1214685

RECEIVED MAY 12, 2011 REVISION 1

Mission Support Alliance
P.O. Box 650
Richland, Washington 99352

42100-SLF-10-162

May 5, 2010

Mr. M. A. Neely, Manager
Analytical Services
CH2M HILL Plateau Remediation Company
PO Box 1600 MSIN R3-60
Richland, WA 99352

Dear Mike,

FINAL RESULTS FOR SAMPLE DELIVERY GROUP WSCF20100600 – SAF NUMBER F10-181

References: (1) Statement of Work (SOW), Modification No. 2 to Agreement 36587, Release 3, 'FH WSCF ANALYTICAL SERVICES FOR GROUNDWATER'

(2) HNF-SD-CP-QAPP-017, current version, Waste Sampling & Characterization Facility Quality Assurance Program Plan

This letter contains the following attachments for sample delivery group WSCF20100600:

- Cover Sheet (Attachment 1)
- Narrative (Attachment 2)
- Analytical Results (Attachment 3)
- Sample Receipt Information (Attachment 4)

Very truly yours,

S. L. Fitzgerald
WSCF Analytical Lab

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Attachments 4

cc: w/Attachments

| | |
|---|---|
| R. L. Barker | S3-30 |
| H. K. Meznarich | S3-30 |
| J. E. Trechter | S3-30 |
| S. J. Trent | R3-50 |
| File/LB | |

42100-SLF-10-162

ATTACHMENT 1

**COVER SHEET**

Consisting of 2 pages
Including cover page

# WSCF SAF NUMBER CROSS REFERENCE

Group#: WSCF20100600
Data Deliverable Date: 27-apr-2010
Data Deliverable: Cover Sheet

| SAF# | Sample ID | WSCF# | Matrix |
|---|---|---|---|
| F10-181 | B25794 | W10GR00990 | SOIL |
| | B25796 | W10GR00987 | SOIL |
| | B25798 | W10GR00982 | SOIL |
| | B257B0 | W10GR00993 | SOIL |
| | B257B2 | W10GR00991 | SOIL |
| | B257B4 | W10GR00985 | SOIL |
| | B257B6 | W10GR00983 | SOIL |
| | B257B8 | W10GR00992 | SOIL |
| | B257C0 | W10GR00989 | SOIL |
| | B257C2 | W10GR00981 | SOIL |
| | B257C4 | W10GR00984 | SOIL |
| | B257C6 | W10GR00988 | SOIL |
| | B257C8 | W10GR00986 | SOIL |

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ATTACHMENT 2

**NARRATIVE**

Consisting of 6 pages
Including cover page

**P&D Correction – Case Narrative Replaces the Prior Submittal in its Entirety**
**Introduction**

Thirteen (13) S&GRP samples were received at the WSCF Laboratory on April 19, 2010. The samples were analyzed for the analytes indicated on the attached copy of the chain of custody (COC) form in accordance with the *Statement of Work (SOW), Modification No. 2 to Agreement 36587, Release 3, "FH WSCF ANALYTICAL SERVICES FOR GROUNDWATER."*

The narrative (Attachment 2) will address sample characteristics, analyses requested and general information in performance of the analytical methods. A Data Summary Report (Attachment 3) includes analytical results, a comment report detailing method abnormalities, tentatively identified peaks if applicable, method references, and Laboratory QC information as applicable. Copies of the chain of custody and sample receipt documentation are included as Attachment 4. Additionally, a copy of the completed P&D # WSCF20100600 is included with this case narrative.

It should be noted that the attached chain of custody was not stamped "ICED" by the WSCF Laboratory Sample Custodian during sample receiving. However, based on procedure LO-090-403 form "NOTICE OF IMPROPER SAMPLE SUBMITTAL" was not submitted and was not stamped "NOT ICED". No anomaly was noted during sample receipt.

The following generic data qualifiers (i.e., B, D, and J) may be applicable to this report, as appropriate

- **B** – Sample results with a concentration greater than the MDL but less than the PQL are B flagged (applies to inorganic and wet chemical analyses), as appropriate.
- **D** – Sample results are D flagged if dilution(s) were required, as appropriate.
- **J** – Sample results with a concentration greater than the MDL but less than the PQL are J flagged (applies to organic analyses), as appropriate.
- **U** – Analyzed for but not detected above limiting criteria. Relative Percent Difference (RPD) values associated with an analyte qualified with a "U" are not applicable.

**Analytical Methodology for Requested Analyses**

Refer to *WSCF Method References Report,* pages 17 through 18, for a complete listing of approved analytical methods.

**Inorganic Comments**

**Anions** – Hold time requirements for this analysis were met. A Duplicate, Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. See page 45 for QC details. Analytical Note(s):

- Batch QC analyzed on sample# W10GR00989 (B257C0 in work order 20100600)

- Batch QC analyzed on sample# W10GR00980 (B24824 in work order 20100595)
    - Nitrate– Matrix Spike and Matrix Spike Duplicate recoveries exceeded laboratory spike levels. RPD also outside laboratory limits. Affected sample results in this batch were "N" flagged.

All other QC controls are within the established limits.

**Hexavalent Chromium** – The hold time requirement for this analysis was met. A Duplicate, Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. See page 46 for QC details. Analytical Note(s):

- Batch QC analyzed on sample# W10GR00964 (B23R26 in work order 20100557)
    - Duplicate RPD is outside laboratory limits. Original and Duplicate less than 4 times the MDL so RPD does not apply.
    - Post and insoluble Matrix Spikes recoveries were below the 75% limit. This is likely caused by matrix effects imparted by the sample.

All other QC controls are within the established limits.

**ICP-AES Metals** – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. See page 47 for QC details. Analytical Note(s):

- Batch QC analyzed on sample# W10GR00981 (B257C2 in work order 20100600)
    - Lithium LCS recovery is low based on old recovery limits. New limits are 73-115%. Limits have not been updated in the LIMS.
    - Boron results are estimated due to Iron interference. Sample results are "E" flagged.

All other QC controls are within the established limits.

**ICP-MS Metals** – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. See pages 48 through 51 for QC details. Analytical Note(s):

- Batch QC analyzed on sample# W10GR00981 (B257C2 in work order 20100600)
    - Manganese RPD outside laboratory limits. Both recoveries are acceptable. Sample results are "X" flagged.

All other QC controls are within the established limits.

**Organic Comments**

Sample concentrations are corrected for moisture content and reported on a dry weight basis.

**PCB** – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. See pages 84 through 87 for QC details. Analytical Note(s):

- Batch QC analyzed on sample# W10GR00979 (B24822 in work order 20100595)

All QC controls are within the established limits.

**Semi-VOA** – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. See pages 88 through 95 for QC details. Analytical Note(s):

- Batch QC analyzed on sample# W10GR00981 (B257C2 in work order 20100600)
  - Most sample extracts are discolored. Samples B257B4 and B257B0 were opaque black extracts that were diluted 5X to protect analytical systems from contaminant overload which raises the minimum reporting limits. Little of the contaminants eluted from the column indicating either very high boiling asphalt like organics or co-extracted inorganic particulates or both.
  - Surrogate recovery failures in the following samples. It is suspected that the matrix of the samples contributed to these failures.

| Samples Affected | Surrogate Compound | Recovery Result (%) | Acceptable Limits (%) |
|---|---|---|---|
| B257C4 (W10GR00984) | 2-fluorophenol | 62 | 72-120 |
| B257B6 (W10GR00983) | Terphenyl-d14 | 129 | 58-128 |
| B257C8 (W10GR00986) | 2-fluorophenol<br>2-fluorobiphenyl<br>Phenol-d5 | 55.9<br>65<br>62.1 | 72-120<br>66-122<br>66-124 |
| B25794 (W10GR00990) | 2-fluorophenol<br>2-fluorobiphenyl<br>Phenol-d5<br>2,4,6-tribromophenol | 60.5<br>55.3<br>54.8<br>39.8 | 72-120<br>66-122<br>66-124<br>49-120 |
| B257B2 (W10GR00991) | 2-fluorophenol<br>2-fluorobiphenyl<br>Phenol-d5 | 64<br>59.8<br>61.9 | 72-120<br>66-122<br>66-124 |
| B257B8 (W10GR00992) | 2-fluorophenol<br>2-fluorobiphenyl<br>Phenol-d5 | 59.6<br>52.2<br>62.4 | 72-120<br>66-122<br>66-124 |
| B257C2 (W10GR00981 MS) | 2-fluorophenol | 68.9 | 72-120 |

All other QC controls are within the established limits.

**TPHD-WA** – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. See pages 81 through 83 for QC details. Analytical Note(s):

- Batch QC analyzed on sample# W10GR00982 (B25798 in work order 20100600)
    - Matrix Spike percent recovery outside laboratory limits due to spiking error during sample prep. This also resulted in failure of the RPD limits. Sample results are "N" flagged.
    - Sample W10GR00993 (B257B0) surrogate recovery outside established control limits.
    - Samples W10GR00983, W10GR00985, and W10GR00992 (B257B6, B257B4, and B257B8 respectively) diesel concentration reported contains a majority of compounds which elute between both diesel and motor oil retention times. Sample results are "X" flagged.
- Due to the co-elution of analytes for TPHD-WA (DRO) and kerosene analysis, samples are spiked and evaluated for TPHD only.

All other QC controls are within the established limits.

**VOA** – The hold time requirement for this analysis was met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. See pages 96 through 101 for QC details. Analytical Note(s):

- Batch QC analyzed on sample# W10GR00980 (B24824 in work order 20100595)
    - Trichloroethene Matrix Spike and Matrix Spike Duplicate out of laboratory limits. Sample results are "T" flagged.
- Batch QC analyzed on sample# W10GR00990 (B25794 in work order 20100600)

All other QC controls are within the established limits.

We certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this data package has been authorized by the Analytical Laboratory Manager (or designee) and the Client Services representative as verified by the following signatures.

Richard A. Westberg
WSCF Analytical Laboratory Manager

Marisol Avila
WSCF Client Services

5/25/2010

# Problem and Discrepancy Report

## WSCF

## SDG WSCF20100600

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**1. The data package has the following issues:**

a) Case narrative, Organic comments, Semi-VOA – Reference to Sample B257B2 (W10GR00991) is not correct. Should be B257B8 (W10GR00992)

**Resolution:** *Provide correction to narrative.*

**Lab Response:** **The case narrative was corrected.**

Please correct the issues and resubmit the hard copy data package.

42100-SLF-10-162

ATTACHMENT 3

**ANALYTICAL RESULTS**

Consisting of 95 pages
Including cover page

# WSCF
# ANALYTICAL RESULTS REPORT

**for**

**Groundwater Remediation Program**

**Richland, WA 99354**

**Attention: Steve Trent**

Analytical: S. Fitzgerald 5-6-10

Client Services: Richard Barker 5-5-10 Richard Barker

*All results are reported on an "as received" basis unless otherwise noted in the comment section.*

This information is intended for the use of the addressee only. If the reader of this report is not the intended recipient or is not authorized by the recipient to receive the report, you are hereby notified that any dissemination, distribution or copying of this report is strictly prohibited. If you have received this report in error, please notify WSCF Laboratory immediately by telephone at (509) 373-7020 or (509) 531-8004. Information designation of this report is the responsibility of the customer.

Contract#: MOA-FH-CHPRC-2008
Report#: WSCF20100600
Report Date: 4-may-2010
*Report WGPP/ver. 5.2*
*Groundwater Remediation Program*

w13qlog v4.2 04-may-2010 15:19:12

Department: Inorganic

W13q Worklist/Batch/QC Report for Group# WSCF20100600

| WL# | S# | Batch | QC# | Tray Type | Sample# | Test |
|---|---|---|---|---|---|---|
| | | | | SAMPLE | W10GR00981 | Percent Solids |
| | | | | SAMPLE | W10GR00982 | Percent Solids |
| | | | | SAMPLE | W10GR00983 | Percent Solids |
| | | | | SAMPLE | W10GR00984 | Percent Solids |
| | | | | SAMPLE | W10GR00985 | Percent Solids |
| | | | | SAMPLE | W10GR00986 | Percent Solids |
| | | | | SAMPLE | W10GR00987 | Percent Solids |
| | | | | SAMPLE | W10GR00988 | Percent Solids |
| | | | | SAMPLE | W10GR00989 | Percent Solids |
| | | | | SAMPLE | W10GR00990 | Percent Solids |
| | | | | SAMPLE | W10GR00991 | Percent Solids |
| | | | | SAMPLE | W10GR00992 | Percent Solids |
| | | | | SAMPLE | W10GR00993 | Percent Solids |
| 40987 | 2 | 41453 | 46054 | BLANK | | Anions by Ion Chromatography |
| 40987 | 13 | 41453 | 46054 | BLANK | | Anions by Ion Chromatography |
| 40987 | 3 | 41453 | 46054 | LCS | | Anions by Ion Chromatography |
| 40987 | 8 | 41453 | 46054 | SAMPLE | W10GR00988 | Anions by Ion Chromatography |
| 40987 | 5 | 41453 | 46054 | DUP | W10GR00989 | Anions by Ion Chromatography |
| 40987 | 6 | 41453 | 46054 | MS | W10GR00989 | Anions by Ion Chromatography |
| 40987 | 7 | 41453 | 46054 | MSD | W10GR00989 | Anions by Ion Chromatography |
| 40987 | 4 | 41453 | 46054 | SAMPLE | W10GR00989 | Anions by Ion Chromatography |
| 40987 | 7 | 41453 | 46054 | SPK-RPD | W10GR00989 | Anions by Ion Chromatography |
| 40987 | 9 | 41453 | 46054 | SAMPLE | W10GR00990 | Anions by Ion Chromatography |
| 40987 | 10 | 41453 | 46054 | SAMPLE | W10GR00991 | Anions by Ion Chromatography |
| 40987 | 11 | 41453 | 46054 | SAMPLE | W10GR00992 | Anions by Ion Chromatography |
| 40987 | 12 | 41453 | 46054 | SAMPLE | W10GR00993 | Anions by Ion Chromatography |
| 40986 | 2 | 41452 | 46055 | BLANK | | Anions by Ion Chromatography |
| 40986 | 16 | 41452 | 46055 | BLANK | | Anions by Ion Chromatography |
| 40986 | 3 | 41452 | 46055 | LCS | | Anions by Ion Chromatography |
| 40986 | 5 | 41452 | 46055 | DUP | W10GR00980 | Anions by Ion Chromatography |
| 40986 | 6 | 41452 | 46055 | MS | W10GR00980 | Anions by Ion Chromatography |
| 40986 | 7 | 41452 | 46055 | MSD | W10GR00980 | Anions by Ion Chromatography |
| 40986 | 7 | 41452 | 46055 | SPK-RPD | W10GR00980 | Anions by Ion Chromatography |
| 40986 | 9 | 41452 | 46055 | SAMPLE | W10GR00981 | Anions by Ion Chromatography |
| 40986 | 10 | 41452 | 46055 | SAMPLE | W10GR00982 | Anions by Ion Chromatography |
| 40986 | 11 | 41452 | 46055 | SAMPLE | W10GR00983 | Anions by Ion Chromatography |
| 40986 | 12 | 41452 | 46055 | SAMPLE | W10GR00984 | Anions by Ion Chromatography |
| 40986 | 13 | 41452 | 46055 | SAMPLE | W10GR00985 | Anions by Ion Chromatography |
| 40986 | 14 | 41452 | 46055 | SAMPLE | W10GR00986 | Anions by Ion Chromatography |
| 40986 | 15 | 41452 | 46055 | SAMPLE | W10GR00987 | Anions by Ion Chromatography |
| 40993 | 23 | 41460 | 46057 | BLANK | | ICP-200.8 MS All possible meta |
| 40993 | 24 | 41460 | 46057 | LCS | | ICP-200.8 MS All possible meta |
| 40993 | 25 | 41460 | 46057 | MS | W10GR00981 | ICP-200.8 MS All possible meta |
| 40993 | 26 | 41460 | 46057 | MSD | W10GR00981 | ICP-200.8 MS All possible meta |
| 40993 | 27 | 41460 | 46057 | SAMPLE | W10GR00981 | ICP-200.8 MS All possible meta |
| 40993 | 26 | 41460 | 46057 | SPK-RPD | W10GR00981 | ICP-200.8 MS All possible meta |
| 40993 | 28 | 41460 | 46057 | SAMPLE | W10GR00982 | ICP-200.8 MS All possible meta |
| 40993 | 29 | 41460 | 46057 | SAMPLE | W10GR00983 | ICP-200.8 MS All possible meta |
| 40993 | 30 | 41460 | 46057 | SAMPLE | W10GR00984 | ICP-200.8 MS All possible meta |

