation coefficient for the MSA is less than 0.995. |

## Organic Data Qualifiers

| | |
|---|---|
| * | The result is an outlier. See case narrative. |
| # | The control limit criteria is not applicable. See case narrative. |
| A | A tentatively identified compound, a suspected aldol-condensation product. |
| B | The analyte was found in the associated method blank at a level that is significant relative to the sample result. |
| C | The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data. |
| D | The reported result is from a dilution. |
| E | The result is an estimate amount because the value exceeded the instrument calibration range. |
| J | The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL. |
| N | The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed. |
| P | The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results (25% for CLP Pesticides). |
| U | The compound was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. |
| i | The MRL/MDL has been elevated due to a chromatographic interference. |
| X | See case narrative. |

## Additional Petroleum Hydrocarbon Specific Qualifiers

| | |
|---|---|
| F | The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard. |
| L | The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard. |
| H | The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard. |
| O | The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard. |
| Y | The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard. |
| Z | The chromatographic fingerprint does not resemble a petroleum product. |

# Case Narrative

COLUMBIA ANALYTICAL SERVICES, INC.

| | | | |
|---|---|---|---|
| **Client:** | Geomatrix Consultants, Inc. | **Service Request No.:** | K0604574 |
| **Project:** | NW Corner-FRP/8769.005/4 | **Date Received:** | 06/06/06 |
| **Sample Matrix:** | Water and soil | | |

## CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier III validation deliverables including summary forms and all of the associated raw data for each of the analyses. When appropriate to the method, method blank results have been reported with each analytical test.

### Sample Receipt

One water and twelve soil samples were received for analysis at Columbia Analytical Services on 06/06/06. The samples were received in good condition and consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

### General Chemistry Parameters

No anomalies associated with the analysis of these samples were observed.

### Total Metals

**Matrix Spike Recovery Exceptions:**
The control criteria for matrix spike recoveries of Copper and Mercury for sample NWC-1-22W are not applicable. The analyte concentration in the sample was significantly higher than the added spike concentration, preventing accurate evaluation of the spike recovery.

**Relative Percent Difference Exceptions:**
The Relative Percent Difference (RPD) for the replicate analysis of Copper in sample NWC-1-22W was outside the normal CAS control limits. The variability in the results is attributed to the heterogeneous character of the sample. Standard mixing techniques were used, but were not sufficient for complete homogenization of this sample.

No other anomalies associated with the analysis of these samples were observed.

### Hydrocarbon Identification by EPA Method 8015B

**Surrogate Exceptions:**
The control criteria were exceeded for the surrogate 4-Bromofluorobenzene in samples NWC-2-42W and NWC-2-6W due to chromatographic matrix interferences. Accurate quantitations of the surrogate were not possible because the surrogate peaks were not sufficiently resolvable from petroleum product responses. No further corrective action was appropriate.

The control criteria were exceeded for the surrogate o-Terphenyl in sample NWC-2-36W due to chromatographic matrix interferences. Accurate quantitation of the surrogate was not possible because the surrogate peak was not sufficiently resolvable from petroleum product responses. No further corrective action was appropriate.

Approved by _____ Date 6/26/06

**Calibration Range Exceedence:**
The results for Gasoline Range Organics has been estimated in samples NWC2-36W, NWC-2-6W and NWC-2-7W because the concentrations exceeded the instrument calibration range. The sample extracts were not (further) diluted because the results are for screening purposes only, and as such are semiquantitative. See NWTPH-GX analyses of the samples for quantitative results.

<u>Diesel Range Organics by EPA Method 8015B</u>

**Elevated Method Reporting Limits:**
Samples NWC-2-8W, NWC2-36W, NWC-2-6W and NWC-2-7W required dilutions due to the presence of elevated levels of target analytes. The reporting limits are adjusted to reflect the dilutions.

**Surrogate Exceptions:**
The control criteria were exceeded for the surrogate o-Terphenyl in sample NWC-2-36W due to chromatographic matrix interferences. Accurate quantitation of the surrogate was not possible because the surrogate peak was not sufficiently resolvable from petroleum product responses. No further corrective action was appropriate.

No other anomalies associated with the analysis of these samples were observed.

<u>Gasoline Range Organics by EPA Method 8015B</u>

**Elevated Method Reporting Limits:**
Samples NWC-3-24W, NWC-2-5W, NWC-2-6W, NWC-2-7W, NWC-2-8W, NWC-2-36W, and NWC-2-42W required dilutions due to the presence of elevated levels of target analyte. The reporting limits are adjusted to reflect the dilutions.

**Surrogate Exceptions:**
The control criteria for the 4-Bromofluorobenzene surrogate in samples NWC-3-24W, NWC-2-5W, NWC-2-6W, NWC-2-7W, NWC-2-8W, NWC-2-36W, and NWC-2-42W are not applicable. The analyses of the samples required dilutions which resulted in surrogate concentrations below its calibration range. No further corrective action was appropriate.

No other anomalies associated with the analysis of these samples were observed.

<u>Semivolatile Organic Compounds by EPA Method 8270C</u>

**Second Source Exceptions:**
The ICV analyzed for CAL5348 had exceeded the hold time by one day. All analytes were within method specified criteria, indicating that the standard had not degraded significantly and that the ICAL was still valid. No further corrective action was appropriate.

**Lab Control Sample Exceptions:**
The advisory criterion was exceeded for Benzoic Acid in Laboratory Control Sample (LCS) KWG0609161-10. As per the CAS/Kelso Standard Operating Procedure (SOP) for this method, these compounds are not included in the subset of analytes used to control the analysis. The recovery information reported for these analytes is for advisory purposes only (i.e. to provide additional detail related to the performance of each individual compound). No further corrective action was required.

**Relative Percent Difference Exceptions:**
The Relative Percent Difference (RPD) for Benzoic Acid in the replicate Laboratory Control Sample (LCS) analyses (KWG0609161-10 and KWG0609161-11) was outside control criteria. The analyte in question was not detected in the associated field samples. The data quality is not significantly affected. No further corrective action was appropriate.

The Relative Percent Difference (RPD) for 2,4-Dinitrophenol in the replicate Laboratory Control Sample (LCS) analyses (KWG0609161-10 and KWG0609161-11) was outside control criteria. All spike recoveries for the analyte in question were within acceptance limits in the associated LCS/DLCS, indicating the analytical batch was in

Approved by _____ Date 6/26/06

control. The analyte in question was not detected in the associated field samples. The data quality is not significantly affected. No further corrective action was appropriate.

**Elevated Method Reporting Limits:**
The reporting limits are elevated for all samples. The sample extracts were diluted prior to instrumental analysis due to relatively high levels of non-target background components. Clean-up of the extracts was performed within the scope of the method, but did not eliminate enough of the background components to prevent dilutions. Semi-quantitative screens were performed prior to final analysis. The results of the screening indicated the need to perform dilutions.

No other anomalies associated with the analysis of these samples were observed.

**Approved by** _____ **Date** 6/26/06

# Chain of Custody Documentation

Columbia Analytical Services INC.
An Employee - Owned Company

# CHAIN OF CUSTODY

1317 South 13th Ave. • Kelso, WA 98626 • (360) 577-7222 • (800) 695-7222x07 • FAX (360) 636-1068

SR#: K0604574

PAGE 1 OF 2 COC #

PROJECT NAME: NW Corner - FRP
PROJECT NUMBER: 8769.005 / 4
PROJECT MANAGER: John Long
COMPANY/ADDRESS: Geomatrix 600 University St. Suite 1020
~~Seattle~~ PA
CITY/STATE/ZIP: Seattle, WA 98101
E-MAIL ADDRESS: j.long@geomatrix.com
PHONE #: 206-342-1779 FAX#: 206-342-1761
SAMPLER'S SIGNATURE: [signature]

| SAMPLE I.D. | DATE | TIME | LAB I.D. | MATRIX | NUMBER OF CONTAINERS | Semivolatile Organics by GC/MS 625☐ 8270☐ 8270LL☒ | Volatile Organics 624☐ 8260☐ 8021☐ BTEX☐ | Hydrocarbons (*see below) Gas☐ Diesel☒ Oil☒ | ☐ Fuel Fingerprint (FIQ) ☒ NW-HCID Screen | Oil & Grease/TRPH 1664 HEM☐ 1664 SGT☐ | PCB's Aroclors☐ Congeners☐ | Pesticides/Herbicides 608☐ 8081A☐ 8141A☐ 8151A☐ | Chlorophenolics - 8151M Tri☐ Tetra☐ PCP☐ | PAHS 8310☐ SIM☐ | Metals, Total or Dissolved (See list below) | Cyanide☐ Hex-Chrom☐ | pH, Cond, Cl, SO4, PO4, F, NO2, NO3, BOD, TSS, TDS (circle) | NH3-N, COD, Total-P, TKN, TOC, DOC (circle) NO2+NO3 | TOX 9020☐ AOX 1650☐ 506☐ | | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NWC-2-5W | 6/2/06 | 1158 | 1 | S | 5 | | | X | X | X | | | | | | | | | | | | | | | |
| NWC-2-6W | 6/2/06 | 1305 | 2 | S | 5 | | | X | X | X | | | | | | | | | | | | | | | |
| NWC-2-7W | 6/2/06 | 1341 | 3 | S | 5 | | | X | X | X | | | | | | | | | | | | | | | |
| NWC-3-24W | 6/2/06 | 0838 | 4 | S | 1 | | | | X | X | | | | | | | | | | | | | | | |
| NWC-2-25W | 6/2/06 | 0900 | 5 | S | 4 | | | X | | | | | | | | | | | | | | | | | |
| NWC-1-22W | 6/2/06 | 0948 | 6 | S | 1 | | X | | | | | | | | | X | | | | | | | | | * |
| NWC-1-2W | 6/2/06 | 1005 | 7 | S | 1 | | X | | | | | | | | | X | | | | | | | | | * |
| NWC-2-8W | 6/5/06 | 0809 | 8 | S | 5 | | | X | X | X | | | | | | | | | | | | | | | |
| NWC-2-36W | 6/5/06 | 0932 | 9 | S | 5 | | | X | X | X | | | | | | | | | | | | | | | |
| NWC-1-12W | 6/5/06 | 0946 | 10 | S | 1 | | X | | | | | | | | | X | | | | | | | | | * |

**REPORT REQUIREMENTS**

___ I. Routine Report: Method Blank, Surrogate, as required
X II. Report Dup., MS, MSD as required
___ III. Data Validation Report (includes all raw data)
___ IV. CLP Deliverable Report
___ V. EDD

**INVOICE INFORMATION**
P.O. # 8769.005/4
Bill To: John Long, GMX

**TURNAROUND REQUIREMENTS**
___ 24 hr. ___ 48 hr.
X 5 Day ~~72 hr~~ ZAS
___ Standard (10-15 working days)
___ Provide FAX Results

Requested Report Date

Circle which metals are to be analyzed:

Total Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Tl Sn V Zn Hg

Dissolved Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Tl Sn V Zn Hg

*INDICATE STATE HYDROCARBON PROCEDURE: AK CA WI NORTHWEST OTHER:_____ (CIRCLE ONE)

SPECIAL INSTRUCTIONS/COMMENTS:

* Samples NWC-1-22W and NWC-1-2W and NWC-1-12W contain unknown substance. Please test small amount first. "putty-like"

| RELINQUISHED BY: | RECEIVED BY: | RELINQUISHED BY: | RECEIVED BY: |
|---|---|---|---|
| [signature] 6/6/06 705 | [signature] 6.6.06 0725 | | |
| Signature / Date/Time | Signature / Date/Time | Signature / Date/Time | Signature / Date/Time |
| Zanna Satterwhite Geomatrix | Robert Shockley MC Delivery | | |
| Printed Name / Firm | Printed Name / Firm | Printed Name / Firm | Printed Name / Firm |

RCOC #1 06/03

Columbia Analytical Services INC.
An Employee - Owned Company

# CHAIN OF CUSTODY

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SR#: K0604574

PAGE 2 OF 2 COC.#

PROJECT NAME: NW Corner-FRP
PROJECT NUMBER: 8769.005/4
PROJECT MANAGER: John Long
COMPANY/ADDRESS: Geomatrix
600 University St, Suite 1020
CITY/STATE/ZIP: Seattle WA 98101
E-MAIL ADDRESS: jlong@geomatrix.com
PHONE#: 206-342-1779 FAX#: 206-342-1761
SAMPLER'S SIGNATURE: [signature]

| SAMPLE I.D. | DATE | TIME | LAB I.D. | MATRIX | NUMBER OF CONTAINERS | Semivolatile Organics by GC/MS 625☐ 8270☐ 8270LL☐ | Volatile Organics 624☐ 8260☐ 8021☐ BTEX☐ | Hydrocarbons (*see below) Gas☐ Diesel☒ Oil☒ | ☐ Fuel Fingerprint (FIQ) ☐ NW-HCID Screen | Oil & Grease/TRPH 1664 HEM☐ 1664 SGT☐ | PCB's Aroclors☐ Congeners☐ | Pesticides/Herbicides 608☐ 8081A☐ 8141A☐ 8151A☐ | Chlorophenolics - 8151M Tri☐ Tetra☐ PCP☐ | PAHS 8310☐ SIM☐ | Metals, Total or Dissolved (See list below) | Cyanide☐ Hex-Chrom☐ | pH, Cond., Cl, SO4, PO4, F, NO2, NO3, BOD, TSS, TDS (circle) | NH3-N, COD, Total-P, TKN, TOC, DOC (circle) NO2+NO3 | TOX 9020☐ AOX 1650☐ 506☐ | | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NWC-2-39W | 6/5/06 | 1050 | 11 | S | 1 | X | | | | | | | | | X | | | | | | | | | * |
| NWC-2-42W | 6/5/06 | 1120 | 12 | S | 5 | | | | X | | | | | | | | | | | | | | | |
| * | | | | | | | | | | | | | | | | | | | | | | | | |

ZAS 6/6/06

**REPORT REQUIREMENTS**

___ I. Routine Report: Method Blank, Surrogate, as required
X II. Report Dup., MS, MSD as required
___ III. Data Validation Report (includes all raw data)
___ IV. CLP Deliverable Report
___ V. EDD

**INVOICE INFORMATION**
P.O. # 8769.005/4
Bill To: John Long, GMT

**TURNAROUND REQUIREMENTS**
___ 24 hr. ___ 48 hr.
X 5 Day
___ Standard (10-15 working days)
___ Provide FAX Results

Requested Report Date

Circle which metals are to be analyzed:
Total Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Tl Sn V Zn Hg
Dissolved Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Tl Sn V Zn Hg

*INDICATE STATE HYDROCARBON PROCEDURE: AK CA WI NORTHWEST OTHER:_____ (CIRCLE ONE)

SPECIAL INSTRUCTIONS/COMMENTS:
* Sample NWC-2-39W contains unknown "putty-like" substance. Please test small amount first.
* Trip Blank (2) AP 6/6/6

| RELINQUISHED BY: | | RECEIVED BY: | | RELINQUISHED BY: | | RECEIVED BY: | |
|---|---|---|---|---|---|---|---|
| [signature] | 6/6/06 705 | [signature] | 6.6.06 0725 | | | | |
| Signature | Date/Time | Signature | Date/Time | Signature | Date/Time | Signature | Date/Time |
| Tanna Sattenwhite | Geomatrix | Robert Shoolby | Mc Delivery | | | | |
| Printed Name | Firm | Printed Name | Firm | Printed Name | Firm | Printed Name | Firm |

RCOC #1 06/03

10

## Greg Salata

**From:** John Long [jlong@geomatrix.com]
**Sent:** Wednesday, June 07, 2006 9:57 AM
**To:** Greg Salata
**Cc:** Larry McGaughey
**Subject:** FW: SKonica506060707360.pdf

Greg:

Larry would like us to resolve the ignitability relatively quickly for the NWC-1-22W, NWC-1-2W, and NWC-1-12W samples so we can get them in the queue. Also, could you please let me know what the turnaround times will be for the organic analyses, or what TA times are available?

- John

-----Original Message-----
From: Larry McGaughey
Sent: Wednesday, June 07, 2006 9:54 AM
To: John Long
Subject: RE: SKonica506060707360.pdf

John -

We should probably ask him to do the ignitability testing quickly so we can make decisions on the rest.

-----Original Message-----
From: John Long
Sent: Wednesday, June 07, 2006 9:33 AM
To: 'Greg Salata'
Cc: Larry McGaughey; Zanna Satterwhite; Patrick Hsieh
Subject: RE: SKonica506060707360.pdf

For this batch (and only this batch):

The specific metals are RCRA 8 plus Copper. Please run 8270 full suite, no SIMs.

Samples NWC-1-22W, NWC-1-2W, and NWC-1-12W contain the viscoelastic, silly-putty like, material. Please test a small portion of one of these samples following EPA Method 1030, preceding with the safety procedure outlined in section 7.0 before continuing (Method 1020 is an ASTM method, and I cannot access it without paying a fee -- I assume it also has a similar precaution; if so CAS can substitute Method 1020 instead.)

Once we have the results of this test, we will determine if other analyses are required; please hold these three samples pending analysis for the methods specified on the chain of custody.

- John

-----Original Message-----
From: Greg Salata [mailto:gsalata@kelso.caslab.com]
Sent: Wednesday, June 07, 2006 7:47 AM
To: John Long
Subject: SKonica506060707360.pdf

<<SKonica506060707360.pdf>> John,
For this batch of samples I need to know 1) the specific metals list and 2) whether the 8270 is the entire suite of analytes or just the PAHs. I wasn't sure from the QAPP. Also, this is marked for low level analysis. Do we have any idea what we are expecting in these samples?
I hate to charge for the low level if the standard will meet your needs.

Greg

---

Gregory Salata, Ph.D.
Project Chemist
Columbia Analytical Services
Phone: 360-577-7222
FAX: 360-636-1068
www.caslab.com

IMPORTANT NOTE: Documents accompanying this email may contain information which is legally privileged and/or confidential. The information is intended only for the use of the individual or entity named above. If you are not the intended recipient, or the person responsible for giving it to the intended recipient, you are hereby notified that any disclosure, copying, distribution, or use of any of the information provided in this transmission is strictly PROHIBITED. If you have received this email in error, please immediately notify us.
Thank you for your cooperation and assistance.

## Greg Salata

**From:** Zanna Satterwhite [zsatterwhite@geomatrix.com]
**Sent:** Monday, June 19, 2006 11:53 AM
**To:** Greg Salata
**Cc:** Larry McGaughey; John Long
**Subject:** FRP sample receipts - review

Greg,
I just reviewed all the confirmations of sample receipt that you sent John. They list all the samples we've submitted for this project. I noted the following issues that you may or may not already be aware of:

- K0604601 (NWC archives): please make sure you analyze selected samples for copper only.
- K0604574 (NWC suspects): please add a column for VOCs, and put an "H" for "hold" next to samples NWC-2-5W, NWC-2-6W, NWC-2-7W, NWC-2-25W, NWC-2-8W, NWC-2-36W, and NWC-2-42W. I realize the hold time is 14 days for extraction for VOCs; if Larry or John feel there is a need to extract these just in case we want to analyze, they will let you know soon, because I know we've already exceeded the hold times for some of these samples. WP-1-5W and WP-1-6W (K0604885) are the only other samples which we collected VOCs kits for but decided not to analyze – those samples expire on 6/27/06.
- K0604786 (Maint primary): make sure you analyzed both Composite 1 and Composite 1 (dup) for As, Cu, and Hg, not just As and Cu.
- K0604852 (Sulf primary): in our work plan, we specified EPA 9045B for pH analysis; is EPA 9045C a very different method?

Please make sure you hang onto any extra soil volume for all samples that we've submitted so far.

Thank you,

Zanna Satterwhite, L.G.
Geologist
Geomatrix Consultants
600 University Street, Suite 1020
Seattle, WA 98101
Ph: (206) 342-1772
Fax: (206) 342-1761
Cell: (206) 550-3781

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**Columbia Analytical Services Inc.**
**Cooler Receipt and Preservation Form**

PC GREG

Project/Client GEOMATRIX Service Request K06 04574

Cooler received on 6/6/6 and opened on 6/6/6 by AP

1. Were custody seals on outside of coolers? MCD Y (N)
   If yes, how many and where?
2. Were custody seals intact? ~~Y N~~
3. Were signature and date present on the custody seals? ~~Y N~~
4. Is the shipper's airbill available and filed? If no, record airbill number: (Y) N
5. COC#

| | | | | | |
|---|---|---|---|---|---|
| Temperature of cooler(s) upon receipt: (°C) | 5.4 | 3.5 | 3.7 | 4.4 | 3.5 |
| Temperature Blank: (°C) | 5.1 | 2'6 | 2.1 | N/P | 5.8 |

Were samples hand delivered on the same day as collection? ~~Y N~~

6. Were custody papers properly filled out (ink, signed, etc.)? (Y) N
7. Type of packing material present FOAM, CARDBOARD, ICE
8. Did all bottles arrive in good condition (unbroken)? (Y) N
9. Were all bottle labels complete (i.e analysis, preservation, etc.)? (Y) N
10. Did all bottle labels and tags agree with custody papers? (Y) N
11. Were the correct types of bottles used for the tests indicated? (Y) N
12. Were all of the preserved bottles received at the lab with the appropriate pH? ~~Y N~~
13. Were VOA vials checked for absence of air bubbles, and if present, noted below? (Y) N
14. Were the 1631 Mercury bottles checked for absence of air bubbles, and if present, noted below? ~~Y N~~
15. Did the bottles originate from CAS/K or a branch laboratory? Y (N)
16. Are CWA Microbiology samples received with >1/2 the 24hr. hold time remaining from collection? ~~Y N~~
17. Was C12/Res negative? ~~Y N~~

Explain any discrepancies:

RESOLUTION:

Samples that required preservation or received out of temperature:

| Sample ID | Reagent | Volume | Lot Number | Bottle Type | Rec'd out of Temperature | Initials |
|---|---|---|---|---|---|---|
| | | | | | | |
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# Total Solids

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

**Client:** Geomatrix Consultants, Incorporated
**Project:** NW Corner-FRP/8769.005/4
**Sample Matrix:** Soil

**Service Request:** K0604574

## Total Solids

**Prep Method:** NONE
**Analysis Method:** 160.3M
**Test Notes:**

**Units:** PERCENT
**Basis:** Wet

| Sample Name | Lab Code | Date Collected | Date Received | Date Analyzed | Result | Result Notes |
|---|---|---|---|---|---|---|
| NWC-2-5W | K0604574-001 | 06/02/2006 | 06/06/2006 | 06/07/2006 | 76.3 | |
| NWC-2-6W | K0604574-002 | 06/02/2006 | 06/06/2006 | 06/07/2006 | 73.4 | |
| NWC-2-7W | K0604574-003 | 06/02/2006 | 06/06/2006 | 06/07/2006 | 79.8 | |
| NWC-3-24W | K0604574-004 | 06/02/2006 | 06/06/2006 | 06/07/2006 | 81.4 | |
| NWC-1-22W | K0604574-006 | 06/02/2006 | 06/06/2006 | 06/07/2006 | 82.7 | |
| NWC-1-2W | K0604574-007 | 06/02/2006 | 06/06/2006 | 06/07/2006 | 79.8 | |
| NWC-2-8W | K0604574-008 | 06/05/2006 | 06/06/2006 | 06/07/2006 | 80.7 | |
| NWC-2-36W | K0604574-009 | 06/05/2006 | 06/06/2006 | 06/07/2006 | 72.9 | |
| NWC-1-12W | K0604574-010 | 06/05/2006 | 06/06/2006 | 06/07/2006 | 86.9 | |
| NWC-2-39W | K0604574-011 | 06/05/2006 | 06/06/2006 | 06/07/2006 | 83.8 | |
| NWC-2-42W | K0604574-012 | 06/05/2006 | 06/06/2006 | 06/07/2006 | 82.6 | |

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

| | | | |
|---|---|---|---|
| **Client:** | Geomatrix Consultants, Incorporated | **Service Request:** | K0604574 |
| **Project:** | NW Corner-FRP/8769.005/4 | **Date Collected:** | 06/02/2006 |
| **Sample Matrix:** | Soil | **Date Received:** | 06/06/2006 |
| | | **Date Analyzed:** | 06/07/2006 |

**Duplicate Sample Summary**
**Total Solids**

| | | | |
|---|---|---|---|
| **Prep Method:** | NONE | **Units:** | PERCENT |
| **Analysis Method:** | 160.3M | **Basis:** | Wet |
| **Test Notes:** | | | |

| Sample Name | Lab Code | Sample Result | Duplicate Sample Result | Average | Relative Percent Difference | Result Notes |
|---|---|---|---|---|---|---|
| NWC-2-5W | K0604574-001 | 76.3 | 76.1 | 76.2 | <1 | |

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

| | | | |
|---|---|---|---|
| **Client:** | Geomatrix Consultants, Incorporated | **Service Request:** | K0604574 |
| **Project:** | NW Corner-FRP/8769.005/4 | **Date Collected:** | 06/05/2006 |
| **Sample Matrix:** | Solid fuel | **Date Received:** | 06/06/2006 |
| | | **Date Analyzed:** | 06/07/2006 |

**Duplicate Sample Summary**

**Total Solids**

| | | | |
|---|---|---|---|
| **Prep Method:** | NONE | **Units:** | PERCENT |
| **Analysis Method:** | 160.3M | **Basis:** | Wet |
| **Test Notes:** | | | |

| Sample Name | Lab Code | Sample Result | Duplicate Sample Result | Average | Relative Percent Difference | Result Notes |
|---|---|---|---|---|---|---|
| NWC-1-12W | K0604574-010 | 86.9 | 87.3 | 87.1 | <1 | |

# COLUMBIA ANALYTICAL SERVICES, INC.

## EPA Method 160.3 - Total Solids

| | | | | | |
|---|---|---|---|---|---|
| **Group ID:** | KWG0609322 | | | | |
| **Analyst:** | RMcKee | | | **Reviewed By:** | [illegible] |
| **Date Acquired:** | 06/07/2006 17:38 | **Oven TempStart:** | 104 DEG C | **Date Reviewed:** | 6/8/06 |
| **Date Completed:** | 06/08/2006 11:09 | **Oven TempEnd:** | 104 DEG C | | |

| # | Lab Code | Client ID | Matrix | Tare | Tare+Wet | Tare+Dry | % Solids | QC Ref Sample | Comments |
|---|---|---|---|---|---|---|---|---|---|
| 1 | K0602878-006 | G-5 | SEDIMENT | 1.2168g | 6.6251g | 2.5565g | 24.8 | | |
| 2 | K0602878-009 | M-9 | SEDIMENT | 1.2418g | 4.1092g | 2.0471g | 28.1 | | |
| 3 | K0603851-001 | 005 | SOLID FUEL | 1.24g | 2.67g | 2.5373g | 90.7 | | Air Dried & Ground |
| 4 | K0603917-001 | Paperboard | PAPERBOA | 1.24g | 5.21g | 5.01g | 95.0 | | |
| 5 | K0604252-008 | Composite | PAPERBOA | 1.24g | 3.04g | 2.94g | 94.4 | | |
| 6 | K0604538-001 | Morton Boiler Ash | ASH | 1.24g | 4.79g | 2.96g | 48.5 | | |
| 7 | K0604553-001 | Rose Drain | SEDIMENT | 1.24g | 8.49g | 6.16g | 67.9 | | |
| 8 | K0604553-003 | Central Drain | SEDIMENT | 1.24g | 13.48g | 10.67g | 77.0 | | |
| 9 | K0604553-005 | Fig Drain | SEDIMENT | 1.25g | 9.23g | 6.34g | 63.8 | | |
| 10 | K0604553-006 | New River @ Forresor | SEDIMENT | 1.23g | 10.62g | 8.12g | 73.4 | | |
| 11 | K0604553-007 | New River @ Horley | SEDIMENT | 1.25g | 7.95g | 5.89g | 69.3 | | |
| 12 | K0604553-008 | Alamo R. @ Worthington | SEDIMENT | 1.24g | 11.77g | 8.72g | 71.0 | | |
| 13 | K0604553-011 | Worthington Pond Sed | SEDIMENT | 1.24g | 9.11g | 7.28g | 76.7 | | |
| 14 | K0604553-013 | Alamo R @ Harris Sed | SEDIMENT | 1.24g | 7.88g | 6.04g | 72.3 | | |
| 15 | K0604553-014 | Alamo R. @ Rutherford | SEDIMENT | 1.24g | 8.57g | 6.36g | 69.8 | | |
| 16 | K0604573-118 | NWC-1 Composite | SOIL | 1.24g | 15.75g | 14.18g | 89.2 | | As Received |
| 17 | K0604573-119 | NWC-2 Composite | SOIL | 1.24g | 25.19g | 20.14g | 78.9 | | As Received |
| 18 | K0604573-120 | NWC-3 Composite | SOIL | 1.24g | 10.86g | 8.73g | 77.9 | | As Received |
| 19 | K0604574-001 | NWC-2-5W | SOIL | 1.25g | 10.12g | 8.02g | 76.3 | | |
| 20 | K0604574-002 | NWC-2-6W | SOIL | 1.25g | 7.07g | 5.52g | 73.4 | | |
| 21 | K0604574-003 | NWC-2-7W | SOIL | 1.23g | 12.65g | 10.34g | 79.8 | | |
| 22 | K0604574-004 | NWC-3-24W | SOIL | 1.24g | 8.12g | 6.84g | 81.4 | | |
| 23 | K0604574-006 | NWC-1-22W | SOIL | 1.24g | 6.67g | 5.73g | 82.7 | | |
| 24 | K0604574-007 | NWC-1-2W | SOIL | 1.23g | 7.77g | 6.45g | 79.8 | | |

19

| | | | | | |
|---|---|---|---|---|---|
| **Group ID:** | KWG0609322 | | | | |
| **Analyst:** | RMcKee | | | **Reviewed By:** | CY |
| **Date Acquired:** | 06/07/2006 17:38 | **Oven TempStart:** | 104 DEG C | **Date Reviewed:** | 6/8/06 |
| **Date Completed:** | 06/08/2006 11:09 | **Oven TempEnd:** | 104 DEG C | | |

| # | Lab Code | Client ID | Matrix | Tare | Tare+Wet | Tare+Dry | % Solids | QC Ref Sample | Comments |
|---|---|---|---|---|---|---|---|---|---|
| 25 | K0604574-008 | NWC-2-8W | SOIL | 1.25g | 7.27g | 6.11g | 80.7 | | |
| 26 | K0604574-009 | NWC-2-36W | SOIL | 1.23g | 13.68g | 10.30g | 72.9 | | |
| 27 | K0604574-010 | NWC-1-12W | SOIL | 1.23g | 9.40g | 8.33g | 86.9 | | |
| 28 | K0604574-011 | NWC-2-39W | SOIL | 1.25g | 10.42g | 8.93g | 83.8 | | |
| 29 | K0604574-012 | NWC-2-42W | SOIL | 1.24g | 8.90g | 7.57g | 82.6 | | |
| 30 | K0604597-001 | Feed Belt | SOLID FUEL | 10.24g | 68.45g | 38.25g | 48.1 | | As Received |
| 31 | K0604597-002 | Dewatered Sludge | SOLID FUEL | 10.46g | 63.16g | 28.11g | 33.5 | | As Received |
| 32 | K0604598-001 | YRLLC Cleanup Fuel | SOLID FUEL | 10.43g | 123.12g | 80.51g | 62.2 | | As Received |
| 33 | KWG0609322-1 | Duplicate Client Sample | SOLID FUEL | 1.2412g | 9.0974g | 3.2470g | 25.5 | K0602878-006 | |
| 34 | KWG0609322-2 | Duplicate Client Sample | SOIL | 1.24g | 11.23g | 8.02g | 67.9 | K0604553-001 | |
| 35 | KWG0609322-3 | Duplicate Client Sample | SOIL | 1.24g | 10.02g | 7.92g | 76.1 | K0604574-001 | |
| 36 | KWG0609322-4 | Duplicate Client Sample | SOLID FUEL | 1.25g | 10.38g | 9.22g | 87.3 | K0604574-010 | |
| 37 | KWG0609322-5 | Duplicate Client Sample | SOIL | 1.25g | 15.48g | 12.29g | 77.6 | K0604573-120 | |

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# General Chemistry Parameters

# COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

**Client :** Geomatrix Consultants, Incorporated
**Project Name :** NW Corner-FRP
**Project Number :** 8769.005/4
**Sample Matrix :** SOIL

**Service Request :** K0604574
**Date Collected :** 06/02-05/06
**Date Received :** 06/06/06

Flashpoint

Analysis Method : 1020
Test Notes :

Units : DEG C
Basis : NA

| Sample Name | Lab Code | MRL | Dilution Factor | Date Analyzed | Result | Result Notes |
|---|---|---|---|---|---|---|
| NWC-1-22W | K0604574-006 | - | 1 | 06/10/06 | >110 | |
| NWC-1-2W | K0604574-007 | - | 1 | 06/10/06 | >110 | |
| NWC-1-12W | K0604574-010 | - | 1 | 06/10/06 | >110 | |
| Method Blank | K0604574-MB | - | 1 | 06/10/06 | >110 | |

# COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

| | | | |
|---|---|---|---|
| **Client :** | Geomatrix Consultants, Incorporated | **Service Request :** | K0604574 |
| **Project Name :** | NW Corner-FRP | **Date Collected :** | 06/02/06 |
| **Project Number :** | 8769.005/4 | **Date Received :** | 06/06/06 |
| **Sample Matrix :** | SOIL | **Date Prepared :** | NA |
| | | **Date Analyzed :** | 06/10/06 |

Duplicate Summary
Inorganic Parameters

| | | | |
|---|---|---|---|
| Sample Name : | NWC-1-22W | Units : | DEG C |
| Lab Code : | K0604574-006DUP | Basis : | NA |
| Test Notes : | | | |

| Analyte | Analysis Method | MRL | Sample Result | Duplicate Sample Result | Average | Relative Percent Difference | Result Notes |
|---|---|---|---|---|---|---|---|
| Flashpoint | 1020 | - | >110 | >110 | >110 | - | |

# COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

| | | | |
|---|---|---|---|
| **Client :** | Geomatrix Consultants, Incorporated | **Service Request :** | K0604574 |
| **Project Name :** | NW Corner-FRP | **Date Collected :** | NA |
| **Project Number :** | 8769.005/4 | **Date Received :** | NA |
| **Sample Matrix :** | SOIL | **Date Prepared :** | NA |
| | | **Date Analyzed :** | 06/10/06 |

Laboratory Control Sample Summary
Inorganic Parameters

| | | | |
|---|---|---|---|
| Sample Name : | Lab Control Sample | Units : | DEG C |
| Lab Code : | K0604574-LCS | Basis : | NA |
| Test Notes : | | | |

| Analyte | Prep Method | Analysis Method | True Value | Result | Percent Recovery | CAS Percent Recovery Acceptance Limits | Result Notes |
|---|---|---|---|---|---|---|---|
| Flashpoint | None | 1020 | 26 | 27 | 96 | 85-115 | |

Report By:EMihaila

Work Request # Original (K4574)

Tier: III

Date Analyzed: 6/10/06

Analyst: SP

Analysis: F. Paint

## DATA QUALITY REPORT
## INORGANICS

Explain any "no" responses to questions below, and any corrective actions in the comments section below.

| | | |
|---|---|---|
| 1. | Is the method name and number correct and appropriate? | yes/no/NA |
| 2. | Holding times met for all analyses and for all samples? | yes/no/NA |
| 3. | Are calculations correct? | yes/no/NA |
| 4. | Is the reporting basis correct? (Dry Weight) | yes/no/NA |
| 5. | All quality control criteria met? | yes/no/NA |
| a. | Is the calibration curve correlation coefficient ≥ 0.995? | yes/no/NA |
| b. | MBs, CCVs, CCBs, LCSs, Dups, and Spikes, analyzed at proper frequency? | yes/no/NA |
| c. | Are ICVs, CCVs, and CCBs all within acceptance limits? | yes/no/NA |
| d. | Are results for methods blanks all ND? | yes/no/NA |
| e. | Are all QC samples within acceptance criteria? (LCS % rec, MS/DMS % rec, DUP or MS/DMS RPDs, etc.) | yes/no/NA |
| f. | Are all exceptions explained? | yes/no/NA |
| 6. | Are all service requests that apply attached? | yes/no/NA |
| 7. | Are all samples labelled correctly? | yes/no/NA |
| 8. | Have all instructions on the service request been followed? (e.g. Special MRLs, QC on a specific sample) | yes/no/NA |
| 9. | Are detection limits and units reported correctly? | yes/no/NA |
| 10. | Are proper Analysis/Extraction stickers included on report? | yes/no/NA |
| 11. | Is the unused space on the benchsheet crossed out? | yes/no/NA |
| 12. | Was analysis turned in by the due date? (n-2) (If not record SR#) | yes/no/NA |

COMMENTS:

K4574- Rush due 6/13

Final Approved by: [signature] Date: 6/12/06

DQREPORT

56452

# Columbia Analytical Services

Service Request: K4574

Analysis For: Flashpoint  Method: EPA 1020

| p-xylene STD 1 | | | 1-butanol STD 2 | | | DI Water Blank | | | Sample #: K4574-6 | | | Sample #: K4574-6D | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| °C | Yes | No | °C | Yes | No | °C | Yes | No | °C | Yes | No | °C | Yes | No |
| 20 | | X | ~~20~~ | | | ~~20~~ | | | ~~20~~ | | | 20 | | |
| 25 | | X | 25 | | X | 25 | | | 25 | | | 25 | | |
| 30 | X | | 30 | | X | 30 | | | 30 | | | 30 | | |
| 35 | | | 35 | | X | 35 | | | 35 | | | 35 | | |
| 40 | | | 40 | X | | 40 | | | 40 | | | 40 | | |
| 45 | | | 45 | | | 45 | | | 45 | | | 45 | | |
| 50 | | | 50 | | | 50 | | | 50 | | | 50 | | |
| 55 | | | 55 | | | 55 | | | 55 | | | 55 | | |
| 60 | | | 60 | | | 60 | | | 60 | | | 60 | | |
| 65 | | | 65 | | | 65 | | | 65 | | | 65 | | |
| 70 | | | 70 | | | 70 | | | 70 | | | 70 | | |
| 75 | | | 75 | | | 75 | | | 75 | | | 75 | | |
| 80 | | | 80 | | | 80 | | | 80 | | | 80 | | |
| 85 | | | 85 | | | ~~85~~ | | | 85 | | | ~~85~~ | | |
| 90 | | | 90 | | | 90 | | X | 90 | | X | 90 | | X |
| 95 | | | 95 | | | 95 | | X | 95 | | X | 95 | | X |
| 100 | | | 100 | | | 100 | | X | 100 | | X | 100 | | X |
| 105 | | | 105 | | | 105 | | X | 105 | | X | 105 | | X |
| 110 | | | 110 | | | 110 | | X | 110 | | X | 110 | | X |
| Verification | | | Verification | | | Verification | | | Verification | | | Verification | | |
| 26 | | X | 36 | | X | | | | | | | | | |
| 27 | X | | 37 | | X | | | | | | | | | |
| 28 | | | 38 | X | | | | | | | | | | |
| 29 | | | 39 | | | | | | | | | | | |
| 30 | | | 40 | | | | | | | | | | | |
| Obs. Flash = 27 | | | Obs. Flash = 38 | | | Obs. Flash = >110 | | | Obs. Flash = >110 | | | Obs. Flash = >110 | | |
| Flashpoint = 27 | | | Flashpoint = 38 | | | Flashpoint = >110 | | | Flashpoint = >110 | | | Flashpoint = >110 | | |

**Standard 1:** p-xylene T.V. = 25.5 °C ±0.5 °C  Lot #: A07H44  %REC= 106

**Standard 2:** 1-butanol T.V. = 37.0 °C ±1.0 °C  Lot #: B21B05  %REC= 103

**Barometric Pressure**
**Beginning :** 760
**End :** 760

**Actual Flashpoint (°C) = Observed flashpoint + 0.03 (760 - Avg. barometric pressure (mm Hg))**

Comments:

K4574-6+6D $\bar{x}$ = >110 RPD = <1

| | | | |
|---|---|---|---|
| Analyst: SR | | Date: 6/10/06 | Time: 0615 |
| Reviewed By: | | Date: 6/12/06 | |

# Columbia Analytical Services

Service Request: _____

Analysis For: Flashpoint  Method: EPA 1020

| Sample #: K4574-7 | | | Sample #: K4574-10 | | | Sample #: | | | Sample #: | | | Sample #: | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| °C | Yes | No | °C | Yes | No | °C | Yes | No | °C | Yes | No | °C | Yes | No |
| ~~20~~ | | | ~~20~~ | | | 20 | | | 20 | | | 20 | | |
| 25 | | | 25 | | | 25 | | | 25 | | | 25 | | |
| 30 | | | 30 | | | 30 | | | 30 | | | 30 | | |
| 35 | | | 35 | | | 35 | | | 35 | | | 35 | | |
| 40 | | | 40 | | | 40 | | | 40 | | | 40 | | |
| 45 | | | 45 | | | 45 | | | 45 | | | 45 | | |
| 50 | | | 50 | | | 50 | | | 50 | | | 50 | | |
| 55 | | | 55 | | | 55 | | | 55 | | | 55 | | |
| 60 | | | 60 | | | 60 | | | 60 | | | 60 | | |
| 65 | | | 65 | | | 65 | | | 65 | | | 65 | | |
| 70 | | | 70 | | | 70 | | | 70 | | | 70 | | |
| 75 | | | 75 | | | 75 | | | 75 | | | 75 | | |
| 80 | | | 80 | | | 80 | | | 80 | | | 80 | | |
| 85 | | | 85 | | | 85 | | | 85 | | | 85 | | |
| 90 | | X | 90 | | X | 90 | | | 90 | | | 90 | | |
| 95 | | X | 95 | | X | 95 | | | 95 | | | 95 | | |
| 100 | | X | 100 | | X | 100 | | | 100 | | | 100 | | |
| 105 | | X | 105 | | X | 105 | | | 105 | | | 105 | | |
| 110 | | X | 110 | | X | 110 | | | 110 | | | 110 | | |
| Verification | | | Verification | | | Verification | | | Verification | | | Verification | | |
| Obs. Flash = >110 | | | Obs. Flash = >110 | | | Obs. Flash = | | | Obs. Flash = | | | Obs. Flash = | | |
| Flashpoint = >110 | | | Flashpoint = >110 | | | Flashpoint = | | | Flashpoint = | | | Flashpoint = | | |

Comments: _____

| | | | |
|---|---|---|---|
| Analyst: SP | | Date: 6/10/06 | Time: 0615 |
| Reviewed By: | TJ | Date: 6/12/06 | |

# Metals

# METALS

## - Cover Page -
## INORGANIC ANALYSIS DATA PACKAGE

Client: Geomatrix Consultants, Incorporated  Service Request: K0604574

Project No.: 8769.005/4

Project Name: NW Corner-FRP

| Sample No. | Lab Sample ID. |
|---|---|
| NWC-1-22W | K0604574-006 |
| NWC-1-22WD | K0604574-006D |
| NWC-1-22WS | K0604574-006S |
| NWC-1-2W | K0604574-007 |
| NWC-1-12W | K0604574-010 |
| NWC-2-39W | K0604574-011 |
| Method Blank | K0604574-MB |

Were ICP interelement corrections applied? Yes/No YES

Were ICP background corrections applied? Yes/No YES

If yes-were raw data generated before application of background corrections? Yes/No NO

Comments:

Signature: [illegible]  Date: 6/14/06

# METALS
-1-
## INORGANIC ANALYSIS DATA SHEET

Client: Geomatrix Consultants, Incorporated
Project No.: 8769.005/4
Project Name: NW Corner-FRP
Matrix: SOIL

Service Request: K0604574
Date Collected: 06/02/06
Date Received: 06/06/06
Units: MG/KG
Basis: Dry

Sample Name: NWC-1-22W
Lab Code: K0604574-006

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 6020 | 0.61 | 0.06 | 5 | 6/7/06 | 6/12/06 | 3.63 | | |
| Barium | 6020 | 0.06 | 0.04 | 5 | 6/7/06 | 6/12/06 | 46.2 | | |
| Cadmium | 6020 | 0.061 | 0.024 | 5 | 6/7/06 | 6/12/06 | 0.160 | | |
| Chromium | 6020 | 0.24 | 0.04 | 5 | 6/7/06 | 6/12/06 | 14.4 | | |
| Copper | 6020 | 2.42 | 0.48 | 100 | 6/7/06 | 6/13/06 | 2150 | | * J |
| Lead | 6020 | 0.06 | 0.02 | 5 | 6/7/06 | 6/12/06 | 23.3 | | |
| Mercury | 7471A | 0.097 | 0.004 | 5 | 6/13/06 | 6/14/06 | 1.910 | | |
| Selenium | 6020 | 1.2 | 0.1 | 5 | 6/7/06 | 6/12/06 | 0.3 | B | J |
| Silver | 200.8 | 0.024 | 0.005 | 5 | 6/7/06 | 6/13/06 | 0.129 | | |

% Solids: 82.7

Comments:

TG
7/14/06

# METALS

-1-

## INORGANIC ANALYSIS DATA SHEET

Client: Geomatrix Consultants, Incorporated
Project No.: 8769.005/4
Project Name: NW Corner-FRP
Matrix: SOIL