| | | | | | | |
|---|---|---|---|---|---|---|
| 40993 | 31 | 41460 | 46057 | SAMPLE | W10GR00985 | ICP-200.8 MS All possible meta |
| 40993 | 32 | 41460 | 46057 | SAMPLE | W10GR00986 | ICP-200.8 MS All possible meta |
| 40993 | 33 | 41460 | 46057 | SAMPLE | W10GR00987 | ICP-200.8 MS All possible meta |
| 40993 | 34 | 41460 | 46057 | SAMPLE | W10GR00988 | ICP-200.8 MS All possible meta |
| 40993 | 35 | 41460 | 46057 | SAMPLE | W10GR00989 | ICP-200.8 MS All possible meta |
| 40993 | 36 | 41460 | 46057 | SAMPLE | W10GR00990 | ICP-200.8 MS All possible meta |
| 40993 | 37 | 41460 | 46057 | SAMPLE | W10GR00991 | ICP-200.8 MS All possible meta |
| 40993 | 38 | 41460 | 46057 | SAMPLE | W10GR00992 | ICP-200.8 MS All possible meta |
| 40993 | 39 | 41460 | 46057 | SAMPLE | W10GR00993 | ICP-200.8 MS All possible meta |
| 40979 | 1 | 41444 | 46063 | BLANK | | ICP Metals Analysis, Grd H20 P |
| 40979 | 2 | 41444 | 46063 | LCS | | ICP Metals Analysis, Grd H20 P |
| 40979 | 4 | 41444 | 46063 | MS | W10GR00981 | ICP Metals Analysis, Grd H20 P |
| 40979 | 5 | 41444 | 46063 | MSD | W10GR00981 | ICP Metals Analysis, Grd H20 P |
| 40979 | 3 | 41444 | 46063 | SAMPLE | W10GR00981 | ICP Metals Analysis, Grd H20 P |
| 40979 | 5 | 41444 | 46063 | SPK-RPD | W10GR00981 | ICP Metals Analysis, Grd H20 P |
| 40979 | 6 | 41444 | 46063 | SAMPLE | W10GR00982 | ICP Metals Analysis, Grd H20 P |
| 40979 | 7 | 41444 | 46063 | SAMPLE | W10GR00983 | ICP Metals Analysis, Grd H20 P |
| 40979 | 8 | 41444 | 46063 | SAMPLE | W10GR00984 | ICP Metals Analysis, Grd H20 P |
| 40979 | 9 | 41444 | 46063 | SAMPLE | W10GR00985 | ICP Metals Analysis, Grd H20 P |
| 40979 | 10 | 41444 | 46063 | SAMPLE | W10GR00986 | ICP Metals Analysis, Grd H20 P |
| 40979 | 11 | 41444 | 46063 | SAMPLE | W10GR00987 | ICP Metals Analysis, Grd H20 P |
| 40979 | 12 | 41444 | 46063 | SAMPLE | W10GR00988 | ICP Metals Analysis, Grd H20 P |
| 40979 | 13 | 41444 | 46063 | SAMPLE | W10GR00989 | ICP Metals Analysis, Grd H20 P |
| 40979 | 14 | 41444 | 46063 | SAMPLE | W10GR00990 | ICP Metals Analysis, Grd H20 P |
| 40979 | 15 | 41444 | 46063 | SAMPLE | W10GR00991 | ICP Metals Analysis, Grd H20 P |
| 40979 | 16 | 41444 | 46063 | SAMPLE | W10GR00992 | ICP Metals Analysis, Grd H20 P |
| 40979 | 17 | 41444 | 46063 | SAMPLE | W10GR00993 | ICP Metals Analysis, Grd H20 P |
| 41001 | 2 | 41469 | 46067 | BLNK-PREP | | Hexavalent chromium |
| 41001 | 3 | 41469 | 46067 | LCS | | Hexavalent chromium |
| 41001 | 5 | 41469 | 46067 | DUP | W10GR00964 | Hexavalent chromium |
| 41001 | 6 | 41469 | 46067 | MS | W10GR00964 | Hexavalent chromium |
| 41001 | 7 | 41469 | 46067 | MSD | W10GR00964 | Hexavalent chromium |
| 41001 | 9 | 41469 | 46067 | SPK-POST | W10GR00964 | Hexavalent chromium |
| 41001 | 7 | 41469 | 46067 | SPK-RPD | W10GR00964 | Hexavalent chromium |
| 41001 | 12 | 41469 | 46067 | SAMPLE | W10GR00981 | Hexavalent chromium |
| 41001 | 13 | 41469 | 46067 | SAMPLE | W10GR00982 | Hexavalent chromium |
| 41001 | 14 | 41469 | 46067 | SAMPLE | W10GR00983 | Hexavalent chromium |
| 41001 | 15 | 41469 | 46067 | SAMPLE | W10GR00984 | Hexavalent chromium |
| 41001 | 16 | 41469 | 46067 | SAMPLE | W10GR00985 | Hexavalent chromium |
| 41001 | 17 | 41469 | 46067 | SAMPLE | W10GR00986 | Hexavalent chromium |
| 41001 | 18 | 41469 | 46067 | SAMPLE | W10GR00987 | Hexavalent chromium |
| 41001 | 19 | 41469 | 46067 | SAMPLE | W10GR00988 | Hexavalent chromium |
| 41001 | 21 | 41469 | 46067 | SAMPLE | W10GR00989 | Hexavalent chromium |
| 41001 | 22 | 41469 | 46067 | SAMPLE | W10GR00990 | Hexavalent chromium |
| 41001 | 23 | 41469 | 46067 | SAMPLE | W10GR00991 | Hexavalent chromium |
| 41001 | 24 | 41469 | 46067 | SAMPLE | W10GR00992 | Hexavalent chromium |
| 41001 | 25 | 41469 | 46067 | SAMPLE | W10GR00993 | Hexavalent chromium |

w13qlog v4.2 04-may-2010 15:19:12

Department: Organic

W13q Worklist/Batch/QC Report for Group# WSCF20100600

| WL# | S# | Batch | QC# | Tray Type | Sample# | Test |
|---|---|---|---|---|---|---|
| | | | 46051 | BLANK | | VOA Ground Water Protection |
| | | | 46051 | LCS | | VOA Ground Water Protection |
| | | | 46051 | MS | W10GR00980 | VOA Ground Water Protection |
| | | | 46051 | MSD | W10GR00980 | VOA Ground Water Protection |
| | | | 46051 | SPK-RPD | W10GR00980 | VOA Ground Water Protection |
| | | | 46051 | SAMPLE | W10GR00981 | VOA Ground Water Protection |
| | | | 46051 | SURR | W10GR00981 | VOA Ground Water Protection |
| | | | 46051 | SAMPLE | W10GR00982 | VOA Ground Water Protection |
| | | | 46051 | SURR | W10GR00982 | VOA Ground Water Protection |
| | | | 46051 | SAMPLE | W10GR00983 | VOA Ground Water Protection |
| | | | 46051 | SURR | W10GR00983 | VOA Ground Water Protection |
| | | | 46051 | SAMPLE | W10GR00984 | VOA Ground Water Protection |
| | | | 46051 | SURR | W10GR00984 | VOA Ground Water Protection |
| | | | 46051 | SAMPLE | W10GR00985 | VOA Ground Water Protection |
| | | | 46051 | SURR | W10GR00985 | VOA Ground Water Protection |
| | | | 46051 | SAMPLE | W10GR00986 | VOA Ground Water Protection |
| | | | 46051 | SURR | W10GR00986 | VOA Ground Water Protection |
| | | | 46051 | SAMPLE | W10GR00987 | VOA Ground Water Protection |
| | | | 46051 | SURR | W10GR00987 | VOA Ground Water Protection |
| | | | 46051 | SAMPLE | W10GR00988 | VOA Ground Water Protection |
| | | | 46051 | SURR | W10GR00988 | VOA Ground Water Protection |
| | | | 46051 | SAMPLE | W10GR00989 | VOA Ground Water Protection |
| | | | 46051 | SURR | W10GR00989 | VOA Ground Water Protection |
| | | | 46052 | BLANK | | VOA Ground Water Protection |
| | | | 46052 | LCS | | VOA Ground Water Protection |
| | | | 46052 | MS | W10GR00990 | VOA Ground Water Protection |
| | | | 46052 | MSD | W10GR00990 | VOA Ground Water Protection |
| | | | 46052 | SAMPLE | W10GR00990 | VOA Ground Water Protection |
| | | | 46052 | SPK-RPD | W10GR00990 | VOA Ground Water Protection |
| | | | 46052 | SURR | W10GR00990 | VOA Ground Water Protection |
| | | | 46052 | SAMPLE | W10GR00991 | VOA Ground Water Protection |
| | | | 46052 | SURR | W10GR00991 | VOA Ground Water Protection |
| | | | 46052 | SAMPLE | W10GR00992 | VOA Ground Water Protection |
| | | | 46052 | SURR | W10GR00992 | VOA Ground Water Protection |
| | | | 46052 | SAMPLE | W10GR00993 | VOA Ground Water Protection |
| | | | 46052 | SURR | W10GR00993 | VOA Ground Water Protection |
| | | | 46073 | BLANK | | PCBs complete list |
| | | | 46073 | LCS | | PCBs complete list |
| | | | 46073 | MS | W10GR00979 | PCBs complete list |
| | | | 46073 | MSD | W10GR00979 | PCBs complete list |
| | | | 46073 | SPK-RPD | W10GR00979 | PCBs complete list |
| | | | 46073 | SAMPLE | W10GR00981 | PCBs complete list |
| | | | 46073 | SURR | W10GR00981 | PCBs complete list |
| | | | 46073 | SAMPLE | W10GR00982 | PCBs complete list |
| | | | 46073 | SURR | W10GR00982 | PCBs complete list |
| | | | 46073 | SAMPLE | W10GR00983 | PCBs complete list |
| | | | 46073 | SURR | W10GR00983 | PCBs complete list |
| | | | 46073 | SAMPLE | W10GR00984 | PCBs complete list |
| | | | 46073 | SURR | W10GR00984 | PCBs complete list |
| | | | 46073 | SAMPLE | W10GR00985 | PCBs complete list |