Service Request: K0604574
Date Collected: 06/02/06
Date Received: 06/06/06
Units: MG/KG
Basis: Dry

Sample Name: NWC-1-2W
Lab Code: K0604574-007

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 6020 | 1.04 | 0.10 | 10 | 6/7/06 | 6/12/06 | 3.90 | | |
| Barium | 6020 | 0.10 | 0.06 | 10 | 6/7/06 | 6/12/06 | 65.7 | | |
| Cadmium | 6020 | 0.104 | 0.042 | 10 | 6/7/06 | 6/12/06 | 0.181 | | |
| Chromium | 6020 | 0.42 | 0.06 | 10 | 6/7/06 | 6/12/06 | 14.4 | | |
| Copper | 6020 | 2.09 | 0.42 | 100 | 6/7/06 | 6/13/06 | 696 | | * |
| Lead | 6020 | 0.10 | 0.04 | 10 | 6/7/06 | 6/12/06 | 13.0 | | |
| Mercury | 7471A | 0.020 | 0.001 | 1 | 6/13/06 | 6/14/06 | 0.787 | | |
| Selenium | 6020 | 2.1 | 0.2 | 10 | 6/7/06 | 6/12/06 | 0.8 | B | J |
| Silver | 200.8 | 0.021 | 0.004 | 5 | 6/7/06 | 6/13/06 | 0.204 | | |

% Solids: 79.8

Comments:

TG 7/28/06

# METALS
-1-
## INORGANIC ANALYSIS DATA SHEET

Client: Geomatrix Consultants, Incorporated
Project No.: 8769.005/4
Project Name: NW Corner-FRP
Matrix: SOIL

Service Request: K0604574
Date Collected: 06/05/06
Date Received: 06/06/06
Units: MG/KG
Basis: Dry

Sample Name: NWC-1-12W
Lab Code: K0604574-010

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 6020 | 0.57 | 0.06 | 5 | 6/7/06 | 6/12/06 | 4.53 | | |
| Barium | 6020 | 0.06 | 0.03 | 5 | 6/7/06 | 6/12/06 | 78.2 | | |
| Cadmium | 6020 | 0.057 | 0.023 | 5 | 6/7/06 | 6/12/06 | 0.234 | | |
| Chromium | 6020 | 0.23 | 0.03 | 5 | 6/7/06 | 6/12/06 | 15.1 | | |
| Copper | 6020 | 2.28 | 0.46 | 100 | 6/7/06 | 6/13/06 | 3290 | | * |
| Lead | 6020 | 0.06 | 0.02 | 5 | 6/7/06 | 6/12/06 | 21.8 | | |
| Mercury | 7471A | 0.020 | 0.001 | 1 | 6/13/06 | 6/14/06 | 0.564 | | |
| Selenium | 6020 | 1.1 | 0.1 | 5 | 6/7/06 | 6/12/06 | 0.4 | B | J |
| Silver | 200.8 | 0.023 | 0.005 | 5 | 6/7/06 | 6/13/06 | 0.219 | | |

% Solids: 86.9

Comments:

TG 7/25/06

# METALS
-1-
## INORGANIC ANALYSIS DATA SHEET

Client: Geomatrix Consultants, Incorporated
Project No.: 8769.005/4
Project Name: NW Corner-FRP
Matrix: SOIL

Service Request: K0604574
Date Collected: 06/05/06
Date Received: 06/06/06
Units: MG/KG
Basis: Dry

Sample Name: NWC-2-39W
Lab Code: K0604574-011

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 6020 | 0.60 | 0.06 | 5 | 6/7/06 | 6/12/06 | 2.32 | | |
| Barium | 6020 | 0.06 | 0.04 | 5 | 6/7/06 | 6/12/06 | 169 | | |
| Cadmium | 6020 | 0.060 | 0.024 | 5 | 6/7/06 | 6/12/06 | 0.288 | | |
| Chromium | 6020 | 0.24 | 0.04 | 5 | 6/7/06 | 6/12/06 | 14.5 | | |
| Copper | 6020 | 23.90 | 4.77 | 1000 | 6/7/06 | 6/13/06 | 18200 | | * |
| Lead | 6020 | 0.06 | 0.02 | 5 | 6/7/06 | 6/12/06 | 28.2 | | |
| Mercury | 7471A | 0.020 | 0.001 | 1 | 6/13/06 | 6/14/06 | 0.745 | | |
| Selenium | 6020 | 1.2 | 0.1 | 5 | 6/7/06 | 6/12/06 | 0.3 | B | |
| Silver | 200.8 | 0.024 | 0.005 | 5 | 6/7/06 | 6/13/06 | 0.099 | | |

J

% Solids: 83.8

Comments:

TG 7/28/06

# METALS
-1-
## INORGANIC ANALYSIS DATA SHEET

Client: Geomatrix Consultants, Incorporated
Service Request: K0604574
Project No.: 8769.005/4
Date Collected:
Project Name: NW Corner-FRP
Date Received:
Matrix: SOIL
Units: MG/KG
Basis: Dry

Sample Name: Method Blank
Lab Code: K0604574-MB

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 6020 | 0.50 | 0.05 | 5 | 6/7/06 | 6/12/06 | 0.05 | U | |
| Barium | 6020 | 0.05 | 0.03 | 5 | 6/7/06 | 6/12/06 | 0.03 | U | |
| Cadmium | 6020 | 0.050 | 0.020 | 5 | 6/7/06 | 6/12/06 | 0.020 | U | |
| Chromium | 6020 | 0.20 | 0.03 | 5 | 6/7/06 | 6/12/06 | 0.05 | B | |
| Copper | 6020 | 0.10 | 0.02 | 5 | 6/7/06 | 6/13/06 | 0.06 | B | * |
| Lead | 6020 | 0.05 | 0.02 | 5 | 6/7/06 | 6/12/06 | 0.02 | U | |
| Mercury | 7471A | 0.020 | 0.001 | 1 | 6/13/06 | 6/14/06 | 0.001 | U | |
| Selenium | 6020 | 1.0 | 0.1 | 5 | 6/7/06 | 6/12/06 | 0.1 | U | |
| Silver | 200.8 | 0.020 | 0.004 | 5 | 6/7/06 | 6/13/06 | 0.004 | U | |

% Solids: 100.0

Comments:

# METALS
## -2a-
## INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Geomatrix Consultants, Incorporated  Service Request: K0604574

Project No.: 8769.005/4

Project Name: NW Corner-FRP

ICV Source: Inorganic Ventures  CCV Source: Various

Concentration Units: ug/I

| Analyte | Initial Calibration | | | Continuing Calibration | | | | | Method |
|---|---|---|---|---|---|---|---|---|---|
| | True | Found | %R(1) | True | Found | %R(1) | Found | %R(1) | |
| Arsenic | 25.0 | 25.6 | 102 | 25.0 | 25.1 | 100 | 24.9 | 100 | 6020 |
| Barium | 100 | 101 | 101 | 25.0 | 24.8 | 99 | 25.1 | 100 | 6020 |
| Cadmium | 12.5 | 12.8 | 102 | 25.0 | 24.9 | 99 | 25.1 | 100 | 6020 |
| Chromium | 10.0 | 10.1 | 101 | 25.0 | 25.2 | 101 | 25.0 | 100 | 6020 |
| Copper | 12.5 | 12.2 | 98 | 25.0 | 24.9 | 100 | 25.1 | 100 | 6020 |
| Lead | 25.0 | 25.3 | 101 | 25.0 | 24.9 | 100 | 24.6 | 98 | 6020 |
| Mercury | 5.0 | 5.26 | 105 | 5.0 | 4.82 | 96 | 5.02 | 100 | 7471A |
| Selenium | 25.0 | 25.7 | 103 | 25.0 | 25.0 | 100 | 24.0 | 96 | 6020 |
| Silver | 12.5 | 12.0 | 96 | 25.0 | 25.0 | 100 | 25.1 | 100 | 200.8 |

# METALS
## -2a-
## INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Geomatrix Consultants, Incorporated  Service Request: K0604574

Project No.: 8769.005/4

Project Name: NW Corner-FRP

ICV Source:  CCV Source: Various

Concentration Units: ug/I

| Analyte | Initial Calibration | | | Continuing Calibration | | | | | Method |
|---|---|---|---|---|---|---|---|---|---|
| | True | Found | %R(1) | True | Found | %R(1) | Found | %R(1) | |
| Arsenic | | | | 25.0 | 25.0 | 100 | 24.0 | 96 | 6020 |
| Barium | | | | 25.0 | 25.1 | 100 | 24.5 | 98 | 6020 |
| Cadmium | | | | 25.0 | 25.0 | 100 | 25.0 | 100 | 6020 |
| Chromium | | | | 25.0 | 25.2 | 101 | 24.3 | 97 | 6020 |
| Copper | | | | 25.0 | 25.3 | 101 | 24.9 | 100 | 6020 |
| Lead | | | | 25.0 | 25.3 | 101 | 25.2 | 101 | 6020 |
| Mercury | | | | 5.0 | 5.07 | 101 | | | 7471A |
| Selenium | | | | 25.0 | 25.8 | 103 | 24.2 | 97 | 6020 |
| Silver | | | | 25.0 | 25.3 | 101 | 25.0 | 100 | 200.8 |

# METALS
## -2a-
## INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Geomatrix Consultants, Incorporated  Service Request: K0604574

Project No.: 8769.005/4

Project Name: NW Corner-FRP

ICV Source:  CCV Source: Various

Concentration Units: ug/L

| Analyte | Initial Calibration | | | Continuing Calibration | | | | | Method |
|---|---|---|---|---|---|---|---|---|---|
| | True | Found | %R(1) | True | Found | %R(1) | Found | %R(1) | |
| Silver | | | | 25.0 | 25.0 | 100 | | | 200.8 |

# METALS
## - 2b -
## CRDL STANDARD FOR AA AND ICP

Client: Geomatrix Consultants, Incorporated  Service Request: K0604574

Project No.: 8769.005/4

Project Name: NW Corner-FRP

Concentration Units: ug/I

| Analyte | CRDL Standard for AA | | | CRDL Standard for ICP | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | Initial | | | Final | |
| | True | Found | %R | True | Found | %R | Found | %R |
| Arsenic | | | | 1.0 | 1.03 | 103 | | |
| Barium | | | | 0.10 | 0.10 | 96 | | |
| Cadmium | | | | 0.04 | 0.018 | 45 | | |
| Chromium | | | | 0.40 | 0.41 | 103 | | |
| Copper | | | | 0.20 | 0.28 | 142 | | |
| Lead | | | | 0.04 | 0.04 | 111 | | |
| Mercury | 0.20 | 0.170 | 85 | | | | | |
| Selenium | | | | 2.0 | 1.99 | 100 | | |
| Silver | | | | 0.04 | 0.039 | 97 | | |

# METALS
## -3-
## BLANKS

Client: Geomatrix Consultants, Incorporated  Service Request: K0604574

Project No.: 8769.005/4

Project Name: NW Corner-FRP

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

| Analyte | Initial Calib. Blank (ug/L) | C | Continuing Calibration Blank (ug/L) 1 | C | 2 | C | 3 | C | | Preparation Blank C | | | Method |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 0.10 | U | 0.10 | U | 0.10 | U | 0.10 | U | | | | | 6020 |
| Barium | 0.06 | U | 0.06 | U | 0.06 | U | 0.06 | U | | | | | 6020 |
| Cadmium | 0.040 | U | 0.040 | U | 0.04 | U | 0.040 | U | | | | | 6020 |
| Chromium | 0.06 | U | 0.06 | U | 0.06 | U | 0.06 | U | | | | | 6020 |
| Copper | 0.04 | U | 0.04 | U | 0.04 | U | 0.08 | B | | | | | 6020 |
| Lead | 0.04 | U | 0.04 | U | 0.04 | U | 0.04 | U | | | | | 6020 |
| Mercury | 0.008 | U | 0.008 | U | 0.008 | U | 0.008 | U | | | | | 7471A |
| Selenium | 0.2 | U | 0.2 | U | 0.2 | U | 0.2 | U | | | | | 6020 |
| Silver | 0.015 | B | 0.008 | U | 0.008 | U | 0.008 | U | | | | | 200.8 |

# METALS
## -3-
## BLANKS

Client: Geomatrix Consultants, Incorporated  Service Request: K0604574

Project No.: 8769.005/4

Project Name: NW Corner-FRP

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

| Analyte | Initial Calib. Blank (ug/L) | C | Continuing Calibration Blank (ug/L) 1 | C | 2 | C | 3 | C | | Preparation Blank | C | | | Method |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Arsenic | | | 0.10 | U | | | | | | | | | | 6020 |
| Barium | | | 0.06 | U | | | | | | | | | | 6020 |
| Cadmium | | | 0.040 | U | | | | | | | | | | 6020 |
| Chromium | | | 0.06 | U | | | | | | | | | | 6020 |
| Copper | | | 0.05 | B | | | | | | | | | | 6020 |
| Lead | | | 0.04 | U | | | | | | | | | | 6020 |
| Selenium | | | 0.2 | U | | | | | | | | | | 6020 |
| Silver | | | 0.008 | U | 0.008 | U | | | | | | | | 200.8 |

# METALS
## -4-
## ICP INTERFERENCE CHECK SAMPLE

Client: Geomatrix Consultants, Incorporated

Service Request:K0604574

Project No.: 8769.005/4

Project Name: NW Corner-FRP

ICP ID Number: Excell ICPMS

ICS Source: Inorganic Ventures

Concentration Units): ug/L

| Analyte | True | | Initial Found | | | Final Found | | |
|---|---|---|---|---|---|---|---|---|
| | Sol.A | Sol.AB | Sol.A | Sol.AB | %R | Sol.A | Sol.AB | %R |
| Silver | | 20 | 0.017 | 17.4 | 87 | | | |

# METALS
## -4-
## ICP INTERFERENCE CHECK SAMPLE

Client: Geomatrix Consultants, Incorporated

Service Request:K0604574

Project No.: 8769.005/4

Project Name: NW Corner-FRP

ICP ID Number: PQ-S

ICS Source: Inorganic Ventures

Concentration Units): ug/L

| Analyte | True | | Initial Found | | | Final Found | | |
|---|---|---|---|---|---|---|---|---|
| | Sol.A | Sol.AB | Sol.A | Sol.AB | %R | Sol.A | Sol.AB | %R |
| Arsenic | | 20 | 0.11 | 18.0 | 90 | | | |
| Barium | | | -0.01 | -0.01 | | | | |
| Cadmium | | 20 | 0.394 | 20.3 | 102 | | | |
| Chromium | | 20 | 0.25 | 20.2 | 101 | | | |
| Copper | | 20 | 0.33 | 18.0 | 90 | | | |
| Lead | | | 0.23 | 0.19 | | | | |
| Selenium | | | 0.6 | 0.9 | | | | |

# METALS
## -5a-
## SPIKE SAMPLE RECOVERY

Client: Geomatrix Consultants, Incorporated
Service Request: K0604574
Project No.: 8769.005/4
Units: mg/kg
Project Name: NW Corner-FRP
Basis: Dry
Matrix: SOIL
% Solids: 82.7

Sample Name: NWC-1-22WS
Lab Code: K0604574-006S

| Analyte | Control Limit %R | Spike Result | C | Sample Result | C | Spike Added | %R | Q | Method |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 74 - 120 | 119 | | 3.63 | | 121 | 95 | | 6020 |
| Barium | 79 - 117 | 537 | | 46.2 | | 484 | 101 | | 6020 |
| Cadmium | 63 - 136 | 12.1 | | 0.160 | | 12.1 | 98 | | 6020 |
| Chromium | 53 - 147 | 60.7 | | 14.4 | | 48.4 | 96 | | 6020 |
| Copper | | 5940 | | 2150 | | 60.5 | 6275 | | 6020 |
| Lead | 66 - 134 | 155 | | 23.3 | | 121 | 108 | | 6020 |
| Mercury | | 2.630 | | 1.910 | | 0.486 | 148 | | 7471A |
| Selenium | 74 - 119 | 109 | | 0.3 | B | 121 | 90 | | 6020 |
| Silver | 83 - 107 | 11.4 | | 0.129 | | 12.1 | 93 | | 200.8 |

An empty field in the Control Limit column indicates the control limit is not applicable.

# METALS
## -5b-
## POST DIGEST SPIKE SAMPLE RECOVERY

Client: Geomatrix Consultants, Incorporated
Service Request: K0604574
Project No.: 8769.005/4
Units: ug/L
Project Name: NW Corner-FRP
Matrix: SOIL

Sample Name: NWC-1-22WA
Lab Code: K0604574-006A

| Analyte | Control Limit %R | Spiked Sample Result (SSR) | C | Sample Result (SR) | C | Spike Added (SA) | %R | Q | M |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 75-125 | 22.5 | | 6.00 | | 20.0 | 83 | | MS |
| Barium | 75-125 | 101 | | 76.4 | | 20.0 | 123 | | MS |
| Cadmium | 75-125 | 18.5 | | 0.264 | | 20.0 | 91 | | MS |
| Chromium | 75-125 | 42.8 | | 23.8 | | 20.0 | 95 | | MS |
| Copper | 75-125 | 198 | | 178 | | 20.0 | 100 | | MS |
| Lead | 75-125 | 60.1 | | 38.5 | | 20.0 | 108 | | MS |
| Selenium | 75-125 | 16.3 | | 0.5 | B | 20.0 | 79 | | MS |
| Silver | 75-125 | 23.8 | | 0.213 | | 25.0 | 94 | | MS |

Comments:

# METALS
## - 6 -
## DUPLICATES

Client: Geomatrix Consultants, Incorporated
Project No.: 8769.005/4
Project Name: NW Corner-FRP
Matrix: SOIL

Service Request: K0604574
Units: mg/kg
Basis: Dry
% Solids: 82.7

Sample Name: NWC-1-22WD
Lab Code: K0604574-006D

| Analyte | Control Limit (%) | Sample (S) | C | Duplicate (D) | C | RPD | Q | Method |
|---|---|---|---|---|---|---|---|---|
| Arsenic | 30 | 3.63 | | 4.34 | | 18 | | 6020 |
| Barium | 30 | 46.2 | | 49.6 | | 7 | | 6020 |
| Cadmium | | 0.160 | | 0.207 | | 25 | | 6020 |
| Chromium | 30 | 14.4 | | 16.9 | | 16 | | 6020 |
| Copper | 30 | 2150 | | 2940 | | 31 | * | 6020 |
| Lead | 30 | 23.3 | | 27.9 | | 18 | | 6020 |
| Mercury | 30 | 1.910 | | 1.630 | | 16 | | 7471A |
| Selenium | | 0.3 | B | 0.4 | B | 9 | | 6020 |
| Silver | 30 | 0.129 | | 0.146 | | 12 | | 200.8 |

An empty field in the Control Limit column indicates the control limit is not applicable.

# METALS
-7-
## LABORATORY CONTROL SAMPLE

Client: Geomatrix Consultants, Incorporated

Service Request: K0604574

Project No.: 8769.005/4

Project Name: NW Corner-FRP

Aqueous LCS Source: Inorganic Ventures

Solid LCS Source: ERA Lot No. D045540

| Analyte | Aqueous mg/L | | | Solid (mg/kg) | | | | |
|---|---|---|---|---|---|---|---|---|
| | True | Found | %R | True | Found | C | Limits | %R |
| Arsenic | | | | 146 | 137 | 112 | 180 | 94 |
| Barium | | | | 339 | 356 | 266 | 412 | 105 |
| Cadmium | | | | 92.8 | 93.5 | 73.9 | 112 | 101 |
| Chromium | | | | 172 | 172 | 135 | 209 | 100 |
| Copper | | | | 67.0 | 66.2 | 53.8 | 80.2 | 99 |
| Lead | | | | 67.5 | 67.7 | 53.1 | 81.9 | 100 |
| Mercury | | | | 1.77 | 1.88 | 1.21 | 2.34 | 106 |
| Selenium | | | | 70.5 | 72.3 | 53.3 | 87.7 | 103 |
| Silver | | | | 93.0 | 86.1 | 57.0 | 129 | 93 |

# METALS
-9-
## ICP SERIAL DILUTIONS

Client: Geomatrix Consultants, Incorporated
Service Request: K0604574
Project No.: 8769.005/4
Units: ug/L
Project Name: NW Corner-FRP

Sample Name: NWC-1-22WL
Lab Code: K0604574-006L

| Analyte | Initial Sample Result (I) | C | Serial Dilution Result (S) | C | % Differ- | Q | Method |
|---|---|---|---|---|---|---|---|
| Arsenic | 6.00 | | 8.03 | | 34 | E | 6020 |
| Barium | 76.4 | | 89.5 | | 17 | E | 6020 |
| Cadmium | 0.264 | | 0.231 | B | 12 | | 6020 |
| Chromium | 23.8 | | 30.0 | | 26 | E | 6020 |
| Copper | 178 | | 172 | | 3 | | 6020 |
| Lead | 38.5 | | 46.3 | | 20 | E | 6020 |
| Selenium | 0.5 | B | 1.00 | U | | | 6020 |
| Silver | 0.213 | | 0.225 | | 5 | | 200.8 |

# METALS
-10-
## METHOD DETECTION LIMITS

Client: Geomatrix Consultants, Incorporated Service Request: K0604574

Project No.: 8769.005/4

Project Name: NW Corner-FRP

ICP/ICP-MS ID #:

GFAA ID #: AA ID #: CETAC-1

| Analyte | Wave-length | Back-ground | MRL (ug/L) | MDL (ug/L) | Method |
|---|---|---|---|---|---|
| Mercury | 253.70 | BD | 0.200 | 0.008 | 7471A |

Comments

# METALS
-10-
## METHOD DETECTION LIMITS

Client: Geomatrix Consultants, Incorporated Service Request: K0604574

Project No.: 8769.005/4

Project Name: NW Corner-FRP

ICP/ICP-MS ID #: Excell ICPMS

GFAA ID #: AA ID #:

| Analyte | Mass | Back-ground | MRL (ug/L) | MDL (ug/L) | Method |
|---|---|---|---|---|---|
| Silver | 107 | | 0.040 | 0.008 | 200.8 |

Comments

# METALS
## -10-
## METHOD DETECTION LIMITS

Client: Geomatrix Consultants, Incorporated Service Request: K0604574

Project No.: 8769.005/4

Project Name: NW Corner-FRP

ICP/ICP-MS ID #: PQ-S

GFAA ID #: AA ID #:

| Analyte | Mass | Back-ground | MRL (ug/L) | MDL (ug/L) | Method |
|---|---|---|---|---|---|
| Arsenic | 75 | | 1.00 | 0.10 | 6020 |
| Barium | 137 | | 0.10 | 0.06 | 6020 |
| Cadmium | 111 | | 0.100 | 0.040 | 6020 |
| Chromium | 52 | | 0.40 | 0.06 | 6020 |
| Copper | 65 | | 0.20 | 0.04 | 6020 |
| Lead | 208 | | 0.10 | 0.04 | 6020 |
| Selenium | 77 | | 2.0 | 0.2 | 6020 |

Comments

# METALS

-12-

## ICP LINEAR RANGES (QUARTERLY)

Client: Geomatrix Consultants, Incorporated  Service Request: K0604574

Project No.: 8769.005/4

Project Name: NW Corner-FRP

ICP ID Number: Excell ICPMS

| Analyte | Integ. Time (Sec.) | Concentration (ug/L) | Method |
|---|---|---|---|
| Silver | 15.00 | 300.0 | 200.8 |

Comments:

# METALS

-12-

## ICP LINEAR RANGES (QUARTERLY)

Client: Geomatrix Consultants, Incorporated Service Request: K0604574

Project No.: 8769.005/4

Project Name: NW Corner-FRP

ICP ID Number: PQ-S

| Analyte | Integ. Time (Sec.) | Concentration (ug/L) | Method |
|---|---|---|---|
| Arsenic | 15.00 | 200.0 | 6020 |
| Barium | 15.00 | 500.0 | 6020 |
| Cadmium | 15.00 | 300.0 | 6020 |
| Chromium | 15.00 | 200.0 | 6020 |
| Copper | 15.00 | 400.0 | 6020 |
| Lead | 15.00 | 400.0 | 6020 |
| Selenium | 15.00 | 200.0 | 6020 |

Comments:

# Organic Analysis:
# Diesel and Residual Range Organics

## Summary Package

## Sample and QC Results

COLUMBIA ANALYTICAL SERVICES, INC.

**Client:** Geomatrix Consultants, Incorporated
**Project:** NW Corner-FRP/8769.005/4

**Service Request:** K0604574

## Cover Page - Organic Analysis Data Package
## Diesel and Residual Range Organics

| Sample Name | Lab Code | Date Collected | Date Received |
|---|---|---|---|
| NWC-2-5W | K0604574-001 | 06/02/2006 | 06/06/2006 |
| NWC-2-6W | K0604574-002 | 06/02/2006 | 06/06/2006 |
| NWC-2-7W | K0604574-003 | 06/02/2006 | 06/06/2006 |
| NWC-2-8W | K0604574-008 | 06/05/2006 | 06/06/2006 |
| NWC-2-36W | K0604574-009 | 06/05/2006 | 06/06/2006 |
| NWC-2-42W | K0604574-012 | 06/05/2006 | 06/06/2006 |
| NWC-2-42W | KWG0609367-1 | 06/05/2006 | 06/06/2006 |

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the case narrative. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: M Erickson

Name: Mike Erickson

Date: 6/21/06

Title: Supervisor

# COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

| | | | |
|---|---|---|---|
| **Client:** | Geomatrix Consultants, Incorporated | **Service Request:** | K0604574 |
| **Project:** | NW Corner-FRP/8769.005/4 | **Date Collected:** | 06/02/2006 |
| **Sample Matrix:** | Soil | **Date Received:** | 06/06/2006 |

## Diesel and Residual Range Organics

| | | | |
|---|---|---|---|
| **Sample Name:** | NWC-2-5W | **Units:** | mg/Kg |
| **Lab Code:** | K0604574-001 | **Basis:** | Dry |
| **Extraction Method:** | EPA 3550B | **Level:** | Low |
| **Analysis Method:** | NWTPH-Dx | | |

| Analyte Name | Result | Q | MRL | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Note |
|---|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics (DRO) | 120 | Z | 33 | 3.6 | 1 | 06/08/06 | 06/09/06 | KWG0609367 | |
| Residual Range Organics (RRO) | 57 | J | 130 | 5.9 | 1 | 06/08/06 | 06/09/06 | KWG0609367 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Note |
|---|---|---|---|---|
| o-Terphenyl | 78 | 50-150 | 06/09/06 | Acceptable |
| n-Triacontane | 81 | 50-150 | 06/09/06 | Acceptable |

Comments:

# COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

| | | | |
|---|---|---|---|
| **Client:** | Geomatrix Consultants, Incorporated | **Service Request:** | K0604574 |
| **Project:** | NW Corner-FRP/8769.005/4 | **Date Collected:** | 06/02/2006 |
| **Sample Matrix:** | Soil | **Date Received:** | 06/06/2006 |

## Diesel and Residual Range Organics

| | | | |
|---|---|---|---|
| **Sample Name:** | NWC-2-6W | **Units:** | mg/Kg |
| **Lab Code:** | K0604574-002 | **Basis:** | Dry |
| **Extraction Method:** | EPA 3550B | **Level:** | Low |
| **Analysis Method:** | NWTPH-Dx | | |

| Analyte Name | Result | Q | MRL | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Note |
|---|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics (DRO) | 1800 | DZ | 170 | 19 | 5 | 06/08/06 | 06/10/06 | KWG0609367 | |
| Residual Range Organics (RRO) | 470 | Z | 140 | 6.2 | 1 | 06/08/06 | 06/09/06 | KWG0609367 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Note |
|---|---|---|---|---|
| o-Terphenyl | 62 | 50-150 | 06/09/06 | Acceptable |
| n-Triacontane | 65 | 50-150 | 06/09/06 | Acceptable |

**Comments:**

# COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

| | | | |
|---|---|---|---|
| **Client:** | Geomatrix Consultants, Incorporated | **Service Request:** | K0604574 |
| **Project:** | NW Corner-FRP/8769.005/4 | **Date Collected:** | 06/02/2006 |
| **Sample Matrix:** | Soil | **Date Received:** | 06/06/2006 |

## Diesel and Residual Range Organics

| | | | |
|---|---|---|---|
| **Sample Name:** | NWC-2-7W | **Units:** | mg/Kg |
| **Lab Code:** | K0604574-003 | **Basis:** | Dry |
| **Extraction Method:** | EPA 3550B | **Level:** | Low |
| **Analysis Method:** | NWTPH-Dx | | |

| Analyte Name | Result | Q | MRL | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Note |
|---|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics (DRO) | 1400 | DZ | 160 | 17 | 5 | 06/08/06 | 06/10/06 | KWG0609367 | |
| Residual Range Organics (RRO) | 380 | Z | 130 | 5.7 | 1 | 06/08/06 | 06/09/06 | KWG0609367 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Note |
|---|---|---|---|---|
| o-Terphenyl | 75 | 50-150 | 06/09/06 | Acceptable |
| n-Triacontane | 84 | 50-150 | 06/09/06 | Acceptable |

**Comments:**

# COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

| | | | |
|---|---|---|---|
| **Client:** | Geomatrix Consultants, Incorporated | **Service Request:** | K0604574 |
| **Project:** | NW Corner-FRP/8769.005/4 | **Date Collected:** | 06/05/2006 |
| **Sample Matrix:** | Soil | **Date Received:** | 06/06/2006 |

## Diesel and Residual Range Organics

| | | | |
|---|---|---|---|
| **Sample Name:** | NWC-2-8W | **Units:** | mg/Kg |
| **Lab Code:** | K0604574-008 | **Basis:** | Dry |
| **Extraction Method:** | EPA 3550B | **Level:** | Low |
| **Analysis Method:** | NWTPH-Dx | | |

| Analyte Name | Result | Q | MRL | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Note |
|---|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics (DRO) | 820 | DZ | 160 | 17 | 5 | 06/08/06 | 06/12/06 | KWG0609367 | |
| Residual Range Organics (RRO) | 130 | Z | 130 | 5.6 | 1 | 06/08/06 | 06/10/06 | KWG0609367 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Note |
|---|---|---|---|---|
| o-Terphenyl | 86 | 50-150 | 06/10/06 | Acceptable |
| n-Triacontane | 80 | 50-150 | 06/10/06 | Acceptable |

**Comments:**

# COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

| | | | |
|---|---|---|---|
| **Client:** | Geomatrix Consultants, Incorporated | **Service Request:** | K0604574 |
| **Project:** | NW Corner-FRP/8769.005/4 | **Date Collected:** | 06/05/2006 |
| **Sample Matrix:** | Soil | **Date Received:** | 06/06/2006 |

## Diesel and Residual Range Organics

| | | | |
|---|---|---|---|
| **Sample Name:** | NWC-2-36W | **Units:** | mg/Kg |
| **Lab Code:** | K0604574-009 | **Basis:** | Dry |
| **Extraction Method:** | EPA 3550B | **Level:** | Low |
| **Analysis Method:** | NWTPH-Dx | | |

| Analyte Name | Result | Q | MRL | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Note |
|---|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics (DRO) | 2100 | DZ | 170 | 19 | 5 | 06/08/06 | 06/10/06 | KWG0609367 | |
| Residual Range Organics (RRO) | 360 | Z | 140 | 6.2 | 1 | 06/08/06 | 06/12/06 | KWG0609367 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Note |
|---|---|---|---|---|
| o-Terphenyl | 49 | 50-150 | 06/12/06 | Outside Control Limits |
| n-Triacontane | 63 | 50-150 | 06/12/06 | Acceptable |

Comments:

# COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

| | | | |
|---|---|---|---|
| **Client:** | Geomatrix Consultants, Incorporated | **Service Request:** | K0604574 |
| **Project:** | NW Corner-FRP/8769.005/4 | **Date Collected:** | 06/05/2006 |
| **Sample Matrix:** | Soil | **Date Received:** | 06/06/2006 |

## Diesel and Residual Range Organics

| | | | |
|---|---|---|---|
| **Sample Name:** | NWC-2-42W | **Units:** | mg/Kg |
| **Lab Code:** | K0604574-012 | **Basis:** | Dry |
| **Extraction Method:** | EPA 3550B | **Level:** | Low |
| **Analysis Method:** | NWTPH-Dx | | |

| Analyte Name | Result | Q | MRL | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Note |
|---|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics (DRO) | 1500 | DZ | 150 | 17 | 5 | 06/08/06 | 06/10/06 | KWG0609367 | |
| Residual Range Organics (RRO) | 210 | Z | 120 | 5.5 | 1 | 06/08/06 | 06/12/06 | KWG0609367 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Note |
|---|---|---|---|---|
| o-Terphenyl | 95 | 50-150 | 06/12/06 | Acceptable |
| n-Triacontane | 74 | 50-150 | 06/12/06 | Acceptable |

**Comments:**

# COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

| | | | |
|---|---|---|---|
| **Client:** | Geomatrix Consultants, Incorporated | **Service Request:** | K0604574 |
| **Project:** | NW Corner-FRP/8769.005/4 | **Date Collected:** | NA |
| **Sample Matrix:** | Soil | **Date Received:** | NA |

## Diesel and Residual Range Organics

| | | | |
|---|---|---|---|
| **Sample Name:** | Method Blank | **Units:** | mg/Kg |
| **Lab Code:** | KWG0609367-3 | **Basis:** | Dry |
| **Extraction Method:** | EPA 3550B | **Level:** | Low |
| **Analysis Method:** | NWTPH-Dx | | |

| Analyte Name | Result | Q | MRL | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Note |
|---|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics (DRO) | ND | U | 25 | 2.7 | 1 | 06/08/06 | 06/09/06 | KWG0609367 | |
| Residual Range Organics (RRO) | 4.7 | J | 100 | 4.5 | 1 | 06/08/06 | 06/09/06 | KWG0609367 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Note |
|---|---|---|---|---|
| o-Terphenyl | 82 | 50-150 | 06/09/06 | Acceptable |
| n-Triacontane | 87 | 50-150 | 06/09/06 | Acceptable |

**Comments:**

# COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

**Client:** Geomatrix Consultants, Incorporated
**Project:** NW Corner-FRP/8769.005/4
**Sample Matrix:** Soil

**Service Request:** K0604574

## Surrogate Recovery Summary
## Diesel and Residual Range Organics

**Extraction Method:** EPA 3550B
**Analysis Method:** NWTPH-Dx

**Units:** PERCENT
**Level:** Low

| Sample Name | Lab Code | Sur1 | Sur2 |
|---|---|---|---|
| NWC-2-5W | K0604574-001 | 78 | 81 |
| NWC-2-6W | K0604574-002 | 62 | 65 |
| NWC-2-7W | K0604574-003 | 75 | 84 |
| NWC-2-8W | K0604574-008 | 86 | 80 |
| NWC-2-36W | K0604574-009 | 49 * | 63 |
| NWC-2-42W | K0604574-012 | 95 | 74 |
| NWC-2-42WDUP | KWG0609367-1 | 93 | 70 |
| Method Blank | KWG0609367-3 | 82 | 87 |
| Lab Control Sample | KWG0609367-2 | 90 | 90 |

**Surrogate Recovery Control Limits (%)**

| | | |
|---|---|---|
| Sur1 = | o-Terphenyl | 50-150 |
| Sur2 = | n-Triacontane | 50-150 |

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.

# COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

| | | | |
|---|---|---|---|
| **Client:** | Geomatrix Consultants, Incorporated | **Service Request:** | K0604574 |
| **Project:** | NW Corner-FRP/8769.005/4 | **Date Extracted:** | 06/08/2006 |
| **Sample Matrix:** | Soil | **Date Analyzed:** | 06/10/2006 - 06/12/2006 |

## Duplicate Sample Summary
## Diesel and Residual Range Organics

| | | | |
|---|---|---|---|
| **Sample Name:** | NWC-2-42W | **Units:** | mg/Kg |
| **Lab Code:** | K0604574-012 | **Basis:** | Dry |
| **Extraction Method:** | EPA 3550B | **Level:** | Low |
| **Analysis Method:** | NWTPH-Dx | **Extraction Lot:** | KWG0609367 |

| Analyte Name | MRL | MDL | Sample Result | NWC-2-42WDUP KWG0609367-1 Duplicate Sample Result | Average | Relative Percent Difference | RPD Limit |
|---|---|---|---|---|---|---|---|
| Diesel Range Organics (DRO) | 150 | 17 | 1500 | 1400 | 1500 | 7 | 40 |
| Residual Range Organics (RRO) | 120 | 5.5 | 210 | 190 | 200 | 7 # | 40 |

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

# COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

| | | | |
|---|---|---|---|
| **Client:** | Geomatrix Consultants, Incorporated | **Service Request:** | K0604574 |
| **Project:** | NW Corner-FRP/8769.005/4 | **Date Extracted:** | 06/08/2006 |
| **Sample Matrix:** | Soil | **Date Analyzed:** | 06/09/2006 |

## Lab Control Spike Summary
## Diesel and Residual Range Organics

| | | | |
|---|---|---|---|
| **Extraction Method:** | EPA 3550B | **Units:** | mg/Kg |
| **Analysis Method:** | NWTPH-Dx | **Basis:** | Dry |
| | | **Level:** | Low |
| | | **Extraction Lot:** | KWG0609367 |

| | Lab Control Sample KWG0609367-2 Lab Control Spike | | | |
|---|---|---|---|---|
| **Analyte Name** | **Result** | **Expected** | **%Rec** | **%Rec Limits** |
| Diesel Range Organics (DRO) | 258 | 267 | 97 | 62-159 |
| Residual Range Organics (RRO) | 135 | 133 | 101 | 53-143 |

**Results flagged with an asterisk (*) indicate values outside control criteria.**

**Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.**

# COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

| | | | |
|---|---|---|---|
| **Client:** | Geomatrix Consultants, Incorporated | **Service Request:** | K0604574 |
| **Project:** | NW Corner-FRP/8769.005/4 | **Date Extracted:** | 06/08/2006 |
| **Sample Matrix:** | Soil | **Date Analyzed:** | 06/09/2006 |
| | | **Time Analyzed:** | 00:33 |

## Method Blank Summary
## Diesel and Residual Range Organics

| | | | |
|---|---|---|---|
| **Sample Name:** | Method Blank | **File ID:** | J:\GC21\DATA\060806\0608F027.D |
| **Lab Code:** | KWG0609367-3 | **Instrument ID:** | GC21 |
| **Extraction Method:** | EPA 3550B | **Level:** | Low |
| **Analysis Method:** | NWTPH-Dx | **Extraction Lot:** | KWG0609367 |

This Method Blank applies to the following analyses:

| Sample Name | Lab Code | File ID | Date Analyzed | Time Analyzed |
|---|---|---|---|---|
| Lab Control Sample | KWG0609367-2 | J:\GC21\DATA\060806\0608F026.D | 06/09/06 | 00:13 |
| NWC-2-5W | K0604574-001 | J:\GC21\DATA\060806\0608F028.D | 06/09/06 | 00:53 |
| NWC-2-6W | K0604574-002 | J:\GC21\DATA\060806\0608F029.D | 06/09/06 | 01:13 |
| NWC-2-7W | K0604574-003 | J:\GC21\DATA\060806\0608F030.D | 06/09/06 | 01:33 |
| NWC-2-8W | K0604574-008 | J:\GC21\DATA\060906\0609F028.D | 06/10/06 | 00:16 |
| NWC-2-6W | K0604574-002 | J:\GC21\DATA\060906\0609F029.D | 06/10/06 | 00:36 |
| NWC-2-7W | K0604574-003 | J:\GC21\DATA\060906\0609F030.D | 06/10/06 | 00:56 |
| NWC-2-36W | K0604574-009 | J:\GC21\DATA\060906\0609F031.D | 06/10/06 | 01:16 |
| NWC-2-42W | K0604574-012 | J:\GC21\DATA\060906\0609F032.D | 06/10/06 | 01:36 |
| NWC-2-42WDUP | KWG0609367-1 | J:\GC21\DATA\060906\0609F033.D | 06/10/06 | 01:56 |
| NWC-2-8W | K0604574-008 | J:\GC21\DATA\061206\0612F007.D | 06/12/06 | 22:02 |
| NWC-2-36W | K0604574-009 | J:\GC21\DATA\061206\0612F008.D | 06/12/06 | 22:22 |
| NWC-2-42W | K0604574-012 | J:\GC21\DATA\061206\0612F009.D | 06/12/06 | 22:43 |
| NWC-2-42WDUP | KWG0609367-1 | J:\GC21\DATA\061206\0612F010.D | 06/12/06 | 23:03 |

# COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

| | | | |
|---|---|---|---|
| **Client:** | Geomatrix Consultants, Incorporated | **Service Request:** | K0604574 |
| **Project:** | NW Corner-FRP/8769.005/4 | **Date Extracted:** | 06/08/2006 |
| **Sample Matrix:** | Soil | **Date Analyzed:** | 06/09/2006 |
| | | **Time Analyzed:** | 00:13 |

## Lab Control Sample Summary
## Diesel and Residual Range Organics

| | | | |
|---|---|---|---|
| **Sample Name:** | Lab Control Sample | **File ID:** | J:\GC21\DATA\060806\0608F026.D |
| **Lab Code:** | KWG0609367-2 | **Instrument ID:** | GC21 |
| **Extraction Method:** | EPA 3550B | **Level:** | Low |
| **Analysis Method:** | NWTPH-Dx | **Extraction Lot:** | KWG0609367 |

This Lab Control Sample applies to the following analyses:

| Sample Name | Lab Code | File ID | Date Analyzed | Time Analyzed |
|---|---|---|---|---|
| Method Blank | KWG0609367-3 | J:\GC21\DATA\060806\0608F027.D | 06/09/06 | 00:33 |
| NWC-2-5W | K0604574-001 | J:\GC21\DATA\060806\0608F028.D | 06/09/06 | 00:53 |
| NWC-2-6W | K0604574-002 | J:\GC21\DATA\060806\0608F029.D | 06/09/06 | 01:13 |
| NWC-2-7W | K0604574-003 | J:\GC21\DATA\060806\0608F030.D | 06/09/06 | 01:33 |
| NWC-2-8W | K0604574-008 | J:\GC21\DATA\060906\0609F028.D | 06/10/06 | 00:16 |
| NWC-2-6W | K0604574-002 | J:\GC21\DATA\060906\0609F029.D | 06/10/06 | 00:36 |
| NWC-2-7W | K0604574-003 | J:\GC21\DATA\060906\0609F030.D | 06/10/06 | 00:56 |
| NWC-2-36W | K0604574-009 | J:\GC21\DATA\060906\0609F031.D | 06/10/06 | 01:16 |
| NWC-2-42W | K0604574-012 | J:\GC21\DATA\060906\0609F032.D | 06/10/06 | 01:36 |
| NWC-2-42WDUP | KWG0609367-1 | J:\GC21\DATA\060906\0609F033.D | 06/10/06 | 01:56 |
| NWC-2-8W | K0604574-008 | J:\GC21\DATA\061206\0612F007.D | 06/12/06 | 22:02 |
| NWC-2-36W | K0604574-009 | J:\GC21\DATA\061206\0612F008.D | 06/12/06 | 22:22 |
| NWC-2-42W | K0604574-012 | J:\GC21\DATA\061206\0612F009.D | 06/12/06 | 22:43 |
| NWC-2-42WDUP | KWG0609367-1 | J:\GC21\DATA\061206\0612F010.D | 06/12/06 | 23:03 |

# COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

**Client:** Geomatrix Consultants, Incorporated
**Project:** NW Corner-FRP/8769.005/4

**Service Request:** K0604574
**Calibration Date:** 04/22/2006

## Initial Calibration Summary
## Diesel and Residual Range Organics

**Calibration ID:** CAL5295
**Instrument ID:** GC21

**Column:** Equity-1 15 m

| Level ID | File ID | Level ID | File ID |
|---|---|---|---|
| A | J:\GC21\DATA\CALIBRAT\042306.SEC\0423P005.D | H | J:\GC21\DATA\CALIBRAT\042306.SEC\0423P019.D |
| B | J:\GC21\DATA\CALIBRAT\042306.SEC\0423P007.D | I | J:\GC21\DATA\CALIBRAT\042306.SEC\0423P021.D |
| C | J:\GC21\DATA\CALIBRAT\042306.SEC\0423P009.D | J | J:\GC21\DATA\CALIBRAT\042306.SEC\0423P023.D |
| D | J:\GC21\DATA\CALIBRAT\042306.SEC\0423P011.D | K | J:\GC21\DATA\CALIBRAT\042306.SEC\0423P025.D |
| E | J:\GC21\DATA\CALIBRAT\042306.SEC\0423P013.D | L | J:\GC21\DATA\CALIBRAT\042306.SEC\0423P027.D |
| F | J:\GC21\DATA\CALIBRAT\042306.SEC\0423P015.D | M | J:\GC21\DATA\CALIBRAT\042306.SEC\0423P029.D |
| G | J:\GC21\DATA\CALIBRAT\042306.SEC\0423P017.D | N | J:\GC21\DATA\CALIBRAT\042306.SEC\0423P031.D |

| Analyte Name | Level ID | Amt | RF | Level ID | Amt | RF | Level ID | Amt | RF | Level ID | Amt | RF | Level ID | Amt | RF |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics (DRO) | A | 20 | 51400 | | | | C | 50 | 48500 | | | | E | 200 | 44500 |
| | | | | G | 500 | 44800 | | | | I | 2000 | 43200 | | | |
| | | | | | | | | | | N | 1000 | 41900 | | | |
| Residual Range Organics (RRO) | | | | | | | | | | D | 50 | 29800 | | | |
| | F | 200 | 26600 | | | | H | 500 | 27200 | | | | J | 2000 | 26400 |
| | | | | | | | M | 1000 | 25500 | | | | | | |
| o-Terphenyl | A | 1.0 | 55100 | | | | C | 2.5 | 56500 | | | | E | 10 | 53800 |
| | | | | G | 25 | 53600 | | | | I | 100 | 52900 | | | |
| | K | 250 | 52900 | | | | | | | N | 50 | 51500 | | | |
| n-Triacontane | A | 1.0 | 44700 | | | | C | 2.5 | 44100 | | | | E | 10 | 43800 |
| | | | | G | 25 | 43600 | | | | I | 100 | 41800 | | | |
| | K | 250 | 39900 | | | | | | | N | 50 | 40600 | | | |

Results flagged with an asterisk (*) indicate values outside control criteria.

# COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

**Client:** Geomatrix Consultants, Incorporated
**Project:** NW Corner-FRP/8769.005/4

**Service Request:** K0604574
**Calibration Date:** 04/22/2006

## Initial Calibration Summary
## Diesel and Residual Range Organics

**Calibration ID:** CAL5295
**Instrument ID:** GC21

**Column:** Equity-1 15 m

| Analyte Name | Compound Type | Calibration Evaluation | | | | |
|---|---|---|---|---|---|---|
| | | Fit Type | Eval. | Eval. Result | Q | Control Criteria |
| Diesel Range Organics (DRO) | MS | AverageRF | % RSD | 7.8 | | ≤20 |
| Residual Range Organics (RRO) | MS | AverageRF | % RSD | 6.1 | | ≤20 |
| o-Terphenyl | SURR | AverageRF | % RSD | 3.0 | | ≤20 |
| n-Triacontane | SURR | AverageRF | % RSD | 4.4 | | ≤20 |

**Results flagged with an asterisk (*) indicate values outside control criteria.**

# COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

**Client:** Geomatrix Consultants, Incorporated
**Project:** NW Corner-FRP/8769.005/4

**Service Request:** K0604574
**Calibration Date:** 04/22/2006
**Date Analyzed:** 04/23/2006

## Second Source Calibration Verification
## Diesel and Residual Range Organics

**Calibration Type:** External Standard
**Analysis Method:** NWTPH-Dx

**Calibration ID:** CAL5295
**Units:** ppm

**File ID:** J:\GC21\DATA\CALIBRAT\042306.SEC\0423P035.D
J:\GC21\DATA\CALIBRAT\042306.SEC\0423P037.D
J:\GC21\DATA\CALIBRAT\042306.SEC\0423P039.D

**Column ID:** Equity-1 15 m

| Analyte Name | Expected | Result | Average RF | SSV RF | %D | %Drift | Criteria | Curve Fit |
|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics (DRO) | 1000 | 910 | 45700 | 41600 | -9 | NA | ± 15 % | AverageRF |
| Residual Range Organics (RRO) | 1000 | 930 | 27100 | 25300 | -7 | NA | ± 15 % | AverageRF |

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound ‡ CCC Compound

# COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

**Client:** Geomatrix Consultants, Incorporated
**Project:** NW Corner-FRP/8769.005/4

**Service Request:** K0604574
**Date Analyzed:** 06/08/2006

## Continuing Calibration Verification Summary
## Diesel and Residual Range Organics

**Calibration Type:** External Standard
**Analysis Method:** NWTPH-Dx

**Calibration Date:** 04/22/2006
**Calibration ID:** CAL5295
**Analysis Lot:** KWG0609516
**Units:** ppm

**File ID:** J:\GC21\DATA\060806\0608F021.D
J:\GC21\DATA\060806\0608F022.D

**Column ID:** Equity-1 15 m

| Analyte Name | Expected | Result | Average RF | CCV RF | %D | %Drift | Criteria | Curve Fit |
|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics (DRO) | 1000 | 940 | 45700 | 43000 | -6 | NA | ± 15 % | AverageRF |
| Residual Range Organics (RRO) | 1000 | 1000 | 27100 | 27500 | 1 | NA | ± 15 % | AverageRF |
| o-Terphenyl | 50 | 48 | 53800 | 51500 | -4 | NA | ± 15 % | AverageRF |
| n-Triacontane | 50 | 50 | 42600 | 42400 | -1 | NA | ± 15 % | AverageRF |

**Results flagged with an asterisk (*) indicate values outside control criteria.**

# COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

**Client:** Geomatrix Consultants, Incorporated
**Project:** NW Corner-FRP/8769.005/4

**Service Request:** K0604574
**Date Analyzed:** 06/09/2006

## Continuing Calibration Verification Summary
## Diesel and Residual Range Organics

**Calibration Type:** External Standard
**Analysis Method:** NWTPH-Dx

**Calibration Date:** 04/22/2006
**Calibration ID:** CAL5295
**Analysis Lot:** KWG0609516
**Units:** ppm

**File ID:** J:\GC21\DATA\060806\0608F037.D
J:\GC21\DATA\060806\0608F038.D

**Column ID:** Equity-1 15 m

| Analyte Name | Expected | Result | Average RF | CCV RF | %D | %Drift | Criteria | Curve Fit |
|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics (DRO) | 1000 | 930 | 45700 | 42500 | -7 | NA | ± 15 % | AverageRF |
| Residual Range Organics (RRO) | 1000 | 1100 | 27100 | 30500 | 13 | NA | ± 15 % | AverageRF |
| o-Terphenyl | 50 | 46 | 53800 | 49800 | -7 | NA | ± 15 % | AverageRF |
| n-Triacontane | 50 | 49 | 42600 | 41700 | -2 | NA | ± 15 % | AverageRF |

Results flagged with an asterisk (*) indicate values outside control criteria.

# COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

**Client:** Geomatrix Consultants, Incorporated
**Project:** NW Corner-FRP/8769.005/4

**Service Request:** K0604574
**Date Analyzed:** 06/09/2006

## Continuing Calibration Verification Summary
## Diesel and Residual Range Organics

**Calibration Type:** External Standard
**Analysis Method:** NWTPH-Dx

**Calibration Date:** 04/22/2006
**Calibration ID:** CAL5295
**Analysis Lot:** KWG0609517
**Units:** ppm

**File ID:** J:\GC21\DATA\060906\0609F024.D
J:\GC21\DATA\060906\0609F025.D

**Column ID:** Equity-1 15 m

| Analyte Name | Expected | Result | Average RF | CCV RF | %D | %Drift | Criteria | Curve Fit |
|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics (DRO) | 1000 | 970 | 45700 | 44400 | -3 | NA | ± 15 % | AverageRF |
| Residual Range Organics (RRO) | 1000 | 970 | 27100 | 26300 | -3 | NA | ± 15 % | AverageRF |
| o-Terphenyl | 50 | 50 | 53800 | 53300 | -1 | NA | ± 15 % | AverageRF |
| n-Triacontane | 50 | 48 | 42600 | 41300 | -3 | NA | ± 15 % | AverageRF |

**Results flagged with an asterisk (*) indicate values outside control criteria.**

# COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

**Client:** Geomatrix Consultants, Incorporated
**Project:** NW Corner-FRP/8769.005/4

**Service Request:** K0604574
**Date Analyzed:** 06/10/2006

## Continuing Calibration Verification Summary
## Diesel and Residual Range Organics

**Calibration Type:** External Standard
**Analysis Method:** NWTPH-Dx

**Calibration Date:** 04/22/2006
**Calibration ID:** CAL5295
**Analysis Lot:** KWG0609517
**Units:** ppm
**Column ID:** Equity-1 15 m

**File ID:** J:\GC21\DATA\060906\0609F035.D
J:\GC21\DATA\060906\0609F036.D

| Analyte Name | Expected | Result | Average RF | CCV RF | %D | %Drift | Criteria | Curve Fit |
|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics (DRO) | 1000 | 970 | 45700 | 44200 | -3 | NA | ± 15 % | AverageRF |
| Residual Range Organics (RRO) | 1000 | 960 | 27100 | 26000 | -4 | NA | ± 15 % | AverageRF |
| o-Terphenyl | 50 | 49 | 53800 | 52800 | -2 | NA | ± 15 % | AverageRF |
| n-Triacontane | 50 | 49 | 42600 | 41800 | -2 | NA | ± 15 % | AverageRF |

Results flagged with an asterisk (*) indicate values outside control criteria.

# COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

**Client:** Geomatrix Consultants, Incorporated
**Project:** NW Corner-FRP/8769.005/4

**Service Request:** K0604574
**Date Analyzed:** 06/12/2006

## Continuing Calibration Verification Summary
## Diesel and Residual Range Organics

**Calibration Type:** External Standard
**Analysis Method:** NWTPH-Dx

**Calibration Date:** 04/22/2006
**Calibration ID:** CAL5295
**Analysis Lot:** KWG0609610
**Units:** ppm

**File ID:** J:\GC21\DATA\061206\0612F005.D
J:\GC21\DATA\061206\0612F006.D

**Column ID:** Equity-1 15 m

| Analyte Name | Expected | Result | Average RF | CCV RF | %D | %Drift | Criteria | Curve Fit |
|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics (DRO) | 1000 | 900 | 45700 | 41000 | -10 | NA | ± 15 % | AverageRF |
| Residual Range Organics (RRO) | 1000 | 940 | 27100 | 25500 | -6 | NA | ± 15 % | AverageRF |
| o-Terphenyl | 50 | 46 | 53800 | 49500 | -8 | NA | ± 15 % | AverageRF |
| n-Triacontane | 50 | 45 | 42600 | 38300 | -10 | NA | ± 15 % | AverageRF |

**Results flagged with an asterisk (*) indicate values outside control criteria.**

# COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

**Client:** Geomatrix Consultants, Incorporated
**Project:** NW Corner-FRP/8769.005/4

**Service Request:** K0604574
**Date Analyzed:** 06/13/2006

## Continuing Calibration Verification Summary
## Diesel and Residual Range Organics

**Calibration Type:** External Standard
**Analysis Method:** NWTPH-Dx

**Calibration Date:** 04/22/2006
**Calibration ID:** CAL5295
**Analysis Lot:** KWG0609610
**Units:** ppm

**File ID:** J:\GC21\DATA\061206\0612F014.D
J:\GC21\DATA\061206\0612F015.D

**Column ID:** Equity-1 15 m

| Analyte Name | Expected | Result | Average RF | CCV RF | %D | %Drift | Criteria | Curve Fit |
|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics (DRO) | 1000 | 910 | 45700 | 41600 | -9 | NA | ± 15 % | AverageRF |
| Residual Range Organics (RRO) | 1000 | 910 | 27100 | 24600 | -9 | NA | ± 15 % | AverageRF |
| o-Terphenyl | 50 | 47 | 53800 | 50300 | -6 | NA | ± 15 % | AverageRF |
| n-Triacontane | 50 | 44 | 42600 | 37700 | -11 | NA | ± 15 % | AverageRF |

**Results flagged with an asterisk (*) indicate values outside control criteria.**

# Organic Analysis:
# Gasoline Range Organics

## Summary Package

### Sample and QC Results

COLUMBIA ANALYTICAL SERVICES, INC.

**Client:** Geomatrix Consultants, Incorporated
**Project:** NW Corner-FRP/8769.005/4

**Service Request:** K0604574

## Cover Page - Organic Analysis Data Package
## Gasoline Range Organics

| Sample Name | Lab Code | Date Collected | Date Received |
|---|---|---|---|
| NWC-2-5W | K0604574-001 | 06/02/2006 | 06/06/2006 |
| NWC-2-6W | K0604574-002 | 06/02/2006 | 06/06/2006 |
| NWC-2-7W | K0604574-003 | 06/02/2006 | 06/06/2006 |
| NWC-3-24W | K0604574-004 | 06/02/2006 | 06/06/2006 |
| NWC-2-8W | K0604574-008 | 06/05/2006 | 06/06/2006 |
| NWC-2-36W | K0604574-009 | 06/05/2006 | 06/06/2006 |
| NWC-2-42W | K0604574-012 | 06/05/2006 | 06/06/2006 |
| NWC-3-24W | KWG0609604-1 | 06/02/2006 | 06/06/2006 |

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the case narrative. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: M Cerler

Name: Mike Erickson

Date: 6/20/06

Title: Supervisor

# COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

| | | | |
|---|---|---|---|
| **Client:** | Geomatrix Consultants, Incorporated | **Service Request:** | K0604574 |
| **Project:** | NW Corner-FRP/8769.005/4 | **Date Collected:** | 06/02/2006 |
| **Sample Matrix:** | Soil | **Date Received:** | 06/06/2006 |

## Gasoline Range Organics

| | | | |
|---|---|---|---|
| **Sample Name:** | NWC-2-5W | **Units:** | mg/Kg |
| **Lab Code:** | K0604574-001 | **Basis:** | Dry |
| **Extraction Method:** | EPA 5035/5030B | **Level:** | Med |
| **Analysis Method:** | NWTPH-Gx | | |

| Analyte Name | Result | Q | MRL | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Note |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics-NWTPH | 1500 | Y | 30 | 3.5 | 1 | 06/13/06 | 06/14/06 | KWG0609604 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Note |
|---|---|---|---|---|
| 4-Bromofluorobenzene | 91 | 50-150 | 06/14/06 | Acceptable |

Comments:

# COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

| | | | |
|---|---|---|---|
| **Client:** | Geomatrix Consultants, Incorporated | **Service Request:** | K0604574 |
| **Project:** | NW Corner-FRP/8769.005/4 | **Date Collected:** | 06/02/2006 |
| **Sample Matrix:** | Soil | **Date Received:** | 06/06/2006 |

## Gasoline Range Organics

| | | | |
|---|---|---|---|
| **Sample Name:** | NWC-2-6W | **Units:** | mg/Kg |
| **Lab Code:** | K0604574-002 | **Basis:** | Dry |
| **Extraction Method:** | EPA 5035/5030B | **Level:** | Med |
| **Analysis Method:** | NWTPH-Gx | | |

| Analyte Name | Result | Q | MRL | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Note |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics-NWTPH | 13000 | Y | 140 | 16 | 1 | 06/13/06 | 06/14/06 | KWG0609604 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Note |
|---|---|---|---|---|
| 4-Bromofluorobenzene | 673 | 50-150 | 06/14/06 | Outside Control Limits |

**Comments:**

# COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

| | | | |
|---|---|---|---|
| **Client:** | Geomatrix Consultants, Incorporated | **Service Request:** | K0604574 |
| **Project:** | NW Corner-FRP/8769.005/4 | **Date Collected:** | 06/02/2006 |
| **Sample Matrix:** | Soil | **Date Received:** | 06/06/2006 |

## Gasoline Range Organics

| | | | |
|---|---|---|---|
| **Sample Name:** | NWC-2-7W | **Units:** | mg/Kg |
| **Lab Code:** | K0604574-003 | **Basis:** | Dry |
| **Extraction Method:** | EPA 5035/5030B | **Level:** | Med |
| **Analysis Method:** | NWTPH-Gx | | |

| Analyte Name | Result | Q | MRL | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Note |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics-NWTPH | 6800 | Y | 58 | 6.8 | 1 | 06/13/06 | 06/14/06 | KWG0609604 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Note |
|---|---|---|---|---|
| 4-Bromofluorobenzene | 559 | 50-150 | 06/14/06 | Outside Control Limits |

**Comments:**

# COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

| | | | |
|---|---|---|---|
| **Client:** | Geomatrix Consultants, Incorporated | **Service Request:** | K0604574 |
| **Project:** | NW Corner-FRP/8769.005/4 | **Date Collected:** | 06/02/2006 |
| **Sample Matrix:** | Soil | **Date Received:** | 06/06/2006 |

## Gasoline Range Organics

| | | | |
|---|---|---|---|
| **Sample Name:** | NWC-3-24W | **Units:** | mg/Kg |
| **Lab Code:** | K0604574-004 | **Basis:** | Dry |
| **Extraction Method:** | EPA 5035/5030B | **Level:** | Med |
| **Analysis Method:** | NWTPH-Gx | | |

| Analyte Name | Result | Q | MRL | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Note |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics-NWTPH | 71 | Y | 31 | 3.6 | 1 | 06/13/06 | 06/14/06 | KWG0609604 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Note |
|---|---|---|---|---|
| 4-Bromofluorobenzene | 88 | 50-150 | 06/14/06 | Acceptable |

**Comments:**

# COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

| | | | |
|---|---|---|---|
| **Client:** | Geomatrix Consultants, Incorporated | **Service Request:** | K060457 |
| **Project:** | NW Corner-FRP/8769.005/4 | **Date Collected:** | 06/05/20 |
| **Sample Matrix:** | Soil | **Date Received:** | 06/06/2006 |

## Gasoline Range Organics

| | | | |
|---|---|---|---|
| **Sample Name:** | NWC-2-8W | **Units:** | mg/Kg |
| **Lab Code:** | K0604574-008 | **Basis:** | Dry |
| **Extraction Method:** | EPA 5035/5030B | **Level:** | Med |
| **Analysis Method:** | NWTPH-Gx | | |

| Analyte Name | Result | Q | MRL | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot |
|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics-NWTPH | 11000 | Y | 130 | 15 | 1 | 06/13/06 | 06/14/06 | KWG0609604 |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Note |
|---|---|---|---|---|
| 4-Bromofluorobenzene | 714 | 50-150 | 06/14/06 | Outside Control Limits |

**Comments:**

# COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

| | | | |
|---|---|---|---|
| **Client:** | Geomatrix Consultants, Incorporated | **Service Request:** | K0604574 |
| **Project:** | NW Corner-FRP/8769.005/4 | **Date Collected:** | 06/05/2006 |
| **Sample Matrix:** | Soil | **Date Received:** | 06/06/2006 |

## Gasoline Range Organics

| | | | |
|---|---|---|---|
| **Sample Name:** | NWC-2-36W | **Units:** | mg/Kg |
| **Lab Code:** | K0604574-009 | **Basis:** | Dry |
| **Extraction Method:** | EPA 5035/5030B | **Level:** | Med |
| **Analysis Method:** | NWTPH-Gx | | |

| Analyte Name | Result | Q | MRL | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Note |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics-NWTPH | 3500 | Y | 65 | 7.7 | 1 | 06/13/06 | 06/14/06 | KWG0609604 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Note |
|---|---|---|---|---|
| 4-Bromofluorobenzene | 178 | 50-150 | 06/14/06 | Outside Control Limits |

**Comments:**

# COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

| | | | |
|---|---|---|---|
| **Client:** | Geomatrix Consultants, Incorporated | **Service Request:** | K0604574 |
| **Project:** | NW Corner-FRP/8769.005/4 | **Date Collected:** | 06/05/2006 |
| **Sample Matrix:** | Soil | **Date Received:** | 06/06/2006 |

## Gasoline Range Organics

| | | | |
|---|---|---|---|
| **Sample Name:** | NWC-2-42W | **Units:** | mg/Kg |
| **Lab Code:** | K0604574-012 | **Basis:** | Dry |
| **Extraction Method:** | EPA 5035/5030B | **Level:** | Med |
| **Analysis Method:** | NWTPH-Gx | | |

| Analyte Name | Result | Q | MRL | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Note |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics-NWTPH | 4800 | Y | 60 | 7.1 | 1 | 06/13/06 | 06/14/06 | KWG0609604 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Note |
|---|---|---|---|---|
| 4-Bromofluorobenzene | 483 | 50-150 | 06/14/06 | Outside Control Limits |

Comments:

# COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

| | | | |
|---|---|---|---|
| **Client:** | Geomatrix Consultants, Incorporated | **Service Request:** | K0604574 |
| **Project:** | NW Corner-FRP/8769.005/4 | **Date Collected:** | NA |
| **Sample Matrix:** | Soil | **Date Received:** | NA |

## Gasoline Range Organics

| | | | |
|---|---|---|---|
| **Sample Name:** | Method Blank | **Units:** | mg/Kg |
| **Lab Code:** | KWG0609604-3 | **Basis:** | Dry |
| **Extraction Method:** | EPA 5035/5030B | **Level:** | Med |
| **Analysis Method:** | NWTPH-Gx | | |

| Analyte Name | Result | Q | MRL | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Note |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics-NWTPH | 4.5 | J | 5.0 | 0.59 | 1 | 06/13/06 | 06/14/06 | KWG0609604 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Note |
|---|---|---|---|---|
| 4-Bromofluorobenzene | 92 | 50-150 | 06/14/06 | Acceptable |

**Comments:**

# COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

**Client:** Geomatrix Consultants, Incorporated
**Project:** NW Corner-FRP/8769.005/4
**Sample Matrix:** Soil

**Service Request:** K0604574

## Surrogate Recovery Summary
## Gasoline Range Organics

**Extraction Method:** EPA 5035/5030B
**Analysis Method:** NWTPH-Gx

**Units:** PERCENT
**Level:** Med

| Sample Name | Lab Code | Sur1 | |
|---|---|---|---|
| NWC-2-5W | K0604574-001 | 91 | # |
| NWC-2-6W | K0604574-002 | 673 | # |
| NWC-2-7W | K0604574-003 | 559 | # |
| NWC-3-24W | K0604574-004 | 88 | # |
| NWC-2-8W | K0604574-008 | 714 | # |
| NWC-2-36W | K0604574-009 | 178 | # |
| NWC-2-42W | K0604574-012 | 483 | # |
| NWC-3-24WDUP | KWG0609604-1 | 89 | # |
| Method Blank | KWG0609604-3 | 92 | |
| Lab Control Sample | KWG0609604-2 | 96 | |

**Surrogate Recovery Control Limits (%)**

Sur1 = 4-Bromofluorobenzene 50-150

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.

# COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

| | | | |
|---|---|---|---|
| **Client:** | Geomatrix Consultants, Incorporated | **Service Request:** | K0604574 |
| **Project:** | NW Corner-FRP/8769.005/4 | **Date Extracted:** | 06/13/2006 |
| **Sample Matrix:** | Soil | **Date Analyzed:** | 06/14/2006 |

## Duplicate Sample Summary
## Gasoline Range Organics

| | | | |
|---|---|---|---|
| **Sample Name:** | NWC-3-24W | **Units:** | mg/Kg |
| **Lab Code:** | K0604574-004 | **Basis:** | Dry |
| **Extraction Method:** | EPA 5035/5030B | **Level:** | Med |
| **Analysis Method:** | NWTPH-Gx | **Extraction Lot:** | KWG0609604 |

| Analyte Name | MRL | MDL | Sample Result | NWC-3-24WDUP KWG0609604-1 Duplicate Sample Result | Average | Relative Percent Difference | RPD Limit |
|---|---|---|---|---|---|---|---|
| Gasoline Range Organics-NWTPH | 31 | 3.6 | 71 | 74 | 73 | 5 | 40 |

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

# COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

| | | | |
|---|---|---|---|
| **Client:** | Geomatrix Consultants, Incorporated | **Service Request:** | K0604574 |
| **Project:** | NW Corner-FRP/8769.005/4 | **Date Extracted:** | 06/13/2006 |
| **Sample Matrix:** | Soil | **Date Analyzed:** | 06/14/2006 |

## Lab Control Spike Summary
## Gasoline Range Organics

| | | | |
|---|---|---|---|
| **Extraction Method:** | EPA 5035/5030B | **Units:** | mg/Kg |
| **Analysis Method:** | NWTPH-Gx | **Basis:** | Dry |
| | | **Level:** | Med |
| | | **Extraction Lot:** | KWG0609604 |

| | Lab Control Sample KWG0609604-2 Lab Control Spike | | | |
|---|---|---|---|---|
| **Analyte Name** | **Result** | **Expected** | **%Rec** | **%Rec Limits** |
| Gasoline Range Organics-NWTPH | 52.6 | 50.0 | 105 | 63-116 |

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

# COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

| | | | |
|---|---|---|---|
| **Client:** | Geomatrix Consultants, Incorporated | **Service Request:** | K0604574 |
| **Project:** | NW Corner-FRP/8769.005/4 | **Date Extracted:** | 06/13/2006 |
| **Sample Matrix:** | Soil | **Date Analyzed:** | 06/14/2006 |
| | | **Time Analyzed:** | 12:34 |

## Method Blank Summary
## Gasoline Range Organics

| | | | |
|---|---|---|---|
| **Sample Name:** | Method Blank | **File ID:** | J:\GC06\DATA\061406.FID\0614R004.D |
| **Lab Code:** | KWG0609604-3 | **Instrument ID:** | GC06 |
| **Extraction Method:** | EPA 5035/5030B | **Level:** | Med |
| **Analysis Method:** | NWTPH-Gx | **Extraction Lot:** | KWG0609604 |

This Method Blank applies to the following analyses:

| Sample Name | Lab Code | File ID | Date Analyzed | Time Analyzed |
|---|---|---|---|---|
| Lab Control Sample | KWG0609604-2 | J:\GC06\DATA\061406.FID\0614R005.D | 06/14/06 | 13:05 |
| NWC-3-24W | K0604574-004 | J:\GC06\DATA\061406.FID\0614R007.D | 06/14/06 | 14:29 |
| NWC-3-24WDUP | KWG0609604-1 | J:\GC06\DATA\061406.FID\0614R008.D | 06/14/06 | 15:00 |
| NWC-2-5W | K0604574-001 | J:\GC06\DATA\061406.FID\0614R009.D | 06/14/06 | 15:32 |
| NWC-2-42W | K0604574-012 | J:\GC06\DATA\061406.FID\0614R011.D | 06/14/06 | 16:35 |
| NWC-2-7W | K0604574-003 | J:\GC06\DATA\061406.FID\0614R013.D | 06/14/06 | 17:38 |
| NWC-2-36W | K0604574-009 | J:\GC06\DATA\061406.FID\0614R015.D | 06/14/06 | 18:41 |
| NWC-2-8W | K0604574-008 | J:\GC06\DATA\061406.FID\0614R017.D | 06/14/06 | 19:44 |
| NWC-2-6W | K0604574-002 | J:\GC06\DATA\061406.FID\0614R019.D | 06/14/06 | 20:47 |

# COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

| | | | |
|---|---|---|---|
| **Client:** | Geomatrix Consultants, Incorporated | **Service Request:** | K0604574 |
| **Project:** | NW Corner-FRP/8769.005/4 | **Date Extracted:** | 06/13/2006 |
| **Sample Matrix:** | Soil | **Date Analyzed:** | 06/14/2006 |
| | | **Time Analyzed:** | 13:05 |

## Lab Control Sample Summary
## Gasoline Range Organics

| | | | |
|---|---|---|---|
| **Sample Name:** | Lab Control Sample | **File ID:** | J:\GC06\DATA\061406.FID\0614R005.D |
| **Lab Code:** | KWG0609604-2 | **Instrument ID:** | GC06 |
| **Extraction Method:** | EPA 5035/5030B | **Level:** | Med |
| **Analysis Method:** | NWTPH-Gx | **Extraction Lot:** | KWG0609604 |

This Lab Control Sample applies to the following analyses:

| Sample Name | Lab Code | File ID | Date Analyzed | Time Analyzed |
|---|---|---|---|---|
| Method Blank | KWG0609604-3 | J:\GC06\DATA\061406.FID\0614R004.D | 06/14/06 | 12:34 |
| NWC-3-24W | K0604574-004 | J:\GC06\DATA\061406.FID\0614R007.D | 06/14/06 | 14:29 |
| NWC-3-24WDUP | KWG0609604-1 | J:\GC06\DATA\061406.FID\0614R008.D | 06/14/06 | 15:00 |
| NWC-2-5W | K0604574-001 | J:\GC06\DATA\061406.FID\0614R009.D | 06/14/06 | 15:32 |
| NWC-2-42W | K0604574-012 | J:\GC06\DATA\061406.FID\0614R011.D | 06/14/06 | 16:35 |
| NWC-2-7W | K0604574-003 | J:\GC06\DATA\061406.FID\0614R013.D | 06/14/06 | 17:38 |
| NWC-2-36W | K0604574-009 | J:\GC06\DATA\061406.FID\0614R015.D | 06/14/06 | 18:41 |
| NWC-2-8W | K0604574-008 | J:\GC06\DATA\061406.FID\0614R017.D | 06/14/06 | 19:44 |
| NWC-2-6W | K0604574-002 | J:\GC06\DATA\061406.FID\0614R019.D | 06/14/06 | 20:47 |

# COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

**Client:** Geomatrix Consultants, Incorporated
**Project:** NW Corner-FRP/8769.005/4

**Service Request:** K0604574
**Calibration Date:** 11/11/2005

## Initial Calibration Summary
## Gasoline Range Organics

**Calibration ID:** CAL5090
**Instrument ID:** GC06

**Column:** DB-624

| Level ID | File ID | Level ID | File ID |
|---|---|---|---|
| A | J:\GC06\DATA\111105.FID\1111R004.D | G | J:\GC06\DATA\111105.FID\1111R017.D |
| B | J:\GC06\DATA\111105.FID\1111R005.D | H | J:\GC06\DATA\012706A.FID\0127R003.D |
| C | J:\GC06\DATA\111105.FID\1111R006.D | I | J:\GC06\DATA\012706A.FID\0127R004.D |
| D | J:\GC06\DATA\111105.FID\1111R007.D | J | J:\GC06\DATA\012706A.FID\0127R005.D |
| E | J:\GC06\DATA\111105.FID\1111R008.D | K | J:\GC06\DATA\012706A.FID\0127R006.D |
| F | J:\GC06\DATA\111105.FID\1111R009.D | L | J:\GC06\DATA\012706A.FID\0127R007.D |

| Analyte Name | Level ID | Amt | RF | Level ID | Amt | RF | Level ID | Amt | RF | Level ID | Amt | RF | Level ID | Amt | RF |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics-NWTPH | A | 100 | 6970 | B | 200 | 6050 | C | 500 | 5980 | D | 1000 | 6060 | E | 5000 | 5870 |
| | F | 10000 | 5830 | G | 50 | 7010 | | | | | | | | | |
| 4-Bromofluorobenzene | | | | | | | | | | | | | | | |
| | | | | | | | H | 13 | 7780 | I | 25 | 7270 | J | 50 | 7740 |
| | K | 100 | 7930 | L | 150 | 7810 | | | | | | | | | |

Results flagged with an asterisk (*) indicate values outside control criteria.

# COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

**Client:** Geomatrix Consultants, Incorporated
**Project:** NW Corner-FRP/8769.005/4

**Service Request:** K0604574
**Calibration Date:** 11/11/2005

## Initial Calibration Summary
## Gasoline Range Organics

**Calibration ID:** CAL5090
**Instrument ID:** GC06

**Column:** DB-624

| Analyte Name | Compound Type | Calibration Evaluation | | | | | |
|---|---|---|---|---|---|---|---|
| | | Fit Type | Eval. | Eval. Result | Q | Control Criteria | |
| Gasoline Range Organics-NWTPH | MS | AverageRF | % RSD | 8.1 | | ≤ 20 | |
| 4-Bromofluorobenzene | SURR | AverageRF | % RSD | 3.3 | | ≤ 20 | |

Results flagged with an asterisk (*) indicate values outside control criteria.

# COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

**Client:** Geomatrix Consultants, Incorporated
**Project:** NW Corner-FRP/8769.005/4

**Service Request:** K0604574
**Calibration Date:** 11/11/2005
**Date Analyzed:** 11/12/2005

## Second Source Calibration Verification
## Gasoline Range Organics

**Calibration Type:** External Standard
**Analysis Method:** NWTPH-Gx

**Calibration ID:** CAL5090
**Units:** ug/L

**File ID:** J:\GC06\DATA\111105.FID\1111R018.D

**Column ID:** DB-624

| Analyte Name | Expected | Result | Average RF | SSV RF | %D | %Drift | Criteria | Curve Fit |
|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics-NWTPH | 500 | 560 | 6250 | 7030 | 12 | NA | ± 15 % | AverageRF |

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound ‡ CCC Compound

# COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

**Client:** Geomatrix Consultants, Incorporated
**Project:** NW Corner-FRP/8769.005/4

**Service Request:** K0604574
**Date Analyzed:** 06/14/2006

## Continuing Calibration Verification Summary
## Gasoline Range Organics

**Calibration Type:** External Standard
**Analysis Method:** NWTPH-Gx

**Calibration Date:** 11/11/2005
**Calibration ID:** CAL5090
**Analysis Lot:** KWG0609800
**Units:** ug/L

**File ID:** J:\GC06\DATA\061406.FID\0614R001.D

**Column ID:** DB-624

| Analyte Name | Expected | Result | Average RF | CCV RF | %D | %Drift | Criteria | Curve Fit |
|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics-NWTPH | 500 | 560 | 6250 | 6960 | 11 | NA | ± 20 % | AverageRF |
| 4-Bromofluorobenzene | 100 | 92 | 7710 | 7090 | -8 | NA | ± 20 % | AverageRF |

**Results flagged with an asterisk (*) indicate values outside control criteria.**

# COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

**Client:** Geomatrix Consultants, Incorporated
**Project:** NW Corner-FRP/8769.005/4

**Service Request:** K0604574
**Date Analyzed:** 06/14/2006

## Continuing Calibration Verification Summary
## Gasoline Range Organics

**Calibration Type:** External Standard
**Analysis Method:** NWTPH-Gx

**Calibration Date:** 11/11/2005
**Calibration ID:** CAL5090
**Analysis Lot:** KWG0609800
**Units:** ug/L

**File ID:** J:\GC06\DATA\061406.FID\0614R022.D

**Column ID:** DB-624

| Analyte Name | Expected | Result | Average RF | CCV RF | %D | %Drift | Criteria | Curve Fit |
|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics-NWTPH | 500 | 550 | 6250 | 6860 | 10 | NA | ± 20 % | AverageRF |
| 4-Bromofluorobenzene | 100 | 89 | 7710 | 6830 | -11 | NA | ± 20 % | AverageRF |

**Results flagged with an asterisk (*) indicate values outside control criteria.**

# COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

**Client:** Geomatrix Consultants, Incorporated
**Project:** NW Corner-FRP/8769.005/4

**Service Request:** K0604574

## Analysis Run Log
## Gasoline Range Organics

**Analysis Method:** NWTPH-Gx

**Analysis Lot:** KWG0609800
**Instrument ID:** GC06
**Column:** DB-624

| File ID | Sample Name | Lab Code | Date Analysis Started | Start Time | Q | Date Analysis Finished | Finish Time |
|---|---|---|---|---|---|---|---|
| 0614R001.D | Continuing Calibration Verification | KWG0609800-3 | 6/14/2006 | 09:56 | | 6/14/2006 | 10:12 |
| 0614R003.D | Instrument Blank | KWG0609800-1 | 6/14/2006 | 10:58 | | 6/14/2006 | 11:14 |
| 0614R004.D | Method Blank | KWG0609604-3 | 6/14/2006 | 12:34 | | 6/14/2006 | 12:50 |
| 0614R005.D | Lab Control Sample | KWG0609604-2 | 6/14/2006 | 13:05 | | 6/14/2006 | 13:21 |
| 0614R007.D | NWC-3-24W | K0604574-004 | 6/14/2006 | 14:29 | | 6/14/2006 | 14:45 |
| 0614R008.D | NWC-3-24WDUP | KWG0609604-1 | 6/14/2006 | 15:00 | | 6/14/2006 | 15:16 |
| 0614R009.D | NWC-2-5W | K0604574-001 | 6/14/2006 | 15:32 | | 6/14/2006 | 15:48 |
| 0614R011.D | NWC-2-42W | K0604574-012 | 6/14/2006 | 16:35 | | 6/14/2006 | 16:51 |
| 0614R013.D | NWC-2-7W | K0604574-003 | 6/14/2006 | 17:38 | | 6/14/2006 | 17:54 |
| 0614R015.D | NWC-2-36W | K0604574-009 | 6/14/2006 | 18:41 | | 6/14/2006 | 18:57 |
| 0614R017.D | NWC-2-8W | K0604574-008 | 6/14/2006 | 19:44 | | 6/14/2006 | 20:00 |
| 0614R019.D | NWC-2-6W | K0604574-002 | 6/14/2006 | 20:47 | | 6/14/2006 | 21:03 |
| 0614R021.D | Instrument Blank | KWG0609800-2 | 6/14/2006 | 21:50 | | 6/14/2006 | 22:06 |
| 0614R022.D | Continuing Calibration Verification | KWG0609800-4 | 6/14/2006 | 22:22 | | 6/14/2006 | 22:38 |

**Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis**

# COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

**Client:** Geomatrix Consultants, Incorporated
**Project:** NW Corner-FRP/8769.005/4
**Sample Matrix:** Soil

**Service Request:** K0604574
**Date Extracted:** 6/13/2006

## Extraction Prep Log
## Gasoline Range Organics

**Extraction Method:** EPA 5035/5030B
**Analysis Method:** NWTPH-Gx

**Extraction Lot:** KWG0609604
**Level:** Med

| Sample Name | Lab Code | Date Collected | Date Received | Sample Amount | MeOH Volume | MeOH Aliquot | Final Volume | % Solids | Note |
|---|---|---|---|---|---|---|---|---|---|
| NWC-2-5W | K0604574-001 | 06/02/06 | 06/06/06 | 5.53g | 10.0ml | 200uL | 50ml | 76.3 | |
| NWC-2-6W | K0604574-002 | 06/02/06 | 06/06/06 | 5.15g | 10.0ml | 50uL | 50ml | 73.4 | |
| NWC-2-7W | K0604574-003 | 06/02/06 | 06/06/06 | 5.44g | 10.0ml | 100uL | 50ml | 79.8 | |
| NWC-3-24W | K0604574-004 | 06/02/06 | 06/06/06 | 5.08g | 10.0ml | 200uL | 50ml | 81.4 | |
| NWC-2-8W | K0604574-008 | 06/05/06 | 06/06/06 | 5.14g | 10.0ml | 50uL | 50ml | 80.7 | |
| NWC-2-36W | K0604574-009 | 06/05/06 | 06/06/06 | 5.28g | 10.0ml | 100uL | 50ml | 72.9 | |
| NWC-2-42W | K0604574-012 | 06/05/06 | 06/06/06 | 5.05g | 10.0ml | 100uL | 50ml | 82.6 | |
| NWC-3-24WDUP | KWG0609604-1 | 06/02/06 | 06/06/06 | 5.08g | 10.0ml | 200uL | 50ml | 81.4 | |
| Method Blank | KWG0609604-3 | NA | NA | 5.00g | 10.0ml | 1000uL | 50ml | NA | |
| Lab Control Sample | KWG0609604-2 | NA | NA | 5.00g | 10.0ml | 1000uL | 50ml | NA | |

**Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis**

# NWTPH-HCID

# COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | Geomatrix Consultants, Incorporated | **Service Request:** | K0604574 |
| **Project:** | NW Corner-FRP/8769.005/4 | **Date Collected:** | 6/2/2006 |
| **Sample Matrix:** | Soil | **Date Received:** | 6/6/2006 |

## Hydrocarbon Identification Screen

| | | | |
|---|---|---|---|
| Sample Name: | NWC-2-5W | Units: | mg/Kg (ppm) |
| Lab Code: | K0604574-001 | Basis: | Dry |
| Test Notes: | | | |

| Analyte | Prep Method | Analysis Method | MRL | Dilution Factor | Date Extracted | Date Analyzed | Result | Result Notes |
|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics | EPA 3550B | NWTPH-HCID | 20 | 1 | 6/8/2006 | 6/9/2006 | D | |
| Diesel Range Organics | EPA 3550B | NWTPH-HCID | 50 | 1 | 6/8/2006 | 6/9/2006 | D | |
| Residual Range Organics | EPA 3550B | NWTPH-HCID | 100 | 1 | 6/8/2006 | 6/9/2006 | ND | |

D — Detected at or above the method reporting limit. Follow-up analyses are required for quantitative results.

Approved By: M Curlin Date: 6/21/06

1S22/020597p

# COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | Geomatrix Consultants, Incorporated | **Service Request:** | K0604574 |
| **Project:** | NW Corner-FRP/8769.005/4 | **Date Collected:** | 6/2/2006 |
| **Sample Matrix:** | Soil | **Date Received:** | 6/6/2006 |

Hydrocarbon Identification Screen

| | | | |
|---|---|---|---|
| Sample Name: | NWC-2-6W | Units: | mg/Kg (ppm) |
| Lab Code: | K0604574-002 | Basis: | Dry |
| Test Notes: | | | |

| Analyte | Prep Method | Analysis Method | MRL | Dilution Factor | Date Extracted | Date Analyzed | Result | Result Notes |
|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics | EPA 3550B | NWTPH-HCID | 20 | 1 | 6/8/2006 | 6/9/2006 | D | |
| Diesel Range Organics | EPA 3550B | NWTPH-HCID | 50 | 1 | 6/8/2006 | 6/9/2006 | D | |
| Residual Range Organics | EPA 3550B | NWTPH-HCID | 100 | 1 | 6/8/2006 | 6/9/2006 | D | |

D — Detected at or above the method reporting limit. Follow-up analyses are required for quantitative results.

Approved By: _____ Date: 6/21/06

1S22/020597p

K0604574phc.kc1 - 2 6/21/2006

Page No.:

# COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | Geomatrix Consultants, Incorporated | **Service Request:** | K0604574 |
| **Project:** | NW Corner-FRP/8769.005/4 | **Date Collected:** | 6/2/2006 |
| **Sample Matrix:** | Soil | **Date Received:** | 6/6/2006 |

## Hydrocarbon Identification Screen

| | | | |
|---|---|---|---|
| Sample Name: | NWC-2-7W | Units: | mg/Kg (ppm) |
| Lab Code: | K0604574-003 | Basis: | Dry |
| Test Notes: | | | |

| Analyte | Prep Method | Analysis Method | MRL | Dilution Factor | Date Extracted | Date Analyzed | Result | Result Notes |
|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics | EPA 3550B | NWTPH-HCID | 20 | 1 | 6/8/2006 | 6/9/2006 | D | |
| Diesel Range Organics | EPA 3550B | NWTPH-HCID | 50 | 1 | 6/8/2006 | 6/9/2006 | D | |
| Residual Range Organics | EPA 3550B | NWTPH-HCID | 100 | 1 | 6/8/2006 | 6/9/2006 | D | |

D Detected at or above the method reporting limit. Follow-up analyses are required for quantitative results.

Approved By: MM Gurley Date: 6/21/06

1S22/020597p

## COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | Geomatrix Consultants, Incorporated | **Service Request:** | K0604574 |
| **Project:** | NW Corner-FRP/8769.005/4 | **Date Collected:** | 6/2/2006 |
| **Sample Matrix:** | Soil | **Date Received:** | 6/6/2006 |

Hydrocarbon Identification Screen

| | | | |
|---|---|---|---|
| Sample Name: | NWC-3-24W | Units: | mg/Kg (ppm) |
| Lab Code: | K0604574-004 | Basis: | Dry |
| Test Notes: | | | |

| Analyte | Prep Method | Analysis Method | MRL | Dilution Factor | Date Extracted | Date Analyzed | Result | Result Notes |
|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics | EPA 3550B | NWTPH-HCID | 20 | | 6/8/2006 | 6/9/2006 | D | |
| Diesel Range Organics | EPA 3550B | NWTPH-HCID | 50 | | 6/8/2006 | 6/9/2006 | ND | |
| Residual Range Organics | EPA 3550B | NWTPH-HCID | 100 | | 6/8/2006 | 6/9/2006 | ND | |

D Detected at or above the method reporting limit. Follow-up analyses are required for quantitative results.

Approved By: MM Culer Date: 6/21/06

1S22/020597p

K0604574phc.kc1 - 4 6/21/2006

Page No.:

# COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | Geomatrix Consultants, Incorporated | **Service Request:** | K0604574 |
| **Project:** | NW Corner-FRP/8769.005/4 | **Date Collected:** | 6/5/2006 |
| **Sample Matrix:** | Soil | **Date Received:** | 6/6/2006 |

Hydrocarbon Identification Screen

| | | | |
|---|---|---|---|
| Sample Name: | NWC-2-8W | Units: | mg/Kg (ppm) |
| Lab Code: | K0604574-008 | Basis: | Dry |
| Test Notes: | | | |

| Analyte | Prep Method | Analysis Method | MRL | Dilution Factor | Date Extracted | Date Analyzed | Result | Result Notes |
|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics | EPA 3550B | NWTPH-HCID | 20 | 1 | 6/8/2006 | 6/10/2006 | D | |
| Diesel Range Organics | EPA 3550B | NWTPH-HCID | 50 | 1 | 6/8/2006 | 6/10/2006 | D | |
| Residual Range Organics | EPA 3550B | NWTPH-HCID | 100 | 1 | 6/8/2006 | 6/10/2006 | D | |

D — Detected at or above the method reporting limit. Follow-up analyses are required for quantitative results.