| | | | |
|---|---|---|---|
| 46073 | SURR | W10GR00985 | PCBs complete list |
| 46073 | SAMPLE | W10GR00986 | PCBs complete list |
| 46073 | SURR | W10GR00986 | PCBs complete list |
| 46073 | SAMPLE | W10GR00987 | PCBs complete list |
| 46073 | SURR | W10GR00987 | PCBs complete list |
| 46073 | SAMPLE | W10GR00988 | PCBs complete list |
| 46073 | SURR | W10GR00988 | PCBs complete list |
| 46073 | SAMPLE | W10GR00989 | PCBs complete list |
| 46073 | SURR | W10GR00989 | PCBs complete list |
| 46073 | SAMPLE | W10GR00990 | PCBs complete list |
| 46073 | SURR | W10GR00990 | PCBs complete list |
| 46073 | SAMPLE | W10GR00991 | PCBs complete list |
| 46073 | SURR | W10GR00991 | PCBs complete list |
| 46073 | SAMPLE | W10GR00992 | PCBs complete list |
| 46073 | SURR | W10GR00992 | PCBs complete list |
| 46073 | SAMPLE | W10GR00993 | PCBs complete list |
| 46073 | SURR | W10GR00993 | PCBs complete list |
| 46091 | BLANK | | SW-846 8270C Semi-Vols |
| 46091 | LCS | | SW-846 8270C Semi-Vols |
| 46091 | MS | W10GR00981 | SW-846 8270C Semi-Vols |
| 46091 | MSD | W10GR00981 | SW-846 8270C Semi-Vols |
| 46091 | SAMPLE | W10GR00981 | SW-846 8270C Semi-Vols |
| 46091 | SPK-RPD | W10GR00981 | SW-846 8270C Semi-Vols |
| 46091 | SURR | W10GR00981 | SW-846 8270C Semi-Vols |
| 46091 | SAMPLE | W10GR00982 | SW-846 8270C Semi-Vols |
| 46091 | SURR | W10GR00982 | SW-846 8270C Semi-Vols |
| 46091 | SAMPLE | W10GR00983 | SW-846 8270C Semi-Vols |
| 46091 | SURR | W10GR00983 | SW-846 8270C Semi-Vols |
| 46091 | SAMPLE | W10GR00984 | SW-846 8270C Semi-Vols |
| 46091 | SURR | W10GR00984 | SW-846 8270C Semi-Vols |
| 46091 | SAMPLE | W10GR00985 | SW-846 8270C Semi-Vols |
| 46091 | SURR | W10GR00985 | SW-846 8270C Semi-Vols |
| 46091 | SAMPLE | W10GR00986 | SW-846 8270C Semi-Vols |
| 46091 | SURR | W10GR00986 | SW-846 8270C Semi-Vols |
| 46091 | SAMPLE | W10GR00987 | SW-846 8270C Semi-Vols |
| 46091 | SURR | W10GR00987 | SW-846 8270C Semi-Vols |
| 46091 | SAMPLE | W10GR00988 | SW-846 8270C Semi-Vols |
| 46091 | SURR | W10GR00988 | SW-846 8270C Semi-Vols |
| 46091 | SAMPLE | W10GR00989 | SW-846 8270C Semi-Vols |
| 46091 | SURR | W10GR00989 | SW-846 8270C Semi-Vols |
| 46091 | SAMPLE | W10GR00990 | SW-846 8270C Semi-Vols |
| 46091 | SURR | W10GR00990 | SW-846 8270C Semi-Vols |
| 46091 | SAMPLE | W10GR00991 | SW-846 8270C Semi-Vols |
| 46091 | SURR | W10GR00991 | SW-846 8270C Semi-Vols |
| 46091 | SAMPLE | W10GR00992 | SW-846 8270C Semi-Vols |
| 46091 | SURR | W10GR00992 | SW-846 8270C Semi-Vols |
| 46091 | SAMPLE | W10GR00993 | SW-846 8270C Semi-Vols |
| 46091 | SURR | W10GR00993 | SW-846 8270C Semi-Vols |
| 46096 | BLANK | | NWTPH-D TPH Diesel Range (Wa) |
| 46096 | LCS | | NWTPH-D TPH Diesel Range (Wa) |
| 46096 | SAMPLE | W10GR00981 | NWTPH-D TPH Diesel Range (Wa) |
| 46096 | SURR | W10GR00981 | NWTPH-D TPH Diesel Range (Wa) |
| 46096 | MS | W10GR00982 | NWTPH-D TPH Diesel Range (Wa) |
| 46096 | MSD | W10GR00982 | NWTPH-D TPH Diesel Range (Wa) |
| 46096 | SAMPLE | W10GR00982 | NWTPH-D TPH Diesel Range (Wa) |
| 46096 | SPK-RPD | W10GR00982 | NWTPH-D TPH Diesel Range (Wa) |
| 46096 | SURR | W10GR00982 | NWTPH-D TPH Diesel Range (Wa) |
| 46096 | SAMPLE | W10GR00983 | NWTPH-D TPH Diesel Range (Wa) |

| | | | |
|---|---|---|---|
| 46096 | SURR | W10GR00983 | NWTPH-D TPH Diesel Range (Wa) |
| 46096 | SAMPLE | W10GR00984 | NWTPH-D TPH Diesel Range (Wa) |
| 46096 | SURR | W10GR00984 | NWTPH-D TPH Diesel Range (Wa) |
| 46096 | SAMPLE | W10GR00985 | NWTPH-D TPH Diesel Range (Wa) |
| 46096 | SURR | W10GR00985 | NWTPH-D TPH Diesel Range (Wa) |
| 46096 | SAMPLE | W10GR00986 | NWTPH-D TPH Diesel Range (Wa) |
| 46096 | SURR | W10GR00986 | NWTPH-D TPH Diesel Range (Wa) |
| 46096 | SAMPLE | W10GR00987 | NWTPH-D TPH Diesel Range (Wa) |
| 46096 | SURR | W10GR00987 | NWTPH-D TPH Diesel Range (Wa) |
| 46096 | SAMPLE | W10GR00988 | NWTPH-D TPH Diesel Range (Wa) |
| 46096 | SURR | W10GR00988 | NWTPH-D TPH Diesel Range (Wa) |
| 46096 | SAMPLE | W10GR00989 | NWTPH-D TPH Diesel Range (Wa) |
| 46096 | SURR | W10GR00989 | NWTPH-D TPH Diesel Range (Wa) |
| 46096 | SAMPLE | W10GR00990 | NWTPH-D TPH Diesel Range (Wa) |
| 46096 | SURR | W10GR00990 | NWTPH-D TPH Diesel Range (Wa) |
| 46096 | SAMPLE | W10GR00991 | NWTPH-D TPH Diesel Range (Wa) |
| 46096 | SURR | W10GR00991 | NWTPH-D TPH Diesel Range (Wa) |
| 46096 | SAMPLE | W10GR00992 | NWTPH-D TPH Diesel Range (Wa) |
| 46096 | SURR | W10GR00992 | NWTPH-D TPH Diesel Range (Wa) |
| 46096 | SAMPLE | W10GR00993 | NWTPH-D TPH Diesel Range (Wa) |
| 46096 | SURR | W10GR00993 | NWTPH-D TPH Diesel Range (Wa) |

# WSCF
# METHOD REFERENCES REPORT

**Department:** Inorganic

The results provided in this report were generated using the following WSCF Laboratory procedures. For your convenience, this table provides a listing of the regulatory or industry methods that are referenced by each of these WSCF procedures. Please note that the most recent version of the regulatory or industry method is listed here even though the WSCF procedure may reference an older version of the method. Also, a reference to a regulatory or industry method here does not necessarily indicate a verbatim implementation of that method.

**LA-265-403** LA-265-403: Hexavalent Chromium analysis by Spectrophotometer
**None** No reference to any industry method.

**LA-505-411** LA-505-411: ELEMENTAL ANALYSIS BY INDUCTIVELY COUPLED PLASMA ATOMIC EMISSION SPE
**None** No reference to any industry method.

**LA-505-412** LA-505-412: DETERMINATION OF TRACE ELEMENTS IN WATERS AND WASTES BY INDUCTIVELY
**None** No reference to any industry method.

**LA-519-412** LA-519-412: TOTAL RESIDUE/% SOLIDS DRIED AT 103 - 105 C
**None** No reference to any industry method.

**LA-533-410** LA-533-410: ANION ANALYSIS BY ION CHROMATOGRAPHY
**None** No reference to any industry method.

Note: A complete list of WSCF analytical procedures and referenced regulatory or industry methods is available online at http://www2.rl.gov/phmc/as-dol.

# WSCF
# METHOD REFERENCES REPORT

**Department:** Organic

The results provided in this report were generated using the following WSCF Laboratory procedures. For your convenience, this table provides a listing of the regulatory or industry methods that are referenced by each of these WSCF procedures. Please note that the most recent version of the regulatory or industry method is listed here even though the WSCF procedure may reference an older version of the method. Also, a reference to a regulatory or industry method here does not necessarily indicate a verbatim implementation of that method.

| | | |
|---|---|---|
| **LA-523-427** | LA-523-427: POLYCHLORINATED BIPHENYLS (PCBs) BY GAS CHROMATOGRAPHY | |
| | **EPA SW-846 8082A** | POLYCHLORINATED BIPHENYLS (PCBs) BY GAS CHROMATOGRAPHY |
| **LA-523-455** | LA-523-455: VOLATILE SAMPLE ANALYSIS BY SW-846 | |
| | **None** | No reference to any industry method. |
| **LA-523-456** | LA-523-456: SEMIVOLATILE SAMPLE ANALYSIS BY SW-846, METHOD 8270C | |
| | **None** | No reference to any industry method. |
| **LA-523-493** | NWTPH-Diesel and/or Gasoline | |
| | **None** | No reference to any industry method. |

Note: A complete list of WSCF analytical procedures and referenced regulatory or industry methods is available online at http://www2.rl.gov/phmc/as-dol.