Approved By: MM Curtis Date: 6/21/06

1S22/020597p

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Page No.:

# COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | Geomatrix Consultants, Incorporated | **Service Request:** | K0604574 |
| **Project:** | NW Corner-FRP/8769.005/4 | **Date Collected:** | 6/5/2006 |
| **Sample Matrix:** | Soil | **Date Received:** | 6/6/2006 |

## Hydrocarbon Identification Screen

| | | | |
|---|---|---|---|
| Sample Name: | NWC-2-36W | Units: | mg/Kg (ppm) |
| Lab Code: | K0604574-009 | Basis: | Dry |
| Test Notes: | | | |

| Analyte | Prep Method | Analysis Method | MRL | Dilution Factor | Date Extracted | Date Analyzed | Result | Result Notes |
|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics | EPA 3550B | NWTPH-HCID | 20 | 1 | 6/8/2006 | 6/12/2006 | D | |
| Diesel Range Organics | EPA 3550B | NWTPH-HCID | 50 | 1 | 6/8/2006 | 6/12/2006 | D | |
| Residual Range Organics | EPA 3550B | NWTPH-HCID | 100 | 1 | 6/8/2006 | 6/12/2006 | D | |

D Detected at or above the method reporting limit. Follow-up analyses are required for quantitative results.

Approved By: MR Date: 6/21/06

1S22/020597p

K0604574phc.kc2 - 9 6/21/2006

Page No.:

# COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | Geomatrix Consultants, Incorporated | **Service Request:** | K0604574 |
| **Project:** | NW Corner-FRP/8769.005/4 | **Date Collected:** | NA |
| **Sample Matrix:** | Soil | **Date Received:** | NA |

## Hydrocarbon Identification Screen

| | | | |
|---|---|---|---|
| Sample Name: | Method Blank | Units: | mg/Kg (ppm) |
| Lab Code: | KWG0609367-3 | Basis: | Dry |
| Test Notes: | | | |

| Analyte | Prep Method | Analysis Method | MRL | Dilution Factor | Date Extracted | Date Analyzed | Result | Result Notes |
|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics | EPA 3550B | NWTPH-HCID | 20 | 1 | 6/8/2006 | 6/9/2006 | ND | |
| Diesel Range Organics | EPA 3550B | NWTPH-HCID | 50 | 1 | 6/8/2006 | 6/9/2006 | ND | |
| Residual Range Organics | EPA 3550B | NWTPH-HCID | 100 | 1 | 6/8/2006 | 6/9/2006 | ND | |

Approved By: [signature] Date: 6/21/06

1S22/020597p

# COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | Geomatrix Consultants, Incorporated | **Service Request:** | K0604574 |
| **Project:** | NW Corner-FRP/8769.005/4 | **Date Collected:** | 6/5/2006 |
| **Sample Matrix:** | Soil | **Date Received:** | 6/6/2006 |

## Hydrocarbon Identification Screen

| | | | |
|---|---|---|---|
| Sample Name: | NWC-2-42W | Units: | mg/Kg (ppm) |
| Lab Code: | K0604574-012 | Basis: | Dry |
| Test Notes: | | | |

| Analyte | Prep Method | Analysis Method | MRL | Dilution Factor | Date Extracted | Date Analyzed | Result | Result Notes |
|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics | EPA 3550B | NWTPH-HCID | 20 | 1 | 6/8/2006 | 6/12/2006 | D | |
| Diesel Range Organics | EPA 3550B | NWTPH-HCID | 50 | 1 | 6/8/2006 | 6/12/2006 | D | |
| Residual Range Organics | EPA 3550B | NWTPH-HCID | 100 | 1 | 6/8/2006 | 6/12/2006 | D | |

D — Detected at or above the method reporting limit. Follow-up analyses are required for quantitative results.

Approved By: MM Curtis Date: 6/21/06

1S22/020597p

# COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

| | | | |
|---|---|---|---|
| **Client:** | Geomatrix Consultants, Incorporated | **Service Request:** | K0604574 |
| **Project:** | NW Corner-FRP/8769.005/4 | **Date Collected:** | 6/2-5/2006 |
| **Sample Matrix:** | Soil | **Date Received:** | 6/6/2006 |
| | | **Date Extracted:** | 6/8/2006 |
| | | **Date Analyzed:** | 6/9-12/2006 |

Surrogate Recovery Summary
Hydrocarbon Identification Screen

| | | | |
|---|---|---|---|
| Prep Method: | EPA 3550B | Units: | PERCENT |
| Analysis Method: | NWTPH-HCID | Basis: | NA |

| Sample Name | Lab Code | Test Notes | Percent Recovery o-Terphenyl | Percent Recovery 4-Bromofluorobenzene | Percent Recovery n-Triacontane |
|---|---|---|---|---|---|
| NWC-2-5W | K0604574-001 | | 78 | 87 | 81 |
| NWC-2-6W | K0604574-002 | | 62 | 212 * | 65 |
| NWC-2-7W | K0604574-003 | | 75 | 136 | 84 |
| NWC-3-24W | K0604574-004 | | 88 | 89 | 92 |
| NWC-2-8W | K0604574-008 | | 86 | 143 | 80 |
| NWC-2-36W | K0604574-009 | | 49 * | 109 | 63 |
| NWC-2-42W | K0604574-012 | | 95 | 247 * | 74 |
| Method Blank | KWG0609367-3 | | 82 | 60 | 87 |
| CAS Acceptance Limits: | | | 50-150 | 20-150 | 50-150 |

Approved By: M Culer Date: 6/21/06

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Page No.:

# Organic Analysis:
# Semi-Volatile Organic Compounds by GC/MS

## Summary Package

### Sample and QC Results

# COLUMBIA ANALYTICAL SERVICES, INC.

**Client:** Geomatrix Consultants, Incorporated
**Project:** NW Corner-FRP/8769.005/4

**Service Request:** K0604574

## Cover Page - Organic Analysis Data Package
## Semi-Volatile Organic Compounds by GC/MS

| Sample Name | Lab Code | Date Collected | Date Received |
|---|---|---|---|
| NWC-1-22W | K0604574-006 | 06/02/2006 | 06/06/2006 |
| NWC-1-2W | K0604574-007 | 06/02/2006 | 06/06/2006 |
| NWC-1-12W | K0604574-010 | 06/05/2006 | 06/06/2006 |
| NWC-2-39W | K0604574-011 | 06/05/2006 | 06/06/2006 |

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the case narrative. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: _____ Name: Carl Degner

Date: 6/15/06 Title: SVM Supervisor

# COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

| | | | |
|---|---|---|---|
| **Client:** | Geomatrix Consultants, Incorporated | **Service Request:** | K0604574 |
| **Project:** | NW Corner-FRP/8769.005/4 | **Date Collected:** | 06/02/2006 |
| **Sample Matrix:** | Soil | **Date Received:** | 06/06/2006 |

## Semi-Volatile Organic Compounds by GC/MS

| | | | |
|---|---|---|---|
| **Sample Name:** | NWC-1-22W | **Units:** | ug/Kg |
| **Lab Code:** | K0604574-006 | **Basis:** | Dry |
| **Extraction Method:** | EPA 3541 | **Level:** | Low |
| **Analysis Method:** | 8270C | | |

| Analyte Name | Result | Q | MRL | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Note |
|---|---|---|---|---|---|---|---|---|---|
| Bis(2-chloroethyl) Ether | ND | U | 13 | 5.9 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| **Phenol** | **17** | JD | 37 | 4.6 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 2-Chlorophenol | ND | U | 13 | 4.2 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 1,3-Dichlorobenzene | ND | U | 13 | 3.9 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 1,4-Dichlorobenzene | ND | U | 13 | 4.6 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 1,2-Dichlorobenzene | ND | U | 13 | 3.2 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Benzyl Alcohol | ND | U | 13 | 9.0 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Bis(2-chloroisopropyl) Ether | ND | U | 13 | 3.0 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 2-Methylphenol | ND | U | 13 | 8.3 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Hexachloroethane | ND | U | 13 | 5.4 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| N-Nitrosodi-n-propylamine | ND | U | 13 | 7.8 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 4-Methylphenol† | ND | U | 13 | 7.1 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Nitrobenzene | ND | U | 13 | 4.9 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Isophorone | ND | U | 13 | 3.9 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 2-Nitrophenol | ND | U | 13 | 6.3 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 2,4-Dimethylphenol | ND | U | 61 | 14 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Bis(2-chloroethoxy)methane | ND | U | 13 | 3.2 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 2,4-Dichlorophenol | ND | U | 13 | 4.4 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Benzoic Acid | ND | U | 250 | 240 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | * |
| 1,2,4-Trichlorobenzene | ND | U | 13 | 3.7 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| **Naphthalene** | **14** | D | 13 | 3.2 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 4-Chloroaniline | ND | U | 13 | 5.1 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Hexachlorobutadiene | ND | U | 13 | 3.4 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 4-Chloro-3-methylphenol | ND | U | 13 | 5.1 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| **2-Methylnaphthalene** | **13** | D | 13 | 3.0 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Hexachlorocyclopentadiene | ND | U | 61 | 37 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 2,4,6-Trichlorophenol | ND | U | 13 | 4.4 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| **2,4,5-Trichlorophenol** | **7.9** | JD | 13 | 7.3 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 2-Chloronaphthalene | ND | U | 13 | 8.8 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 2-Nitroaniline | ND | U | 25 | 6.6 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Acenaphthylene | ND | U | 13 | 3.4 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Dimethyl Phthalate | ND | U | 13 | 4.4 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 2,6-Dinitrotoluene | ND | U | 13 | 6.8 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |

Comments:

# COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

| | | | |
|---|---|---|---|
| **Client:** | Geomatrix Consultants, Incorporated | **Service Request:** | K0604574 |
| **Project:** | NW Corner-FRP/8769.005/4 | **Date Collected:** | 06/02/2006 |
| **Sample Matrix:** | Soil | **Date Received:** | 06/06/2006 |

## Semi-Volatile Organic Compounds by GC/MS

| | | | |
|---|---|---|---|
| **Sample Name:** | NWC-1-22W | **Units:** | ug/Kg |
| **Lab Code:** | K0604574-006 | **Basis:** | Dry |
| **Extraction Method:** | EPA 3541 | **Level:** | Low |
| **Analysis Method:** | 8270C | | |

| Analyte Name | Result | Q | MRL | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Note |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | ND | U | 13 | 2.5 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 3-Nitroaniline | ND | U | 25 | 6.3 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 2,4-Dinitrophenol | ND | U | 250 | 88 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Dibenzofuran | ND | U | 13 | 3.2 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 4-Nitrophenol | ND | U | 130 | 73 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 2,4-Dinitrotoluene | ND | U | 13 | 6.8 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Fluorene | ND | U | 13 | 4.2 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 4-Chlorophenyl Phenyl Ether | ND | U | 13 | 4.9 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Diethyl Phthalate | ND | U | 13 | 8.5 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 4-Nitroaniline | ND | U | 25 | 8.3 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 2-Methyl-4,6-dinitrophenol | ND | U | 130 | 4.2 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| N-Nitrosodiphenylamine | ND | U | 13 | 5.4 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 4-Bromophenyl Phenyl Ether | ND | U | 13 | 3.4 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Hexachlorobenzene | ND | U | 13 | 5.1 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| **Pentachlorophenol** | **550** | D | 130 | 21 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| **Phenanthrene** | **15** | D | 13 | 3.2 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Anthracene | ND | U | 13 | 3.4 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| **Di-n-butyl Phthalate** | **15** | D | 13 | 6.3 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| **Fluoranthene** | **16** | D | 13 | 5.4 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| **Pyrene** | **20** | D | 13 | 3.2 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Butyl Benzyl Phthalate | ND | U | 13 | 3.7 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 3,3'-Dichlorobenzidine | ND | U | 130 | 9.0 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| **Benz(a)anthracene** | **3.7** | JD | 13 | 3.4 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| **Chrysene** | **8.7** | JD | 13 | 3.4 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| **Bis(2-ethylhexyl) Phthalate** | **25** | JD | 250 | 4.2 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Di-n-octyl Phthalate | ND | U | 13 | 3.0 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| **Benzo(b)fluoranthene** | **9.4** | JD | 13 | 6.1 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Benzo(k)fluoranthene | ND | U | 13 | 6.1 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| **Benzo(a)pyrene** | **4.2** | JD | 13 | 3.9 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| **Indeno(1,2,3-cd)pyrene** | **4.8** | JD | 13 | 4.6 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Dibenz(a,h)anthracene | ND | U | 13 | 5.4 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| **Benzo(g,h,i)perylene** | **6.0** | JD | 13 | 5.6 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |

* See Case Narrative

**Comments:**

# COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

| | | | |
|---|---|---|---|
| **Client:** | Geomatrix Consultants, Incorporated | **Service Request:** | K0604574 |
| **Project:** | NW Corner-FRP/8769.005/4 | **Date Collected:** | 06/02/2006 |
| **Sample Matrix:** | Soil | **Date Received:** | 06/06/2006 |

## Semi-Volatile Organic Compounds by GC/MS

| | | | |
|---|---|---|---|
| **Sample Name:** | NWC-1-22W | **Units:** | ug/Kg |
| **Lab Code:** | K0604574-006 | **Basis:** | Dry |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Note |
|---|---|---|---|---|
| 2-Fluorophenol | 33 | 12-88 | 06/11/06 | Acceptable |
| Phenol-d6 | 53 | 20-101 | 06/11/06 | Acceptable |
| Nitrobenzene-d5 | 38 | 10-97 | 06/11/06 | Acceptable |
| 2-Fluorobiphenyl | 53 | 10-107 | 06/11/06 | Acceptable |
| 2,4,6-Tribromophenol | 55 | 16-122 | 06/11/06 | Acceptable |
| Terphenyl-d14 | 60 | 28-135 | 06/11/06 | Acceptable |

**† Analyte Comments**

| | |
|---|---|
| 4-Methylphenol | This analyte cannot be separated from 3-Methylphenol. |

**Comments:**

# COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

| | | | |
|---|---|---|---|
| **Client:** | Geomatrix Consultants, Incorporated | **Service Request:** | K0604574 |
| **Project:** | NW Corner-FRP/8769.005/4 | **Date Collected:** | 06/02/2006 |
| **Sample Matrix:** | Soil | **Date Received:** | 06/06/2006 |

## Semi-Volatile Organic Compounds by GC/MS

| | | | |
|---|---|---|---|
| **Sample Name:** | NWC-1-2W | **Units:** | ug/Kg |
| **Lab Code:** | K0604574-007 | **Basis:** | Dry |
| **Extraction Method:** | EPA 3541 | **Level:** | Low |
| **Analysis Method:** | 8270C | | |

| Analyte Name | Result | Q | MRL | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Note |
|---|---|---|---|---|---|---|---|---|---|
| Bis(2-chloroethyl) Ether | ND | U | 13 | 6.1 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Phenol | ND | U | 38 | 4.8 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 2-Chlorophenol | ND | U | 13 | 4.3 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 1,3-Dichlorobenzene | ND | U | 13 | 4.1 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 1,4-Dichlorobenzene | ND | U | 13 | 4.8 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 1,2-Dichlorobenzene | ND | U | 13 | 3.3 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Benzyl Alcohol | ND | U | 13 | 9.3 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Bis(2-chloroisopropyl) Ether | ND | U | 13 | 3.1 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 2-Methylphenol | ND | U | 13 | 8.6 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Hexachloroethane | ND | U | 13 | 5.6 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| N-Nitrosodi-n-propylamine | ND | U | 13 | 8.1 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 4-Methylphenol† | ND | U | 13 | 7.3 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Nitrobenzene | ND | U | 13 | 5.1 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Isophorone | ND | U | 13 | 4.1 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 2-Nitrophenol | ND | U | 13 | 6.6 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 2,4-Dimethylphenol | ND | U | 63 | 14 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Bis(2-chloroethoxy)methane | ND | U | 13 | 3.3 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 2,4-Dichlorophenol | ND | U | 13 | 4.6 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Benzoic Acid | ND | U | 260 | 250 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | * |
| 1,2,4-Trichlorobenzene | ND | U | 13 | 3.8 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| **Naphthalene** | **6.2** | JD | 13 | 3.3 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 4-Chloroaniline | ND | U | 13 | 5.3 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Hexachlorobutadiene | ND | U | 13 | 3.6 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 4-Chloro-3-methylphenol | ND | U | 13 | 5.3 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| **2-Methylnaphthalene** | **5.6** | JD | 13 | 3.1 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Hexachlorocyclopentadiene | ND | U | 63 | 38 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 2,4,6-Trichlorophenol | ND | U | 13 | 4.6 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 2,4,5-Trichlorophenol | ND | U | 13 | 7.6 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 2-Chloronaphthalene | ND | U | 13 | 9.1 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 2-Nitroaniline | ND | U | 26 | 6.8 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Acenaphthylene | ND | U | 13 | 3.6 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Dimethyl Phthalate | ND | U | 13 | 4.6 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 2,6-Dinitrotoluene | ND | U | 13 | 7.1 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |

**Comments:**

# COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

| | | | |
|---|---|---|---|
| **Client:** | Geomatrix Consultants, Incorporated | **Service Request:** | K0604574 |
| **Project:** | NW Corner-FRP/8769.005/4 | **Date Collected:** | 06/02/2006 |
| **Sample Matrix:** | Soil | **Date Received:** | 06/06/2006 |

## Semi-Volatile Organic Compounds by GC/MS

| | | | |
|---|---|---|---|
| **Sample Name:** | NWC-1-2W | **Units:** | ug/Kg |
| **Lab Code:** | K0604574-007 | **Basis:** | Dry |
| **Extraction Method:** | EPA 3541 | **Level:** | Low |
| **Analysis Method:** | 8270C | | |

| Analyte Name | Result | Q | MRL | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Note |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | ND | U | 13 | 2.6 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 3-Nitroaniline | ND | U | 26 | 6.6 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 2,4-Dinitrophenol | ND | U | 260 | 91 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Dibenzofuran | ND | U | 13 | 3.3 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 4-Nitrophenol | ND | U | 130 | 76 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 2,4-Dinitrotoluene | ND | U | 13 | 7.1 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Fluorene | ND | U | 13 | 4.3 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 4-Chlorophenyl Phenyl Ether | ND | U | 13 | 5.1 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Diethyl Phthalate | ND | U | 13 | 8.8 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 4-Nitroaniline | ND | U | 26 | 8.6 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 2-Methyl-4,6-dinitrophenol | ND | U | 130 | 4.3 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| N-Nitrosodiphenylamine | ND | U | 13 | 5.6 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 4-Bromophenyl Phenyl Ether | ND | U | 13 | 3.6 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Hexachlorobenzene | ND | U | 13 | 5.3 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| **Pentachlorophenol** | **36** | JD | 130 | 22 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| **Phenanthrene** | **12** | JD | 13 | 3.3 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Anthracene | ND | U | 13 | 3.6 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| **Di-n-butyl Phthalate** | **8.4** | JD | 13 | 6.6 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| **Fluoranthene** | **14** | D | 13 | 5.6 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| **Pyrene** | **12** | JD | 13 | 3.3 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Butyl Benzyl Phthalate | ND | U | 13 | 3.8 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 3,3'-Dichlorobenzidine | ND | U | 130 | 9.3 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| **Benz(a)anthracene** | **4.6** | JD | 13 | 3.6 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| **Chrysene** | **15** | D | 13 | 3.6 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| **Bis(2-ethylhexyl) Phthalate** | **34** | JD | 260 | 4.3 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Di-n-octyl Phthalate | ND | U | 13 | 3.1 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| **Benzo(b)fluoranthene** | **11** | JD | 13 | 6.3 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Benzo(k)fluoranthene | ND | U | 13 | 6.3 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| **Benzo(a)pyrene** | **5.6** | JD | 13 | 4.1 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Indeno(1,2,3-cd)pyrene | ND | U | 13 | 4.8 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Dibenz(a,h)anthracene | ND | U | 13 | 5.6 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| **Benzo(g,h,i)perylene** | **7.3** | JD | 13 | 5.8 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |

* See Case Narrative

Comments:

# COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

| | | | |
|---|---|---|---|
| **Client:** | Geomatrix Consultants, Incorporated | **Service Request:** | K0604574 |
| **Project:** | NW Corner-FRP/8769.005/4 | **Date Collected:** | 06/02/2006 |
| **Sample Matrix:** | Soil | **Date Received:** | 06/06/2006 |

## Semi-Volatile Organic Compounds by GC/MS

| | | | |
|---|---|---|---|
| **Sample Name:** | NWC-1-2W | **Units:** | ug/Kg |
| **Lab Code:** | K0604574-007 | **Basis:** | Dry |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Note |
|---|---|---|---|---|
| 2-Fluorophenol | 30 | 12-88 | 06/11/06 | Acceptable |
| Phenol-d6 | 53 | 20-101 | 06/11/06 | Acceptable |
| Nitrobenzene-d5 | 38 | 10-97 | 06/11/06 | Acceptable |
| 2-Fluorobiphenyl | 56 | 10-107 | 06/11/06 | Acceptable |
| 2,4,6-Tribromophenol | 54 | 16-122 | 06/11/06 | Acceptable |
| Terphenyl-d14 | 70 | 28-135 | 06/11/06 | Acceptable |

**† Analyte Comments**

| | |
|---|---|
| 4-Methylphenol | This analyte cannot be separated from 3-Methylphenol. |

**Comments:**

# COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

| | | | |
|---|---|---|---|
| **Client:** | Geomatrix Consultants, Incorporated | **Service Request:** | K0604574 |
| **Project:** | NW Corner-FRP/8769.005/4 | **Date Collected:** | 06/05/2006 |
| **Sample Matrix:** | Soil | **Date Received:** | 06/06/2006 |

## Semi-Volatile Organic Compounds by GC/MS

| | | | |
|---|---|---|---|
| **Sample Name:** | NWC-1-12W | **Units:** | ug/Kg |
| **Lab Code:** | K0604574-010 | **Basis:** | Dry |
| **Extraction Method:** | EPA 3541 | **Level:** | Low |
| **Analysis Method:** | 8270C | | |

| Analyte Name | Result | Q | MRL | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Note |
|---|---|---|---|---|---|---|---|---|---|
| Bis(2-chloroethyl) Ether | ND | U | 12 | 5.6 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| **Phenol** | **7.8** | JD | 35 | 4.4 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 2-Chlorophenol | ND | U | 12 | 4.0 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 1,3-Dichlorobenzene | ND | U | 12 | 3.7 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 1,4-Dichlorobenzene | ND | U | 12 | 4.4 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 1,2-Dichlorobenzene | ND | U | 12 | 3.0 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Benzyl Alcohol | ND | U | 12 | 8.6 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Bis(2-chloroisopropyl) Ether | ND | U | 12 | 2.8 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 2-Methylphenol | ND | U | 12 | 7.9 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Hexachloroethane | ND | U | 12 | 5.1 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| N-Nitrosodi-n-propylamine | ND | U | 12 | 7.4 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 4-Methylphenol† | ND | U | 12 | 6.7 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Nitrobenzene | ND | U | 12 | 4.7 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Isophorone | ND | U | 12 | 3.7 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 2-Nitrophenol | ND | U | 12 | 6.0 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 2,4-Dimethylphenol | ND | U | 58 | 13 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Bis(2-chloroethoxy)methane | ND | U | 12 | 3.0 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 2,4-Dichlorophenol | ND | U | 12 | 4.2 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Benzoic Acid | ND | U | 240 | 230 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | * |
| 1,2,4-Trichlorobenzene | ND | U | 12 | 3.5 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| **Naphthalene** | **9.6** | JD | 12 | 3.0 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 4-Chloroaniline | ND | U | 12 | 4.9 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Hexachlorobutadiene | ND | U | 12 | 3.3 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 4-Chloro-3-methylphenol | ND | U | 12 | 4.9 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| **2-Methylnaphthalene** | **10** | JD | 12 | 2.8 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Hexachlorocyclopentadiene | ND | U | 58 | 35 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 2,4,6-Trichlorophenol | ND | U | 12 | 4.2 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 2,4,5-Trichlorophenol | ND | U | 12 | 7.0 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 2-Chloronaphthalene | ND | U | 12 | 8.3 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 2-Nitroaniline | ND | U | 24 | 6.3 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| **Acenaphthylene** | **3.7** | JD | 12 | 3.3 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Dimethyl Phthalate | ND | U | 12 | 4.2 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 2,6-Dinitrotoluene | ND | U | 12 | 6.5 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |

**Comments:**

**Client:** Geomatrix Consultants, Incorporated
**Project:** NW Corner-FRP/8769.005/4
**Sample Matrix:** Soil

**Service Request:** K0604574
**Date Collected:** 06/05/2006
**Date Received:** 06/06/2006

## Semi-Volatile Organic Compounds by GC/MS

**Sample Name:** NWC-1-12W
**Lab Code:** K0604574-010

**Units:** ug/Kg
**Basis:** Dry

**Extraction Method:** EPA 3541
**Analysis Method:** 8270C

**Level:** Low

| Analyte Name | Result | Q | MRL | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Note |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | ND | U | 12 | 2.4 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 3-Nitroaniline | ND | U | 24 | 6.0 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 2,4-Dinitrophenol | ND | U | 240 | 83 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| **Dibenzofuran** | **4.1** | **JD** | 12 | 3.0 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 4-Nitrophenol | ND | U | 120 | 70 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 2,4-Dinitrotoluene | ND | U | 12 | 6.5 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Fluorene | ND | U | 12 | 4.0 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 4-Chlorophenyl Phenyl Ether | ND | U | 12 | 4.7 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Diethyl Phthalate | ND | U | 12 | 8.1 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 4-Nitroaniline | ND | U | 24 | 7.9 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 2-Methyl-4,6-dinitrophenol | ND | U | 120 | 4.0 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| N-Nitrosodiphenylamine | ND | U | 12 | 5.1 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 4-Bromophenyl Phenyl Ether | ND | U | 12 | 3.3 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Hexachlorobenzene | ND | U | 12 | 4.9 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| **Pentachlorophenol** | **190** | **D** | 120 | 20 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| **Phenanthrene** | **36** | **D** | 12 | 3.0 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| **Anthracene** | **7.5** | **JD** | 12 | 3.3 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| **Di-n-butyl Phthalate** | **9.6** | **JD** | 12 | 6.0 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| **Fluoranthene** | **97** | **D** | 12 | 5.1 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| **Pyrene** | **95** | **D** | 12 | 3.0 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| **Butyl Benzyl Phthalate** | **23** | **D** | 12 | 3.5 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 3,3'-Dichlorobenzidine | ND | U | 120 | 8.6 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| **Benz(a)anthracene** | **55** | **D** | 12 | 3.3 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| **Chrysene** | **79** | **D** | 12 | 3.3 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| **Bis(2-ethylhexyl) Phthalate** | **29** | **JD** | 240 | 4.0 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Di-n-octyl Phthalate | ND | U | 12 | 2.8 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| **Benzo(b)fluoranthene** | **97** | **D** | 12 | 5.8 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| **Benzo(k)fluoranthene** | **31** | **D** | 12 | 5.8 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| **Benzo(a)pyrene** | **75** | **D** | 12 | 3.7 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| **Indeno(1,2,3-cd)pyrene** | **63** | **D** | 12 | 4.4 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| **Dibenz(a,h)anthracene** | **13** | **D** | 12 | 5.1 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| **Benzo(g,h,i)perylene** | **68** | **D** | 12 | 5.3 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |

* See Case Narrative

**Comments:**

# COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

| | | | |
|---|---|---|---|
| **Client:** | Geomatrix Consultants, Incorporated | **Service Request:** | K0604574 |
| **Project:** | NW Corner-FRP/8769.005/4 | **Date Collected:** | 06/05/2006 |
| **Sample Matrix:** | Soil | **Date Received:** | 06/06/2006 |

## Semi-Volatile Organic Compounds by GC/MS

| | | | |
|---|---|---|---|
| **Sample Name:** | NWC-1-12W | **Units:** | ug/Kg |
| **Lab Code:** | K0604574-010 | **Basis:** | Dry |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Note |
|---|---|---|---|---|
| 2-Fluorophenol | 28 | 12-88 | 06/11/06 | Acceptable |
| Phenol-d6 | 51 | 20-101 | 06/11/06 | Acceptable |
| Nitrobenzene-d5 | 37 | 10-97 | 06/11/06 | Acceptable |
| 2-Fluorobiphenyl | 56 | 10-107 | 06/11/06 | Acceptable |
| 2,4,6-Tribromophenol | 62 | 16-122 | 06/11/06 | Acceptable |
| Terphenyl-d14 | 79 | 28-135 | 06/11/06 | Acceptable |

† Analyte Comments

| | |
|---|---|
| 4-Methylphenol | This analyte cannot be separated from 3-Methylphenol. |

Comments:

# COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

**Client:** Geomatrix Consultants, Incorporated
**Project:** NW Corner-FRP/8769.005/4
**Sample Matrix:** Soil

**Service Request:** K0604574
**Date Collected:** 06/05/2006
**Date Received:** 06/06/2006

## Semi-Volatile Organic Compounds by GC/MS

**Sample Name:** NWC-2-39W
**Lab Code:** K0604574-011

**Extraction Method:** EPA 3541
**Analysis Method:** 8270C

**Units:** ug/Kg
**Basis:** Dry

**Level:** Low

| Analyte Name | Result | Q | MRL | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Note |
|---|---|---|---|---|---|---|---|---|---|
| Bis(2-chloroethyl) Ether | ND | U | 12 | 5.8 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Phenol | ND | U | 36 | 4.6 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 2-Chlorophenol | ND | U | 12 | 4.1 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 1,3-Dichlorobenzene | ND | U | 12 | 3.9 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 1,4-Dichlorobenzene | ND | U | 12 | 4.6 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 1,2-Dichlorobenzene | ND | U | 12 | 3.2 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Benzyl Alcohol | ND | U | 12 | 8.9 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Bis(2-chloroisopropyl) Ether | ND | U | 12 | 2.9 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 2-Methylphenol | ND | U | 12 | 8.2 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Hexachloroethane | ND | U | 12 | 5.3 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| N-Nitrosodi-n-propylamine | ND | U | 12 | 7.7 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 4-Methylphenol† | ND | U | 12 | 7.0 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Nitrobenzene | ND | U | 12 | 4.8 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Isophorone | ND | U | 12 | 3.9 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 2-Nitrophenol | ND | U | 12 | 6.3 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 2,4-Dimethylphenol | ND | U | 60 | 14 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Bis(2-chloroethoxy)methane | ND | U | 12 | 3.2 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 2,4-Dichlorophenol | ND | U | 12 | 4.3 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Benzoic Acid | ND | U | 240 | 230 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | * |
| 1,2,4-Trichlorobenzene | ND | U | 12 | 3.6 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Naphthalene | ND | U | 12 | 3.2 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 4-Chloroaniline | ND | U | 12 | 5.1 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Hexachlorobutadiene | ND | U | 12 | 3.4 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 4-Chloro-3-methylphenol | ND | U | 12 | 5.1 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 2-Methylnaphthalene | ND | U | 12 | 2.9 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Hexachlorocyclopentadiene | ND | U | 60 | 36 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 2,4,6-Trichlorophenol | ND | U | 12 | 4.3 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 2,4,5-Trichlorophenol | ND | U | 12 | 7.2 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 2-Chloronaphthalene | ND | U | 12 | 8.6 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 2-Nitroaniline | ND | U | 24 | 6.5 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Acenaphthylene | ND | U | 12 | 3.4 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Dimethyl Phthalate | ND | U | 12 | 4.3 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 2,6-Dinitrotoluene | ND | U | 12 | 6.7 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |

**Comments:**

# COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

| | | | |
|---|---|---|---|
| **Client:** | Geomatrix Consultants, Incorporated | **Service Request:** | K0604574 |
| **Project:** | NW Corner-FRP/8769.005/4 | **Date Collected:** | 06/05/2006 |
| **Sample Matrix:** | Soil | **Date Received:** | 06/06/2006 |

## Semi-Volatile Organic Compounds by GC/MS

| | | | |
|---|---|---|---|
| **Sample Name:** | NWC-2-39W | **Units:** | ug/Kg |
| **Lab Code:** | K0604574-011 | **Basis:** | Dry |
| **Extraction Method:** | EPA 3541 | **Level:** | Low |
| **Analysis Method:** | 8270C | | |

| Analyte Name | Result | Q | MRL | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Note |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | ND | U | 12 | 2.4 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 3-Nitroaniline | ND | U | 24 | 6.3 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 2,4-Dinitrophenol | ND | U | 240 | 86 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Dibenzofuran | ND | U | 12 | 3.2 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 4-Nitrophenol | ND | U | 120 | 72 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 2,4-Dinitrotoluene | ND | U | 12 | 6.7 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Fluorene | ND | U | 12 | 4.1 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 4-Chlorophenyl Phenyl Ether | ND | U | 12 | 4.8 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Diethyl Phthalate | ND | U | 12 | 8.4 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 4-Nitroaniline | ND | U | 24 | 8.2 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 2-Methyl-4,6-dinitrophenol | ND | U | 120 | 4.1 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| N-Nitrosodiphenylamine | ND | U | 12 | 5.3 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 4-Bromophenyl Phenyl Ether | ND | U | 12 | 3.4 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Hexachlorobenzene | ND | U | 12 | 5.1 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| **Pentachlorophenol** | **33** | JD | 120 | 21 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| **Phenanthrene** | **4.1** | JD | 12 | 3.2 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Anthracene | ND | U | 12 | 3.4 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| **Di-n-butyl Phthalate** | **11** | JD | 12 | 6.3 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| **Fluoranthene** | **6.1** | JD | 12 | 5.3 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| **Pyrene** | **6.9** | JD | 12 | 3.2 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Butyl Benzyl Phthalate | ND | U | 12 | 3.6 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 3,3'-Dichlorobenzidine | ND | U | 120 | 8.9 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Benz(a)anthracene | ND | U | 12 | 3.4 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| **Chrysene** | **5.6** | JD | 12 | 3.4 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| **Bis(2-ethylhexyl) Phthalate** | **16** | JD | 240 | 4.1 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Di-n-octyl Phthalate | ND | U | 12 | 2.9 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| **Benzo(b)fluoranthene** | **9.8** | JD | 12 | 6.0 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Benzo(k)fluoranthene | ND | U | 12 | 6.0 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| **Benzo(a)pyrene** | **4.0** | JD | 12 | 3.9 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| **Indeno(1,2,3-cd)pyrene** | **5.4** | JD | 12 | 4.6 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Dibenz(a,h)anthracene | ND | U | 12 | 5.3 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Benzo(g,h,i)perylene | ND | U | 12 | 5.5 | 2 | 06/08/06 | 06/11/06 | KWG0609161 | |

* See Case Narrative

Comments:

# COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

| | | | |
|---|---|---|---|
| **Client:** | Geomatrix Consultants, Incorporated | **Service Request:** | K0604574 |
| **Project:** | NW Corner-FRP/8769.005/4 | **Date Collected:** | 06/05/2006 |
| **Sample Matrix:** | Soil | **Date Received:** | 06/06/2006 |

## Semi-Volatile Organic Compounds by GC/MS

| | | | |
|---|---|---|---|
| **Sample Name:** | NWC-2-39W | **Units:** | ug/Kg |
| **Lab Code:** | K0604574-011 | **Basis:** | Dry |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Note |
|---|---|---|---|---|
| 2-Fluorophenol | 33 | 12-88 | 06/11/06 | Acceptable |
| Phenol-d6 | 55 | 20-101 | 06/11/06 | Acceptable |
| Nitrobenzene-d5 | 44 | 10-97 | 06/11/06 | Acceptable |
| 2-Fluorobiphenyl | 50 | 10-107 | 06/11/06 | Acceptable |
| 2,4,6-Tribromophenol | 49 | 16-122 | 06/11/06 | Acceptable |
| Terphenyl-d14 | 60 | 28-135 | 06/11/06 | Acceptable |

**† Analyte Comments**

| | |
|---|---|
| 4-Methylphenol | This analyte cannot be separated from 3-Methylphenol. |

**Comments:**

# COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

| | | | |
|---|---|---|---|
| **Client:** | Geomatrix Consultants, Incorporated | **Service Request:** | K0604574 |
| **Project:** | NW Corner-FRP/8769.005/4 | **Date Collected:** | NA |
| **Sample Matrix:** | Soil | **Date Received:** | NA |

## Semi-Volatile Organic Compounds by GC/MS

| | | | |
|---|---|---|---|
| **Sample Name:** | Method Blank | **Units:** | ug/Kg |
| **Lab Code:** | KWG0609161-9 | **Basis:** | Dry |
| **Extraction Method:** | EPA 3541 | **Level:** | Low |
| **Analysis Method:** | 8270C | | |

| Analyte Name | Result | Q | MRL | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Note |
|---|---|---|---|---|---|---|---|---|---|
| Bis(2-chloroethyl) Ether | ND | U | 5.0 | 2.4 | 1 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Phenol | ND | U | 15 | 1.9 | 1 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 2-Chlorophenol | ND | U | 5.0 | 1.7 | 1 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 1,3-Dichlorobenzene | ND | U | 5.0 | 1.6 | 1 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 1,4-Dichlorobenzene | ND | U | 5.0 | 1.9 | 1 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 1,2-Dichlorobenzene | ND | U | 5.0 | 1.3 | 1 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Benzyl Alcohol | ND | U | 5.0 | 3.7 | 1 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Bis(2-chloroisopropyl) Ether | ND | U | 5.0 | 1.2 | 1 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 2-Methylphenol | ND | U | 5.0 | 3.4 | 1 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Hexachloroethane | ND | U | 5.0 | 2.2 | 1 | 06/08/06 | 06/11/06 | KWG0609161 | |
| N-Nitrosodi-n-propylamine | ND | U | 5.0 | 3.2 | 1 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 4-Methylphenol† | ND | U | 5.0 | 2.9 | 1 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Nitrobenzene | ND | U | 5.0 | 2.0 | 1 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Isophorone | ND | U | 5.0 | 1.6 | 1 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 2-Nitrophenol | ND | U | 5.0 | 2.6 | 1 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 2,4-Dimethylphenol | ND | U | 25 | 5.5 | 1 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Bis(2-chloroethoxy)methane | ND | U | 5.0 | 1.3 | 1 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 2,4-Dichlorophenol | ND | U | 5.0 | 1.8 | 1 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Benzoic Acid | ND | U | 100 | 96 | 1 | 06/08/06 | 06/11/06 | KWG0609161 | * |
| 1,2,4-Trichlorobenzene | ND | U | 5.0 | 1.5 | 1 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Naphthalene | ND | U | 5.0 | 1.3 | 1 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 4-Chloroaniline | ND | U | 5.0 | 2.1 | 1 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Hexachlorobutadiene | ND | U | 5.0 | 1.4 | 1 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 4-Chloro-3-methylphenol | ND | U | 5.0 | 2.1 | 1 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 2-Methylnaphthalene | ND | U | 5.0 | 1.2 | 1 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Hexachlorocyclopentadiene | ND | U | 25 | 15 | 1 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 2,4,6-Trichlorophenol | ND | U | 5.0 | 1.8 | 1 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 2,4,5-Trichlorophenol | ND | U | 5.0 | 3.0 | 1 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 2-Chloronaphthalene | ND | U | 5.0 | 3.6 | 1 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 2-Nitroaniline | ND | U | 10 | 2.7 | 1 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Acenaphthylene | ND | U | 5.0 | 1.4 | 1 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Dimethyl Phthalate | ND | U | 5.0 | 1.8 | 1 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 2,6-Dinitrotoluene | ND | U | 5.0 | 2.8 | 1 | 06/08/06 | 06/11/06 | KWG0609161 | |

**Comments:**

# COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

| | | | |
|---|---|---|---|
| **Client:** | Geomatrix Consultants, Incorporated | **Service Request:** | K0604574 |
| **Project:** | NW Corner-FRP/8769.005/4 | **Date Collected:** | NA |
| **Sample Matrix:** | Soil | **Date Received:** | NA |

## Semi-Volatile Organic Compounds by GC/MS

| | | | |
|---|---|---|---|
| **Sample Name:** | Method Blank | **Units:** | ug/Kg |
| **Lab Code:** | KWG0609161-9 | **Basis:** | Dry |
| **Extraction Method:** | EPA 3541 | **Level:** | Low |
| **Analysis Method:** | 8270C | | |

| Analyte Name | Result | Q | MRL | MDL | Dilution Factor | Date Extracted | Date Analyzed | Extraction Lot | Note |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | ND | U | 5.0 | 1.0 | 1 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 3-Nitroaniline | ND | U | 10 | 2.6 | 1 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 2,4-Dinitrophenol | ND | U | 100 | 36 | 1 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Dibenzofuran | ND | U | 5.0 | 1.3 | 1 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 4-Nitrophenol | ND | U | 50 | 30 | 1 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 2,4-Dinitrotoluene | ND | U | 5.0 | 2.8 | 1 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Fluorene | ND | U | 5.0 | 1.7 | 1 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 4-Chlorophenyl Phenyl Ether | ND | U | 5.0 | 2.0 | 1 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Diethyl Phthalate | ND | U | 5.0 | 3.5 | 1 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 4-Nitroaniline | ND | U | 10 | 3.4 | 1 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 2-Methyl-4,6-dinitrophenol | ND | U | 50 | 1.7 | 1 | 06/08/06 | 06/11/06 | KWG0609161 | |
| N-Nitrosodiphenylamine | ND | U | 5.0 | 2.2 | 1 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 4-Bromophenyl Phenyl Ether | ND | U | 5.0 | 1.4 | 1 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Hexachlorobenzene | ND | U | 5.0 | 2.1 | 1 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Pentachlorophenol | ND | U | 50 | 8.5 | 1 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Phenanthrene | ND | U | 5.0 | 1.3 | 1 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Anthracene | ND | U | 5.0 | 1.4 | 1 | 06/08/06 | 06/11/06 | KWG0609161 | |
| **Di-n-butyl Phthalate** | **2.7** | J | 5.0 | 2.6 | 1 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Fluoranthene | ND | U | 5.0 | 2.2 | 1 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Pyrene | ND | U | 5.0 | 1.3 | 1 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Butyl Benzyl Phthalate | ND | U | 5.0 | 1.5 | 1 | 06/08/06 | 06/11/06 | KWG0609161 | |
| 3,3'-Dichlorobenzidine | ND | U | 50 | 3.7 | 1 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Benz(a)anthracene | ND | U | 5.0 | 1.4 | 1 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Chrysene | ND | U | 5.0 | 1.4 | 1 | 06/08/06 | 06/11/06 | KWG0609161 | |
| **Bis(2-ethylhexyl) Phthalate** | **2.4** | J | 100 | 1.7 | 1 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Di-n-octyl Phthalate | ND | U | 5.0 | 1.2 | 1 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Benzo(b)fluoranthene | ND | U | 5.0 | 2.5 | 1 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Benzo(k)fluoranthene | ND | U | 5.0 | 2.5 | 1 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Benzo(a)pyrene | ND | U | 5.0 | 1.6 | 1 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Indeno(1,2,3-cd)pyrene | ND | U | 5.0 | 1.9 | 1 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Dibenz(a,h)anthracene | ND | U | 5.0 | 2.2 | 1 | 06/08/06 | 06/11/06 | KWG0609161 | |
| Benzo(g,h,i)perylene | ND | U | 5.0 | 2.3 | 1 | 06/08/06 | 06/11/06 | KWG0609161 | |

* See Case Narrative

**Comments:**

# COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

| | | | |
|---|---|---|---|
| **Client:** | Geomatrix Consultants, Incorporated | **Service Request:** | K0604574 |
| **Project:** | NW Corner-FRP/8769.005/4 | **Date Collected:** | NA |
| **Sample Matrix:** | Soil | **Date Received:** | NA |

## Semi-Volatile Organic Compounds by GC/MS

| | | | |
|---|---|---|---|
| **Sample Name:** | Method Blank | **Units:** | ug/Kg |
| **Lab Code:** | KWG0609161-9 | **Basis:** | Dry |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Note |
|---|---|---|---|---|
| 2-Fluorophenol | 33 | 12-88 | 06/11/06 | Acceptable |
| Phenol-d6 | 51 | 20-101 | 06/11/06 | Acceptable |
| Nitrobenzene-d5 | 39 | 10-97 | 06/11/06 | Acceptable |
| 2-Fluorobiphenyl | 46 | 10-107 | 06/11/06 | Acceptable |
| 2,4,6-Tribromophenol | 60 | 16-122 | 06/11/06 | Acceptable |
| Terphenyl-d14 | 67 | 28-135 | 06/11/06 | Acceptable |

† Analyte Comments

| | |
|---|---|
| 4-Methylphenol | This analyte cannot be separated from 3-Methylphenol. |

Comments:

# COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

**Client:** Geomatrix Consultants, Incorporated
**Project:** NW Corner-FRP/8769.005/4
**Sample Matrix:** Soil

**Service Request:** K0604574

## Surrogate Recovery Summary
## Semi-Volatile Organic Compounds by GC/MS

**Extraction Method:** EPA 3541
**Analysis Method:** 8270C

**Units:** PERCENT
**Level:** Low

| Sample Name | Lab Code | Sur1 | Sur2 | Sur3 | Sur4 | Sur5 | Sur6 |
|---|---|---|---|---|---|---|---|
| NWC-1-22W | K0604574-006 | 33 D | 53 D | 38 D | 53 D | 55 D | 60 D |
| NWC-1-2W | K0604574-007 | 30 D | 53 D | 38 D | 56 D | 54 D | 70 D |
| NWC-1-12W | K0604574-010 | 28 D | 51 D | 37 D | 56 D | 62 D | 79 D |
| NWC-2-39W | K0604574-011 | 33 D | 55 D | 44 D | 50 D | 49 D | 60 D |
| Method Blank | KWG0609161-9 | 33 | 51 | 39 | 46 | 60 | 67 |
| Batch QC | K0604453-001 | 36 | 56 | 54 | 51 | 55 | 57 |
| Batch QCMS | KWG0609161-13 | 44 | 64 | 58 | 61 | 70 | 69 |
| Batch QCDMS | KWG0609161-14 | 43 | 64 | 59 | 61 | 69 | 65 |
| Lab Control Sample | KWG0609161-10 | 33 | 48 | 45 | 48 | 52 | 57 |
| Duplicate Lab Control Sample | KWG0609161-11 | 34 | 53 | 46 | 46 | 59 | 68 |

**Surrogate Recovery Control Limits (%)**

| | | | |
|---|---|---|---|
| Sur1 = 2-Fluorophenol | 12-88 | Sur5 = 2,4,6-Tribromophenol | 16-122 |
| Sur2 = Phenol-d6 | 20-101 | Sur6 = Terphenyl-d14 | 28-135 |
| Sur3 = Nitrobenzene-d5 | 10-97 | | |
| Sur4 = 2-Fluorobiphenyl | 10-107 | | |

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.

# COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

**Client:** Geomatrix Consultants, Incorporated
**Project:** NW Corner-FRP/8769.005/4

**Service Request:** K0604574
**Date Analyzed:** 06/11/2006
**Time Analyzed:** 06:34

## Internal Standard Area and RT Summary
## Semi-Volatile Organic Compounds by GC/MS

**File ID:** J:\MS10\DATA\061106\0611F001.D
**Instrument ID:** MS10
**Analysis Method:** 8270C

**Lab Code:** KWG0609518-2
**Analysis Lot:** KWG0609518

| | | 1,4-Dichlorobenzene-d4 | | Naphthalene-d8 | | Acenaphthene-d10 | |
|---|---|---|---|---|---|---|---|
| | | Area | RT | Area | RT | Area | RT |
| | Results ==> | 249,856 | 8.60 | 832,649 | 10.52 | 446,535 | 13.32 |
| | Upper Limit ==> | 499,712 | 9.10 | 1,665,298 | 11.02 | 893,070 | 13.82 |
| | Lower Limit ==> | 124,928 | 8.10 | 416,325 | 10.02 | 223,268 | 12.82 |
| | ICAL Result ==> | 335,999 | 8.62 | 1,091,617 | 10.55 | 580,767 | 13.34 |
| *Associated Analyses* | | | | | | | |
| Method Blank | KWG0609161-9 | 262,124 | 8.60 | 905,187 | 10.52 | 469,858 | 13.31 |
| Lab Control Sample | KWG0609161-10 | 255,768 | 8.60 | 919,094 | 10.52 | 480,142 | 13.32 |
| Duplicate Lab Control Sample | KWG0609161-11 | 255,685 | 8.60 | 914,594 | 10.52 | 489,659 | 13.32 |
| Batch QCMS | KWG0609161-13 | 258,262 | 8.60 | 879,486 | 10.52 | 448,348 | 13.31 |
| Batch QCDMS | KWG0609161-14 | 265,396 | 8.60 | 929,502 | 10.52 | 485,977 | 13.32 |
| Batch QC | K0604453-001 | 271,195 | 8.61 | 947,289 | 10.52 | 519,253 | 13.32 |
| NWC-1-22W | K0604574-006 | 267,710 | 8.61 | 941,581 | 10.53 | 464,108 | 13.33 |
| NWC-1-2W | K0604574-007 | 286,837 | 8.61 | 908,023 | 10.53 | 439,974 | 13.33 |
| NWC-1-12W | K0604574-010 | 268,747 | 8.62 | 885,215 | 10.54 | 439,738 | 13.34 |
| NWC-2-39W | K0604574-011 | 269,684 | 8.62 | 951,021 | 10.54 | 510,150 | 13.34 |

Results flagged with an asterisk (*) indicate values outside control criteria.

# COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

**Client:** Geomatrix Consultants, Incorporated
**Project:** NW Corner-FRP/8769.005/4

**Service Request:** K0604574
**Date Analyzed:** 06/11/2006
**Time Analyzed:** 06:34

## Internal Standard Area and RT Summary
## Semi-Volatile Organic Compounds by GC/MS

**File ID:** J:\MS10\DATA\061106\0611F001.D
**Instrument ID:** MS10
**Analysis Method:** 8270C

**Lab Code:** KWG0609518-2
**Analysis Lot:** KWG0609518

| | | Phenanthrene-d10 | | Chrysene-d12 | | Perylene-d12 | |
|---|---|---|---|---|---|---|---|
| | | Area | RT | Area | RT | Area | RT |
| | Results ==> | 709,869 | 15.71 | 694,819 | 20.08 | 468,688 | 23.60 |
| | Upper Limit ==> | 1,419,738 | 16.21 | 1,389,638 | 20.58 | 937,376 | 24.10 |
| | Lower Limit ==> | 354,935 | 15.21 | 347,410 | 19.58 | 234,344 | 23.10 |
| | ICAL Result ==> | 951,084 | 15.74 | 828,513 | 20.11 | 602,544 | 23.65 |
| *Associated Analyses* | | | | | | | |
| Method Blank | KWG0609161-9 | 728,015 | 15.71 | 688,499 | 20.06 | 469,162 | 23.59 |
| Lab Control Sample | KWG0609161-10 | 758,950 | 15.71 | 686,793 | 20.07 | 485,299 | 23.60 |
| Duplicate Lab Control Sample | KWG0609161-11 | 762,326 | 15.70 | 671,639 | 20.07 | 494,939 | 23.60 |
| Batch QCMS | KWG0609161-13 | 733,431 | 15.71 | 662,505 | 20.07 | 492,137 | 23.61 |
| Batch QCDMS | KWG0609161-14 | 767,003 | 15.71 | 692,279 | 20.08 | 499,380 | 23.61 |
| Batch QC | K0604453-001 | 790,971 | 15.71 | 733,688 | 20.07 | 533,155 | 23.62 |
| NWC-1-22W | K0604574-006 | 692,315 | 15.73 | 682,824 | 20.10 | 485,996 | 23.65 |
| NWC-1-2W | K0604574-007 | 734,032 | 15.73 | 641,272 | 20.10 | 472,323 | 23.69 |
| NWC-1-12W | K0604574-010 | 684,198 | 15.74 | 638,310 | 20.12 | 466,181 | 23.71 |
| NWC-2-39W | K0604574-011 | 745,149 | 15.74 | 686,981 | 20.11 | 510,947 | 23.67 |

**Results flagged with an asterisk (*) indicate values outside control criteria.**

# COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

| | | | |
|---|---|---|---|
| **Client:** | Geomatrix Consultants, Incorporated | **Service Request:** | K0604574 |
| **Project:** | NW Corner-FRP/8769.005/4 | **Date Extracted:** | 06/08/2006 |
| **Sample Matrix:** | Soil | **Date Analyzed:** | 06/11/2006 |

## Matrix Spike/Duplicate Matrix Spike Summary
## Semi-Volatile Organic Compounds by GC/MS

| | | | |
|---|---|---|---|
| **Sample Name:** | Batch QC | **Units:** | ug/Kg |
| **Lab Code:** | K0604453-001 | **Basis:** | Dry |
| **Extraction Method:** | EPA 3541 | **Level:** | Low |
| **Analysis Method:** | 8270C | **Extraction Lot:** | KWG0609161 |

| | | Batch QCMS KWG0609161-13 Matrix Spike | | | Batch QCDMS KWG0609161-14 Duplicate Matrix Spike | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Analyte Name** | **Sample Result** | **Result** | **Expected** | **%Rec** | **Result** | **Expected** | **%Rec** | **%Rec Limits** | **RPD** | **RPD Limit** |
| Phenol | 7.7 | 157 | 250 | 60 | 153 | 249 | 58 | 14-114 | 3 | 40 |
| 2-Chlorophenol | ND | 142 | 250 | 57 | 135 | 249 | 54 | 10-116 | 5 | 40 |
| 1,4-Dichlorobenzene | ND | 86.1 | 250 | 35 | 92.5 | 249 | 37 | 10-72 | 7 | 40 |
| N-Nitrosodi-n-propylamine | ND | 162 | 250 | 65 | 159 | 249 | 64 | 18-111 | 2 | 40 |
| 1,2,4-Trichlorobenzene | ND | 129 | 250 | 52 | 129 | 249 | 52 | 10-80 | 0 | 40 |
| 4-Chloro-3-methylphenol | ND | 166 | 250 | 66 | 164 | 249 | 66 | 17-120 | 1 | 40 |
| Acenaphthene | ND | 164 | 250 | 66 | 157 | 249 | 63 | 10-132 | 4 | 40 |
| 4-Nitrophenol | ND | 187 | 250 | 75 | 167 | 249 | 67 | 22-128 | 12 | 40 |
| 2,4-Dinitrotoluene | ND | 187 | 250 | 75 | 181 | 249 | 73 | 30-120 | 4 | 40 |
| Pentachlorophenol | ND | 201 | 250 | 80 | 181 | 249 | 73 | 10-145 | 10 | 40 |
| Pyrene | 8.5 | 190 | 250 | 73 | 175 | 249 | 67 | 10-136 | 8 | 40 |

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

# COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

**Client:** Geomatrix Consultants, Incorporated
**Project:** NW Corner-FRP/8769.005/4
**Sample Matrix:** Soil

**Service Request:** K0604574
**Date Extracted:** 06/08/2006
**Date Analyzed:** 06/11/2006

## Lab Control Spike/Duplicate Lab Control Spike Summary
## Semi-Volatile Organic Compounds by GC/MS

**Extraction Method:** EPA 3541
**Analysis Method:** 8270C

**Units:** ug/Kg
**Basis:** Dry
**Level:** Low
**Extraction Lot:** KWG0609161

| | Lab Control Sample KWG0609161-10 Lab Control Spike | | | Duplicate Lab Control Sample KWG0609161-11 Duplicate Lab Control Spike | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Analyte Name** | **Result** | **Expected** | **%Rec** | **Result** | **Expected** | **%Rec** | **%Rec Limits** | **RPD** | **RPD Limit** |
| Bis(2-chloroethyl) Ether | 113 | 250 | 45 | 113 | 250 | 45 | 41-89 | 0 | 40 |
| Phenol | 130 | 250 | 52 | 132 | 250 | 53 | 35-102 | 1 | 40 |
| 2-Chlorophenol | 114 | 250 | 46 | 115 | 250 | 46 | 35-98 | 1 | 40 |
| 1,3-Dichlorobenzene | 91.9 | 250 | 37 | 91.4 | 250 | 37 | 36-89 | 1 | 40 |
| 1,4-Dichlorobenzene | 93.9 | 250 | 38 | 95.7 | 250 | 38 | 37-87 | 2 | 40 |
| 1,2-Dichlorobenzene | 102 | 250 | 41 | 108 | 250 | 43 | 39-91 | 5 | 40 |
| Benzyl Alcohol | 160 | 250 | 64 | 162 | 250 | 65 | 35-88 | 1 | 40 |
| Bis(2-chloroisopropyl) Ether | 116 | 250 | 46 | 124 | 250 | 49 | 35-90 | 6 | 40 |
| 2-Methylphenol | 128 | 250 | 51 | 126 | 250 | 50 | 30-91 | 2 | 40 |
| Hexachloroethane | 99.4 | 250 | 40 | 102 | 250 | 41 | 37-90 | 3 | 40 |
| N-Nitrosodi-n-propylamine | 131 | 250 | 52 | 133 | 250 | 53 | 40-100 | 2 | 40 |
| 4-Methylphenol | 137 | 250 | 55 | 138 | 250 | 55 | 28-94 | 1 | 40 |
| Nitrobenzene | 129 | 250 | 51 | 127 | 250 | 51 | 40-91 | 2 | 40 |
| Isophorone | 131 | 250 | 53 | 129 | 250 | 51 | 47-101 | 2 | 40 |
| 2-Nitrophenol | 119 | 250 | 48 | 115 | 250 | 46 | 37-100 | 4 | 40 |
| 2,4-Dimethylphenol | 111 | 250 | 44 | 96.5 | 250 | 39 | 10-63 | 14 | 40 |
| Bis(2-chloroethoxy)methane | 128 | 250 | 51 | 121 | 250 | 48 | 42-89 | 6 | 40 |
| 2,4-Dichlorophenol | 127 | 250 | 51 | 129 | 250 | 52 | 36-100 | 1 | 40 |
| Benzoic Acid | 66.6 | 750 | 9 * | 119 | 750 | 16 | 10-88 | 56 * | 40 |
| 1,2,4-Trichlorobenzene | 108 | 250 | 43 | 110 | 250 | 44 | 40-91 | 2 | 40 |
| Naphthalene | 112 | 250 | 45 | 115 | 250 | 46 | 41-90 | 3 | 40 |
| 4-Chloroaniline | 105 | 250 | 42 | 102 | 250 | 41 | 26-78 | 3 | 40 |
| Hexachlorobutadiene | 102 | 250 | 41 | 103 | 250 | 41 | 37-92 | 2 | 40 |
| 4-Chloro-3-methylphenol | 135 | 250 | 54 | 133 | 250 | 53 | 36-102 | 1 | 40 |
| 2-Methylnaphthalene | 122 | 250 | 49 | 121 | 250 | 48 | 41-87 | 1 | 40 |
| Hexachlorocyclopentadiene | 82.1 | 250 | 33 | 87.0 | 250 | 35 | 21-98 | 6 | 40 |
| 2,4,6-Trichlorophenol | 137 | 250 | 55 | 132 | 250 | 53 | 37-100 | 4 | 40 |
| 2,4,5-Trichlorophenol | 136 | 250 | 55 | 136 | 250 | 55 | 37-103 | 0 | 40 |
| 2-Chloronaphthalene | 124 | 250 | 50 | 125 | 250 | 50 | 40-94 | 1 | 40 |
| 2-Nitroaniline | 138 | 250 | 55 | 136 | 250 | 54 | 44-96 | 1 | 40 |
| Acenaphthylene | 143 | 250 | 57 | 133 | 250 | 53 | 49-100 | 8 | 40 |
| Dimethyl Phthalate | 140 | 250 | 56 | 140 | 250 | 56 | 48-99 | 0 | 40 |
| 2,6-Dinitrotoluene | 159 | 250 | 64 | 152 | 250 | 61 | 50-98 | 4 | 40 |
| Acenaphthene | 142 | 250 | 57 | 131 | 250 | 52 | 44-92 | 8 | 40 |
| 3-Nitroaniline | 144 | 250 | 58 | 130 | 250 | 52 | 43-93 | 10 | 40 |

**Results flagged with an asterisk (*) indicate values outside control criteria.**

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

# COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

| | | | |
|---|---|---|---|
| **Client:** | Geomatrix Consultants, Incorporated | **Service Request:** | K0604574 |
| **Project:** | NW Corner-FRP/8769.005/4 | **Date Extracted:** | 06/08/2006 |
| **Sample Matrix:** | Soil | **Date Analyzed:** | 06/11/2006 |

## Lab Control Spike/Duplicate Lab Control Spike Summary
## Semi-Volatile Organic Compounds by GC/MS

| | | | |
|---|---|---|---|
| **Extraction Method:** | EPA 3541 | **Units:** | ug/Kg |
| **Analysis Method:** | 8270C | **Basis:** | Dry |
| | | **Level:** | Low |
| | | **Extraction Lot:** | KWG0609161 |

| | Lab Control Sample KWG0609161-10 Lab Control Spike | | | Duplicate Lab Control Sample KWG0609161-11 Duplicate Lab Control Spike | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Analyte Name** | **Result** | **Expected** | **%Rec** | **Result** | **Expected** | **%Rec** | **%Rec Limits** | **RPD** | **RPD Limit** |
| 2,4-Dinitrophenol | 96.0 | 250 | 38 | 165 | 250 | 66 | 14-111 | 53 * | 40 |
| Dibenzofuran | 140 | 250 | 56 | 136 | 250 | 54 | 44-91 | 3 | 40 |
| 4-Nitrophenol | 129 | 250 | 52 | 148 | 250 | 59 | 35-120 | 13 | 40 |
| 2,4-Dinitrotoluene | 162 | 250 | 65 | 158 | 250 | 63 | 52-107 | 2 | 40 |
| Fluorene | 139 | 250 | 56 | 138 | 250 | 55 | 46-97 | 1 | 40 |
| 4-Chlorophenyl Phenyl Ether | 141 | 250 | 56 | 134 | 250 | 54 | 44-97 | 5 | 40 |
| Diethyl Phthalate | 139 | 250 | 56 | 146 | 250 | 58 | 48-107 | 4 | 40 |
| 4-Nitroaniline | 146 | 250 | 59 | 138 | 250 | 55 | 40-100 | 6 | 40 |
| 2-Methyl-4,6-dinitrophenol | 132 | 250 | 53 | 169 | 250 | 68 | 30-114 | 25 | 40 |
| N-Nitrosodiphenylamine | 140 | 250 | 56 | 137 | 250 | 55 | 47-108 | 2 | 40 |
| 4-Bromophenyl Phenyl Ether | 146 | 250 | 59 | 142 | 250 | 57 | 47-96 | 3 | 40 |
| Hexachlorobenzene | 149 | 250 | 60 | 146 | 250 | 58 | 46-103 | 2 | 40 |
| Pentachlorophenol | 138 | 250 | 55 | 159 | 250 | 63 | 22-100 | 14 | 40 |
| Phenanthrene | 159 | 250 | 63 | 154 | 250 | 61 | 50-96 | 3 | 40 |
| Anthracene | 162 | 250 | 65 | 159 | 250 | 64 | 51-97 | 2 | 40 |
| Di-n-butyl Phthalate | 173 | 250 | 69 | 182 | 250 | 73 | 51-111 | 5 | 40 |
| Fluoranthene | 156 | 250 | 62 | 165 | 250 | 66 | 53-108 | 5 | 40 |
| Pyrene | 165 | 250 | 66 | 176 | 250 | 70 | 50-108 | 6 | 40 |
| Butyl Benzyl Phthalate | 162 | 250 | 65 | 179 | 250 | 71 | 48-119 | 10 | 40 |
| 3,3'-Dichlorobenzidine | 116 | 250 | 46 | 96.2 | 250 | 38 | 22-94 | 18 | 40 |
| Benz(a)anthracene | 175 | 250 | 70 | 183 | 250 | 73 | 58-106 | 5 | 40 |
| Chrysene | 172 | 250 | 69 | 183 | 250 | 73 | 57-111 | 6 | 40 |
| Bis(2-ethylhexyl) Phthalate | 182 | 250 | 73 | 186 | 250 | 75 | 47-124 | 2 | 40 |
| Di-n-octyl Phthalate | 174 | 250 | 70 | 180 | 250 | 72 | 41-123 | 3 | 40 |
| Benzo(b)fluoranthene | 171 | 250 | 69 | 178 | 250 | 71 | 56-104 | 4 | 40 |
| Benzo(k)fluoranthene | 180 | 250 | 72 | 180 | 250 | 72 | 58-106 | 0 | 40 |
| Benzo(a)pyrene | 175 | 250 | 70 | 178 | 250 | 71 | 56-107 | 2 | 40 |
| Indeno(1,2,3-cd)pyrene | 176 | 250 | 70 | 182 | 250 | 73 | 55-107 | 3 | 40 |
| Dibenz(a,h)anthracene | 175 | 250 | 70 | 181 | 250 | 72 | 55-107 | 4 | 40 |
| Benzo(g,h,i)perylene | 182 | 250 | 73 | 183 | 250 | 73 | 27-121 | 1 | 40 |

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

| | | | |
|---|---|---|---|
| **Client:** | Geomatrix Consultants, Incorporated | **Service Request:** | K0604574 |
| **Project:** | NW Corner-FRP/8769.005/4 | **Date Extracted:** | 06/08/2006 |
| **Sample Matrix:** | Soil | **Date Analyzed:** | 06/11/2006 |
| | | **Time Analyzed:** | 07:11 |

## Method Blank Summary
## Semi-Volatile Organic Compounds by GC/MS

| | | | |
|---|---|---|---|
| **Sample Name:** | Method Blank | **File ID:** | J:\MS10\DATA\061106\0611F002.D |
| **Lab Code:** | KWG0609161-9 | **Instrument ID:** | MS10 |
| **Extraction Method:** | EPA 3541 | **Level:** | Low |
| **Analysis Method:** | 8270C | **Extraction Lot:** | KWG0609161 |

This Method Blank applies to the following analyses:

| Sample Name | Lab Code | File ID | Date Analyzed | Time Analyzed |
|---|---|---|---|---|
| Lab Control Sample | KWG0609161-10 | J:\MS10\DATA\061106\0611F003.D | 06/11/06 | 07:48 |
| Duplicate Lab Control Sample | KWG0609161-11 | J:\MS10\DATA\061106\0611F004.D | 06/11/06 | 08:26 |
| Batch QCMS | KWG0609161-13 | J:\MS10\DATA\061106\0611F005.D | 06/11/06 | 09:04 |
| Batch QCDMS | KWG0609161-14 | J:\MS10\DATA\061106\0611F006.D | 06/11/06 | 09:41 |
| Batch QC | K0604453-001 | J:\MS10\DATA\061106\0611F007.D | 06/11/06 | 10:19 |
| NWC-1-22W | K0604574-006 | J:\MS10\DATA\061106\0611F014.D | 06/11/06 | 14:15 |
| NWC-1-2W | K0604574-007 | J:\MS10\DATA\061106\0611F015.D | 06/11/06 | 14:53 |
| NWC-1-12W | K0604574-010 | J:\MS10\DATA\061106\0611F016.D | 06/11/06 | 15:31 |
| NWC-2-39W | K0604574-011 | J:\MS10\DATA\061106\0611F017.D | 06/11/06 | 16:09 |

# COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

**Client:** Geomatrix Consultants, Incorporated
**Project:** NW Corner-FRP/8769.005/4
**Sample Matrix:** Soil

**Service Request:** K0604574

## Lab Control Sample/Duplicate Lab Control Sample Summary
## Semi-Volatile Organic Compounds by GC/MS

| | | | |
|---|---|---|---|
| **Sample Name:** | Lab Control Sample | **Sample Name:** | Duplicate Lab Control Sample |
| **Lab Code:** | KWG0609161-10 | **Lab Code:** | KWG0609161-11 |
| **File ID:** | J:\MS10\DATA\061106\0611F003.D | **File ID:** | J:\MS10\DATA\061106\0611F004.D |
| **Instrument ID:** | MS10 | **Instrument ID:** | MS10 |
| **Date Extracted:** | 06/08/2006 | **Date Extracted:** | 06/08/2006 |
| **Date Analyzed:** | 06/11/2006 | **Date Analyzed:** | 06/11/2006 |
| **Time Analyzed:** | 07:48 | **Time Analyzed:** | 08:26 |

| | | | |
|---|---|---|---|
| **Extraction Method:** | EPA 3541 | **Level:** | Low |
| **Analysis Method:** | 8270C | **Extraction Lot:** | KWG0609161 |

These Lab Control Samples apply to the following analyses:

| Sample Name | Lab Code | File ID | Date Analyzed | Time Analyzed |
|---|---|---|---|---|
| Method Blank | KWG0609161-9 | J:\MS10\DATA\061106\0611F002.D | 06/11/06 | 07:11 |
| Batch QCMS | KWG0609161-13 | J:\MS10\DATA\061106\0611F005.D | 06/11/06 | 09:04 |
| Batch QCDMS | KWG0609161-14 | J:\MS10\DATA\061106\0611F006.D | 06/11/06 | 09:41 |
| Batch QC | K0604453-001 | J:\MS10\DATA\061106\0611F007.D | 06/11/06 | 10:19 |
| NWC-1-22W | K0604574-006 | J:\MS10\DATA\061106\0611F014.D | 06/11/06 | 14:15 |
| NWC-1-2W | K0604574-007 | J:\MS10\DATA\061106\0611F015.D | 06/11/06 | 14:53 |
| NWC-1-12W | K0604574-010 | J:\MS10\DATA\061106\0611F016.D | 06/11/06 | 15:31 |
| NWC-2-39W | K0604574-011 | J:\MS10\DATA\061106\0611F017.D | 06/11/06 | 16:09 |

# COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

**Client:** Geomatrix Consultants, Incorporated
**Project:** NW Corner-FRP/8769.005/4

**Service Request:** K0604574
**Date Analyzed:** 06/11/2006
**Time Analyzed:** 06:34

## Tune Summary
## Semi-Volatile Organic Compounds by GC/MS

**File ID:** J:\MS10\DATA\061106\0611T001.D
**Instrument ID:** MS10
**Column:**

**Analysis Method:** 8270C
**Analysis Lot:** KWG0609518

| Target Mass | Relative to Mass | Lower Limit% | Upper Limit% | Relative Abundance % | Raw Abundance | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 51 | 198 | 30 | 80 | 60.7 | 187040 | PASS |
| 68 | 69 | 0 | 2 | 0.0 | 0 | PASS |
| 69 | 198 | 0 | 100 | 64.9 | 200209 | PASS |
| 70 | 69 | 0 | 2 | 0.0 | 0 | PASS |
| 127 | 198 | 25 | 75 | 45.4 | 140095 | PASS |
| 197 | 198 | 0 | 1 | 0.0 | 0 | PASS |
| 198 | 198 | 100 | 100 | 100.0 | 308275 | PASS |
| 199 | 198 | 5 | 9 | 6.8 | 20819 | PASS |
| 275 | 198 | 10 | 30 | 22.0 | 67797 | PASS |
| 365 | 198 | 1 | 100 | 2.8 | 8672 | PASS |
| 441 | 443 | 0 | 100 | 34.8 | 13184 | PASS |
| 442 | 198 | 40 | 110 | 64.7 | 199453 | PASS |
| 443 | 442 | 15 | 24 | 19.0 | 37898 | PASS |

| Sample Name | Lab Code | File ID | Date Analyzed | Time Analyzed | Q |
|---|---|---|---|---|---|
| Continuing Calibration Verification | KWG0609518-2 | J:\MS10\DATA\061106\0611F001.D | 06/11/2006 | 06:34 | |
| Method Blank | KWG0609161-9 | J:\MS10\DATA\061106\0611F002.D | 06/11/2006 | 07:11 | |
| Lab Control Sample | KWG0609161-10 | J:\MS10\DATA\061106\0611F003.D | 06/11/2006 | 07:48 | |
| Duplicate Lab Control Sample | KWG0609161-11 | J:\MS10\DATA\061106\0611F004.D | 06/11/2006 | 08:26 | |
| Batch QCMS | KWG0609161-13 | J:\MS10\DATA\061106\0611F005.D | 06/11/2006 | 09:04 | |
| Batch QCDMS | KWG0609161-14 | J:\MS10\DATA\061106\0611F006.D | 06/11/2006 | 09:41 | |
| Batch QC | K0604453-001 | J:\MS10\DATA\061106\0611F007.D | 06/11/2006 | 10:19 | |
| NWC-1-22W | K0604574-006 | J:\MS10\DATA\061106\0611F014.D | 06/11/2006 | 14:15 | |
| NWC-1-2W | K0604574-007 | J:\MS10\DATA\061106\0611F015.D | 06/11/2006 | 14:53 | |
| NWC-1-12W | K0604574-010 | J:\MS10\DATA\061106\0611F016.D | 06/11/2006 | 15:31 | |
| NWC-2-39W | K0604574-011 | J:\MS10\DATA\061106\0611F017.D | 06/11/2006 | 16:09 | |

Results flagged with an asterisk (*) indicate the analysis performed outside specified tune window

# COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

**Client:** Geomatrix Consultants, Incorporated
**Project:** NW Corner-FRP/8769.005/4

**Service Request:** K0604574
**Calibration Date:** 05/11/2006

## Initial Calibration Summary
## Semi-Volatile Organic Compounds by GC/MS

**Calibration ID:** CAL5348
**Instrument ID:** MS10

**Column:** MS

| Level ID | File ID | Level ID | File ID |
|---|---|---|---|
| A | J:\MS10\DATA\051106\0511F003.D | F | J:\MS10\DATA\051106\0511F008.D |
| B | J:\MS10\DATA\051106\0511F004.D | G | J:\MS10\DATA\051106\0511F009.D |
| C | J:\MS10\DATA\051106\0511F005.D | H | J:\MS10\DATA\051106\0511F010.D |
| D | J:\MS10\DATA\051106\0511F006.D | I | J:\MS10\DATA\051106\0511F011.D |
| E | J:\MS10\DATA\051106\0511F007.D | | |

| Analyte Name | Level ID | Amt | RRF | Level ID | Amt | RRF | Level ID | Amt | RRF | Level ID | Amt | RRF | Level ID | Amt | RRF |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bis(2-chloroethyl) Ether | A | 100 | 1.48 | B | 200 | 1.27 | C | 500 | 1.34 | D | 1000 | 1.29 | E | 2000 | 1.34 |
| | F | 3000 | 1.22 | G | 4000 | 1.23 | H | 5000 | 1.16 | I | 6000 | 1.14 | | | |
| ‡ Phenol | A | 100 | 1.90 | B | 200 | 1.57 | C | 500 | 1.63 | D | 1000 | 1.59 | E | 2000 | 1.50 |
| | F | 3000 | 1.33 | G | 4000 | 1.37 | H | 5000 | 1.28 | I | 6000 | 1.26 | | | |
| 2-Chlorophenol | A | 100 | 1.38 | B | 200 | 1.27 | C | 500 | 1.31 | D | 1000 | 1.30 | E | 2000 | 1.34 |
| | F | 3000 | 1.28 | G | 4000 | 1.28 | H | 5000 | 1.20 | I | 6000 | 1.21 | | | |
| 1,3-Dichlorobenzene | A | 100 | 1.67 | B | 200 | 1.51 | C | 500 | 1.53 | D | 1000 | 1.51 | E | 2000 | 1.52 |
| | F | 3000 | 1.38 | G | 4000 | 1.42 | H | 5000 | 1.38 | I | 6000 | 1.36 | | | |
| ‡ 1,4-Dichlorobenzene | A | 100 | 1.71 | B | 200 | 1.56 | C | 500 | 1.51 | D | 1000 | 1.50 | E | 2000 | 1.51 |
| | F | 3000 | 1.37 | G | 4000 | 1.41 | H | 5000 | 1.36 | I | 6000 | 1.34 | | | |
| 1,2-Dichlorobenzene | A | 100 | 1.62 | B | 200 | 1.39 | C | 500 | 1.38 | D | 1000 | 1.37 | E | 2000 | 1.30 |
| | F | 3000 | 1.20 | G | 4000 | 1.23 | H | 5000 | 1.18 | I | 6000 | 1.14 | | | |
| Benzyl Alcohol | A | 100 | 0.548 | B | 200 | 0.557 | C | 500 | 0.615 | D | 1000 | 0.623 | E | 2000 | 0.618 |
| | F | 3000 | 0.579 | G | 4000 | 0.595 | H | 5000 | 0.567 | I | 6000 | 0.561 | | | |
| Bis(2-chloroisopropyl) Ether | A | 100 | 2.86 | B | 200 | 2.52 | C | 500 | 2.50 | D | 1000 | 2.41 | E | 2000 | 2.25 |
| | F | 3000 | 2.10 | G | 4000 | 2.15 | H | 5000 | 2.03 | I | 6000 | 1.98 | | | |
| 2-Methylphenol | A | 100 | 1.01 | B | 200 | 0.917 | C | 500 | 0.919 | D | 1000 | 0.918 | E | 2000 | 0.886 |
| | F | 3000 | 0.831 | G | 4000 | 0.823 | H | 5000 | 0.785 | I | 6000 | 0.755 | | | |
| Hexachloroethane | A | 100 | 0.736 | B | 200 | 0.646 | C | 500 | 0.618 | D | 1000 | 0.627 | E | 2000 | 0.634 |
| | F | 3000 | 0.592 | G | 4000 | 0.583 | H | 5000 | 0.574 | I | 6000 | 0.560 | | | |
| † N-Nitrosodi-n-propylamine | A | 100 | 0.952 | B | 200 | 0.870 | C | 500 | 0.839 | D | 1000 | 0.878 | E | 2000 | 0.887 |
| | F | 3000 | 0.806 | G | 4000 | 0.821 | H | 5000 | 0.815 | I | 6000 | 0.772 | | | |
| 4-Methylphenol | A | 100 | 1.47 | B | 200 | 1.20 | C | 500 | 1.27 | D | 1000 | 1.26 | E | 2000 | 1.25 |
| | F | 3000 | 1.18 | G | 4000 | 1.15 | H | 5000 | 1.15 | I | 6000 | 1.13 | | | |
| Nitrobenzene | A | 100 | 1.43 | B | 200 | 1.29 | C | 500 | 1.23 | D | 1000 | 1.27 | E | 2000 | 1.25 |
| | F | 3000 | 1.21 | G | 4000 | 1.26 | H | 5000 | 1.21 | I | 6000 | 1.20 | | | |
| Isophorone | A | 100 | 0.747 | B | 200 | 0.710 | C | 500 | 0.714 | D | 1000 | 0.706 | E | 2000 | 0.692 |
| | F | 3000 | 0.652 | G | 4000 | 0.672 | H | 5000 | 0.671 | I | 6000 | 0.652 | | | |

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

# COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

**Client:** Geomatrix Consultants, Incorporated
**Project:** NW Corner-FRP/8769.005/4

**Service Request:** K0604574
**Calibration Date:** 05/11/2006

## Initial Calibration Summary
## Semi-Volatile Organic Compounds by GC/MS

**Calibration ID:** CAL5348
**Instrument ID:** MS10

**Column:** MS

| Analyte Name | Level ID | Amt | RRF | Level ID | Amt | RRF | Level ID | Amt | RRF | Level ID | Amt | RRF | Level ID | Amt | RRF |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ‡ 2-Nitrophenol | A | 100 | 0.189 | B | 200 | 0.185 | C | 500 | 0.189 | D | 1000 | 0.203 | E | 2000 | 0.214 |
| | F | 3000 | 0.198 | G | 4000 | 0.198 | H | 5000 | 0.200 | I | 6000 | 0.191 | | | |
| 2,4-Dimethylphenol | A | 100 | 0.301 | B | 200 | 0.280 | C | 500 | 0.285 | D | 1000 | 0.286 | E | 2000 | 0.269 |
| | F | 3000 | 0.260 | G | 4000 | 0.251 | H | 5000 | 0.247 | I | 6000 | 0.246 | | | |
| Bis(2-chloroethoxy)methane | A | 100 | 0.482 | B | 200 | 0.424 | C | 500 | 0.430 | D | 1000 | 0.422 | E | 2000 | 0.446 |
| | F | 3000 | 0.385 | G | 4000 | 0.389 | H | 5000 | 0.391 | I | 6000 | 0.374 | | | |
| ‡ 2,4-Dichlorophenol | A | 100 | 0.310 | B | 200 | 0.302 | C | 500 | 0.293 | D | 1000 | 0.301 | E | 2000 | 0.305 |
| | F | 3000 | 0.282 | G | 4000 | 0.289 | H | 5000 | 0.282 | I | 6000 | 0.272 | | | |
| Benzoic Acid | | | | | | | | | | D | 1000 | 0.0903 | E | 2000 | 0.138 |
| | F | 3000 | 0.137 | G | 4000 | 0.169 | H | 5000 | 0.167 | I | 6000 | 0.171 | | | |
| 1,2,4-Trichlorobenzene | A | 100 | 0.375 | B | 200 | 0.350 | C | 500 | 0.345 | D | 1000 | 0.342 | E | 2000 | 0.353 |
| | F | 3000 | 0.318 | G | 4000 | 0.326 | H | 5000 | 0.326 | I | 6000 | 0.314 | | | |
| Naphthalene | A | 100 | 1.07 | B | 200 | 0.928 | C | 500 | 0.955 | D | 1000 | 0.974 | E | 2000 | 0.978 |
| | F | 3000 | 0.875 | G | 4000 | 0.888 | H | 5000 | 0.855 | I | 6000 | 0.852 | | | |
| 4-Chloroaniline | A | 100 | 0.457 | B | 200 | 0.414 | C | 500 | 0.408 | D | 1000 | 0.408 | E | 2000 | 0.412 |
| | F | 3000 | 0.399 | G | 4000 | 0.391 | H | 5000 | 0.387 | I | 6000 | 0.380 | | | |
| ‡ Hexachlorobutadiene | A | 100 | 0.209 | B | 200 | 0.197 | C | 500 | 0.187 | D | 1000 | 0.192 | E | 2000 | 0.199 |
| | F | 3000 | 0.183 | G | 4000 | 0.190 | H | 5000 | 0.189 | I | 6000 | 0.189 | | | |
| ‡ 4-Chloro-3-methylphenol | A | 100 | 0.311 | B | 200 | 0.287 | C | 500 | 0.287 | D | 1000 | 0.291 | E | 2000 | 0.295 |
| | F | 3000 | 0.274 | G | 4000 | 0.265 | H | 5000 | 0.278 | I | 6000 | 0.271 | | | |
| 2-Methylnaphthalene | A | 100 | 0.607 | B | 200 | 0.553 | C | 500 | 0.564 | D | 1000 | 0.569 | E | 2000 | 0.571 |
| | F | 3000 | 0.514 | G | 4000 | 0.525 | H | 5000 | 0.505 | I | 6000 | 0.499 | | | |
| † Hexachlorocyclopentadiene | | | | | | | C | 500 | 0.286 | D | 1000 | 0.327 | E | 2000 | 0.381 |
| | F | 3000 | 0.376 | G | 4000 | 0.399 | H | 5000 | 0.403 | I | 6000 | 0.426 | | | |
| ‡ 2,4,6-Trichlorophenol | A | 100 | 0.425 | B | 200 | 0.391 | C | 500 | 0.375 | D | 1000 | 0.389 | E | 2000 | 0.413 |
| | F | 3000 | 0.390 | G | 4000 | 0.409 | H | 5000 | 0.399 | I | 6000 | 0.424 | | | |
| 2,4,5-Trichlorophenol | A | 100 | 0.424 | B | 200 | 0.403 | C | 500 | 0.407 | D | 1000 | 0.416 | E | 2000 | 0.461 |
| | F | 3000 | 0.429 | G | 4000 | 0.459 | H | 5000 | 0.440 | I | 6000 | 0.465 | | | |
| 2-Chloronaphthalene | A | 100 | 0.508 | B | 200 | 0.455 | C | 500 | 0.429 | D | 1000 | 0.426 | E | 2000 | 0.463 |
| | F | 3000 | 0.429 | G | 4000 | 0.437 | H | 5000 | 0.436 | I | 6000 | 0.436 | | | |
| 2-Nitroaniline | A | 100 | 0.462 | B | 200 | 0.390 | C | 500 | 0.417 | D | 1000 | 0.410 | E | 2000 | 0.439 |
| | F | 3000 | 0.426 | G | 4000 | 0.443 | H | 5000 | 0.449 | I | 6000 | 0.460 | | | |
| Acenaphthylene | A | 100 | 1.98 | B | 200 | 1.78 | C | 500 | 1.77 | D | 1000 | 1.65 | E | 2000 | 1.80 |
| | F | 3000 | 1.60 | G | 4000 | 1.75 | H | 5000 | 1.75 | I | 6000 | 1.67 | | | |

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# COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

**Client:** Geomatrix Consultants, Incorporated
**Project:** NW Corner-FRP/8769.005/4

**Service Request:** K0604574
**Calibration Date:** 05/11/2006

## Initial Calibration Summary
## Semi-Volatile Organic Compounds by GC/MS

**Calibration ID:** CAL5348
**Instrument ID:** MS10

**Column:** MS

| Analyte Name | Level ID | Amt | RRF | Level ID | Amt | RRF | Level ID | Amt | RRF | Level ID | Amt | RRF | Level ID | Amt | RRF |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Dimethyl Phthalate | A | 100 | 1.53 | B | 200 | 1.39 | C | 500 | 1.30 | D | 1000 | 1.34 | E | 2000 | 1.40 |
| | F | 3000 | 1.33 | G | 4000 | 1.39 | H | 5000 | 1.37 | I | 6000 | 1.39 | | | |
| 2,6-Dinitrotoluene | A | 100 | 0.298 | B | 200 | 0.294 | C | 500 | 0.299 | D | 1000 | 0.323 | E | 2000 | 0.350 |
| | F | 3000 | 0.347 | G | 4000 | 0.357 | H | 5000 | 0.347 | I | 6000 | 0.360 | | | |
| ‡ Acenaphthene | A | 100 | 1.20 | B | 200 | 1.06 | C | 500 | 1.06 | D | 1000 | 1.04 | E | 2000 | 1.09 |
| | F | 3000 | 1.00 | G | 4000 | 1.01 | H | 5000 | 0.994 | I | 6000 | 1.03 | | | |
| 3-Nitroaniline | A | 100 | 0.386 | B | 200 | 0.348 | C | 500 | 0.350 | D | 1000 | 0.369 | E | 2000 | 0.391 |
| | F | 3000 | 0.363 | G | 4000 | 0.381 | H | 5000 | 0.386 | I | 6000 | 0.384 | | | |
| † 2,4-Dinitrophenol | | | | | | | | | | D | 1000 | 0.0666 | E | 2000 | 0.117 |
| | F | 3000 | 0.146 | G | 4000 | 0.173 | H | 5000 | 0.182 | I | 6000 | 0.213 | | | |
| Dibenzofuran | A | 100 | 1.92 | B | 200 | 1.73 | C | 500 | 1.71 | D | 1000 | 1.71 | E | 2000 | 1.68 |
| | F | 3000 | 1.60 | G | 4000 | 1.62 | H | 5000 | 1.61 | I | 6000 | 1.62 | | | |
| † 4-Nitrophenol | | | | B | 200 | 0.178 | C | 500 | 0.198 | D | 1000 | 0.212 | E | 2000 | 0.241 |
| | F | 3000 | 0.242 | G | 4000 | 0.253 | H | 5000 | 0.257 | I | 6000 | 0.266 | | | |
| 2,4-Dinitrotoluene | A | 100 | 0.403 | B | 200 | 0.376 | C | 500 | 0.414 | D | 1000 | 0.443 | E | 2000 | 0.472 |
| | F | 3000 | 0.462 | G | 4000 | 0.485 | H | 5000 | 0.483 | I | 6000 | 0.506 | | | |
| Fluorene | A | 100 | 1.51 | B | 200 | 1.36 | C | 500 | 1.29 | D | 1000 | 1.31 | E | 2000 | 1.34 |
| | F | 3000 | 1.26 | G | 4000 | 1.28 | H | 5000 | 1.27 | I | 6000 | 1.29 | | | |
| 4-Chlorophenyl Phenyl Ether | A | 100 | 0.743 | B | 200 | 0.662 | C | 500 | 0.641 | D | 1000 | 0.636 | E | 2000 | 0.656 |
| | F | 3000 | 0.624 | G | 4000 | 0.640 | H | 5000 | 0.649 | I | 6000 | 0.667 | | | |
| Diethyl Phthalate | A | 100 | 1.66 | B | 200 | 1.49 | C | 500 | 1.39 | D | 1000 | 1.42 | E | 2000 | 1.49 |
| | F | 3000 | 1.40 | G | 4000 | 1.45 | H | 5000 | 1.41 | I | 6000 | 1.43 | | | |
| 4-Nitroaniline | A | 100 | 0.365 | B | 200 | 0.347 | C | 500 | 0.356 | D | 1000 | 0.381 | E | 2000 | 0.402 |
| | F | 3000 | 0.397 | G | 4000 | 0.406 | H | 5000 | 0.404 | I | 6000 | 0.416 | | | |
| 2-Methyl-4,6-dinitrophenol | | | | | | | C | 500 | 0.124 | D | 1000 | 0.173 | E | 2000 | 0.234 |
| | F | 3000 | 0.255 | G | 4000 | 0.273 | H | 5000 | 0.268 | I | 6000 | 0.289 | | | |
| ‡ N-Nitrosodiphenylamine | A | 100 | 1.16 | B | 200 | 1.06 | C | 500 | 1.04 | D | 1000 | 1.07 | E | 2000 | 1.05 |
| | F | 3000 | 1.02 | G | 4000 | 1.03 | H | 5000 | 1.04 | I | 6000 | 1.08 | | | |
| 4-Bromophenyl Phenyl Ether | A | 100 | 0.249 | B | 200 | 0.236 | C | 500 | 0.237 | D | 1000 | 0.239 | E | 2000 | 0.247 |
| | F | 3000 | 0.231 | G | 4000 | 0.235 | H | 5000 | 0.229 | I | 6000 | 0.228 | | | |
| Hexachlorobenzene | A | 100 | 0.296 | B | 200 | 0.266 | C | 500 | 0.256 | D | 1000 | 0.258 | E | 2000 | 0.274 |
| | F | 3000 | 0.254 | G | 4000 | 0.268 | H | 5000 | 0.262 | I | 6000 | 0.264 | | | |
| ‡ Pentachlorophenol | | | | | | | C | 500 | 0.116 | D | 1000 | 0.135 | E | 2000 | 0.157 |
| | F | 3000 | 0.152 | G | 4000 | 0.162 | H | 5000 | 0.164 | I | 6000 | 0.165 | | | |

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# COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