# WSCF
# ANALYTICAL RESULTS REPORT

**Attention:** Steve Trent
**SAF Number:** F10-181
**Sample #** W10GR00981
**Client ID:** B257C2 GPP WSCF

**Matrix:** SOIL

**Group #:** WSCF20100600
**Department:** Inorganic
**Sampled:** 04/19/10
**Received:** 04/19/10

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Anions by Ion Chromatography Prep** | | | | | | | | | | | **04/20/10** |
| **Anions by Ion Chromatography** | | | | | | | | | | | |
| Nitrogen in Nitrate | NO3-N | LA-533-410 | BDN | 3.14 | mg/kg | | | 50.00 | 1.6 | | 04/20/10 |
| **Hexavalent Chromium Prep** | | | | | | | | | | | **04/21/10** |
| **Hexavalent Chromium** | | | | | | | | | | | |
| Hexavalent Chromium | 18540-29-9 | LA-265-403 | NU | < 0.100 | mg/kg | | | 1.00 | 0.10 | | 04/22/10 |
| **ICP Metals Analysis, Grd H20 P Prep** | | | | | | | | | | | **04/20/10** |
| **ICP Metals Analysis, Grd H20 P** | | | | | | | | | | | |
| Lithium | 7439-93-2 | LA-505-411 | | 6.87 | mg/kg | | | 1.00e+002 | 0.40 | | 04/23/10 |
| Boron | 7440-42-8 | LA-505-411 | E | 21.2 | mg/kg | | | 1.00e+002 | 1.9 | | 04/23/10 |
| **ICP-200.8 MS All possible meta Prep** | | | | | | | | | | | **04/22/10** |
| **ICP-200.8 MS All possible meta** | | | | | | | | | | | |
| Manganese | 7439-96-5 | LA-505-412 | X | 310 | mg/kg | | | 0.94 | 0.0941 | | 04/23/10 |
| Nickel | 7440-02-0 | LA-505-412 | | 11.8 | mg/kg | | | 0.94 | 0.188 | | 04/23/10 |
| Silver | 7440-22-4 | LA-505-412 | U | < 0.0941 | mg/kg | | | 0.94 | 0.0941 | | 04/23/10 |
| Antimony | 7440-36-0 | LA-505-412 | U | < 0.282 | mg/kg | | | 0.94 | 0.282 | | 04/23/10 |
| Barium | 7440-39-3 | LA-505-412 | | 75.8 | mg/kg | | | 0.94 | 0.188 | | 04/23/10 |
| Beryllium | 7440-41-7 | LA-505-412 | | 0.300 | mg/kg | | | 0.94 | 0.0471 | | 04/23/10 |
| Cadmium | 7440-43-9 | LA-505-412 | | 0.100 | mg/kg | | | 0.94 | 0.0941 | | 04/23/10 |
| Chromium | 7440-47-3 | LA-505-412 | | 10.9 | mg/kg | | | 0.94 | 0.471 | | 04/23/10 |
| Cobalt | 7440-48-4 | LA-505-412 | | 7.88 | mg/kg | | | 0.94 | 0.0471 | | 04/23/10 |
| Copper | 7440-50-8 | LA-505-412 | | 16.5 | mg/kg | | | 0.94 | 0.0941 | | 04/23/10 |
| Vanadium | 7440-62-2 | LA-505-412 | | 49.7 | mg/kg | | | 0.94 | 0.188 | | 04/23/10 |
| Zinc | 7440-66-6 | LA-505-412 | | 40.8 | mg/kg | | | 0.94 | 0.753 | | 04/23/10 |
| Lead | 7439-92-1 | LA-505-412 | | 4.60 | mg/kg | | | 0.94 | 0.0941 | | 04/23/10 |

**MDL = Minimum Detection Limit**
**RQ = Result Qualifier**
**TP Err = Total Propagated Error**
**DF = Dilution Factor**

B - The analyte < the RDL but >= the IDL/MDL (inorg)
D - Analyte was identified at a secondary dilution factor.(org)
N - Spike sample recovery is outside control limits.(inorg)
T - GC/MS only - MS or MSD recovery is outside control limits.

D - Analyte was identified at a secondary dilution factor(inorg)
E - Analyte is an estimate, has potentially larger errors(inorg)
N - non GC/MS - MS or MSD recovery is outside control limits.
U - Analyzed for but not detected above limiting criteria(inorg)

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

# WSCF
# ANALYTICAL RESULTS REPORT

**Attention:** Steve Trent
**SAF Number:** F10-181
**Sample #** W10GR00981
**Client ID:** B257C2 GPP WSCF

**Matrix:** SOIL

**Group #:** WSCF20100600
**Department:** Inorganic
**Sampled:** 04/19/10
**Received:** 04/19/10

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | 7439-97-6 | LA-505-412 | U | < 0.0471 | mg/kg | | | 0.94 | 0.0471 | | 04/23/10 |
| Uranium | 7440-61-1 | LA-505-412 | | 0.380 | mg/kg | | | 0.94 | 0.0471 | | 04/23/10 |
| Arsenic | 7440-38-2 | LA-505-412 | | 2.73 | mg/kg | | | 0.94 | 0.377 | | 04/23/10 |
| Selenium | 7782-49-2 | LA-505-412 | | 0.830 | mg/kg | | | 0.94 | 0.282 | | 04/23/10 |
| Thallium | 7440-28-0 | LA-505-412 | U | < 0.0941 | mg/kg | | | 0.94 | 0.0941 | | 04/23/10 |
| Strontium | 7440-24-6 | LA-505-412 | | 27.8 | mg/kg | | | 0.94 | 0.0941 | | 04/23/10 |
| Tin | 7440-31-5 | LA-505-412 | | 0.400 | mg/kg | | | 0.94 | 0.0471 | | 04/23/10 |
| **Total solids** | | | | | | | | | | | |
| Total solids | TS | LA-519-412 | | 96.3 | Percent | | | 1.00 | 0.0 | | 04/21/10 |

**MDL = Minimum Detection Limit**
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**TP Err = Total Propagated Error**
**DF = Dilution Factor**

B - The analyte < the RDL but > = the IDL/MDL (inorg)
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N - Spike sample recovery is outside control limits.(inorg)
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D - Analyte was identified at a secondary dilution factor(inorg)
E - Analyte is an estimate, has potentially larger errors(inorg)
N - non GC/MS - MS or MSD recovery is outside control limits.
U - Analyzed for but not detected above limiting criteria(inorg)

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

# WSCF
# ANALYTICAL RESULTS REPORT

**Attention:** Steve Trent
**SAF Number:** F10-181
**Sample #** W10GR00982
**Client ID:** B25798 GPP WSCF

**Matrix:** SOIL

**Group #:** WSCF20100600
**Department:** Inorganic
**Sampled:** 04/19/10
**Received:** 04/19/10

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Anions by Ion Chromatography Prep** | | | | | | | | | | | **04/20/10** |
| **Anions by Ion Chromatography** | | | | | | | | | | | |
| Nitrogen in Nitrate | NO3-N | LA-533-410 | DNU | < 1.55 | mg/kg | | | 50.00 | 1.6 | | 04/20/10 |
| **Hexavalent Chromium Prep** | | | | | | | | | | | **04/21/10** |
| **Hexavalent Chromium** | | | | | | | | | | | |
| Hexavalent Chromium | 18540-29-9 | LA-265-403 | N | 0.120 | mg/kg | | | 1.00 | 0.10 | | 04/22/10 |
| **ICP Metals Analysis, Grd H20 P Prep** | | | | | | | | | | | **04/20/10** |
| **ICP Metals Analysis, Grd H20 P** | | | | | | | | | | | |
| Lithium | 7439-93-2 | LA-505-411 | | 6.36 | mg/kg | | | 99.50 | 0.40 | | 04/23/10 |
| Boron | 7440-42-8 | LA-505-411 | E | 24.6 | mg/kg | | | 99.50 | 1.9 | | 04/23/10 |
| **ICP-200.8 MS All possible meta Prep** | | | | | | | | | | | **04/22/10** |
| **ICP-200.8 MS All possible meta** | | | | | | | | | | | |
| Manganese | 7439-96-5 | LA-505-412 | X | 335 | mg/kg | | | 0.96 | 0.0961 | | 04/23/10 |
| Nickel | 7440-02-0 | LA-505-412 | | 9.29 | mg/kg | | | 0.96 | 0.192 | | 04/23/10 |
| Silver | 7440-22-4 | LA-505-412 | U | < 0.0961 | mg/kg | | | 0.96 | 0.0961 | | 04/23/10 |
| Antimony | 7440-36-0 | LA-505-412 | | 0.640 | mg/kg | | | 0.96 | 0.288 | | 04/23/10 |
| Barium | 7440-39-3 | LA-505-412 | | 71.3 | mg/kg | | | 0.96 | 0.192 | | 04/23/10 |
| Beryllium | 7440-41-7 | LA-505-412 | | 0.300 | mg/kg | | | 0.96 | 0.0481 | | 04/23/10 |
| Cadmium | 7440-43-9 | LA-505-412 | U | < 0.0961 | mg/kg | | | 0.96 | 0.0961 | | 04/23/10 |
| Chromium | 7440-47-3 | LA-505-412 | | 8.88 | mg/kg | | | 0.96 | 0.481 | | 04/23/10 |
| Cobalt | 7440-48-4 | LA-505-412 | | 8.02 | mg/kg | | | 0.96 | 0.0481 | | 04/23/10 |
| Copper | 7440-50-8 | LA-505-412 | | 13.3 | mg/kg | | | 0.96 | 0.0961 | | 04/23/10 |
| Vanadium | 7440-62-2 | LA-505-412 | | 50.0 | mg/kg | | | 0.96 | 0.192 | | 04/23/10 |
| Zinc | 7440-66-6 | LA-505-412 | | 45.3 | mg/kg | | | 0.96 | 0.769 | | 04/23/10 |
| Lead | 7439-92-1 | LA-505-412 | | 6.87 | mg/kg | | | 0.96 | 0.0961 | | 04/23/10 |

**MDL = Minimum Detection Limit**
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B - The analyte < the RDL but > = the IDL/MDL (inorg)
D - Analyte was identified at a secondary dilution factor.(org)
N - Spike sample recovery is outside control limits.(inorg)
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D - Analyte was identified at a secondary dilution factor(inorg)
E - Analyte is an estimate, has potentially larger errors(inorg)
N - non GC/MS - MS or MSD recovery is outside control limits.
U - Analyzed for but not detected above limiting criteria(inorg)