**Client:** Geomatrix Consultants, Incorporated
**Project:** NW Corner-FRP/8769.005/4

**Service Request:** K0604574
**Calibration Date:** 05/11/2006

## Initial Calibration Summary
## Semi-Volatile Organic Compounds by GC/MS

**Calibration ID:** CAL5348
**Instrument ID:** MS10

**Column:** MS

| Analyte Name | Level ID | Amt | RRF | Level ID | Amt | RRF | Level ID | Amt | RRF | Level ID | Amt | RRF | Level ID | Amt | RRF |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phenanthrene | A | 100 | 1.37 | B | 200 | 1.21 | C | 500 | 1.21 | D | 1000 | 1.18 | E | 2000 | 1.24 |
| | F | 3000 | 1.14 | G | 4000 | 1.12 | H | 5000 | 1.11 | I | 6000 | 1.08 | | | |
| Anthracene | A | 100 | 1.32 | B | 200 | 1.21 | C | 500 | 1.23 | D | 1000 | 1.20 | E | 2000 | 1.25 |
| | F | 3000 | 1.17 | G | 4000 | 1.17 | H | 5000 | 1.13 | I | 6000 | 1.10 | | | |
| Di-n-butyl Phthalate | A | 100 | 1.57 | B | 200 | 1.45 | C | 500 | 1.48 | D | 1000 | 1.47 | E | 2000 | 1.51 |
| | F | 3000 | 1.39 | G | 4000 | 1.39 | H | 5000 | 1.34 | I | 6000 | 1.31 | | | |
| ‡ Fluoranthene | A | 100 | 1.37 | B | 200 | 1.24 | C | 500 | 1.21 | D | 1000 | 1.19 | E | 2000 | 1.25 |
| | F | 3000 | 1.14 | G | 4000 | 1.19 | H | 5000 | 1.17 | I | 6000 | 1.13 | | | |
| Pyrene | A | 100 | 1.48 | B | 200 | 1.41 | C | 500 | 1.37 | D | 1000 | 1.37 | E | 2000 | 1.41 |
| | F | 3000 | 1.32 | G | 4000 | 1.32 | H | 5000 | 1.32 | I | 6000 | 1.29 | | | |
| Butyl Benzyl Phthalate | A | 100 | 0.736 | B | 200 | 0.680 | C | 500 | 0.672 | D | 1000 | 0.678 | E | 2000 | 0.719 |
| | F | 3000 | 0.668 | G | 4000 | 0.662 | H | 5000 | 0.652 | I | 6000 | 0.635 | | | |
| 3,3'-Dichlorobenzidine | A | 100 | 0.456 | B | 200 | 0.427 | C | 500 | 0.435 | D | 1000 | 0.442 | E | 2000 | 0.467 |
| | F | 3000 | 0.440 | G | 4000 | 0.465 | H | 5000 | 0.469 | I | 6000 | 0.458 | | | |
| Benz(a)anthracene | A | 100 | 1.20 | B | 200 | 1.10 | C | 500 | 1.10 | D | 1000 | 1.10 | E | 2000 | 1.16 |
| | F | 3000 | 1.07 | G | 4000 | 1.11 | H | 5000 | 1.11 | I | 6000 | 1.09 | | | |
| Chrysene | A | 100 | 1.15 | B | 200 | 1.06 | C | 500 | 1.07 | D | 1000 | 1.07 | E | 2000 | 1.12 |
| | F | 3000 | 1.05 | G | 4000 | 1.06 | H | 5000 | 1.07 | I | 6000 | 1.04 | | | |
| Bis(2-ethylhexyl) Phthalate | A | 100 | 0.911 | B | 200 | 0.869 | C | 500 | 0.884 | D | 1000 | 0.909 | E | 2000 | 0.941 |
| | F | 3000 | 0.885 | G | 4000 | 0.887 | H | 5000 | 0.856 | I | 6000 | 0.838 | | | |
| ‡ Di-n-octyl Phthalate | A | 100 | 1.89 | B | 200 | 1.82 | C | 500 | 2.00 | D | 1000 | 2.04 | E | 2000 | 2.18 |
| | F | 3000 | 2.00 | G | 4000 | 2.04 | H | 5000 | 1.98 | I | 6000 | 1.94 | | | |
| Benzo(b)fluoranthene | A | 100 | 1.33 | B | 200 | 1.24 | C | 500 | 1.28 | D | 1000 | 1.30 | E | 2000 | 1.39 |
| | F | 3000 | 1.31 | G | 4000 | 1.35 | H | 5000 | 1.36 | I | 6000 | 1.30 | | | |
| Benzo(k)fluoranthene | A | 100 | 1.36 | B | 200 | 1.28 | C | 500 | 1.36 | D | 1000 | 1.35 | E | 2000 | 1.46 |
| | F | 3000 | 1.34 | G | 4000 | 1.39 | H | 5000 | 1.37 | I | 6000 | 1.35 | | | |
| ‡ Benzo(a)pyrene | A | 100 | 1.31 | B | 200 | 1.16 | C | 500 | 1.23 | D | 1000 | 1.25 | E | 2000 | 1.33 |
| | F | 3000 | 1.22 | G | 4000 | 1.28 | H | 5000 | 1.26 | I | 6000 | 1.25 | | | |
| Indeno(1,2,3-cd)pyrene | A | 100 | 1.13 | B | 200 | 0.968 | C | 500 | 1.03 | D | 1000 | 1.06 | E | 2000 | 1.13 |
| | F | 3000 | 1.09 | G | 4000 | 1.15 | H | 5000 | 1.13 | I | 6000 | 1.15 | | | |
| Dibenz(a,h)anthracene | A | 100 | 1.05 | B | 200 | 0.977 | C | 500 | 1.03 | D | 1000 | 1.07 | E | 2000 | 1.16 |
| | F | 3000 | 1.09 | G | 4000 | 1.19 | H | 5000 | 1.18 | I | 6000 | 1.19 | | | |
| Benzo(g,h,i)perylene | A | 100 | 1.21 | B | 200 | 1.11 | C | 500 | 1.13 | D | 1000 | 1.15 | E | 2000 | 1.25 |
| | F | 3000 | 1.16 | G | 4000 | 1.24 | H | 5000 | 1.22 | I | 6000 | 1.22 | | | |

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† SPCC Compound

‡ CCC Compound

# COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

**Client:** Geomatrix Consultants, Incorporated
**Project:** NW Corner-FRP/8769.005/4

**Service Request:** K0604574
**Calibration Date:** 05/11/2006

## Initial Calibration Summary
## Semi-Volatile Organic Compounds by GC/MS

**Calibration ID:** CAL5348
**Instrument ID:** MS10

**Column:** MS

| Analyte Name | Level ID | Amt | RRF | Level ID | Amt | RRF | Level ID | Amt | RRF | Level ID | Amt | RRF | Level ID | Amt | RRF |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2-Fluorophenol | A | 100 | 1.40 | B | 200 | 1.26 | C | 500 | 1.30 | D | 1000 | 1.33 | E | 2000 | 1.42 |
| | F | 3000 | 1.36 | G | 4000 | 1.38 | H | 5000 | 1.34 | I | 6000 | 1.35 | | | |
| Phenol-d6 | A | 100 | 1.58 | B | 200 | 1.43 | C | 500 | 1.52 | D | 1000 | 1.54 | E | 2000 | 1.50 |
| | F | 3000 | 1.34 | G | 4000 | 1.36 | H | 5000 | 1.25 | I | 6000 | 1.23 | | | |
| Nitrobenzene-d5 | A | 100 | 1.51 | B | 200 | 1.34 | C | 500 | 1.34 | D | 1000 | 1.38 | E | 2000 | 1.39 |
| | F | 3000 | 1.35 | G | 4000 | 1.39 | H | 5000 | 1.33 | I | 6000 | 1.34 | | | |
| 2-Fluorobiphenyl | A | 100 | 1.45 | B | 200 | 1.34 | C | 500 | 1.28 | D | 1000 | 1.30 | E | 2000 | 1.38 |
| | F | 3000 | 1.27 | G | 4000 | 1.30 | H | 5000 | 1.31 | I | 6000 | 1.31 | | | |
| 2,4,6-Tribromophenol | A | 100 | 0.130 | B | 200 | 0.135 | C | 500 | 0.132 | D | 1000 | 0.139 | E | 2000 | 0.150 |
| | F | 3000 | 0.144 | G | 4000 | 0.150 | H | 5000 | 0.151 | I | 6000 | 0.154 | | | |
| Terphenyl-d14 | A | 100 | 1.01 | B | 200 | 0.959 | C | 500 | 0.911 | D | 1000 | 0.935 | E | 2000 | 0.955 |
| | F | 3000 | 0.885 | G | 4000 | 0.928 | H | 5000 | 0.910 | I | 6000 | 0.909 | | | |

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QA/QC Results

**Client:** Geomatrix Consultants, Incorporated
**Project:** NW Corner-FRP/8769.005/4

**Service Request:** K0604574
**Calibration Date:** 05/11/2006

## Initial Calibration Summary
## Semi-Volatile Organic Compounds by GC/MS

**Calibration ID:** CAL5348
**Instrument ID:** MS10

**Column:** MS

| Analyte Name | Compound Type | Calibration Evaluation | | | | | RRF Evaluation | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Fit Type | Eval. | Eval. Result | Q | Control Criteria | Average RRF | Q | Minimum RRF |
| Bis(2-chloroethyl) Ether | TRG | AverageRF | % RSD | 8.2 | | ≤ 15 | 1.27 | | 0.01 |
| ‡ Phenol | MS | AverageRF | % RSD | 13.9 | | ≤ 15 | 1.49 | | 0.01 |
| 2-Chlorophenol | MS | AverageRF | % RSD | 4.4 | | ≤ 15 | 1.28 | | 0.01 |
| 1,3-Dichlorobenzene | TRG | AverageRF | % RSD | 6.7 | | ≤ 15 | 1.47 | | 0.01 |
| ‡ 1,4-Dichlorobenzene | MS | AverageRF | % RSD | 8.0 | | ≤ 15 | 1.48 | | 0.01 |
| 1,2-Dichlorobenzene | TRG | AverageRF | % RSD | 11.3 | | ≤ 15 | 1.31 | | 0.01 |
| Benzyl Alcohol | TRG | AverageRF | % RSD | 4.9 | | ≤ 15 | 0.585 | | 0.01 |
| Bis(2-chloroisopropyl) Ether | TRG | AverageRF | % RSD | 12.3 | | ≤ 15 | 2.31 | | 0.01 |
| 2-Methylphenol | TRG | AverageRF | % RSD | 9.2 | | ≤ 15 | 0.872 | | 0.01 |
| Hexachloroethane | TRG | AverageRF | % RSD | 8.5 | | ≤ 15 | 0.619 | | 0.01 |
| † N-Nitrosodi-n-propylamine | MS | AverageRF | % RSD | 6.3 | | ≤ 15 | 0.849 | | 0.05 |
| 4-Methylphenol | TRG | AverageRF | % RSD | 8.5 | | ≤ 15 | 1.23 | | 0.01 |
| Nitrobenzene | TRG | AverageRF | % RSD | 5.5 | | ≤ 15 | 1.26 | | 0.01 |
| Isophorone | TRG | AverageRF | % RSD | 4.6 | | ≤ 15 | 0.691 | | 0.01 |
| ‡ 2-Nitrophenol | TRG | AverageRF | % RSD | 4.6 | | ≤ 15 | 0.196 | | 0.01 |
| 2,4-Dimethylphenol | TRG | AverageRF | % RSD | 7.3 | | ≤ 15 | 0.269 | | 0.01 |
| Bis(2-chloroethoxy)methane | TRG | AverageRF | % RSD | 8.3 | | ≤ 15 | 0.416 | | 0.01 |
| ‡ 2,4-Dichlorophenol | TRG | AverageRF | % RSD | 4.4 | | ≤ 15 | 0.293 | | 0.01 |
| Benzoic Acid | TRG | Quadratic | COD | 0.995 | | ≥ 0.990 | 0.145 | | 0.01 |
| 1,2,4-Trichlorobenzene | MS | AverageRF | % RSD | 5.8 | | ≤ 15 | 0.339 | | 0.01 |
| Naphthalene | TRG | AverageRF | % RSD | 7.8 | | ≤ 15 | 0.931 | | 0.01 |
| 4-Chloroaniline | TRG | AverageRF | % RSD | 5.5 | | ≤ 15 | 0.406 | | 0.01 |
| ‡ Hexachlorobutadiene | TRG | AverageRF | % RSD | 4.1 | | ≤ 15 | 0.193 | | 0.01 |
| ‡ 4-Chloro-3-methylphenol | MS | AverageRF | % RSD | 5.0 | | ≤ 15 | 0.284 | | 0.01 |
| 2-Methylnaphthalene | TRG | AverageRF | % RSD | 6.7 | | ≤ 15 | 0.545 | | 0.01 |
| † Hexachlorocyclopentadiene | TRG | AverageRF | % RSD | 13.1 | | ≤ 15 | 0.371 | | 0.05 |
| ‡ 2,4,6-Trichlorophenol | TRG | AverageRF | % RSD | 4.3 | | ≤ 15 | 0.402 | | 0.01 |
| 2,4,5-Trichlorophenol | TRG | AverageRF | % RSD | 5.5 | | ≤ 15 | 0.434 | | 0.01 |
| 2-Chloronaphthalene | TRG | AverageRF | % RSD | 5.8 | | ≤ 15 | 0.447 | | 0.01 |
| 2-Nitroaniline | TRG | AverageRF | % RSD | 5.6 | | ≤ 15 | 0.433 | | 0.01 |
| Acenaphthylene | TRG | AverageRF | % RSD | 6.2 | | ≤ 15 | 1.75 | | 0.01 |
| Dimethyl Phthalate | TRG | AverageRF | % RSD | 4.6 | | ≤ 15 | 1.38 | | 0.01 |
| 2,6-Dinitrotoluene | TRG | AverageRF | % RSD | 8.2 | | ≤ 15 | 0.330 | | 0.01 |
| ‡ Acenaphthene | MS | AverageRF | % RSD | 6.0 | | ≤ 15 | 1.05 | | 0.01 |
| 3-Nitroaniline | TRG | AverageRF | % RSD | 4.4 | | ≤ 15 | 0.373 | | 0.01 |
| † 2,4-Dinitrophenol | TRG | Quadratic | COD | 0.998 | | ≥ 0.990 | 0.150 | | 0.05 |
| Dibenzofuran | TRG | AverageRF | % RSD | 5.9 | | ≤ 15 | 1.69 | | 0.01 |
| † 4-Nitrophenol | MS | AverageRF | % RSD | 13.6 | | ≤ 15 | 0.231 | | 0.05 |
| 2,4-Dinitrotoluene | MS | AverageRF | % RSD | 9.7 | | ≤ 15 | 0.449 | | 0.01 |
| Fluorene | TRG | AverageRF | % RSD | 5.8 | | ≤ 15 | 1.32 | | 0.01 |
| 4-Chlorophenyl Phenyl Ether | TRG | AverageRF | % RSD | 5.3 | | ≤ 15 | 0.658 | | 0.01 |
| Diethyl Phthalate | TRG | AverageRF | % RSD | 5.6 | | ≤ 15 | 1.46 | | 0.01 |

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound ‡ CCC Compound

# COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

**Client:** Geomatrix Consultants, Incorporated
**Project:** NW Corner-FRP/8769.005/4

**Service Request:** K0604574
**Calibration Date:** 05/11/2006

## Initial Calibration Summary
## Semi-Volatile Organic Compounds by GC/MS

**Calibration ID:** CAL5348
**Instrument ID:** MS10

**Column:** MS

| Analyte Name | Compound Type | Calibration Evaluation | | | | | RRF Evaluation | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Fit Type | Eval. | Eval. Result | Q | Control Criteria | Average RRF | Q | Minimum RRF |
| 4-Nitroaniline | TRG | AverageRF | % RSD | 6.4 | | ≤ 15 | 0.386 | | 0.01 |
| 2-Methyl-4,6-dinitrophenol | TRG | Quadratic | COD | 0.999 | | ≥ 0.990 | 0.231 | | 0.01 |
| ‡ N-Nitrosodiphenylamine | TRG | Linear | R2 | 0.999 | | ≥ 0.990 | 1.06 | | 0.01 |
| 4-Bromophenyl Phenyl Ether | TRG | AverageRF | % RSD | 3.3 | | ≤ 15 | 0.237 | | 0.01 |
| Hexachlorobenzene | TRG | AverageRF | % RSD | 4.8 | | ≤ 15 | 0.266 | | 0.01 |
| ‡ Pentachlorophenol | MS | AverageRF | % RSD | 12.3 | | ≤ 15 | 0.150 | | 0.01 |
| Phenanthrene | TRG | AverageRF | % RSD | 7.6 | | ≤ 15 | 1.18 | | 0.01 |
| Anthracene | TRG | AverageRF | % RSD | 5.5 | | ≤ 15 | 1.20 | | 0.01 |
| Di-n-butyl Phthalate | TRG | AverageRF | % RSD | 5.9 | | ≤ 15 | 1.44 | | 0.01 |
| ‡ Fluoranthene | TRG | AverageRF | % RSD | 5.9 | | ≤ 15 | 1.21 | | 0.01 |
| Pyrene | MS | AverageRF | % RSD | 4.5 | | ≤ 15 | 1.37 | | 0.01 |
| Butyl Benzyl Phthalate | TRG | AverageRF | % RSD | 4.6 | | ≤ 15 | 0.678 | | 0.01 |
| 3,3'-Dichlorobenzidine | TRG | AverageRF | % RSD | 3.4 | | ≤ 15 | 0.451 | | 0.01 |
| Benz(a)anthracene | TRG | AverageRF | % RSD | 3.5 | | ≤ 15 | 1.11 | | 0.01 |
| Chrysene | TRG | AverageRF | % RSD | 3.4 | | ≤ 15 | 1.08 | | 0.01 |
| Bis(2-ethylhexyl) Phthalate | TRG | AverageRF | % RSD | 3.5 | | ≤ 15 | 0.887 | | 0.01 |
| ‡ Di-n-octyl Phthalate | TRG | AverageRF | % RSD | 5.1 | | ≤ 15 | 1.99 | | 0.01 |
| Benzo(b)fluoranthene | TRG | AverageRF | % RSD | 3.4 | | ≤ 15 | 1.32 | | 0.01 |
| Benzo(k)fluoranthene | TRG | AverageRF | % RSD | 3.5 | | ≤ 15 | 1.36 | | 0.01 |
| ‡ Benzo(a)pyrene | TRG | AverageRF | % RSD | 4.1 | | ≤ 15 | 1.25 | | 0.01 |
| Indeno(1,2,3-cd)pyrene | TRG | AverageRF | % RSD | 5.8 | | ≤ 15 | 1.09 | | 0.01 |
| Dibenz(a,h)anthracene | TRG | AverageRF | % RSD | 7.1 | | ≤ 15 | 1.10 | | 0.01 |
| Benzo(g,h,i)perylene | TRG | AverageRF | % RSD | 4.4 | | ≤ 15 | 1.19 | | 0.01 |
| 2-Fluorophenol | SURR | AverageRF | % RSD | 3.7 | | ≤ 15 | 1.35 | | 0.01 |
| Phenol-d6 | SURR | AverageRF | % RSD | 8.9 | | ≤ 15 | 1.42 | | 0.01 |
| Nitrobenzene-d5 | SURR | AverageRF | % RSD | 4.0 | | ≤ 15 | 1.37 | | 0.01 |
| 2-Fluorobiphenyl | SURR | AverageRF | % RSD | 4.2 | | ≤ 15 | 1.33 | | 0.01 |
| 2,4,6-Tribromophenol | SURR | AverageRF | % RSD | 6.1 | | ≤ 15 | 0.143 | | 0.01 |
| Terphenyl-d14 | SURR | AverageRF | % RSD | 4.1 | | ≤ 15 | 0.934 | | 0.01 |

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound ‡ CCC Compound

# COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

**Client:** Geomatrix Consultants, Incorporated
**Project:** NW Corner-FRP/8769.005/4

**Service Request:** K0604574
**Calibration Date:** 05/11/2006
**Date Analyzed:** 05/11/2006

## Second Source Calibration Verification
## Semi-Volatile Organic Compounds by GC/MS

**Calibration Type:** Internal Standard
**Analysis Method:** 8270C

**Calibration ID:** CAL5348
**Units:** ng/ml

**File ID:** J:\MS10\DATA\051106\0511F012.D
J:\MS10\DATA\051106\0511F013.D

| Analyte Name | Expected | Result | Average RF | SSV RF | %D | %Drift | Criteria | Curve Fit |
|---|---|---|---|---|---|---|---|---|
| Bis(2-chloroethyl) Ether | 3000 | 2700 | 1.27 | 1.14 | -10 | NA | ± 30 % | AverageRF |
| ‡ Phenol | 3000 | 2600 | 1.49 | 1.30 | -13 | NA | ± 20 % | AverageRF |
| 2-Chlorophenol | 3000 | 2800 | 1.28 | 1.20 | -7 | NA | ± 30 % | AverageRF |
| 1,3-Dichlorobenzene | 3000 | 2700 | 1.47 | 1.32 | -10 | NA | ± 30 % | AverageRF |
| ‡ 1,4-Dichlorobenzene | 3000 | 2700 | 1.48 | 1.33 | -10 | NA | ± 20 % | AverageRF |
| 1,2-Dichlorobenzene | 3000 | 2600 | 1.31 | 1.14 | -13 | NA | ± 30 % | AverageRF |
| Benzyl Alcohol | 3000 | 3200 | 0.585 | 0.625 | 7 | NA | ± 30 % | AverageRF |
| Bis(2-chloroisopropyl) Ether | 3000 | 2500 | 2.31 | 1.96 | -15 | NA | ± 30 % | AverageRF |
| 2-Methylphenol | 3000 | 2700 | 0.872 | 0.790 | -9 | NA | ± 30 % | AverageRF |
| Hexachloroethane | 3000 | 2700 | 0.619 | 0.563 | -9 | NA | ± 30 % | AverageRF |
| † N-Nitrosodi-n-propylamine | 3000 | 2600 | 0.849 | 0.744 | -12 | NA | ± 30 % | AverageRF |
| 4-Methylphenol | 3000 | 2800 | 1.23 | 1.15 | -6 | NA | ± 30 % | AverageRF |
| Nitrobenzene | 3000 | 2700 | 1.26 | 1.15 | -8 | NA | ± 30 % | AverageRF |
| Isophorone | 3000 | 2400 | 0.691 | 0.547 | -21 | NA | ± 30 % | AverageRF |
| ‡ 2-Nitrophenol | 3000 | 2900 | 0.196 | 0.191 | -3 | NA | ± 20 % | AverageRF |
| 2,4-Dimethylphenol | 3000 | 2900 | 0.269 | 0.256 | -5 | NA | ± 30 % | AverageRF |
| Bis(2-chloroethoxy)methane | 3000 | 2600 | 0.416 | 0.356 | -14 | NA | ± 30 % | AverageRF |
| ‡ 2,4-Dichlorophenol | 3000 | 2800 | 0.293 | 0.274 | -6 | NA | ± 20 % | AverageRF |
| Benzoic Acid | 3000 | 2600 | 0.145 | 0.124 | NA | -14 | ± 30 % | Quadratic |
| 1,2,4-Trichlorobenzene | 3000 | 2600 | 0.339 | 0.298 | -12 | NA | ± 30 % | AverageRF |
| Naphthalene | 3000 | 2800 | 0.931 | 0.857 | -8 | NA | ± 30 % | AverageRF |
| 4-Chloroaniline | 3000 | 2800 | 0.406 | 0.381 | -6 | NA | ± 30 % | AverageRF |
| ‡ Hexachlorobutadiene | 3000 | 2800 | 0.193 | 0.177 | -8 | NA | ± 20 % | AverageRF |
| ‡ 4-Chloro-3-methylphenol | 3000 | 2900 | 0.284 | 0.271 | -5 | NA | ± 20 % | AverageRF |
| 2-Methylnaphthalene | 3000 | 2900 | 0.545 | 0.522 | -4 | NA | ± 30 % | AverageRF |
| † Hexachlorocyclopentadiene | 3000 | 2400 | 0.371 | 0.292 | -21 | NA | ± 30 % | AverageRF |
| ‡ 2,4,6-Trichlorophenol | 3000 | 2800 | 0.402 | 0.371 | -8 | NA | ± 20 % | AverageRF |
| 2,4,5-Trichlorophenol | 3000 | 2800 | 0.434 | 0.404 | -7 | NA | ± 30 % | AverageRF |
| 2-Chloronaphthalene | 3000 | 2600 | 0.447 | 0.392 | -12 | NA | ± 30 % | AverageRF |
| 2-Nitroaniline | 3000 | 3100 | 0.433 | 0.442 | 2 | NA | ± 30 % | AverageRF |
| Acenaphthylene | 3000 | 2400 | 1.75 | 1.41 | -20 | NA | ± 30 % | AverageRF |
| Dimethyl Phthalate | 3000 | 2700 | 1.38 | 1.23 | -11 | NA | ± 30 % | AverageRF |
| 2,6-Dinitrotoluene | 3000 | 2800 | 0.330 | 0.313 | -5 | NA | ± 30 % | AverageRF |
| ‡ Acenaphthene | 3000 | 2600 | 1.05 | 0.907 | -14 | NA | ± 20 % | AverageRF |
| 3-Nitroaniline | 3000 | 2900 | 0.373 | 0.358 | -4 | NA | ± 30 % | AverageRF |
| † 2,4-Dinitrophenol | 3000 | 3100 | 0.150 | 0.152 | NA | 3 | ± 30 % | Quadratic |
| Dibenzofuran | 3000 | 2800 | 1.69 | 1.56 | -8 | NA | ± 30 % | AverageRF |
| † 4-Nitrophenol | 3000 | 2900 | 0.231 | 0.223 | -3 | NA | ± 30 % | AverageRF |
| 2,4-Dinitrotoluene | 3000 | 2800 | 0.449 | 0.419 | -7 | NA | ± 30 % | AverageRF |

**Results flagged with an asterisk (*) indicate values outside control criteria.**

† SPCC Compound ‡ CCC Compound

# COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

**Client:** Geomatrix Consultants, Incorporated
**Project:** NW Corner-FRP/8769.005/4

**Service Request:** K0604574
**Calibration Date:** 05/11/2006
**Date Analyzed:** 05/11/2006

## Second Source Calibration Verification
## Semi-Volatile Organic Compounds by GC/MS

**Calibration Type:** Internal Standard
**Analysis Method:** 8270C

**Calibration ID:** CAL5348
**Units:** ng/ml

| Analyte Name | Expected | Result | Average RF | SSV RF | %D | %Drift | Criteria | Curve Fit |
|---|---|---|---|---|---|---|---|---|
| Fluorene | 3000 | 2700 | 1.32 | 1.18 | -11 | NA | ± 30 % | AverageRF |
| 4-Chlorophenyl Phenyl Ether | 3000 | 2600 | 0.658 | 0.576 | -12 | NA | ± 30 % | AverageRF |
| Diethyl Phthalate | 3000 | 2600 | 1.46 | 1.26 | -14 | NA | ± 30 % | AverageRF |
| 4-Nitroaniline | 3000 | 3000 | 0.386 | 0.389 | 1 | NA | ± 30 % | AverageRF |
| 2-Methyl-4,6-dinitrophenol | 3000 | 3100 | 0.231 | 0.263 | NA | 3 | ± 30 % | Quadratic |
| ‡ N-Nitrosodiphenylamine | 3000 | 2400 | 1.06 | 0.846 | NA | -19 | ± 20 % | Linear |
| 4-Bromophenyl Phenyl Ether | 3000 | 2800 | 0.237 | 0.217 | -8 | NA | ± 30 % | AverageRF |
| Hexachlorobenzene | 3000 | 2700 | 0.266 | 0.235 | -12 | NA | ± 30 % | AverageRF |
| ‡ Pentachlorophenol | 3000 | 3300 | 0.150 | 0.163 | 9 | NA | ± 20 % | AverageRF |
| Phenanthrene | 3000 | 2600 | 1.18 | 1.04 | -12 | NA | ± 30 % | AverageRF |
| Anthracene | 3000 | 2700 | 1.20 | 1.07 | -11 | NA | ± 30 % | AverageRF |
| Di-n-butyl Phthalate | 3000 | 2600 | 1.44 | 1.25 | -13 | NA | ± 30 % | AverageRF |
| ‡ Fluoranthene | 3000 | 2600 | 1.21 | 1.05 | -13 | NA | ± 30 % | AverageRF |
| Pyrene | 3000 | 3000 | 1.37 | 1.35 | -1 | NA | ± 30 % | AverageRF |
| Butyl Benzyl Phthalate | 3000 | 3000 | 0.678 | 0.684 | 1 | NA | ± 30 % | AverageRF |
| 3,3'-Dichlorobenzidine | 3000 | 2800 | 0.451 | 0.424 | -6 | NA | ± 30 % | AverageRF |
| Benz(a)anthracene | 3000 | 2900 | 1.11 | 1.06 | -4 | NA | ± 30 % | AverageRF |
| Chrysene | 3000 | 2900 | 1.08 | 1.06 | -2 | NA | ± 30 % | AverageRF |
| Bis(2-ethylhexyl) Phthalate | 3000 | 3100 | 0.887 | 0.905 | 2 | NA | ± 30 % | AverageRF |
| ‡ Di-n-octyl Phthalate | 3000 | 3300 | 1.99 | 2.21 | 11 | NA | ± 20 % | AverageRF |
| Benzo(b)fluoranthene | 3000 | 3300 | 1.32 | 1.47 | 11 | NA | ± 30 % | AverageRF |
| Benzo(k)fluoranthene | 3000 | 3200 | 1.36 | 1.45 | 6 | NA | ± 30 % | AverageRF |
| ‡ Benzo(a)pyrene | 3000 | 3300 | 1.25 | 1.37 | 9 | NA | ± 20 % | AverageRF |
| Indeno(1,2,3-cd)pyrene | 3000 | 3500 | 1.09 | 1.27 | 16 | NA | ± 30 % | AverageRF |
| Dibenz(a,h)anthracene | 3000 | 3300 | 1.10 | 1.23 | 12 | NA | ± 30 % | AverageRF |
| Benzo(g,h,i)perylene | 3000 | 3300 | 1.19 | 1.30 | 10 | NA | ± 30 % | AverageRF |

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound ‡ CCC Compound

# COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

**Client:** Geomatrix Consultants, Incorporated
**Project:** NW Corner-FRP/8769.005/4

**Service Request:** K0604574
**Date Analyzed:** 06/11/2006

## Continuing Calibration Verification Summary
## Semi-Volatile Organic Compounds by GC/MS

**Calibration Type:** Internal Standard
**Analysis Method:** 8270C
**CCV Standard ID:** SVM22-11C

**Calibration Date:** 05/11/2006
**Calibration ID:** CAL5348
**Analysis Lot:** KWG0609518
**Units:** ng/ml

**File ID:** J:\MS10\DATA\061106\0611F001.D

| Analyte Name | Expected | Result | Min RF | Average RF | CCV RF | %D | %Drift | Criteria | Curve Fit |
|---|---|---|---|---|---|---|---|---|---|
| Bis(2-chloroethyl) Ether | 3000 | 2900 | 0.01 | 1.27 | 1.23 | -3 | NA | ± 30 % | AverageRF |
| ‡ Phenol | 3000 | 2900 | 0.01 | 1.49 | 1.42 | -5 | NA | ± 20 % | AverageRF |
| 2-Chlorophenol | 3000 | 2900 | 0.01 | 1.28 | 1.25 | -3 | NA | ± 30 % | AverageRF |
| 1,3-Dichlorobenzene | 3000 | 2900 | 0.01 | 1.47 | 1.45 | -2 | NA | ± 30 % | AverageRF |
| ‡ 1,4-Dichlorobenzene | 3000 | 2900 | 0.01 | 1.48 | 1.42 | -4 | NA | ± 20 % | AverageRF |
| 1,2-Dichlorobenzene | 3000 | 2900 | 0.01 | 1.31 | 1.27 | -3 | NA | ± 30 % | AverageRF |
| Benzyl Alcohol | 3000 | 3300 | 0.01 | 0.585 | 0.649 | 11 | NA | ± 30 % | AverageRF |
| Bis(2-chloroisopropyl) Ether | 3000 | 3200 | 0.01 | 2.31 | 2.43 | 5 | NA | ± 30 % | AverageRF |
| 2-Methylphenol | 3000 | 3000 | 0.01 | 0.872 | 0.885 | 1 | NA | ± 30 % | AverageRF |
| Hexachloroethane | 3000 | 3000 | 0.01 | 0.619 | 0.623 | 1 | NA | ± 30 % | AverageRF |
| † N-Nitrosodi-n-propylamine | 3000 | 3200 | 0.05 | 0.849 | 0.905 | 7 | NA | ± 30 % | AverageRF |
| 4-Methylphenol | 3000 | 3000 | 0.01 | 1.23 | 1.22 | -1 | NA | ± 30 % | AverageRF |
| Nitrobenzene | 3000 | 3200 | 0.01 | 1.26 | 1.34 | 7 | NA | ± 30 % | AverageRF |
| Isophorone | 3000 | 3000 | 0.01 | 0.691 | 0.685 | -1 | NA | ± 30 % | AverageRF |
| ‡ 2-Nitrophenol | 3000 | 3300 | 0.01 | 0.196 | 0.213 | 9 | NA | ± 20 % | AverageRF |
| 2,4-Dimethylphenol | 3000 | 2900 | 0.01 | 0.269 | 0.260 | -3 | NA | ± 30 % | AverageRF |
| Bis(2-chloroethoxy)methane | 3000 | 3100 | 0.01 | 0.416 | 0.435 | 5 | NA | ± 30 % | AverageRF |
| ‡ 2,4-Dichlorophenol | 3000 | 3100 | 0.01 | 0.293 | 0.303 | 3 | NA | ± 20 % | AverageRF |
| Benzoic Acid | 3000 | 2800 | 0.01 | 0.145 | 0.139 | NA | -6 | ± 30 % | Quadratic |
| 1,2,4-Trichlorobenzene | 3000 | 3000 | 0.01 | 0.339 | 0.341 | 1 | NA | ± 30 % | AverageRF |
| Naphthalene | 3000 | 2900 | 0.01 | 0.931 | 0.901 | -3 | NA | ± 30 % | AverageRF |
| 4-Chloroaniline | 3000 | 3000 | 0.01 | 0.406 | 0.403 | -1 | NA | ± 30 % | AverageRF |
| ‡ Hexachlorobutadiene | 3000 | 3100 | 0.01 | 0.193 | 0.200 | 4 | NA | ± 20 % | AverageRF |
| ‡ 4-Chloro-3-methylphenol | 3000 | 3000 | 0.01 | 0.284 | 0.283 | -1 | NA | ± 20 % | AverageRF |
| 2-Methylnaphthalene | 3000 | 3000 | 0.01 | 0.545 | 0.548 | 0 | NA | ± 30 % | AverageRF |
| † Hexachlorocyclopentadiene | 3000 | 2900 | 0.05 | 0.371 | 0.357 | -4 | NA | ± 30 % | AverageRF |
| ‡ 2,4,6-Trichlorophenol | 3000 | 2900 | 0.01 | 0.402 | 0.390 | -3 | NA | ± 20 % | AverageRF |
| 2,4,5-Trichlorophenol | 3000 | 3100 | 0.01 | 0.434 | 0.447 | 3 | NA | ± 30 % | AverageRF |
| 2-Chloronaphthalene | 3000 | 2900 | 0.01 | 0.447 | 0.431 | -4 | NA | ± 30 % | AverageRF |
| 2-Nitroaniline | 3000 | 3100 | 0.01 | 0.433 | 0.440 | 2 | NA | ± 30 % | AverageRF |
| Acenaphthylene | 3000 | 3000 | 0.01 | 1.75 | 1.75 | 0 | NA | ± 30 % | AverageRF |
| Dimethyl Phthalate | 3000 | 2900 | 0.01 | 1.38 | 1.33 | -3 | NA | ± 30 % | AverageRF |
| 2,6-Dinitrotoluene | 3000 | 3200 | 0.01 | 0.330 | 0.354 | 7 | NA | ± 30 % | AverageRF |
| ‡ Acenaphthene | 3000 | 3000 | 0.01 | 1.05 | 1.05 | -1 | NA | ± 30 % | AverageRF |
| 3-Nitroaniline | 3000 | 3000 | 0.01 | 0.373 | 0.369 | -1 | NA | ± 30 % | AverageRF |
| † 2,4-Dinitrophenol | 3000 | 2400 | 0.05 | 0.150 | 0.104 | NA | -19 | ± 30 % | Quadratic |
| Dibenzofuran | 3000 | 2900 | 0.01 | 1.69 | 1.64 | -3 | NA | ± 30 % | AverageRF |
| † 4-Nitrophenol | 3000 | 2800 | 0.05 | 0.231 | 0.219 | -5 | NA | ± 30 % | AverageRF |

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound ‡ CCC Compound

# COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

**Client:** Geomatrix Consultants, Incorporated
**Project:** NW Corner-FRP/8769.005/4

**Service Request:** K0604574
**Date Analyzed:** 06/11/2006

## Continuing Calibration Verification Summary
## Semi-Volatile Organic Compounds by GC/MS

**Calibration Type:** Internal Standard
**Analysis Method:** 8270C
**CCV Standard ID:** SVM22-11C

**Calibration Date:** 05/11/2006
**Calibration ID:** CAL5348
**Analysis Lot:** KWG0609518
**Units:** ng/ml

| Analyte Name | Expected | Result | Min RF | Average RF | CCV RF | %D | %Drift | Criteria | Curve Fit |
|---|---|---|---|---|---|---|---|---|---|
| 2,4-Dinitrotoluene | 3000 | 3200 | 0.01 | 0.449 | 0.481 | 7 | NA | ± 30 % | AverageRF |
| Fluorene | 3000 | 2900 | 0.01 | 1.32 | 1.29 | -2 | NA | ± 30 % | AverageRF |
| 4-Chlorophenyl Phenyl Ether | 3000 | 3000 | 0.01 | 0.658 | 0.648 | -2 | NA | ± 30 % | AverageRF |
| Diethyl Phthalate | 3000 | 2800 | 0.01 | 1.46 | 1.38 | -6 | NA | ± 30 % | AverageRF |
| 4-Nitroaniline | 3000 | 3000 | 0.01 | 0.386 | 0.390 | 1 | NA | ± 30 % | AverageRF |
| 2-Methyl-4,6-dinitrophenol | 3000 | 2700 | 0.01 | 0.231 | 0.227 | NA | -9 | ± 30 % | Quadratic |
| ‡ N-Nitrosodiphenylamine | 3000 | 3000 | 0.01 | 1.06 | 1.04 | NA | -1 | ± 20 % | Linear |
| 4-Bromophenyl Phenyl Ether | 3000 | 3000 | 0.01 | 0.237 | 0.234 | -1 | NA | ± 30 % | AverageRF |
| Hexachlorobenzene | 3000 | 3100 | 0.01 | 0.266 | 0.272 | 2 | NA | ± 30 % | AverageRF |
| ‡ Pentachlorophenol | 3000 | 3100 | 0.01 | 0.150 | 0.156 | 4 | NA | ± 20 % | AverageRF |
| Phenanthrene | 3000 | 3000 | 0.01 | 1.18 | 1.17 | -1 | NA | ± 30 % | AverageRF |
| Anthracene | 3000 | 3000 | 0.01 | 1.20 | 1.21 | 1 | NA | ± 30 % | AverageRF |
| Di-n-butyl Phthalate | 3000 | 3200 | 0.01 | 1.44 | 1.52 | 6 | NA | ± 30 % | AverageRF |
| ‡ Fluoranthene | 3000 | 3200 | 0.01 | 1.21 | 1.28 | 5 | NA | ± 20 % | AverageRF |
| Pyrene | 3000 | 2900 | 0.01 | 1.37 | 1.31 | -4 | NA | ± 30 % | AverageRF |
| Butyl Benzyl Phthalate | 3000 | 3000 | 0.01 | 0.678 | 0.668 | -1 | NA | ± 30 % | AverageRF |
| 3,3'-Dichlorobenzidine | 3000 | 2900 | 0.01 | 0.451 | 0.432 | -4 | NA | ± 30 % | AverageRF |
| Benz(a)anthracene | 3000 | 2900 | 0.01 | 1.11 | 1.08 | -3 | NA | ± 30 % | AverageRF |
| Chrysene | 3000 | 3000 | 0.01 | 1.08 | 1.08 | 0 | NA | ± 30 % | AverageRF |
| Bis(2-ethylhexyl) Phthalate | 3000 | 2900 | 0.01 | 0.887 | 0.867 | -2 | NA | ± 30 % | AverageRF |
| ‡ Di-n-octyl Phthalate | 3000 | 3100 | 0.01 | 1.99 | 2.02 | 2 | NA | ± 20 % | AverageRF |
| Benzo(b)fluoranthene | 3000 | 3000 | 0.01 | 1.32 | 1.32 | 0 | NA | ± 30 % | AverageRF |
| Benzo(k)fluoranthene | 3000 | 3100 | 0.01 | 1.36 | 1.41 | 3 | NA | ± 30 % | AverageRF |
| ‡ Benzo(a)pyrene | 3000 | 3000 | 0.01 | 1.25 | 1.27 | 1 | NA | ± 20 % | AverageRF |
| Indeno(1,2,3-cd)pyrene | 3000 | 3100 | 0.01 | 1.09 | 1.13 | 3 | NA | ± 30 % | AverageRF |
| Dibenz(a,h)anthracene | 3000 | 3100 | 0.01 | 1.10 | 1.15 | 4 | NA | ± 30 % | AverageRF |
| Benzo(g,h,i)perylene | 3000 | 3200 | 0.01 | 1.19 | 1.27 | 7 | NA | ± 30 % | AverageRF |
| 2-Fluorophenol | 3000 | 2600 | 0.01 | 1.35 | 1.17 | -13 | NA | ± 30 % | AverageRF |
| Phenol-d6 | 3000 | 3000 | 0.01 | 1.42 | 1.42 | 0 | NA | ± 30 % | AverageRF |
| Nitrobenzene-d5 | 3000 | 3200 | 0.01 | 1.37 | 1.47 | 7 | NA | ± 30 % | AverageRF |
| 2-Fluorobiphenyl | 3000 | 3000 | 0.01 | 1.33 | 1.31 | -1 | NA | ± 30 % | AverageRF |
| 2,4,6-Tribromophenol | 3000 | 3100 | 0.01 | 0.143 | 0.147 | 3 | NA | ± 30 % | AverageRF |
| Terphenyl-d14 | 3000 | 2900 | 0.01 | 0.934 | 0.918 | -2 | NA | ± 30 % | AverageRF |

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound ‡ CCC Compound

# COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

**Client:** Geomatrix Consultants, Incorporated
**Project:** NW Corner-FRP/8769.005/4

**Service Request:** K0604574

## Analysis Run Log
## Semi-Volatile Organic Compounds by GC/MS

**Analysis Method:** 8270C

**Analysis Lot:** KWG0609518
**Instrument ID:** MS10

| File ID | Sample Name | Lab Code | Date Analysis Started | Start Time | Q | Date Analysis Finished | Finish Time |
|---|---|---|---|---|---|---|---|
| 0611F001.D | Continuing Calibration Verification | KWG0609518-2 | 6/11/2006 | 06:34 | | 6/11/2006 | 07:02 |
| 0611T001.D | GC/MS Tuning - Generic | KWG0609518-1 | 6/11/2006 | 06:34 | | 6/11/2006 | 07:02 |
| 0611F002.D | Method Blank | KWG0609161-9 | 6/11/2006 | 07:11 | | 6/11/2006 | 07:39 |
| 0611F003.D | Lab Control Sample | KWG0609161-10 | 6/11/2006 | 07:48 | | 6/11/2006 | 08:16 |
| 0611F004.D | Duplicate Lab Control Sample | KWG0609161-11 | 6/11/2006 | 08:26 | | 6/11/2006 | 08:54 |
| 0611F005.D | Batch QCMS | KWG0609161-13 | 6/11/2006 | 09:04 | | 6/11/2006 | 09:32 |
| 0611F006.D | Batch QCDMS | KWG0609161-14 | 6/11/2006 | 09:41 | | 6/11/2006 | 10:09 |
| 0611F007.D | Batch QC | K0604453-001 | 6/11/2006 | 10:19 | | 6/11/2006 | 10:47 |
| 0611F008.D | ZZZZZZ | ZZZZZZ | 6/11/2006 | 10:56 | | 6/11/2006 | 11:24 |
| 0611F009.D | ZZZZZZ | ZZZZZZ | 6/11/2006 | 11:34 | | 6/11/2006 | 12:02 |
| 0611F012.D | ZZZZZZ | ZZZZZZ | 6/11/2006 | 13:00 | | 6/11/2006 | 13:28 |
| 0611F013.D | ZZZZZZ | ZZZZZZ | 6/11/2006 | 13:38 | | 6/11/2006 | 14:06 |
| 0611F014.D | NWC-1-22W | K0604574-006 | 6/11/2006 | 14:15 | | 6/11/2006 | 14:43 |
| 0611F015.D | NWC-1-2W | K0604574-007 | 6/11/2006 | 14:53 | | 6/11/2006 | 15:21 |
| 0611F016.D | NWC-1-12W | K0604574-010 | 6/11/2006 | 15:31 | | 6/11/2006 | 15:59 |
| 0611F017.D | NWC-2-39W | K0604574-011 | 6/11/2006 | 16:09 | | 6/11/2006 | 16:37 |

**Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis**

# COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

**Client:** Geomatrix Consultants, Incorporated
**Project:** NW Corner-FRP/8769.005/4
**Sample Matrix:** Soil

**Service Request:** K0604574
**Date Extracted:** 06/08/2006

## Extraction Prep Log
## Semi-Volatile Organic Compounds by GC/MS

**Extraction Method:** EPA 3541
**Analysis Method:** 8270C

**Extraction Lot:** KWG0609161
**Level:** Low

| Sample Name | Lab Code | Date Collected | Date Received | Sample Amount | Final Volume | % Solids | Note |
|---|---|---|---|---|---|---|---|
| NWC-1-22W | K0604574-006 | 06/02/06 | 06/06/06 | 40.00g | 2ml | 82.7 | |
| NWC-1-2W | K0604574-007 | 06/02/06 | 06/06/06 | 40.05g | 2ml | 79.8 | |
| NWC-1-12W | K0604574-010 | 06/05/06 | 06/06/06 | 40.01g | 2ml | 86.9 | |
| NWC-2-39W | K0604574-011 | 06/05/06 | 06/06/06 | 40.03g | 2ml | 83.8 | |
| Method Blank | KWG0609161-9 | NA | NA | 40.05g | 2ml | NA | |
| Batch QC | K0604453-001 | NA | NA | 23.39g | 2ml | 86.0 | |
| Batch QCMS | KWG0609161-13 | NA | NA | 23.29g | 2ml | 86.0 | |
| Batch QCDMS | KWG0609161-14 | NA | NA | 23.36g | 2ml | 86.0 | |
| Lab Control Sample | KWG0609161-10 | NA | NA | 20.00g | 2ml | NA | |
| Duplicate Lab Control Sample | KWG0609161-11 | NA | NA | 20.00g | 2ml | NA | |

**Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis**

1317 South 13th Avenue P.O. Box 479 Kelso, Washington 98626 (360) 577-7222 (360) 636-1068 fax

Columbia Analytical Services
An Employee - Owned Compan

GEOMATRIX Received JUN 26 2006 SEATTLE

June 23, 2006 Service Request No: K0604601

John Long
Geomatrix Consultants, Incorporated
One Union Square
600 University Street, Suite 1020
Seattle, WA 98101

**RE: Former RP site/8769.005/4**

Dear John:

Enclosed are the results of the sample(s) submitted to our laboratory on June 07, 2006. For your reference, these analyses have been assigned our service request number K0604601.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAC standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please call if you have any questions. My extension is 3376.

Respectfully submitted,

**Columbia Analytical Services, Inc.**

Gregory Salata, Ph.D.
Project Chemist

GS/lmb

## Acronyms

| | |
|---|---|
| ASTM | American Society for Testing and Materials |
| A2LA | American Association for Laboratory Accreditation |
| CARB | California Air Resources Board |
| CAS Number | Chemical Abstract Service registry Number |
| CFC | Chlorofluorocarbon |
| CFU | Colony-Forming Unit |
| DEC | Department of Environmental Conservation |
| DEQ | Department of Environmental Quality |
| DHS | Department of Health Services |
| DOE | Department of Ecology |
| DOH | Department of Health |
| EPA | U. S. Environmental Protection Agency |
| ELAP | Environmental Laboratory Accreditation Program |
| GC | Gas Chromatography |
| GC/MS | Gas Chromatography/Mass Spectrometry |
| LUFT | Leaking Underground Fuel Tank |
| M | Modified |
| MCL | Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA. |
| MDL | Method Detection Limit |
| MPN | Most Probable Number |
| MRL | Method Reporting Limit |
| NA | Not Applicable |
| NC | Not Calculated |
| NCASI | National Council of the Paper Industry for Air and Stream Improvement |
| ND | Not Detected |
| NIOSH | National Institute for Occupational Safety and Health |
| PQL | Practical Quantitation Limit |
| RCRA | Resource Conservation and Recovery Act |
| SIM | Selected Ion Monitoring |
| TPH | Total Petroleum Hydrocarbons |
| tr | Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL. |

## Inorganic Data Qualifiers

| | |
|---|---|
| * | The result is an outlier. See case narrative. |
| # | The control limit criteria is not applicable. See case narrative. |
| B | The analyte was found in the associated method blank at a level that is significant relative to the sample result. |
| E | The result is an estimate amount because the value exceeded the instrument calibration range. |
| J | The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL. |
| U | The compound was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. |
| i | The MRL/MDL has been elevated due to a matrix interference. |
| X | See case narrative. |

## Metals Data Qualifiers

| | |
|---|---|
| # | The control limit criteria is not applicable. See case narrative. |
| B | The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL. |
| E | The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample. |
| M | The duplicate injection precision was not met. |
| N | The Matrix Spike sample recovery is not within control limits. See case narrative. |
| S | The reported value was determined by the Method of Standard Additions (MSA). |
| U | The compound was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. |
| W | The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance. |
| i | The MRL/MDL has been elevated due to a matrix interference. |
| X | See case narrative. |
| * | The duplicate analysis not within control limits. See case narrative. |
| + | The correlation coefficient for the MSA is less than 0.995. |

## Organic Data Qualifiers

| | |
|---|---|
| * | The result is an outlier. See case narrative. |
| # | The control limit criteria is not applicable. See case narrative. |
| A | A tentatively identified compound, a suspected aldol-condensation product. |
| B | The analyte was found in the associated method blank at a level that is significant relative to the sample result. |
| C | The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data. |
| D | The reported result is from a dilution. |
| E | The result is an estimate amount because the value exceeded the instrument calibration range. |
| J | The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL. |
| N | The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed. |
| P | The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results (25% for CLP Pesticides). |
| U | The compound was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. |
| i | The MRL/MDL has been elevated due to a chromatographic interference. |
| X | See case narrative. |

## Additional Petroleum Hydrocarbon Specific Qualifiers

| | |
|---|---|
| F | The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard. |
| L | The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard. |
| H | The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard. |
| O | The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard. |
| Y | The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard. |
| Z | The chromatographic fingerprint does not resemble a petroleum product. |

# Case Narrative

COLUMBIA ANALYTICAL SERVICES, INC.

| | | | |
|---|---|---|---|
| **Client:** | Geomatrix Consultants, Inc. | **Service Request No.:** | K0604601 |
| **Project:** | Former RP Site/8769.005/4 | **Date Received:** | 06/07/06 |
| **Sample Matrix:** | Soil | | |

## CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier III validation deliverables including summary forms and all of the associated raw data for each of the analyses. When appropriate to the method, method blank results have been reported with each analytical test.

### Sample Receipt

One hundred seventeen soil samples were received for analysis at Columbia Analytical Services on 06/07/06. The samples were received in good condition and consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

### Total Metals

**Matrix Spike Recovery Exceptions:**
The control criteria for matrix spike recovery of Copper for sample NWC-1-37A is not applicable. The analyte concentration in the sample was significantly higher than the added spike concentration, preventing accurate evaluation of the spike recovery.

The matrix spike recovery of Copper for sample NWC-2-30A was outside the CAS control criteria as a result of a heterogeneous distribution of this analyte in the sample. The associated QA/QC results (e.g. control sample, additional matrix spike, calibration standards, etc.) indicate the analysis was in control. No further corrective action was appropriate.

**Relative Percent Difference Exceptions:**
The Relative Percent Difference (RPD) for the replicate analysis of Copper in sample NWC-2-1A was outside the normal CAS control limits. The variability in the results is attributed to the heterogeneous distribution of this analyte in the sample. Standard mixing techniques were used, but were not sufficient for complete homogenization of this sample.

No other anomalies associated with the analysis of these samples were observed.

Approved by [signature] Date 6/27/06

# Chain of Custody Documentation

## CHAIN-OF-CUSTODY RECORD

1C0604601

SEA 10113

PROJECT NAME: NW Corner - Former Rhone Poulenc

DATE: 6/5/06 PAGE 1 OF ~~7~~ 9

PROJECT NUMBER: 8769.005/4

RESULTS TO: John Long

TURNAROUND TIME:

SAMPLE SHIPMENT METHOD: Courier

LABORATORY NAME: CAS

LABORATORY ADDRESS: 1317 S. 13th Ave Kelso, WA 98626

LABORATORY CONTACT: Greg Salata

LABORATORY PHONE NUMBER: 360 577-7222

CLIENT INFORMATION: Container Properties

REPORTING REQUIREMENTS:

GEOTRACKER REQUIRED YES NO

SITE SPECIFIC GLOBAL ID NO.

SAMPLERS (SIGNATURE): Zanna Satterwhite

ANALYSES

| | DATE | TIME | SAMPLE NUMBER | Metals-Cu | | CONTAINER TYPE AND SIZE | Soil (S), Water (W), Vapor (V), or Other (O) | Filtered | Preservative Type | Cooled | MS/MSD | No. of Containers | ADDITIONAL COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 6/2/06 | 0923 | NWC-1-1A | ~~X~~ | 2AS | 2oz jar | S | | | | | 1 | |
| 2 | | 0924 | NWC-2-1A | | | | | | | | | | |
| 3 | | 0927 | NWC-3-1A | | | | | | | | | | |
| | | | ~~NWC-1-2A~~ | | | | | | | | | | |
| | | | ~~NWC-2-2A~~ | | | | | | | | | | |
| | | | ~~NWC-3-2A~~ | | | | | | | | | | |
| 4 | | 1033 | NWC-1-3A | | | | | | | | | | |
| 5 | | 1035 | NWC-2-3A | | | | | | | | | | |
| 6 | | 1037 | NWC-3-3A | | | | | | | | | | |
| 7 | | 1117 | NWC-1-4A | | | | | | | | | | |
| 8 | | 1118 | NWC-2-4A | | | | | | | | | | |
| 9 | | 1120 | NWC-3-4A | | | | | | | | | | |
| 10 | | 1155 | NWC-1-5A | | | | | | | | | | |
| 11 | | 1158 | NWC-2-5A | | | | | | | | | | |
| 12 | | 1200 | NWC-3-5A | | | | | | | | | | |

| RELINQUISHED BY: | DATE | TIME | RECEIVED BY: | DATE | TIME |
|---|---|---|---|---|---|
| SIGNATURE: [signature] | 6/6/06 | 0705 | SIGNATURE: [signature] | 6/6/06 | 0719 |
| PRINTED NAME: Zanna Satterwhite | | | PRINTED NAME: Robert Shockey | | |
| COMPANY: Geomatrix | | | COMPANY: Mc Delivery | | |
| SIGNATURE: | | | SIGNATURE: | | |
| PRINTED NAME: | | | PRINTED NAME: | | |
| COMPANY: | | | COMPANY: | | |
| SIGNATURE: | | | SIGNATURE: [signature] | 6/6/06 | 1300 |
| PRINTED NAME: | | | PRINTED NAME: [signature] | | |
| COMPANY: | | | COMPANY: CAS | | |

TOTAL NUMBER OF CONTAINERS:

SAMPLING COMMENTS: hold pending analysis of primary composite samples.

One Union Square, 600 University Street, Suite 1020
Seattle, Washington 98101-4107
Tel 206.342.1760 Fax 206.342.1761

Geomatrix

K0604601

SEA 10114

# CHAIN-OF-CUSTODY RECORD

PROJECT NAME: NW Corner – Former Rhone Poulenc

DATE: 6/5/06 PAGE 2 OF ~~7~~ 9

PROJECT NUMBER:

RESULTS TO:

TURNAROUND TIME:

SAMPLE SHIPMENT METHOD:

LABORATORY NAME:

LABORATORY ADDRESS:

LABORATORY CONTACT:

LABORATORY PHONE NUMBER:

CLIENT INFORMATION:

REPORTING REQUIREMENTS:

GEOTRACKER REQUIRED YES NO

SITE SPECIFIC GLOBAL ID NO.

SAMPLERS (SIGNATURE):

ANALYSES: Metals-Cu

| | DATE | TIME | SAMPLE NUMBER | CONTAINER TYPE AND SIZE | Soil (S), Water (W), Vapor (V), or Other (O) | Filtered | Preservative Type | Cooled | MS/MSD | No. of Containers | ADDITIONAL COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 13 | 6/2/06 | 1303 | NWC-1-6A | 2oz jar | S | | | | | 1 | |
| 14 | 6/2/06 | 1305 | NWC-2-6A | | | | | | | | |
| 15 | 6/2/06 | 1304 | NWC-3-6A | | | | | | | | |
| 16 | 6/2/06 | 1339 | NWC-1-7A | | | | | | | | |
| 17 | 6/2/06 | 1341 | NWC-2-7A | | | | | | | | |
| 18 | 6/2/06 | 1343 | NWC-3-7A | | | | | | | | |
| 19 | 6/5/06 | 0807 | NWC-1-8A | | | | | | | | |
| 20 | 6/5/06 | 0809 | NWC-2-8A | | | | | | | | |
| 21 | 6/5/06 | 0810 | NWC-3-8A | | | | | | | | |
| 22 | 6/5/06 | 0838 | NWC-1-9A | | | | | | | | |
| 23 | 6/5/06 | 0839 | NWC-2-9A | | | | | | | | |
| 24 | 6/5/06 | 0839 | NWC-3-9A | | | | | | | | |
| 25 | 6/5/06 | 0908 | NWC-1-10A | | | | | | | | |
| 26 | 6/5/06 | 0909 | NWC-2-10A | | | | | | | | |
| 27 | 6/5/06 | 0910 | NWC-3-10A | | | | | | | | |

| RELINQUISHED BY: | DATE | TIME | RECEIVED BY: | DATE | TIME |
|---|---|---|---|---|---|
| SIGNATURE: | 6/6/06 | 705 | SIGNATURE: | 6/6/06 | 0715 |
| PRINTED NAME: Launa Sattenwhite | | | PRINTED NAME: Robert Shockey | | |
| COMPANY: Geomatrix | | | COMPANY: MC Delivery | | |
| SIGNATURE: | | | SIGNATURE: | | |
| PRINTED NAME: | | | PRINTED NAME: | | |
| COMPANY: | | | COMPANY: | | |
| SIGNATURE: | | | SIGNATURE: | 6/6/6 | 1300 |
| PRINTED NAME: | | | PRINTED NAME: | | |
| COMPANY: | | | COMPANY: | | |

TOTAL NUMBER OF CONTAINERS:

SAMPLING COMMENTS: See pg 1

One Union Square, 600 University Street, Suite 1020
Seattle, Washington 98101-4107
Tel 206.342.1760 Fax 206.342.1761

Geomatrix

## CHAIN-OF-CUSTODY RECORD

K0604601

SEA 10115 PH

PROJECT NAME: NW Corner Former Phone Pavilion

DATE: 6/5/06 PAGE 3 OF ~~7~~ 9

PROJECT NUMBER:

RESULTS TO:

TURNAROUND TIME:

SAMPLE SHIPMENT METHOD:

LABORATORY NAME:

LABORATORY ADDRESS:

LABORATORY CONTACT:

LABORATORY PHONE NUMBER:

CLIENT INFORMATION:

REPORTING REQUIREMENTS:

GEOTRACKER REQUIRED YES NO

SITE SPECIFIC GLOBAL ID NO.

SAMPLERS (SIGNATURE): [signature]

ANALYSES: metals - Cu

| | DATE | TIME | SAMPLE NUMBER | CONTAINER TYPE AND SIZE | Soil (S), Water (W), Vapor (V), or Other (O) | Filtered | Preservative Type | Cooled | MS/MSD | No. of Containers | ADDITIONAL COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 25 | 6/5/06 | 0915 | NWC-1-11A | 2oz jar. | S | | | | | 1 | |
| 26 | | 0916 | NWC-2-11A | | | | | | | | |
| 30 | | 0920 | NWC-3-11A | | | | | | | | |
| | | | NWC-1-12A | | | | | | | | |
| | | | NWC-2-12A | | | | | | | | |
| | | | NWC-3-12A | | | | | | | | |
| 31 | | 1004 | NWC-1-13A | | | | | | | | |
| 32 | | 1006 | NWC-2-13A | | | | | | | | |
| 33 | | 1009 | NWC-3-13A | | | | | | | | |
| 34 | | 0858 | NWC-1-14A | | | | | | | | |
| 35 | | 0857 | NWC-2-14A | | | | | | | | |
| 36 | | 0859 | NWC-3-14A | | | | | | | | |
| 37 | | 0826 | NWC-1-15A | | | | | | | | |
| 38 | | 0827 | NWC-2-15A | | | | | | | | |
| 39 | | 0829 | NWC-3-15A | | | | | | | | |

| RELINQUISHED BY: | DATE | TIME | RECEIVED BY: | DATE | TIME |
|---|---|---|---|---|---|
| SIGNATURE: [signature] | 6/6/06 | 0705 | SIGNATURE: [signature] | 6/6/06 | 0715 |
| PRINTED NAME: Tanna Sattenwhite | | | PRINTED NAME: Robert Shockey | | |
| COMPANY: Geomatrix | | | COMPANY: MC Delivery | | |
| SIGNATURE: | | | SIGNATURE: | | |
| PRINTED NAME: | | | PRINTED NAME: | | |
| COMPANY: | | | COMPANY: | | |
| SIGNATURE: | | | SIGNATURE: [signature] | 6/6/6 | 1300 |
| PRINTED NAME: | | | PRINTED NAME: A Painter | | |
| COMPANY: | | | COMPANY: CAS | | |

TOTAL NUMBER OF CONTAINERS:

SAMPLING COMMENTS: See page 1

One Union Square, 600 University Street, Suite 1020
Seattle, Washington 98101-4107
Tel 206.342.1760 Fax 206.342.1761

Geomatrix

## CHAIN-OF-CUSTODY RECORD

1C0604601

SEA 10116

PROJECT NAME: NW Corner Former Rhone Poulenc

DATE: 6/5/06 PAGE 4 OF ~~7~~ 9

PROJECT NUMBER:

RESULTS TO:

TURNAROUND TIME:

SAMPLE SHIPMENT METHOD:

LABORATORY NAME:

LABORATORY ADDRESS:

LABORATORY CONTACT:

LABORATORY PHONE NUMBER:

CLIENT INFORMATION:

REPORTING REQUIREMENTS:

GEOTRACKER REQUIRED YES NO

SITE SPECIFIC GLOBAL ID NO.

SAMPLERS (SIGNATURE): [signature]

ANALYSES: metals-Cu

| | DATE | TIME | SAMPLE NUMBER | CONTAINER TYPE AND SIZE | Soil (S), Water (W), Vapor (V), or Other (O) | Filtered | Preservative Type | Cooled | MS/MSD | No. of Containers | ADDITIONAL COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 40 | 6/5/06 | 0800 | NWC-1-16A | 2oz. jar | S | | | | | 1 | |
| 41 | 6/5/06 | 0801 | NWC-2-16A | | | | | | | | |
| 42 | 6/5/06 | 0802 | NWC-3-16A | | | | | | | | |
| 43 | 6/2/06 | 1324 | NWC-1-17A | | | | | | | | |
| 44 | 6/2/06 | 1330 | NWC-2-17A | | | | | | | | |
| 45 | 6/2/06 | 1331 | NWC-3-17A | | | | | | | | |
| 46 | 6/2/06 | 1253 | NWC-1-18A | | | | | | | | |
| 47 | 6/2/06 | 1255 | NWC-2-18A | | | | | | | | |
| 48 | 6/2/06 | 1257 | NWC-3-18A | | | | | | | | |
| 49 | 6/2/06 | 1140 | NWC-1-19A | | | | | | | | |
| 50 | 6/2/06 | 1143 | NWC-2-19A | | | | | | | | |
| 51 | 6/2/06 | 1145 | NWC-3-19A | | | | | | | | |
| 52 | 6/2/06 | 1105 | NWC-1-20A | | | | | | | | |
| 53 | 6/2/06 | 1107 | NWC-2-20A | | | | | | | | |
| 54 | 6/2/06 | 1109 | NWC-3-20A | | | | | | | | |

| RELINQUISHED BY: | DATE | TIME | RECEIVED BY: | DATE | TIME |
|---|---|---|---|---|---|
| SIGNATURE: [signature] | 6/6/06 | 705 | SIGNATURE: [signature] | 6/6/06 | 6715 |
| PRINTED NAME: Zanna Sattenwhite | | | PRINTED NAME: Robert Shoulby | | |
| COMPANY: Geomatrix | | | COMPANY: Mc Delivery | | |
| SIGNATURE: | | | SIGNATURE: | | |
| PRINTED NAME: | | | PRINTED NAME: | | |
| COMPANY: | | | COMPANY: | | |
| SIGNATURE: | | | SIGNATURE: [signature] | 6/6/6 | 1300 |
| PRINTED NAME: | | | PRINTED NAME: A. PAYNTER | | |
| COMPANY: | | | COMPANY: CAS | | |

TOTAL NUMBER OF CONTAINERS:

SAMPLING COMMENTS: See page 1

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Geomatrix

## CHAIN-OF-CUSTODY RECORD

K0604601

SEA 10117

PROJECT NAME: NW Corner Former Rhone Poulenc

DATE: 6/5/06 PAGE 5 OF 7 9

PROJECT NUMBER:

RESULTS TO:

TURNAROUND TIME:

SAMPLE SHIPMENT METHOD:

LABORATORY NAME:

LABORATORY ADDRESS:

LABORATORY CONTACT:

LABORATORY PHONE NUMBER:

CLIENT INFORMATION:

REPORTING REQUIREMENTS:

GEOTRACKER REQUIRED YES NO

SITE SPECIFIC GLOBAL ID NO.

SAMPLERS (SIGNATURE): [signature]

ANALYSES: metals-Cu

| | DATE | TIME | SAMPLE NUMBER | CONTAINER TYPE AND SIZE | Soil (S), Water (W), Vapor (V), or Other (O) | Filtered | Preservative Type | Cooled | MS/MSD | No. of Containers | ADDITIONAL COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 55 | 6/2/06 | 1024 | NWC-1-21A | 2oz. jar | S | | | | | 1 | |
| 56 | 6/2/06 | 1025 | NWC-2-21A | | | | | | | | |
| 57 | 6/2/06 | 1026 | NWC-3-21A | | | | | | | | |
| 58 | 6/2/06 | 0948 | NWC-1-22A | | | | | | | | |
| 59 | 6/2/06 | 0955 | NWC-2-22A | | | | | | | | |
| 60 | 6/2/06 | 0958 | NWC-3-22A | | | | | | | | |
| 61 | 6/2/06 | 0914 | NWC-1-23A | | | | | | | | |
| 62 | 6/2/06 | 0915 | NWC-2-23A | | | | | | | | |
| 63 | 6/2/06 | 0916 | NWC-3-23A | | | | | | | | |
| 64 | 6/2/06 | 0831 | NWC-1-24A | | | | | | | | |
| 65 | 6/2/06 | 0837 | NWC-2-24A | | | | | | | | |
| 66 | 6/2/06 | 0836 | NWC-3-24A | | | | | | | | |
| 67 | 6/2/06 | 0856 | NWC-1-25A | | | | | | | | |
| 68 | 6/2/06 | 0900 | NWC-2-25A | | | | | | | | |
| 69 | 6/2/06 | 0906 | NWC-3-25A | | | | | | | | |

| RELINQUISHED BY: | DATE | TIME | RECEIVED BY: | DATE | TIME |
|---|---|---|---|---|---|
| SIGNATURE: [signature] | | | SIGNATURE: [signature] | 6/6/06 | 0715 |
| PRINTED NAME: Zanna Sattemlite | 6/6/06 | 705 | PRINTED NAME: Robert Shocky | | |
| COMPANY: Geomatrix | | | COMPANY: MC Delivery | | |
| SIGNATURE: | | | SIGNATURE: | | |
| PRINTED NAME: | | | PRINTED NAME: | | |
| COMPANY: | | | COMPANY: | | |
| SIGNATURE: | | | SIGNATURE: [signature] | 6/6/6 | 1300 |
| PRINTED NAME: | | | PRINTED NAME: A Paynton | | |
| COMPANY: | | | COMPANY: [illegible] | | |

TOTAL NUMBER OF CONTAINERS:

SAMPLING COMMENTS: See Page 1

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Geomatrix

## CHAIN-OF-CUSTODY RECORD

SEA 10118

PROJECT NAME: NW Corner - Former Phone - Forlene

DATE: 6/5/06 PAGE 6 OF 7 9

PROJECT NUMBER:

RESULTS TO:

TURNAROUND TIME:

SAMPLE SHIPMENT METHOD:

LABORATORY NAME:

LABORATORY ADDRESS:

LABORATORY CONTACT:

LABORATORY PHONE NUMBER:

CLIENT INFORMATION:

REPORTING REQUIREMENTS:

GEOTRACKER REQUIRED YES NO

SITE SPECIFIC GLOBAL ID NO.

SAMPLERS (SIGNATURE):

ANALYSES: metals

| | DATE | TIME | SAMPLE NUMBER | CONTAINER TYPE AND SIZE | Soil (S), Water (W), Vapor (V), or Other (O) | Filtered | Preservative Type | Cooled | MS/MSD | No. of Containers | ADDITIONAL COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 70 | 6/2/06 | 0934 | NWC-1-26A | 2 oz. jar | S | | | | | 1 | |
| 71 | | 0935 | NWC-2-26A | | | | | | | | |
| 72 | | 0939 | NWC-3-26A | | | | | | | | |
| 73 | | 1013 | NWC-1-27A | | | | | | | | |
| 74 | | 1014 | NWC-2-27A | | | | | | | | |
| 75 | | 1017 | NWC-3-27A | | | | | | | | |
| 76 | | 1052 | NWC-1-28A | | | | | | | | |
| 77 | | 1053 | NWC-2-28A | | | | | | | | |
| 78 | | 1056 | NWC-3-28A | | | | | | | | |
| 79 | | 1128 | NWC-1-29A | | | | | | | | |
| 80 | | 1129 | NWC-2-29A | | | | | | | | |
| 81 | | 1132 | NWC-3-29A | | | | | | | | |
| 82 | | 1244 | NWC-1-30A | | | | | | | | |
| 83 | | 1245 | NWC-2-30A | | | | | | | | |
| 84 | | 1247 | NWC-3-30A | | | | | | | | |

| RELINQUISHED BY: | DATE | TIME | RECEIVED BY: | DATE | TIME |
|---|---|---|---|---|---|
| SIGNATURE: | 6/6/06 | 705 | SIGNATURE: | 6/6/06 | 0715 |
| PRINTED NAME: Tanna Sattenwhite | | | PRINTED NAME: Robert Shockly | | |
| COMPANY: Geomatrix | | | COMPANY: MC Delivery | | |
| SIGNATURE: | | | SIGNATURE: | | |
| PRINTED NAME: | | | PRINTED NAME: | | |
| COMPANY: | | | COMPANY: | | |
| SIGNATURE: | | | SIGNATURE: | 6/6/6 | 1300 |
| PRINTED NAME: | | | PRINTED NAME: | | |
| COMPANY: | | | COMPANY: CMS | | |

TOTAL NUMBER OF CONTAINERS:

SAMPLING COMMENTS: See page 1

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Geomatrix

## CHAIN-OF-CUSTODY RECORD

1C0604601

SEA 10119

PROJECT NAME: NW Corner - Former Rhone Poulenc

DATE: 6/5/06 PAGE 7 OF 79 PH

PROJECT NUMBER:

RESULTS TO:

TURNAROUND TIME:

SAMPLE SHIPMENT METHOD:

LABORATORY NAME:

LABORATORY ADDRESS:

LABORATORY CONTACT:

LABORATORY PHONE NUMBER:

CLIENT INFORMATION:

REPORTING REQUIREMENTS:

GEOTRACKER REQUIRED YES NO

SITE SPECIFIC GLOBAL ID NO.

SAMPLERS (SIGNATURE): [signature]

ANALYSES: Metals-Cu

| | DATE | TIME | SAMPLE NUMBER | CONTAINER TYPE AND SIZE | Soil (S), Water (W), Vapor (V), or Other (O) | Filtered | Preservative Type | Cooled | MS/MSD | No. of Containers | ADDITIONAL COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 85 | 6/2/06 | 1316 | NWC-1-31A | 2oz jar | S | | | | | 1 | |
| 86 | 6/2/06 | 1317 | NWC-2-31A | | | | | | | | |
| 87 | 6/2/06 | 1318 | NWC-3-31A | | | | | | | | |
| 88 | 6/5/06 | 0751 | NWC-1-32A | | | | | | | | |
| 89 | | 0752 | NWC-2-32A | | | | | | | | |
| 90 | | 0755 | NWC-3-32A | | | | | | | | |
| 91 | | 0819 | NWC-1-33A | | | | | | | | |
| 92 | | 0820 | NWC-2-33A | | | | | | | | |
| 93 | | 0822 | NWC-3-33A | | | | | | | | |
| 94 | | 0849 | NWC-1-34A | | | | | | | | |
| 95 | | 0851 | NWC-2-34A | | | | | | | | |
| 96 | | 0853 | NWC-3-34A | | | | | | | | |
| 97 | | 0955 | NWC-1-35A | | | | | | | | |
| 98 | | 0957 | NWC-2-35A | | | | | | | | |
| 99 | | 1001 | NWC-3-35A | | | | | | | | |

| RELINQUISHED BY: | DATE | TIME | RECEIVED BY: | DATE | TIME |
|---|---|---|---|---|---|
| SIGNATURE: [signature] | | | SIGNATURE: [signature] | 6/6/06 | 0715 |
| PRINTED NAME: Tanna Sattlewhite | 6/6/06 | 705 | PRINTED NAME: Robert Shockley | | |
| COMPANY: Geomatrix | | | COMPANY: MC Delivery | | |
| SIGNATURE: | | | SIGNATURE: | | |
| PRINTED NAME: | | | PRINTED NAME: | | |
| COMPANY: | | | COMPANY: | | |
| SIGNATURE: | | | SIGNATURE: [signature] | | |
| PRINTED NAME: | | | PRINTED NAME: A Painter | 6/6/6 | 1300 |
| COMPANY: | | | COMPANY: CAS | | |

TOTAL NUMBER OF CONTAINERS:

SAMPLING COMMENTS: See page 1.

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Geomatrix

13

K060460

SEA 10120

# CHAIN-OF-CUSTODY RECORD

PROJECT NAME: NW Corner Former Phase Pipeline

DATE: 6/5/06 PAGE 8 OF 9

PROJECT NUMBER:

RESULTS TO:

TURNAROUND TIME:

SAMPLE SHIPMENT METHOD:

LABORATORY NAME:

LABORATORY ADDRESS:

LABORATORY CONTACT:

LABORATORY PHONE NUMBER:

CLIENT INFORMATION:

REPORTING REQUIREMENTS:

GEOTRACKER REQUIRED YES NO

SITE SPECIFIC GLOBAL ID NO.

SAMPLERS (SIGNATURE):

ANALYSES: Metals-Cu

| | DATE | TIME | SAMPLE NUMBER | CONTAINER TYPE AND SIZE | Soil (S), Water (W), Vapor (V), or Other (O) | Filtered | Preservative Type | Cooled | MS/MSD | No. of Containers | ADDITIONAL COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 100 | 6/5/06 | 0930 | NWC-1-36A | 2oz jar | S | | | | | 1 | |
| 101 | | 0932 | NWC-2-36A | | | | | | | | |
| 102 | | 0934 | NWC-3-36A | | | | | | | | |
| 103 | | 1019 | NWC-1-37A | | | | | | | | |
| 104 | | 1020 | NWC-2-37A | | | | | | | | |
| 105 | | 1021 | NWC-3-37A | | | | | | | | |
| 106 | | 1028 | NWC-1-38A | | | | | | | | |
| 107 | | 1030 | NWC-2-38A | | | | | | | | |
| 108 | | 1032 | NWC-3-38A | | | | | | | | |
| 109 | | 1059 | NWC-1-40A | | | | | | | | |
| 110 | | 1100 | NWC-2-40A | | | | | | | | |
| 111 | | 1101 | NWC-3-40A | | | | | | | | |
| 112 | | 1106 | NWC-1-41A | | | | | | | | |
| 113 | | 1108 | NWC-2-41A | | | | | | | | |
| 114 | | 1110 | NWC-3-41A | | | | | | | | |

| RELINQUISHED BY: | DATE | TIME | RECEIVED BY: | DATE | TIME |
|---|---|---|---|---|---|
| SIGNATURE: | 6/6/06 | 705 | SIGNATURE: | 6/6/06 | 0715 |
| PRINTED NAME: Tanna Sattenwhite | | | PRINTED NAME: Robert Shockley | | |
| COMPANY: Geomatrix | | | COMPANY: MC Delivery | | |
| SIGNATURE: | | | SIGNATURE: | | |
| PRINTED NAME: | | | PRINTED NAME: | | |
| COMPANY: | | | COMPANY: | | |
| SIGNATURE: | | | SIGNATURE: | 6/6/6 | 1300 |
| PRINTED NAME: | | | PRINTED NAME: | | |
| COMPANY: | | | COMPANY: CAS | | |

TOTAL NUMBER OF CONTAINERS:

SAMPLING COMMENTS: See page 1

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Geomatrix

K0604601

SEA 10121

## CHAIN-OF-CUSTODY RECORD

PROJECT NAME: NW Corner - Former Rhone Poulenc

DATE: 6/5/06 PAGE 9 OF 9

PROJECT NUMBER:

RESULTS TO:

TURNAROUND TIME:

SAMPLE SHIPMENT METHOD:

LABORATORY NAME:

LABORATORY ADDRESS:

LABORATORY CONTACT:

LABORATORY PHONE NUMBER:

CLIENT INFORMATION:

REPORTING REQUIREMENTS:

GEOTRACKER REQUIRED YES NO

SITE SPECIFIC GLOBAL ID NO.

SAMPLERS (SIGNATURE): [signature]

ANALYSES: metals - cu

| | DATE | TIME | SAMPLE NUMBER | CONTAINER TYPE AND SIZE | Soil (S), Water (W), Vapor (V), or Other (O) | Filtered | Preservative Type | Cooled | MS/MSD | No. of Containers | ADDITIONAL COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 115 | 6/5/06 | 1118 | NWC-1-42A | 2oz jar | S | | | | | | |
| 116 | 6/5/06 | 1120 | NWC-2-42A | ↓ | ↓ | | | | | ↓ | |
| 117 | 6/5/06 | 1122 | NWC-3-42A | | | | | | | | |

ZAS 6/6/06

| RELINQUISHED BY: | DATE | TIME | RECEIVED BY: | DATE | TIME |
|---|---|---|---|---|---|
| SIGNATURE: [signature] | | | SIGNATURE: [signature] | | |
| PRINTED NAME: Canna Fattenuluco | 6/6/06 | 705 | PRINTED NAME: Robert Shockley | 6/6/06 | 0715 |
| COMPANY: Geomatrix | | | COMPANY: Mc Delivery | | |
| SIGNATURE: | | | SIGNATURE: | | |
| PRINTED NAME: | | | PRINTED NAME: | | |
| COMPANY: | | | COMPANY: | | |
| SIGNATURE: | | | SIGNATURE: [signature] | | |
| PRINTED NAME: | | | PRINTED NAME: A Painter | 6/6/6 | 1300 |
| COMPANY: | | | COMPANY: CAS | | |

TOTAL NUMBER OF CONTAINERS:

SAMPLING COMMENTS: See page 1.

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Geomatrix

PC Greg

**Columbia Analytical Services Inc.**
**Cooler Receipt and Preservation Form**

Project/Client GEOMATRIX Service Request K06 04601

Cooler received on 6/6/6 and opened on 6/6/6 by AP

1. Were custody seals on outside of coolers? MCD Y (N)
   If yes, how many and where?
2. Were custody seals intact? ~~Y N~~
3. Were signature and date present on the custody seals? ~~Y~~ N
4. Is the shipper's airbill available and filed? If no, record airbill number: (Y) N
5. COC#

| | | | | | |
|---|---|---|---|---|---|
| **Temperature of cooler(s) upon receipt: (°C)** | 5.4 | 3.5 | 3.7 | 4.4 | 3.5 |
| **Temperature Blank: (°C)** | 5.1 | 2.6 | 2.1 | N/P | 5.8 |

Were samples hand delivered on the same day as collection? ~~Y N~~

6. Were custody papers properly filled out (ink, signed, etc.)? (Y) N
7. Type of packing material present FOAM, CARDBOARD, ICE
8. **Did all bottles arrive in good condition (unbroken)?** (Y) N
9. Were all bottle labels complete (i.e analysis, preservation, etc.)? (Y) N
10. Did all bottle labels and tags agree with custody papers? (Y) N
11. **Were the correct types of bottles used for the tests indicated?** (Y) N
12. Were all of the preserved bottles received at the lab with the appropriate pH? ~~Y N~~
13. Were VOA vials checked for absence of air bubbles, and if present, noted below? (Y) N
14. Were the 1631 Mercury bottles checked for absence of air bubbles, and if present, noted below? ~~Y N~~
15. Did the bottles originate from CAS/K or a branch laboratory? Y (N)
16. **Are CWA Microbiology samples received with >1/2 the 24hr. hold time remaining from collection?** ~~Y N~~
17. Was C12/Res negative? ~~Y N~~

Explain any discrepancies:

RESOLUTION:

Samples that required preservation or received out of temperature:

| Sample ID | Reagent | Volume | Lot Number | Bottle Type | Rec'd out of Temperature | Initials |
|---|---|---|---|---|---|---|
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

# Metals

# METALS

## - Cover Page -
## INORGANIC ANALYSIS DATA PACKAGE

Client: Geomatrix Consultants, Incorporated  Service Request: K0604601

Project No.: 8769.005/4

Project Name: Former RP site

| Sample No. | Lab Sample ID. |
|---|---|
| NWC-2-1A | K0604601-002 |
| NWC-2-1AD | K0604601-002D |
| NWC-2-1AS | K0604601-002S |
| NWC-2-3A | K0604601-005 |
| NWC-2-4A | K0604601-008 |
| NWC-2-5A | K0604601-011 |
| NWC-2-6A | K0604601-014 |
| NWC-2-7A | K0604601-017 |
| NWC-1-8A | K0604601-019 |
| NWC-2-8A | K0604601-020 |
| NWC-2-9A | K0604601-023 |
| NWC-2-10A | K0604601-026 |
| NWC-2-11A | K0604601-029 |
| NWC-2-11AD | K0604601-029D |
| NWC-2-11AS | K0604601-029S |
| NWC-1-13A | K0604601-031 |
| NWC-2-13A | K0604601-032 |
| NWC-2-14A | K0604601-035 |
| NWC-2-15A | K0604601-038 |
| NWC-1-16A | K0604601-040 |
| NWC-2-16A | K0604601-041 |
| NWC-2-17A | K0604601-044 |
| NWC-2-18A | K0604601-047 |

Were ICP interelement corrections applied? Yes/No YES

Were ICP background corrections applied? Yes/No YES

If yes-were raw data generated before application of background corrections? Yes/No NO

Comments:

Signature: [signature]  Date: 6/22/06

# METALS

## - Cover Page -
## INORGANIC ANALYSIS DATA PACKAGE

Client: Geomatrix Consultants, Incorporated  Service Request: K0604601

Project No.: 8769.005/4

Project Name: Former RP site

| Sample No. | Lab Sample ID. |
|---|---|
| NWC-2-19A | K0604601-050 |
| NWC-2-20A | K0604601-053 |
| NWC-2-20AD | K0604601-053D |
| NWC-2-20AS | K0604601-053S |
| NWC-2-21A | K0604601-056 |
| NWC-2-22A | K0604601-059 |
| NWC-2-23A | K0604601-062 |
| NWC-2-24A | K0604601-065 |
| NWC-2-25A | K0604601-068 |
| NWC-2-26A | K0604601-071 |
| NWC-2-27A | K0604601-074 |
| NWC-2-28A | K0604601-077 |
| NWC-2-29A | K0604601-080 |
| NWC-2-30A | K0604601-083 |
| NWC-2-30AD | K0604601-083D |
| NWC-2-30AS | K0604601-083S |
| NWC-2-31A | K0604601-086 |
| NWC-1-32A | K0604601-088 |
| NWC-2-32A | K0604601-089 |
| NWC-2-33A | K0604601-092 |
| NWC-2-34A | K0604601-095 |
| NWC-1-35A | K0604601-097 |
| NWC-2-35A | K0604601-098 |

Were ICP interelement corrections applied? Yes/No YES

Were ICP background corrections applied? Yes/No YES

If yes-were raw data generated before application of background corrections? Yes/No NO

Comments:

Signature: [illegible]  Date: 6/22/06

# METALS

## - Cover Page -
## INORGANIC ANALYSIS DATA PACKAGE

Client: Geomatrix Consultants, Incorporated  Service Request: K0604601

Project No.: 8769.005/4

Project Name: Former RP site

| Sample No. | Lab Sample ID. |
|---|---|
| NWC-1-36A | K0604601-100 |
| NWC-2-36A | K0604601-101 |
| NWC-1-37A | K0604601-103 |
| NWC-1-37AD | K0604601-103D |
| NWC-1-37AS | K0604601-103S |
| NWC-2-37A | K0604601-104 |
| NWC-1-38A | K0604601-106 |
| NWC-2-38A | K0604601-107 |
| NWC-1-40A | K0604601-109 |
| NWC-2-40A | K0604601-110 |
| NWC-1-41A | K0604601-112 |
| NWC-2-41A | K0604601-113 |
| NWC-1-42A | K0604601-115 |
| NWC-2-42A | K0604601-116 |
| Method Blank | K0604601-MB |
| Method Blank 2 | K0604601-MB2 |
| Method Blank 3 | K0604601-MB3 |

Were ICP interelement corrections applied? Yes/No YES

Were ICP background corrections applied? Yes/No YES

If yes-were raw data generated before application of background corrections? Yes/No NO

Comments:

Signature: [illegible]  Date: 6/22/06

# METALS

-1-

## INORGANIC ANALYSIS DATA SHEET

| | | | |
|---|---|---|---|
| Client: | Geomatrix Consultants, Incorporated | Service Request: | K0604601 |
| Project No.: | 8769.005/4 | Date Collected: | 06/02/06 |
| Project Name: | Former RP site | Date Received: | 06/07/06 |
| Matrix: | SOIL | Units: | MG/KG |
| | | Basis: | Wet |

Sample Name: NWC-2-1A  Lab Code: K0604601-002

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 6020 | 0.39 | 0.12 | 10 | 6/16/06 | 6/19/06 | 14.7 | | * |

J

% Solids: NA

Comments:

TG 7/13/06

# METALS
-1-
## INORGANIC ANALYSIS DATA SHEET

| | | | |
|---|---|---|---|
| Client: | Geomatrix Consultants, Incorporated | Service Request: | K0604601 |
| Project No.: | 8769.005/4 | Date Collected: | 06/02/06 |
| Project Name: | Former RP site | Date Received: | 06/07/06 |
| Matrix: | SOIL | Units: | MG/KG |
| | | Basis: | Wet |

Sample Name: NWC-2-3A  Lab Code: K0604601-005

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 6020 | 0.40 | 0.12 | 10 | 6/16/06 | 6/19/06 | 17.1 | | * |

% Solids: NA

Comments:

# METALS
-1-
## INORGANIC ANALYSIS DATA SHEET

| | | | |
|---|---|---|---|
| Client: | Geomatrix Consultants, Incorporated | Service Request: | K0604601 |
| Project No.: | 8769.005/4 | Date Collected: | 06/02/06 |
| Project Name: | Former RP site | Date Received: | 06/07/06 |
| Matrix: | SOIL | Units: | MG/KG |
| | | Basis: | Wet |

Sample Name: NWC-2-4A  Lab Code: K0604601-008

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 6020 | 0.40 | 0.12 | 10 | 6/16/06 | 6/19/06 | 180 | | * |

% Solids: NA

Comments:

# METALS
-1-
## INORGANIC ANALYSIS DATA SHEET

Client: Geomatrix Consultants, Incorporated
Project No.: 8769.005/4
Project Name: Former RP site
Matrix: SOIL

Service Request: K0604601
Date Collected: 06/02/06
Date Received: 06/07/06
Units: MG/KG
Basis: Wet

Sample Name: NWC-2-5A
Lab Code: K0604601-011

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 6020 | 0.40 | 0.12 | 10 | 6/16/06 | 6/19/06 | 15.8 | | * |

% Solids: NA

Comments:

# METALS

-1-

## INORGANIC ANALYSIS DATA SHEET

| | | | |
|---|---|---|---|
| Client: | Geomatrix Consultants, Incorporated | Service Request: | K0604601 |
| Project No.: | 8769.005/4 | Date Collected: | 06/02/06 |
| Project Name: | Former RP site | Date Received: | 06/07/06 |
| Matrix: | SOIL | Units: | MG/KG |
| | | Basis: | Wet |

Sample Name: NWC-2-6A  Lab Code: K0604601-014

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 6020 | 0.40 | 0.12 | 10 | 6/16/06 | 6/19/06 | 36.9 | | * |

% Solids: NA

Comments:

# METALS
-1-
## INORGANIC ANALYSIS DATA SHEET

Client: Geomatrix Consultants, Incorporated
Project No.: 8769.005/4
Project Name: Former RP site
Matrix: SOIL

Service Request: K0604601
Date Collected: 06/02/06
Date Received: 06/07/06
Units: MG/KG
Basis: Wet

Sample Name: NWC-2-7A
Lab Code: K0604601-017

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 6020 | 0.39 | 0.12 | 10 | 6/16/06 | 6/19/06 | 16.6 | | * |