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

# WSCF
# ANALYTICAL RESULTS REPORT

**Attention:** Steve Trent
**SAF Number:** F10-181
**Sample #** W10GR00982
**Client ID:** B25798 GPP WSCF

**Matrix:** SOIL

**Group #:** WSCF20100600
**Department:** Inorganic
**Sampled:** 04/19/10
**Received:** 04/19/10

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | 7439-97-6 | LA-505-412 | U | < 0.0481 | mg/kg | | | 0.96 | 0.0481 | | 04/23/10 |
| Uranium | 7440-61-1 | LA-505-412 | | 0.420 | mg/kg | | | 0.96 | 0.0481 | | 04/23/10 |
| Arsenic | 7440-38-2 | LA-505-412 | | 2.64 | mg/kg | | | 0.96 | 0.385 | | 04/23/10 |
| Selenium | 7782-49-2 | LA-505-412 | | 1.04 | mg/kg | | | 0.96 | 0.288 | | 04/23/10 |
| Thallium | 7440-28-0 | LA-505-412 | U | < 0.0961 | mg/kg | | | 0.96 | 0.0961 | | 04/23/10 |
| Strontium | 7440-24-6 | LA-505-412 | | 25.9 | mg/kg | | | 0.96 | 0.0961 | | 04/23/10 |
| Tin | 7440-31-5 | LA-505-412 | | 0.510 | mg/kg | | | 0.96 | 0.0481 | | 04/23/10 |
| **Total solids** | | | | | | | | | | | |
| Total solids | TS | LA-519-412 | | 96.5 | Percent | | | 1.00 | 0.0 | | 04/21/10 |

**MDL = Minimum Detection Limit**
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# WSCF
# ANALYTICAL RESULTS REPORT

**Attention:** Steve Trent
**SAF Number:** F10-181
**Sample #** W10GR00983
**Client ID:** B257B6 GPP WSCF

**Matrix:** SOIL

**Group #:** WSCF20100600
**Department:** Inorganic
**Sampled:** 04/19/10
**Received:** 04/19/10

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Anions by Ion Chromatography Prep** | | | | | | | | | | | **04/20/10** |
| **Anions by Ion Chromatography** | | | | | | | | | | | |
| Nitrogen in Nitrate | NO3-N | LA-533-410 | DN | 6.32 | mg/kg | | | 49.00 | 1.5 | | 04/20/10 |
| **Hexavalent Chromium Prep** | | | | | | | | | | | **04/21/10** |
| **Hexavalent Chromium** | | | | | | | | | | | |
| Hexavalent Chromium | 18540-29-9 | LA-265-403 | N | 0.110 | mg/kg | | | 1.00 | 0.10 | | 04/22/10 |
| **ICP Metals Analysis, Grd H20 P Prep** | | | | | | | | | | | **04/20/10** |
| **ICP Metals Analysis, Grd H20 P** | | | | | | | | | | | |
| Lithium | 7439-93-2 | LA-505-411 | | 4.71 | mg/kg | | | 99.74 | 0.40 | | 04/23/10 |
| Boron | 7440-42-8 | LA-505-411 | E | 26.7 | mg/kg | | | 99.74 | 1.9 | | 04/23/10 |
| **ICP-200.8 MS All possible meta Prep** | | | | | | | | | | | **04/22/10** |
| **ICP-200.8 MS All possible meta** | | | | | | | | | | | |
| Manganese | 7439-96-5 | LA-505-412 | X | 316 | mg/kg | | | 0.99 | 0.0992 | | 04/23/10 |
| Nickel | 7440-02-0 | LA-505-412 | | 7.20 | mg/kg | | | 0.99 | 0.198 | | 04/23/10 |
| Silver | 7440-22-4 | LA-505-412 | U | < 0.0992 | mg/kg | | | 0.99 | 0.0992 | | 04/23/10 |
| Antimony | 7440-36-0 | LA-505-412 | U | < 0.298 | mg/kg | | | 0.99 | 0.298 | | 04/23/10 |
| Barium | 7440-39-3 | LA-505-412 | | 49.6 | mg/kg | | | 0.99 | 0.198 | | 04/23/10 |
| Beryllium | 7440-41-7 | LA-505-412 | | 0.240 | mg/kg | | | 0.99 | 0.0496 | | 04/23/10 |
| Cadmium | 7440-43-9 | LA-505-412 | U | < 0.0992 | mg/kg | | | 0.99 | 0.0992 | | 04/23/10 |
| Chromium | 7440-47-3 | LA-505-412 | | 4.38 | mg/kg | | | 0.99 | 0.496 | | 04/23/10 |
| Cobalt | 7440-48-4 | LA-505-412 | | 9.02 | mg/kg | | | 0.99 | 0.0496 | | 04/23/10 |
| Copper | 7440-50-8 | LA-505-412 | | 19.1 | mg/kg | | | 0.99 | 0.0992 | | 04/23/10 |
| Vanadium | 7440-62-2 | LA-505-412 | | 71.8 | mg/kg | | | 0.99 | 0.198 | | 04/23/10 |
| Zinc | 7440-66-6 | LA-505-412 | | 51.2 | mg/kg | | | 0.99 | 0.794 | | 04/23/10 |
| Lead | 7439-92-1 | LA-505-412 | | 3.38 | mg/kg | | | 0.99 | 0.0992 | | 04/23/10 |

**MDL = Minimum Detection Limit**
**RQ = Result Qualifier**
**TP Err = Total Propagated Error**
**DF = Dilution Factor**

B - The analyte < the RDL but > = the IDL/MDL (inorg)
D - Analyte was identified at a secondary dilution factor.(org)
N - Spike sample recovery is outside control limits.(inorg)
T - GC/MS only - MS or MSD recovery is outside control limits.

D - Analyte was identified at a secondary dilution factor(inorg)
E - Analyte is an estimate, has potentially larger errors(inorg)
N - non GC/MS - MS or MSD recovery is outside control limits.
U - Analyzed for but not detected above limiting criteria(inorg)

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

# WSCF
# ANALYTICAL RESULTS REPORT

**Attention:** Steve Trent
**SAF Number:** F10-181
**Sample #** W10GR00983
**Client ID:** B257B6 GPP WSCF

**Matrix:** SOIL

**Group #:** WSCF20100600
**Department:** Inorganic
**Sampled:** 04/19/10
**Received:** 04/19/10

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | 7439-97-6 | LA-505-412 | U | < 0.0496 | mg/kg | | | 0.99 | 0.0496 | | 04/23/10 |
| Uranium | 7440-61-1 | LA-505-412 | | 0.380 | mg/kg | | | 0.99 | 0.0496 | | 04/23/10 |
| Arsenic | 7440-38-2 | LA-505-412 | | 2.38 | mg/kg | | | 0.99 | 0.397 | | 04/23/10 |
| Selenium | 7782-49-2 | LA-505-412 | | 1.68 | mg/kg | | | 0.99 | 0.298 | | 04/23/10 |
| Thallium | 7440-28-0 | LA-505-412 | U | < 0.0992 | mg/kg | | | 0.99 | 0.0992 | | 04/23/10 |
| Strontium | 7440-24-6 | LA-505-412 | | 20.5 | mg/kg | | | 0.99 | 0.0992 | | 04/23/10 |
| Tin | 7440-31-5 | LA-505-412 | | 1.37 | mg/kg | | | 0.99 | 0.0496 | | 04/23/10 |
| **Total solids** | | | | | | | | | | | |
| Total solids | TS | LA-519-412 | | 95.4 | Percent | | | 1.00 | 0.0 | | 04/21/10 |

**MDL=Minimum Detection Limit**
**RQ=Result Qualifier**
**TP Err=Total Propagated Error**
**DF=Dilution Factor**

B - The analyte < the RDL but > = the IDL/MDL (inorg)
D - Analyte was identified at a secondary dilution factor.(org)
N - Spike sample recovery is outside control limits.(inorg)
T - GC/MS only - MS or MSD recovery is outside control limits.

D - Analyte was identified at a secondary dilution factor(inorg)
E - Analyte is an estimate, has potentially larger errors(inorg)
N - non GC/MS - MS or MSD recovery is outside control limits.
U - Analyzed for but not detected above limiting criteria(inorg)

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

# WSCF
# ANALYTICAL RESULTS REPORT

**Attention:** Steve Trent
**SAF Number:** F10-181
**Sample #** W10GR00984
**Client ID:** B257C4 GPP WSCF

**Matrix:** SOIL

**Group #:** WSCF20100600
**Department:** Inorganic
**Sampled:** 04/19/10
**Received:** 04/19/10

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Anions by Ion Chromatography Prep** | | | | | | | | | | | **04/20/10** |
| **Anions by Ion Chromatography** | | | | | | | | | | | |
| Nitrogen in Nitrate | NO3-N | LA-533-410 | DN | 6.82 | mg/kg | | | 50.00 | 1.6 | | 04/20/10 |
| **Hexavalent Chromium Prep** | | | | | | | | | | | **04/21/10** |
| **Hexavalent Chromium** | | | | | | | | | | | |
| Hexavalent Chromium | 18540-29-9 | LA-265-403 | NU | < 0.100 | mg/kg | | | 1.00 | 0.10 | | 04/22/10 |
| **ICP Metals Analysis, Grd H20 P Prep** | | | | | | | | | | | **04/20/10** |
| **ICP Metals Analysis, Grd H20 P** | | | | | | | | | | | |
| Lithium | 7439-93-2 | LA-505-411 | | 7.18 | mg/kg | | | 99.50 | 0.40 | | 04/23/10 |
| Boron | 7440-42-8 | LA-505-411 | E | 28.3 | mg/kg | | | 99.50 | 1.9 | | 04/23/10 |
| **ICP-200.8 MS All possible meta Prep** | | | | | | | | | | | **04/22/10** |
| **ICP-200.8 MS All possible meta** | | | | | | | | | | | |
| Manganese | 7439-96-5 | LA-505-412 | X | 365 | mg/kg | | | 0.97 | 0.0973 | | 04/23/10 |
| Nickel | 7440-02-0 | LA-505-412 | | 9.54 | mg/kg | | | 0.97 | 0.195 | | 04/23/10 |
| Silver | 7440-22-4 | LA-505-412 | U | < 0.0973 | mg/kg | | | 0.97 | 0.0973 | | 04/23/10 |
| Antimony | 7440-36-0 | LA-505-412 | U | < 0.292 | mg/kg | | | 0.97 | 0.292 | | 04/23/10 |
| Barium | 7440-39-3 | LA-505-412 | | 79.0 | mg/kg | | | 0.97 | 0.195 | | 04/23/10 |
| Beryllium | 7440-41-7 | LA-505-412 | | 0.310 | mg/kg | | | 0.97 | 0.0487 | | 04/23/10 |
| Cadmium | 7440-43-9 | LA-505-412 | | 0.130 | mg/kg | | | 0.97 | 0.0973 | | 04/23/10 |
| Chromium | 7440-47-3 | LA-505-412 | | 10.5 | mg/kg | | | 0.97 | 0.487 | | 04/23/10 |
| Cobalt | 7440-48-4 | LA-505-412 | | 8.08 | mg/kg | | | 0.97 | 0.0487 | | 04/23/10 |
| Copper | 7440-50-8 | LA-505-412 | | 12.8 | mg/kg | | | 0.97 | 0.0973 | | 04/23/10 |
| Vanadium | 7440-62-2 | LA-505-412 | | 51.8 | mg/kg | | | 0.97 | 0.195 | | 04/23/10 |
| Zinc | 7440-66-6 | LA-505-412 | | 50.4 | mg/kg | | | 0.97 | 0.779 | | 04/23/10 |
| Lead | 7439-92-1 | LA-505-412 | | 4.80 | mg/kg | | | 0.97 | 0.0973 | | 04/23/10 |

**MDL = Minimum Detection Limit**
**RQ = Result Qualifier**
**TP Err = Total Propagated Error**
**DF = Dilution Factor**

B - The analyte < the RDL but > = the IDL/MDL (inorg)
D - Analyte was identified at a secondary dilution factor.(org)
N - Spike sample recovery is outside control limits.(inorg)
T - GC/MS only - MS or MSD recovery is outside control limits.

D - Analyte was identified at a secondary dilution factor(inorg)
E - Analyte is an estimate, has potentially larger errors(inorg)
N - non GC/MS - MS or MSD recovery is outside control limits.
U - Analyzed for but not detected above limiting criteria(inorg)

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

# WSCF
# ANALYTICAL RESULTS REPORT

**Attention:** Steve Trent
**SAF Number:** F10-181
**Sample #** W10GR00984
**Client ID:** B257C4 GPP WSCF

**Matrix:** SOIL

**Group #:** WSCF20100600
**Department:** Inorganic
**Sampled:** 04/19/10
**Received:** 04/19/10

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | 7439-97-6 | LA-505-412 | U | < 0.0487 | mg/kg | | | 0.97 | 0.0487 | | 04/23/10 |
| Uranium | 7440-61-1 | LA-505-412 | | 0.500 | mg/kg | | | 0.97 | 0.0487 | | 04/23/10 |
| Arsenic | 7440-38-2 | LA-505-412 | | 2.53 | mg/kg | | | 0.97 | 0.389 | | 04/23/10 |
| Selenium | 7782-49-2 | LA-505-412 | | 1.31 | mg/kg | | | 0.97 | 0.292 | | 04/23/10 |
| Thallium | 7440-28-0 | LA-505-412 | U | < 0.0973 | mg/kg | | | 0.97 | 0.0973 | | 04/23/10 |
| Strontium | 7440-24-6 | LA-505-412 | | 21.7 | mg/kg | | | 0.97 | 0.0973 | | 04/23/10 |
| Tin | 7440-31-5 | LA-505-412 | | 0.360 | mg/kg | | | 0.97 | 0.0487 | | 04/23/10 |
| **Total solids** | | | | | | | | | | | |
| Total solids | TS | LA-519-412 | | 96.2 | Percent | | | 1.00 | 0.0 | | 04/21/10 |

**MDL = Minimum Detection Limit**
**RQ = Result Qualifier**
**TP Err = Total Propagated Error**
**DF = Dilution Factor**

B - The analyte < the RDL but > = the IDL/MDL (inorg)
D - Analyte was identified at a secondary dilution factor.(org)
N - Spike sample recovery is outside control limits.(inorg)
T - GC/MS only - MS or MSD recovery is outside control limits.

D - Analyte was identified at a secondary dilution factor(inorg)
E - Analyte is an estimate, has potentially larger errors(inorg)
N - non GC/MS - MS or MSD recovery is outside control limits.
U - Analyzed for but not detected above limiting criteria(inorg)

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

# WSCF
# ANALYTICAL RESULTS REPORT

**Attention:** Steve Trent
**SAF Number:** F10-181
**Sample #** W10GR00985
**Client ID:** B257B4 GPP WSCF

**Matrix:** SOIL

**Group #:** WSCF20100600
**Department:** Inorganic
**Sampled:** 04/19/10
**Received:** 04/19/10

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Anions by Ion Chromatography Prep** | | | | | | | | | | | **04/20/10** |
| **Anions by Ion Chromatography** | | | | | | | | | | | |
| Nitrogen in Nitrate | NO3-N | LA-533-410 | DNU | < 1.52 | mg/kg | | | 49.00 | 1.5 | | 04/20/10 |
| **Hexavalent Chromium Prep** | | | | | | | | | | | **04/21/10** |
| **Hexavalent Chromium** | | | | | | | | | | | |
| Hexavalent Chromium | 18540-29-9 | LA-265-403 | N | 0.100 | mg/kg | | | 1.00 | 0.10 | | 04/22/10 |
| **ICP Metals Analysis, Grd H20 P Prep** | | | | | | | | | | | **04/20/10** |
| **ICP Metals Analysis, Grd H20 P** | | | | | | | | | | | |
| Lithium | 7439-93-2 | LA-505-411 | | 5.50 | mg/kg | | | 99.90 | 0.40 | | 04/23/10 |
| Boron | 7440-42-8 | LA-505-411 | E | 24.4 | mg/kg | | | 99.90 | 1.9 | | 04/23/10 |
| **ICP-200.8 MS All possible meta Prep** | | | | | | | | | | | **04/22/10** |
| **ICP-200.8 MS All possible meta** | | | | | | | | | | | |
| Manganese | 7439-96-5 | LA-505-412 | X | 305 | mg/kg | | | 1.01 | 0.101 | | 04/23/10 |
| Nickel | 7440-02-0 | LA-505-412 | | 8.10 | mg/kg | | | 1.01 | 0.201 | | 04/23/10 |
| Silver | 7440-22-4 | LA-505-412 | U | < 0.101 | mg/kg | | | 1.01 | 0.101 | | 04/23/10 |
| Antimony | 7440-36-0 | LA-505-412 | U | < 0.302 | mg/kg | | | 1.01 | 0.302 | | 04/23/10 |
| Barium | 7440-39-3 | LA-505-412 | | 49.8 | mg/kg | | | 1.01 | 0.201 | | 04/23/10 |
| Beryllium | 7440-41-7 | LA-505-412 | | 0.350 | mg/kg | | | 1.01 | 0.0503 | | 04/23/10 |
| Cadmium | 7440-43-9 | LA-505-412 | U | < 0.101 | mg/kg | | | 1.01 | 0.101 | | 04/23/10 |
| Chromium | 7440-47-3 | LA-505-412 | | 6.70 | mg/kg | | | 1.01 | 0.503 | | 04/23/10 |
| Cobalt | 7440-48-4 | LA-505-412 | | 8.18 | mg/kg | | | 1.01 | 0.0503 | | 04/23/10 |
| Copper | 7440-50-8 | LA-505-412 | | 13.5 | mg/kg | | | 1.01 | 0.101 | | 04/23/10 |
| Vanadium | 7440-62-2 | LA-505-412 | | 56.4 | mg/kg | | | 1.01 | 0.201 | | 04/23/10 |
| Zinc | 7440-66-6 | LA-505-412 | | 42.5 | mg/kg | | | 1.01 | 0.805 | | 04/23/10 |
| Lead | 7439-92-1 | LA-505-412 | | 4.22 | mg/kg | | | 1.01 | 0.101 | | 04/23/10 |

**MDL = Minimum Detection Limit**
**RQ = Result Qualifier**
**TP Err = Total Propagated Error**
**DF = Dilution Factor**

B - The analyte < the RDL but > = the IDL/MDL (inorg)
D - Analyte was identified at a secondary dilution factor.(org)
N - Spike sample recovery is outside control limits.(inorg)
T - GC/MS only - MS or MSD recovery is outside control limits.

D - Analyte was identified at a secondary dilution factor(inorg)
E - Analyte is an estimate, has potentially larger errors(inorg)
N - non GC/MS - MS or MSD recovery is outside control limits.
U - Analyzed for but not detected above limiting criteria(inorg)

• - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

# WSCF
# ANALYTICAL RESULTS REPORT

**Attention:** Steve Trent
**SAF Number:** F10-181
**Sample #** W10GR00985
**Client ID:** B257B4 GPP WSCF

**Matrix:** SOIL

**Group #:** WSCF20100600
**Department:** Inorganic
**Sampled:** 04/19/10
**Received:** 04/19/10

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | 7439-97-6 | LA-505-412 | U | < 0.0503 | mg/kg | | | 1.01 | 0.0503 | | 04/23/10 |
| Uranium | 7440-61-1 | LA-505-412 | | 0.370 | mg/kg | | | 1.01 | 0.0503 | | 04/23/10 |
| Arsenic | 7440-38-2 | LA-505-412 | | 1.93 | mg/kg | | | 1.01 | 0.402 | | 04/23/10 |
| Selenium | 7782-49-2 | LA-505-412 | | 1.18 | mg/kg | | | 1.01 | 0.302 | | 04/23/10 |
| Thallium | 7440-28-0 | LA-505-412 | U | < 0.101 | mg/kg | | | 1.01 | 0.101 | | 04/23/10 |
| Strontium | 7440-24-6 | LA-505-412 | | 19.9 | mg/kg | | | 1.01 | 0.101 | | 04/23/10 |
| Tin | 7440-31-5 | LA-505-412 | | 0.770 | mg/kg | | | 1.01 | 0.0503 | | 04/23/10 |
| **Total solids** | | | | | | | | | | | |
| Total solids | TS | LA-519-412 | | 93.1 | Percent | | | 1.00 | 0.0 | | 04/21/10 |

**MDL=Minimum Detection Limit**
**RQ=Result Qualifier**
**TP Err=Total Propagated Error**
**DF=Dilution Factor**

B - The analyte < the RDL but > = the IDL/MDL (inorg)
D - Analyte was identified at a secondary dilution factor.(org)
N - Spike sample recovery is outside control limits.(inorg)
T - GC/MS only - MS or MSD recovery is outside control limits.

D - Analyte was identified at a secondary dilution factor(inorg)
E - Analyte is an estimate, has potentially larger errors(inorg)
N - non GC/MS - MS or MSD recovery is outside control limits.
U - Analyzed for but not detected above limiting criteria(inorg)

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

# WSCF
# ANALYTICAL RESULTS REPORT

**Attention:** Steve Trent
**SAF Number:** F10-181
**Sample #** W10GR00986
**Client ID:** B257C8 GPP WSCF

**Matrix:** SOIL

**Group #:** WSCF20100600
**Department:** Inorganic
**Sampled:** 04/19/10
**Received:** 04/19/10

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Anions by Ion Chromatography Prep** | | | | | | | | | | | **04/20/10** |
| **Anions by Ion Chromatography** | | | | | | | | | | | |
| Nitrogen in Nitrate | NO3-N | LA-533-410 | DNU | < 1.55 | mg/kg | | | 50.00 | 1.6 | | 04/20/10 |
| **Hexavalent Chromium Prep** | | | | | | | | | | | **04/21/10** |
| **Hexavalent Chromium** | | | | | | | | | | | |
| Hexavalent Chromium | 18540-29-9 | LA-265-403 | NU | < 0.100 | mg/kg | | | 1.00 | 0.10 | | 04/22/10 |
| **ICP Metals Analysis, Grd H20 P Prep** | | | | | | | | | | | **04/20/10** |
| **ICP Metals Analysis, Grd H20 P** | | | | | | | | | | | |
| Lithium | 7439-93-2 | LA-505-411 | | 6.91 | mg/kg | | | 99.72 | 0.40 | | 04/23/10 |
| Boron | 7440-42-8 | LA-505-411 | E | 23.0 | mg/kg | | | 99.72 | 1.9 | | 04/23/10 |
| **ICP-200.8 MS All possible meta Prep** | | | | | | | | | | | **04/22/10** |
| **ICP-200.8 MS All possible meta** | | | | | | | | | | | |
| Manganese | 7439-96-5 | LA-505-412 | X | 360 | mg/kg | | | 0.98 | 0.0981 | | 04/23/10 |
| Nickel | 7440-02-0 | LA-505-412 | | 10.5 | mg/kg | | | 0.98 | 0.196 | | 04/23/10 |
| Silver | 7440-22-4 | LA-505-412 | U | < 0.0981 | mg/kg | | | 0.98 | 0.0981 | | 04/23/10 |
| Antimony | 7440-36-0 | LA-505-412 | U | < 0.294 | mg/kg | | | 0.98 | 0.294 | | 04/23/10 |
| Barium | 7440-39-3 | LA-505-412 | | 84.6 | mg/kg | | | 0.98 | 0.196 | | 04/23/10 |
| Beryllium | 7440-41-7 | LA-505-412 | | 0.310 | mg/kg | | | 0.98 | 0.0491 | | 04/23/10 |
| Cadmium | 7440-43-9 | LA-505-412 | U | < 0.0981 | mg/kg | | | 0.98 | 0.0981 | | 04/23/10 |
| Chromium | 7440-47-3 | LA-505-412 | | 11.1 | mg/kg | | | 0.98 | 0.491 | | 04/23/10 |
| Cobalt | 7440-48-4 | LA-505-412 | | 7.67 | mg/kg | | | 0.98 | 0.0491 | | 04/23/10 |
| Copper | 7440-50-8 | LA-505-412 | | 13.9 | mg/kg | | | 0.98 | 0.0981 | | 04/23/10 |
| Vanadium | 7440-62-2 | LA-505-412 | | 45.8 | mg/kg | | | 0.98 | 0.196 | | 04/23/10 |
| Zinc | 7440-66-6 | LA-505-412 | | 40.7 | mg/kg | | | 0.98 | 0.785 | | 04/23/10 |
| Lead | 7439-92-1 | LA-505-412 | | 5.36 | mg/kg | | | 0.98 | 0.0981 | | 04/23/10 |

**MDL = Minimum Detection Limit**
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**TP Err = Total Propagated Error**
**DF = Dilution Factor**

B - The analyte < the RDL but > = the IDL/MDL (inorg)
D - Analyte was identified at a secondary dilution factor.(org)
N - Spike sample recovery is outside control limits.(inorg)
T - GC/MS only - MS or MSD recovery is outside control limits.

D - Analyte was identified at a secondary dilution factor(inorg)
E - Analyte is an estimate, has potentially larger errors(inorg)
N - non GC/MS - MS or MSD recovery is outside control limits.
U - Analyzed for but not detected above limiting criteria(inorg)

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

# WSCF
# ANALYTICAL RESULTS REPORT

**Attention:** Steve Trent
**SAF Number:** F10-181
**Sample #** W10GR00986
**Client ID:** B257C8 GPP WSCF

**Matrix:** SOIL

**Group #:** WSCF20100600
**Department:** Inorganic
**Sampled:** 04/19/10
**Received:** 04/19/10

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | 7439-97-6 | LA-505-412 | U | < 0.0491 | mg/kg | | | 0.98 | 0.0491 | | 04/23/10 |
| Uranium | 7440-61-1 | LA-505-412 | | 0.450 | mg/kg | | | 0.98 | 0.0491 | | 04/23/10 |
| Arsenic | 7440-38-2 | LA-505-412 | | 2.58 | mg/kg | | | 0.98 | 0.393 | | 04/23/10 |
| Selenium | 7782-49-2 | LA-505-412 | | 1.65 | mg/kg | | | 0.98 | 0.294 | | 04/23/10 |
| Thallium | 7440-28-0 | LA-505-412 | U | < 0.0981 | mg/kg | | | 0.98 | 0.0981 | | 04/23/10 |
| Strontium | 7440-24-6 | LA-505-412 | | 24.8 | mg/kg | | | 0.98 | 0.0981 | | 04/23/10 |
| Tin | 7440-31-5 | LA-505-412 | | 0.360 | mg/kg | | | 0.98 | 0.0491 | | 04/23/10 |
| **Total solids** | | | | | | | | | | | |
| Total solids | TS | LA-519-412 | | 94.5 | Percent | | | 1.00 | 0.0 | | 04/21/10 |

**MDL = Minimum Detection Limit**
**RQ = Result Qualifier**
**TP Err = Total Propagated Error**
**DF = Dilution Factor**

B - The analyte < the RDL but > = the IDL/MDL (inorg)
D - Analyte was identified at a secondary dilution factor.(org)
N - Spike sample recovery is outside control limits.(inorg)
T - GC/MS only - MS or MSD recovery is outside control limits.

D - Analyte was identified at a secondary dilution factor(inorg)
E - Analyte is an estimate, has potentially larger errors(inorg)
N - non GC/MS - MS or MSD recovery is outside control limits.
U - Analyzed for but not detected above limiting criteria(inorg)

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

# WSCF
# ANALYTICAL RESULTS REPORT

**Attention:** Steve Trent
**SAF Number:** F10-181
**Sample #** W10GR00987
**Client ID:** B25796 GPP WSCF

**Matrix:** SOIL

**Group #:** WSCF20100600
**Department:** Inorganic
**Sampled:** 04/19/10
**Received:** 04/19/10

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Anions by Ion Chromatography Prep** | | | | | | | | | | | **04/20/10** |
| **Anions by Ion Chromatography** | | | | | | | | | | | |
| Nitrogen in Nitrate | NO3-N | LA-533-410 | DNU | < 1.55 | mg/kg | | | 50.00 | 1.6 | | 04/20/10 |
| **Hexavalent Chromium Prep** | | | | | | | | | | | **04/21/10** |
| **Hexavalent Chromium** | | | | | | | | | | | |
| Hexavalent Chromium | 18540-29-9 | LA-265-403 | NU | < 0.100 | mg/kg | | | 1.00 | 0.10 | | 04/22/10 |
| **ICP Metals Analysis, Grd H20 P Prep** | | | | | | | | | | | **04/20/10** |
| **ICP Metals Analysis, Grd H20 P** | | | | | | | | | | | |
| Lithium | 7439-93-2 | LA-505-411 | | 9.18 | mg/kg | | | 99.48 | 0.40 