% Solids: NA

Comments:

# METALS

-1-

## INORGANIC ANALYSIS DATA SHEET

| | | | |
|---|---|---|---|
| Client: | Geomatrix Consultants, Incorporated | Service Request: | K0604601 |
| Project No.: | 8769.005/4 | Date Collected: | 06/05/06 |
| Project Name: | Former RP site | Date Received: | 06/07/06 |
| Matrix: | SOIL | Units: | MG/KG |
| | | Basis: | Wet |

Sample Name: NWC-1-8A  Lab Code: K0604601-019

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 6020 | 0.39 | 0.12 | 10 | 6/16/06 | 6/19/06 | 94.8 | | * |

% Solids: NA

Comments:

# METALS
-1-
## INORGANIC ANALYSIS DATA SHEET

Client: Geomatrix Consultants, Incorporated
Project No.: 8769.005/4
Project Name: Former RP site
Matrix: SOIL

Service Request: K0604601
Date Collected: 06/05/06
Date Received: 06/07/06
Units: MG/KG
Basis: Wet

Sample Name: NWC-2-8A
Lab Code: K0604601-020

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 6020 | 0.39 | 0.12 | 10 | 6/16/06 | 6/19/06 | 116 | | * |

% Solids: NA

Comments:

# METALS
-1-
## INORGANIC ANALYSIS DATA SHEET

| | | | |
|---|---|---|---|
| Client: | Geomatrix Consultants, Incorporated | Service Request: | K0604601 |
| Project No.: | 8769.005/4 | Date Collected: | 06/05/06 |
| Project Name: | Former RP site | Date Received: | 06/07/06 |
| Matrix: | SOIL | Units: | MG/KG |
| | | Basis: | Wet |

Sample Name: NWC-2-9A  Lab Code: K0604601-023

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 6020 | 0.40 | 0.12 | 10 | 6/16/06 | 6/19/06 | 24.2 | | * |

% Solids: NA

Comments:

# METALS

-1-

## INORGANIC ANALYSIS DATA SHEET

Client: Geomatrix Consultants, Incorporated
Project No.: 8769.005/4
Project Name: Former RP site
Matrix: SOIL

Service Request: K0604601
Date Collected: 06/05/06
Date Received: 06/07/06
Units: MG/KG
Basis: Wet

Sample Name: NWC-2-10A
Lab Code: K0604601-026

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 6020 | 0.39 | 0.12 | 10 | 6/16/06 | 6/19/06 | 39.7 | | * |

% Solids: NA

Comments:

# METALS

-1-

## INORGANIC ANALYSIS DATA SHEET

| | | | |
|---|---|---|---|
| Client: | Geomatrix Consultants, Incorporated | Service Request: | K0604601 |
| Project No.: | 8769.005/4 | Date Collected: | 06/05/06 |
| Project Name: | Former RP site | Date Received: | 06/07/06 |
| Matrix: | SOIL | Units: | MG/KG |
| | | Basis: | Wet |

Sample Name: NWC-2-11A  Lab Code: K0604601-029

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 6020 | 0.79 | 0.24 | 20 | 6/16/06 | 6/19/06 | 32.9 | | * |

% Solids: NA

Comments:

# METALS
-1-
## INORGANIC ANALYSIS DATA SHEET

Client: Geomatrix Consultants, Incorporated
Project No.: 8769.005/4
Project Name: Former RP site
Matrix: SOIL

Service Request: K0604601
Date Collected: 06/05/06
Date Received: 06/07/06
Units: MG/KG
Basis: Wet

Sample Name: NWC-1-13A
Lab Code: K0604601-031

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 6020 | 3.31 | 0.99 | 100 | 6/16/06 | 6/19/06 | 716 | | * |

% Solids: NA

Comments:

# METALS
-1-
## INORGANIC ANALYSIS DATA SHEET

Client: Geomatrix Consultants, Incorporated
Project No.: 8769.005/4
Project Name: Former RP site
Matrix: SOIL

Service Request: K0604601
Date Collected: 06/05/06
Date Received: 06/07/06
Units: MG/KG
Basis: Wet

Sample Name: NWC-2-13A
Lab Code: K0604601-032

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 6020 | 0.39 | 0.12 | 10 | 6/16/06 | 6/19/06 | 23.0 | | * |

% Solids: NA

Comments:

# METALS

-1-

## INORGANIC ANALYSIS DATA SHEET

| | | | |
|---|---|---|---|
| Client: | Geomatrix Consultants, Incorporated | Service Request: | K0604601 |
| Project No.: | 8769.005/4 | Date Collected: | 06/05/06 |
| Project Name: | Former RP site | Date Received: | 06/07/06 |
| Matrix: | SOIL | Units: | MG/KG |
| | | Basis: | Wet |

Sample Name: NWC-2-14A  Lab Code: K0604601-035

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 6020 | 0.39 | 0.12 | 10 | 6/16/06 | 6/19/06 | 20.3 | | * |

% Solids: NA

Comments:

# METALS
-1-
## INORGANIC ANALYSIS DATA SHEET

Client: Geomatrix Consultants, Incorporated
Project No.: 8769.005/4
Project Name: Former RP site
Matrix: SOIL

Service Request: K0604601
Date Collected: 06/05/06
Date Received: 06/07/06
Units: MG/KG
Basis: Wet

Sample Name: NWC-2-15A
Lab Code: K0604601-038

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 6020 | 3.85 | 1.15 | 100 | 6/16/06 | 6/19/06 | 591 | | * |

% Solids: NA

Comments:

# METALS

-1-

## INORGANIC ANALYSIS DATA SHEET

Client: Geomatrix Consultants, Incorporated
Project No.: 8769.005/4
Project Name: Former RP site
Matrix: SOIL

Service Request: K0604601
Date Collected: 06/05/06
Date Received: 06/07/06
Units: MG/KG
Basis: Wet

Sample Name: NWC-1-16A
Lab Code: K0604601-040

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 6020 | 0.33 | 0.10 | 10 | 6/16/06 | 6/19/06 | 89.4 | | * |

% Solids: NA

Comments:

# METALS

-1-

## INORGANIC ANALYSIS DATA SHEET

Client: Geomatrix Consultants, Incorporated
Project No.: 8769.005/4
Project Name: Former RP site
Matrix: SOIL

Service Request: K0604601
Date Collected: 06/05/06
Date Received: 06/07/06
Units: MG/KG
Basis: Wet

Sample Name: NWC-2-16A
Lab Code: K0604601-041

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 6020 | 0.39 | 0.12 | 10 | 6/16/06 | 6/19/06 | 137 | | * |

% Solids: NA

Comments:

# METALS

-1-

## INORGANIC ANALYSIS DATA SHEET

| | | | |
|---|---|---|---|
| Client: | Geomatrix Consultants, Incorporated | Service Request: | K0604601 |
| Project No.: | 8769.005/4 | Date Collected: | 06/02/06 |
| Project Name: | Former RP site | Date Received: | 06/07/06 |
| Matrix: | SOIL | Units: | MG/KG |
| | | Basis: | Wet |

Sample Name: NWC-2-17A  Lab Code: K0604601-044

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 6020 | 0.40 | 0.12 | 10 | 6/16/06 | 6/19/06 | 39.8 | | * |

% Solids: NA

Comments:

# METALS

-1-

## INORGANIC ANALYSIS DATA SHEET

Client: Geomatrix Consultants, Incorporated
Project No.: 8769.005/4
Project Name: Former RP site
Matrix: SOIL

Service Request: K0604601
Date Collected: 06/02/06
Date Received: 06/07/06
Units: MG/KG
Basis: Wet

Sample Name: NWC-2-18A
Lab Code: K0604601-047

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 6020 | 0.77 | 0.23 | 20 | 6/16/06 | 6/19/06 | 31.3 | | * |

% Solids: NA

Comments:

# METALS

-1-

## INORGANIC ANALYSIS DATA SHEET

Client: Geomatrix Consultants, Incorporated
Project No.: 8769.005/4
Project Name: Former RP site
Matrix: SOIL

Service Request: K0604601
Date Collected: 06/02/06
Date Received: 06/07/06
Units: MG/KG
Basis: Wet

Sample Name: NWC-2-19A
Lab Code: K0604601-050

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 6020 | 0.38 | 0.11 | 10 | 6/16/06 | 6/19/06 | 23.8 | | * |

% Solids: NA

Comments:

# METALS
-1-
## INORGANIC ANALYSIS DATA SHEET

Client: Geomatrix Consultants, Incorporated
Project No.: 8769.005/4
Project Name: Former RP site
Matrix: SOIL

Service Request: K0604601
Date Collected: 06/02/06
Date Received: 06/07/06
Units: MG/KG
Basis: Wet

Sample Name: NWC-2-20A
Lab Code: K0604601-053

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 6020 | 0.39 | 0.12 | 10 | 6/16/06 | 6/19/06 | 45.5 | | N |

% Solids: NA

Comments:

# METALS

-1-

## INORGANIC ANALYSIS DATA SHEET

Client: Geomatrix Consultants, Incorporated
Project No.: 8769.005/4
Project Name: Former RP site
Matrix: SOIL

Service Request: K0604601
Date Collected: 06/02/06
Date Received: 06/07/06
Units: MG/KG
Basis: Wet

Sample Name: NWC-2-21A
Lab Code: K0604601-056

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 6020 | 0.39 | 0.12 | 10 | 6/16/06 | 6/19/06 | 39.8 | | N |

% Solids: NA

Comments:

# METALS
-1-
## INORGANIC ANALYSIS DATA SHEET

Client: Geomatrix Consultants, Incorporated
Project No.: 8769.005/4
Project Name: Former RP site
Matrix: SOIL

Service Request: K0604601
Date Collected: 06/02/06
Date Received: 06/07/06
Units: MG/KG
Basis: Wet

Sample Name: NWC-2-22A
Lab Code: K0604601-059

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 6020 | 0.40 | 0.12 | 10 | 6/16/06 | 6/19/06 | 45.6 | | N |

% Solids: NA

Comments:

# METALS
-1-
## INORGANIC ANALYSIS DATA SHEET

Client: Geomatrix Consultants, Incorporated
Project No.: 8769.005/4
Project Name: Former RP site
Matrix: SOIL

Service Request: K0604601
Date Collected: 06/02/06
Date Received: 06/07/06
Units: MG/KG
Basis: Wet

Sample Name: NWC-2-23A
Lab Code: K0604601-062

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 6020 | 20.00 | 6.00 | 500 | 6/16/06 | 6/19/06 | 4190 | | N |

% Solids: NA

Comments:

# METALS
-1-
## INORGANIC ANALYSIS DATA SHEET

Client: Geomatrix Consultants, Incorporated
Project No.: 8769.005/4
Project Name: Former RP site
Matrix: SOIL

Service Request: K0604601
Date Collected: 06/02/06
Date Received: 06/07/06
Units: MG/KG
Basis: Wet

Sample Name: NWC-2-24A
Lab Code: K0604601-065

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 6020 | 0.39 | 0.12 | 10 | 6/16/06 | 6/19/06 | 15.1 | | N |

% Solids: NA

Comments:

# METALS

-1-

## INORGANIC ANALYSIS DATA SHEET

| | | | |
|---|---|---|---|
| Client: | Geomatrix Consultants, Incorporated | Service Request: | K0604601 |
| Project No.: | 8769.005/4 | Date Collected: | 06/02/06 |
| Project Name: | Former RP site | Date Received: | 06/07/06 |
| Matrix: | SOIL | Units: | MG/KG |
| | | Basis: | Wet |

Sample Name: NWC-2-25A  Lab Code: K0604601-068

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 6020 | 0.39 | 0.12 | 10 | 6/16/06 | 6/19/06 | 19.4 | | N |

% Solids: NA

Comments:

# METALS
-1-
## INORGANIC ANALYSIS DATA SHEET

Client: Geomatrix Consultants, Incorporated
Project No.: 8769.005/4
Project Name: Former RP site
Matrix: SOIL

Service Request: K0604601
Date Collected: 06/02/06
Date Received: 06/07/06
Units: MG/KG
Basis: Wet

Sample Name: NWC-2-26A
Lab Code: K0604601-071

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 6020 | 0.40 | 0.12 | 10 | 6/16/06 | 6/19/06 | 22.0 | | N |

% Solids: NA

Comments:

# METALS

-1-

## INORGANIC ANALYSIS DATA SHEET

Client: Geomatrix Consultants, Incorporated
Project No.: 8769.005/4
Project Name: Former RP site
Matrix: SOIL

Service Request: K0604601
Date Collected: 06/02/06
Date Received: 06/07/06
Units: MG/KG
Basis: Wet

Sample Name: NWC-2-27A
Lab Code: K0604601-074

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 6020 | 0.39 | 0.12 | 10 | 6/16/06 | 6/19/06 | 25.5 | | N |

% Solids: NA

Comments:

# METALS
-1-
## INORGANIC ANALYSIS DATA SHEET

Client: Geomatrix Consultants, Incorporated
Project No.: 8769.005/4
Project Name: Former RP site
Matrix: SOIL

Service Request: K0604601
Date Collected: 06/02/06
Date Received: 06/07/06
Units: MG/KG
Basis: Wet

Sample Name: NWC-2-28A
Lab Code: K0604601-077

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 6020 | 0.39 | 0.12 | 10 | 6/16/06 | 6/19/06 | 13.1 | | N |

% Solids: NA

Comments:

# METALS

-1-

## INORGANIC ANALYSIS DATA SHEET

Client: Geomatrix Consultants, Incorporated
Project No.: 8769.005/4
Project Name: Former RP site
Matrix: SOIL

Service Request: K0604601
Date Collected: 06/02/06
Date Received: 06/07/06
Units: MG/KG
Basis: Wet

Sample Name: NWC-2-29A
Lab Code: K0604601-080

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 6020 | 0.40 | 0.12 | 10 | 6/16/06 | 6/19/06 | 19.8 | | N |

% Solids: NA

Comments:

# METALS

-1-

## INORGANIC ANALYSIS DATA SHEET

Client: Geomatrix Consultants, Incorporated
Project No.: 8769.005/4
Project Name: Former RP site
Matrix: SOIL

Service Request: K0604601
Date Collected: 06/02/06
Date Received: 06/07/06
Units: MG/KG
Basis: Wet

Sample Name: NWC-2-30A
Lab Code: K0604601-083

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 6020 | 0.39 | 0.12 | 10 | 6/16/06 | 6/19/06 | 28.0 | | N |

J-

% Solids: NA

Comments:

TG
7/13/06

# METALS

-1-

## INORGANIC ANALYSIS DATA SHEET

Client: Geomatrix Consultants, Incorporated
Project No.: 8769.005/4
Project Name: Former RP site
Matrix: SOIL

Service Request: K0604601
Date Collected: 06/02/06
Date Received: 06/07/06
Units: MG/KG
Basis: Wet

Sample Name: NWC-2-31A
Lab Code: K0604601-086

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 6020 | 0.40 | 0.12 | 10 | 6/16/06 | 6/19/06 | 50.8 | | N |

% Solids: NA

Comments:

# METALS
-1-
## INORGANIC ANALYSIS DATA SHEET

Client: Geomatrix Consultants, Incorporated
Project No.: 8769.005/4
Project Name: Former RP site
Matrix: SOIL

Service Request: K0604601
Date Collected: 06/05/06
Date Received: 06/07/06
Units: MG/KG
Basis: Wet

Sample Name: NWC-1-32A
Lab Code: K0604601-088

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 6020 | 7.92 | 2.38 | 200 | 6/16/06 | 6/19/06 | 1500 | | N |

% Solids: NA

Comments:

# METALS

-1-

## INORGANIC ANALYSIS DATA SHEET

Client: Geomatrix Consultants, Incorporated
Project No.: 8769.005/4
Project Name: Former RP site
Matrix: SOIL

Service Request: K0604601
Date Collected: 06/05/06
Date Received: 06/07/06
Units: MG/KG
Basis: Wet

Sample Name: NWC-2-32A
Lab Code: K0604601-089

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 6020 | 0.39 | 0.12 | 10 | 6/16/06 | 6/19/06 | 64.0 | | N |

% Solids: NA

Comments:

# METALS
-1-
## INORGANIC ANALYSIS DATA SHEET

Client: Geomatrix Consultants, Incorporated
Project No.: 8769.005/4
Project Name: Former RP site
Matrix: SOIL

Service Request: K0604601
Date Collected: 06/05/06
Date Received: 06/07/06
Units: MG/KG
Basis: Wet

Sample Name: NWC-2-33A
Lab Code: K0604601-092

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 6020 | 0.39 | 0.12 | 10 | 6/16/06 | 6/19/06 | 36.1 | | N |

% Solids: NA

Comments:

# METALS

-1-

## INORGANIC ANALYSIS DATA SHEET

Client: Geomatrix Consultants, Incorporated
Project No.: 8769.005/4
Project Name: Former RP site
Matrix: SOIL

Service Request: K0604601
Date Collected: 06/05/06
Date Received: 06/07/06
Units: MG/KG
Basis: Wet

Sample Name: NWC-2-34A
Lab Code: K0604601-095

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 6020 | 0.39 | 0.12 | 10 | 6/16/06 | 6/19/06 | 23.0 | | N |

% Solids: NA

Comments:

# METALS

-1-

## INORGANIC ANALYSIS DATA SHEET

| | | | |
|---|---|---|---|
| Client: | Geomatrix Consultants, Incorporated | Service Request: | K0604601 |
| Project No.: | 8769.005/4 | Date Collected: | 06/05/06 |
| Project Name: | Former RP site | Date Received: | 06/07/06 |
| Matrix: | SOIL | Units: | MG/KG |
| | | Basis: | Wet |

Sample Name: NWC-1-35A  Lab Code: K0604601-097

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 6020 | 7.62 | 2.29 | 200 | 6/16/06 | 6/19/06 | 1330 | | N |

% Solids: NA

Comments:

# METALS
-1-
## INORGANIC ANALYSIS DATA SHEET

Client: Geomatrix Consultants, Incorporated
Project No.: 8769.005/4
Project Name: Former RP site
Matrix: SOIL

Service Request: K0604601
Date Collected: 06/05/06
Date Received: 06/07/06
Units: MG/KG
Basis: Wet

Sample Name: NWC-2-35A
Lab Code: K0604601-098

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 6020 | 0.39 | 0.12 | 10 | 6/16/06 | 6/19/06 | 22.9 | | N |

% Solids: NA

Comments:

# METALS

-1-

## INORGANIC ANALYSIS DATA SHEET

Client: Geomatrix Consultants, Incorporated
Project No.: 8769.005/4
Project Name: Former RP site
Matrix: SOIL

Service Request: K0604601
Date Collected: 06/05/06
Date Received: 06/07/06
Units: MG/KG
Basis: Wet

Sample Name: NWC-1-36A
Lab Code: K0604601-100

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 6020 | 4.00 | 1.20 | 100 | 6/16/06 | 6/19/06 | 820 | | N |

% Solids: NA

Comments:

# METALS
-1-
## INORGANIC ANALYSIS DATA SHEET

Client: Geomatrix Consultants, Incorporated
Project No.: 8769.005/4
Project Name: Former RP site
Matrix: SOIL

Service Request: K0604601
Date Collected: 06/05/06
Date Received: 06/07/06
Units: MG/KG
Basis: Wet

Sample Name: NWC-2-36A
Lab Code: K0604601-101

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 6020 | 0.39 | 0.12 | 10 | 6/16/06 | 6/19/06 | 32.2 | | N |

% Solids: NA

Comments:

# METALS

-1-

## INORGANIC ANALYSIS DATA SHEET

| | | | |
|---|---|---|---|
| Client: | Geomatrix Consultants, Incorporated | Service Request: | K0604601 |
| Project No.: | 8769.005/4 | Date Collected: | 06/05/06 |
| Project Name: | Former RP site | Date Received: | 06/07/06 |
| Matrix: | SOIL | Units: | MG/KG |
| | | Basis: | Wet |

Sample Name: NWC-1-37A  Lab Code: K0604601-103

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 6020 | 19.80 | 5.94 | 500 | 6/16/06 | 6/19/06 | 3880 | | |

% Solids: NA

Comments:

# METALS

-1-

## INORGANIC ANALYSIS DATA SHEET

Client: Geomatrix Consultants, Incorporated
Project No.: 8769.005/4
Project Name: Former RP site
Matrix: SOIL

Service Request: K0604601
Date Collected: 06/05/06
Date Received: 06/07/06
Units: MG/KG
Basis: Wet

Sample Name: NWC-2-37A
Lab Code: K0604601-104

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 6020 | 0.39 | 0.12 | 10 | 6/16/06 | 6/19/06 | 85.4 | | |

% Solids: NA

Comments:

# METALS

-1-

## INORGANIC ANALYSIS DATA SHEET

| | | | |
|---|---|---|---|
| Client: | Geomatrix Consultants, Incorporated | Service Request: | K0604601 |
| Project No.: | 8769.005/4 | Date Collected: | 06/05/06 |
| Project Name: | Former RP site | Date Received: | 06/07/06 |
| Matrix: | SOIL | Units: | MG/KG |
| | | Basis: | Wet |

Sample Name: NWC-1-38A  Lab Code: K0604601-106

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 6020 | 39.20 | 11.80 | 1000 | 6/16/06 | 6/19/06 | 7750 | | |

% Solids: NA

Comments:

# METALS

-1-

## INORGANIC ANALYSIS DATA SHEET

Client: Geomatrix Consultants, Incorporated
Project No.: 8769.005/4
Project Name: Former RP site
Matrix: SOIL

Service Request: K0604601
Date Collected: 06/05/06
Date Received: 06/07/06
Units: MG/KG
Basis: Wet

Sample Name: NWC-2-38A
Lab Code: K0604601-107

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 6020 | 0.40 | 0.12 | 10 | 6/16/06 | 6/19/06 | 20.9 | | |

% Solids: NA

Comments:

# METALS

-1-

## INORGANIC ANALYSIS DATA SHEET

Client: Geomatrix Consultants, Incorporated
Project No.: 8769.005/4
Project Name: Former RP site
Matrix: SOIL

Service Request: K0604601
Date Collected: 06/05/06
Date Received: 06/07/06
Units: MG/KG
Basis: Wet

Sample Name: NWC-1-40A
Lab Code: K0604601-109

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 6020 | 19.40 | 5.83 | 500 | 6/16/06 | 6/19/06 | 3110 | | |

% Solids: NA

Comments:

# METALS

-1-

## INORGANIC ANALYSIS DATA SHEET

Client: Geomatrix Consultants, Incorporated
Project No.: 8769.005/4
Project Name: Former RP site
Matrix: SOIL

Service Request: K0604601
Date Collected: 06/05/06
Date Received: 06/07/06
Units: MG/KG
Basis: Wet

Sample Name: NWC-2-40A
Lab Code: K0604601-110

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 6020 | 0.39 | 0.12 | 10 | 6/16/06 | 6/19/06 | 91.7 | | |

% Solids: NA

Comments:

# METALS
-1-
## INORGANIC ANALYSIS DATA SHEET

Client: Geomatrix Consultants, Incorporated
Project No.: 8769.005/4
Project Name: Former RP site
Matrix: SOIL

Service Request: K0604601
Date Collected: 06/05/06
Date Received: 06/07/06
Units: MG/KG
Basis: Wet

Sample Name: NWC-1-41A
Lab Code: K0604601-112

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 6020 | 3.85 | 1.15 | 100 | 6/16/06 | 6/19/06 | 598 | | |

% Solids: NA

Comments:

# METALS

-1-

## INORGANIC ANALYSIS DATA SHEET

Client: Geomatrix Consultants, Incorporated
Project No.: 8769.005/4
Project Name: Former RP site
Matrix: SOIL

Service Request: K0604601
Date Collected: 06/05/06
Date Received: 06/07/06
Units: MG/KG
Basis: Wet

Sample Name: NWC-2-41A
Lab Code: K0604601-113

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 6020 | 0.40 | 0.12 | 10 | 6/16/06 | 6/19/06 | 96.9 | | |

% Solids: NA

Comments:

# METALS

-1-

## INORGANIC ANALYSIS DATA SHEET

| | | | |
|---|---|---|---|
| Client: | Geomatrix Consultants, Incorporated | Service Request: | K0604601 |
| Project No.: | 8769.005/4 | Date Collected: | 06/05/06 |
| Project Name: | Former RP site | Date Received: | 06/07/06 |
| Matrix: | SOIL | Units: | MG/KG |
| | | Basis: | Wet |

Sample Name: NWC-1-42A  Lab Code: K0604601-115

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 6020 | 3.77 | 1.13 | 100 | 6/16/06 | 6/19/06 | 957 | | |

% Solids: NA

Comments:

# METALS

-1-

## INORGANIC ANALYSIS DATA SHEET

Client: Geomatrix Consultants, Incorporated
Project No.: 8769.005/4
Project Name: Former RP site
Matrix: SOIL

Service Request: K0604601
Date Collected: 06/05/06
Date Received: 06/07/06
Units: MG/KG
Basis: Wet

Sample Name: NWC-2-42A
Lab Code: K0604601-116

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 6020 | 0.39 | 0.12 | 10 | 6/16/06 | 6/19/06 | 187 | | |

% Solids: NA

Comments:

# METALS
-1-
## INORGANIC ANALYSIS DATA SHEET

Client: Geomatrix Consultants, Incorporated
Service Request: K0604601
Project No.: 8769.005/4
Date Collected:
Project Name: Former RP site
Date Received:
Matrix: SOIL
Units: MG/KG
Basis: Wet

Sample Name: Method Blank
Lab Code: K0604601-MB

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 6020 | 0.20 | 0.06 | 5 | 6/16/06 | 6/19/06 | 0.12 | B | * |

% Solids: NA

Comments:

# METALS

-1-

## INORGANIC ANALYSIS DATA SHEET

Client: Geomatrix Consultants, Incorporated

Project No.: 8769.005/4

Project Name: Former RP site

Matrix: SOIL

Service Request: K0604601

Date Collected:

Date Received:

Units: MG/KG

Basis: Wet

Sample Name: Method Blank 2

Lab Code: K0604601-MB2

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 6020 | 0.20 | 0.06 | 5 | 6/16/06 | 6/19/06 | 0.09 | B | N |

% Solids: NA

Comments:

# METALS
-1-
## INORGANIC ANALYSIS DATA SHEET

Client: Geomatrix Consultants, Incorporated
Service Request: K0604601
Project No.: 8769.005/4
Date Collected:
Project Name: Former RP site
Date Received:
Matrix: SOIL
Units: MG/KG
Basis: Wet

Sample Name: Method Blank 3
Lab Code: K0604601-MB3

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 6020 | 0.20 | 0.06 | 5 | 6/16/06 | 6/19/06 | 0.10 | B | |

% Solids: NA

Comments:

# METALS
## - 2a -
## INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Geomatrix Consultants, Incorporated  Service Request: K0604601

Project No.: 8769.005/4

Project Name: Former RP site

ICV Source: Inorganic Ventures  CCV Source: Various

Concentration Units: ug/I

| Analyte | Initial Calibration | | | Continuing Calibration | | | | | Method |
|---|---|---|---|---|---|---|---|---|---|
| | True | Found | %R(1) | True | Found | %R(1) | Found | %R(1) | |
| Copper | 12.5 | 12.7 | 102 | 25.0 | 24.8 | 99 | 24.7 | 99 | 6020 |

# METALS
## -2a-
## INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Geomatrix Consultants, Incorporated  Service Request: K0604601

Project No.: 8769.005/4

Project Name: Former RP site

ICV Source:  CCV Source: Various

Concentration Units: ug/l

| Analyte | Initial Calibration | | | Continuing Calibration | | | | | Method |
|---|---|---|---|---|---|---|---|---|---|
| | True | Found | %R(1) | True | Found | %R(1) | Found | %R(1) | |
| Copper | | | | 25.0 | 24.9 | 99 | 24.7 | 99 | 6020 |

# METALS
## - 2a -
## INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Geomatrix Consultants, Incorporated

Service Request: K0604601

Project No.: 8769.005/4

Project Name: Former RP site

ICV Source:

CCV Source: Various

Concentration Units: ug/I

| Analyte | Initial Calibration | | | Continuing Calibration | | | | | Method |
|---|---|---|---|---|---|---|---|---|---|
| | True | Found | %R(1) | True | Found | %R(1) | Found | %R(1) | |
| Copper | | | | 25.0 | 24.9 | 100 | 24.7 | 99 | 6020 |

# METALS
## -2a-
## INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Geomatrix Consultants, Incorporated  Service Request: K0604601

Project No.: 8769.005/4

Project Name: Former RP site

ICV Source:  CCV Source: Various

Concentration Units: ug/L

| Analyte | Initial Calibration | | | Continuing Calibration | | | | | Method |
|---|---|---|---|---|---|---|---|---|---|
| | True | Found | %R(1) | True | Found | %R(1) | Found | %R(1) | |
| Copper | | | | 25.0 | 24.9 | 99 | 25.4 | 102 | 6020 |

# METALS
## - 2a -
## INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Geomatrix Consultants, Incorporated  Service Request: K0604601

Project No.: 8769.005/4

Project Name: Former RP site

ICV Source:  CCV Source: Various

Concentration Units: ug/l

| Analyte | Initial Calibration True | Initial Calibration Found | Initial Calibration %R(1) | Continuing Calibration True | Continuing Calibration Found | Continuing Calibration %R(1) | Continuing Calibration Found | Continuing Calibration %R(1) | Method |
|---|---|---|---|---|---|---|---|---|---|
| Copper | | | | 25.0 | 25.1 | 100 | 25.1 | 100 | 6020 |

# METALS
## - 2a -
## INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Geomatrix Consultants, Incorporated  Service Request: K0604601

Project No.: 8769.005/4

Project Name: Former RP site

ICV Source:  CCV Source: Various

Concentration Units: ug/L

| Analyte | Initial Calibration | | | Continuing Calibration | | | | | Method |
|---|---|---|---|---|---|---|---|---|---|
| | True | Found | %R(1) | True | Found | %R(1) | Found | %R(1) | |
| Copper | | | | 25.0 | 24.6 | 98 | | | 6020 |

# METALS
## - 2b -
## CRDL STANDARD FOR AA AND ICP

Client: Geomatrix Consultants, Incorporated  Service Request: K0604601

Project No.: 8769.005/4

Project Name: Former RP site

Concentration Units: ug/I

| Analyte | CRDL Standard for AA | | | CRDL Standard for ICP | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | Initial | | | Final | |
| | True | Found | %R | True | Found | %R | Found | %R |
| Copper | | | | 0.20 | 0.26 | 131 | | |

# METALS
## -3-
## BLANKS

Client: Geomatrix Consultants, Incorporated  Service Request: K0604601

Project No.: 8769.005/4

Project Name: Former RP site

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

| Analyte | Initial Calib. Blank (ug/L) | C | Continuing Calibration Blank (ug/L) 1 | C | 2 | C | 3 | C | | Preparation Blank C | | | Method |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Copper | 0.12 | U | 0.12 | U | 0.12 | U | 0.12 | U | | | | | 6020 |

# METALS
## -3-
## BLANKS

Client: Geomatrix Consultants, Incorporated  Service Request: K0604601

Project No.: 8769.005/4

Project Name: Former RP site

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

| Analyte | Initial Calib. Blank (ug/L) | C | Continuing Calibration Blank (ug/L) 1 | C | 2 | C | 3 | C | | Preparation Blank C | | | Method |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Copper | | | 0.12 | U | 0.12 | U | 0.12 | U | | | | | 6020 |

# METALS
## -3-
## BLANKS

Client: Geomatrix Consultants, Incorporated  Service Request: K0604601

Project No.: 8769.005/4

Project Name: Former RP site

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

| Analyte | Initial Calib. Blank (ug/L) | C | Continuing Calibration Blank (ug/L) 1 | C | 2 | C | 3 | C | | Preparation Blank C | | | Method |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Copper | | | 0.12 | U | 0.36 | B | 0.25 | B | | | | | 6020 |

# METALS
## -3-
## BLANKS

Client: Geomatrix Consultants, Incorporated  Service Request: K0604601

Project No.: 8769.005/4

Project Name: Former RP site

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

| Analyte | Initial Calib. Blank (ug/L) | C | Continuing Calibration Blank (ug/L) 1 | C | 2 | C | 3 | C | | Preparation Blank C | | | Method |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Copper | | | 0.12 | U | 0.12 | U | | | | | | | 6020 |

# METALS

-4-

## ICP INTERFERENCE CHECK SAMPLE

Client: Geomatrix Consultants, Incorporated

Service Request:K0604601

Project No.: 8769.005/4

Project Name: Former RP site

ICP ID Number: X Series

ICS Source: Inorganic Ventures

Concentration Units): ug/L

| Analyte | True | | Initial Found | | | Final Found | | |
|---|---|---|---|---|---|---|---|---|
| | Sol.A | Sol.AB | Sol.A | Sol.AB | %R | Sol.A | Sol.AB | %R |
| Copper | | 20 | 0.25 | 22.0 | 110 | | | |

# METALS
## -5a-
## SPIKE SAMPLE RECOVERY

Client: Geomatrix Consultants, Incorporated
Service Request: K0604601
Project No.: 8769.005/4
Units: mg/kg
Project Name: Former RP site
Basis: Wet
Matrix: SOIL
% Solids: NA

Sample Name: NWC-1-37AS
Lab Code: K0604601-103S

| Analyte | Control Limit %R | Spike Result | C | Sample Result | C | Spike Added | %R | Q | Method |
|---|---|---|---|---|---|---|---|---|---|
| Copper | | 1540 | | 3880 | | 47.2 | -4958 | | 6020 |

An empty field in the Control Limit column indicates the control limit is not applicable.

# METALS
## -5a-
## SPIKE SAMPLE RECOVERY

Client: Geomatrix Consultants, Incorporated
Service Request: K0604601
Project No.: 8769.005/4
Units: mg/kg
Project Name: Former RP site
Basis: Wet
Matrix: SOIL
% Solids: NA

Sample Name: NWC-2-11AS
Lab Code: K0604601-029S

| Analyte | Control Limit %R | Spike Result | C | Sample Result | C | Spike Added | %R | Q | Method |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 52 - 153 | 68.8 | | 32.9 | | 47.2 | 76 | | 6020 |

An empty field in the Control Limit column indicates the control limit is not applicable.

# METALS
## - 5a -
## SPIKE SAMPLE RECOVERY

Client: Geomatrix Consultants, Incorporated
Service Request: K0604601
Project No.: 8769.005/4
Units: mg/kg
Project Name: Former RP site
Basis: Wet
Matrix: SOIL
% Solids: NA

Sample Name: NWC-2-1AS
Lab Code: K0604601-002S

| Analyte | Control Limit %R | Spike Result | C | Sample Result | C | Spike Added | %R | Q | Method |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 52 - 153 | 64.1 | | 14.7 | | 48.1 | 103 | | 6020 |

An empty field in the Control Limit column indicates the control limit is not applicable.

# METALS
## -5a-
## SPIKE SAMPLE RECOVERY

Client: Geomatrix Consultants, Incorporated
Service Request: K0604601
Project No.: 8769.005/4
Units: mg/kg
Project Name: Former RP site
Basis: Wet
Matrix: SOIL
% Solids: NA

Sample Name: NWC-2-20AS
Lab Code: K0604601-053S

| Analyte | Control Limit %R | Spike Result | C | Sample Result | C | Spike Added | %R | Q | Method |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 52 - 153 | 91.8 | | 45.5 | | 47.6 | 97 | | 6020 |

An empty field in the Control Limit column indicates the control limit is not applicable.

# METALS
## -5a-
## SPIKE SAMPLE RECOVERY

Client: Geomatrix Consultants, Incorporated
Service Request: K0604601
Project No.: 8769.005/4
Units: mg/kg
Project Name: Former RP site
Basis: Wet
Matrix: SOIL
% Solids: NA

Sample Name: NWC-2-30AS
Lab Code: K0604601-083S

| Analyte | Control Limit %R | Spike Result | C | Sample Result | C | Spike Added | %R | Q | Method |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 52 - 153 | 30.5 | | 28.0 | | 48.1 | 5 | N | 6020 |

An empty field in the Control Limit column indicates the control limit is not applicable.

# METALS
## -5b-
## POST DIGEST SPIKE SAMPLE RECOVERY

Client: Geomatrix Consultants, Incorporated
Service Request: K0604601
Project No.: 8769.005/4
Units: ug/L
Project Name: Former RP site
Matrix: SOIL

Sample Name: NWC-2-1AA
Lab Code: K0604601-002A

| Analyte | Control Limit %R | Spiked Sample Result (SSR) | C | Sample Result (SR) | C | Spike Added (SA) | %R | Q | M |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 75-125 | 32.5 | | 15.3 | | 20.0 | 86 | | MS |

Comments:

# METALS
## -5b-
## POST DIGEST SPIKE SAMPLE RECOVERY

Client: Geomatrix Consultants, Incorporated
Service Request: K0604601
Project No.: 8769.005/4
Units: ug/L
Project Name: Former RP site
Matrix: SOIL

Sample Name: NWC-2-20AA
Lab Code: K0604601-053A

| Analyte | Control Limit %R | Spiked Sample Result (SSR) | C | Sample Result (SR) | C | Spike Added (SA) | %R | Q | M |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 75-125 | 64.7 | | 47.4 | | 20.0 | 86 | | MS |

Comments:

# METALS
## -5b-
## POST DIGEST SPIKE SAMPLE RECOVERY

Client: Geomatrix Consultants, Incorporated
Service Request: K0604601
Project No.: 8769.005/4
Units: ug/L
Project Name: Former RP site
Matrix: SOIL

Sample Name: NWC-2-38AA
Lab Code: K0604601-107A

| Analyte | Control Limit %R | Spiked Sample Result (SSR) | C | Sample Result (SR) | C | Spike Added (SA) | %R | Q | M |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 75-125 | 37.5 | | 20.9 | | 20.0 | 83 | | MS |

Comments:

# METALS
## -6-
## DUPLICATES

Client: Geomatrix Consultants, Incorporated
Service Request: K0604601
Project No.: 8769.005/4
Units: mg/kg
Project Name: Former RP site
Basis: Wet
Matrix: SOIL
% Solids: NA

Sample Name: NWC-1-37AD
Lab Code: K0604601-103D

| Analyte | Control Limit (%) | Sample (S) | C | Duplicate (D) | C | RPD | Q | Method |
|---|---|---|---|---|---|---|---|---|
| Copper | 30 | 3880 | | 3610 | | 7 | | 6020 |

An empty field in the Control Limit column indicates the control limit is not applicable.

# METALS
## -6-
## DUPLICATES

Client: Geomatrix Consultants, Incorporated
Service Request: K0604601
Project No.: 8769.005/4
Units: mg/kg
Project Name: Former RP site
Basis: Wet
Matrix: SOIL
% Solids: NA

Sample Name: NWC-2-11AD
Lab Code: K0604601-029D

| Analyte | Control Limit(%) | Sample (S) | C | Duplicate (D) | C | RPD | Q | Method |
|---|---|---|---|---|---|---|---|---|
| Copper | 30 | 32.9 | | 36.5 | | 10 | | 6020 |

An empty field in the Control Limit column indicates the control limit is not applicable.

# METALS
## -6-
## DUPLICATES

Client: Geomatrix Consultants, Incorporated
Service Request: K0604601
Project No.: 8769.005/4
Units: mg/kg
Project Name: Former RP site
Basis: Wet
Matrix: SOIL
% Solids: NA

Sample Name: NWC-2-1AD
Lab Code: K0604601-002D

| Analyte | Control Limit(%) | Sample (S) | C | Duplicate (D) | C | RPD | Q | Method |
|---|---|---|---|---|---|---|---|---|
| Copper | 30 | 14.7 | | 23.8 | | 47 | * | 6020 |

An empty field in the Control Limit column indicates the control limit is not applicable.

# METALS
-6-
## DUPLICATES

Client: Geomatrix Consultants, Incorporated
Service Request: K0604601
Project No.: 8769.005/4
Units: mg/kg
Project Name: Former RP site
Basis: Wet
Matrix: SOIL
% Solids: NA

Sample Name: NWC-2-20AD
Lab Code: K0604601-053D

| Analyte | Control Limit(%) | Sample (S) | C | Duplicate (D) | C | RPD | Q | Method |
|---|---|---|---|---|---|---|---|---|
| Copper | 30 | 45.5 | | 38.0 | | 18 | | 6020 |

An empty field in the Control Limit column indicates the control limit is not applicable.

# METALS
## -6-
## DUPLICATES

Client: Geomatrix Consultants, Incorporated
Service Request: K0604601
Project No.: 8769.005/4
Units: mg/kg
Project Name: Former RP site
Basis: Wet
Matrix: SOIL
% Solids: NA

Sample Name: NWC-2-30AD
Lab Code: K0604601-083D

| Analyte | Control Limit(%) | Sample (S) | C | Duplicate (D) | C | RPD | Q | Method |
|---|---|---|---|---|---|---|---|---|
| Copper | 30 | 28.0 | | 22.9 | | 20 | | 6020 |

An empty field in the Control Limit column indicates the control limit is not applicable.

# METALS
## -7-
## LABORATORY CONTROL SAMPLE

Client: Geomatrix Consultants, Incorporated  Service Request: K0604601

Project No.: 8769.005/4

Project Name: Former RP site

Aqueous LCS Source: Inorganic Ventures  Solid LCS Source: ERA Lot #D045540

| Analyte | Aqueous mg/L True | Aqueous mg/L Found | Aqueous mg/L %R | Solid (mg/kg) True | Solid (mg/kg) Found | C | Limits | | %R |
|---|---|---|---|---|---|---|---|---|---|
| Copper | | | | 67.0 | 68.1 | | 53.8 | 80.2 | 102 |

# METALS
## -7-
## LABORATORY CONTROL SAMPLE

Client: Geomatrix Consultants, Incorporated  Service Request: K0604601

Project No.: 8769.005/4

Project Name: Former RP site

Aqueous LCS Source: Inorganic Ventures  Solid LCS Source: ERA Lot #D045540

| Analyte | Aqueous mg/L True | Aqueous mg/L Found | Aqueous mg/L %R | Solid (mg/kg) True | Solid (mg/kg) Found | C | Limits | | %R |
|---|---|---|---|---|---|---|---|---|---|
| Copper | | | | 67.0 | 69.3 | | 53.8 | 80.2 | 103 |

# METALS
-7-
## LABORATORY CONTROL SAMPLE

Client: Geomatrix Consultants, Incorporated  Service Request: K0604601

Project No.: 8769.005/4

Project Name: Former RP site

Aqueous LCS Source: Inorganic Ventures  Solid LCS Source: ERA Lot #D045540

| Analyte | Aqueous mg/L True | Aqueous mg/L Found | Aqueous mg/L %R | Solid (mg/kg) True | Solid (mg/kg) Found | C | Limits | | %R |
|---|---|---|---|---|---|---|---|---|---|
| Copper | | | | 67.0 | 64.7 | | 53.8 | 80.2 | 96 |

# METALS
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## ICP SERIAL DILUTIONS

Client: Geomatrix Consultants, Incorporated
Service Request: K0604601
Project No.: 8769.005/4
Units: ug/L
Project Name: Former RP site

Sample Name: NWC-2-1AL
Lab Code: K0604601-002L

| Analyte | Initial Sample Result (I) | C | Serial Dilution Result (S) | C | % Differ- | Q | Method |
|---|---|---|---|---|---|---|---|
| Copper | 15.3 | | 12.3 | | 19 | E | 6020 |

# METALS
## -9-
## ICP SERIAL DILUTIONS

Client: Geomatrix Consultants, Incorporated
Service Request: K0604601
Project No.: 8769.005/4
Units: ug/L
Project Name: Former RP site

Sample Name: NWC-2-20AL
Lab Code: K0604601-053L

| Analyte | Initial Sample Result (I) C | Serial Dilution Result (S) C | % Differ- | Q | Method |
|---|---|---|---|---|---|
| Copper | 47.4 | 57.0 | 20 | E | 6020 |

# METALS
-9-
## ICP SERIAL DILUTIONS

Client: Geomatrix Consultants, Incorporated
Service Request: K0604601
Project No.: 8769.005/4
Units: ug/L
Project Name: Former RP site

Sample Name: NWC-2-38AL
Lab Code: K0604601-107L

| Analyte | Initial Sample Result (I) | C | Serial Dilution Result (S) | C | % Differ- | Q | Method |
|---|---|---|---|---|---|---|---|
| Copper | 20.9 | | 22.1 | | 6 | | 6020 |

# METALS
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## METHOD DETECTION LIMITS

Client: Geomatrix Consultants, Incorporated  Service Request: K0604601

Project No.: 8769.005/4

Project Name: Former RP site

ICP/ICP-MS ID #: X Series

GFAA ID #:  AA ID #:

| Analyte | Mass | Back-ground | MRL (ug/L) | MDL (ug/L) | Method |
|---|---|---|---|---|---|
| Copper | 65 | | 0.40 | 0.12 | 6020 |

Comments

# METALS

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## ICP LINEAR RANGES (QUARTERLY)

Client: Geomatrix Consultants, Incorporated Service Request: K0604601

Project No.: 8769.005/4

Project Name: Former RP site

ICP ID Number: X Series

| Analyte | Integ. Time (Sec.) | Concentration (ug/L) | Method |
|---|---|---|---|
| Copper | 15.00 | 400.0 | 6020 |

Comments: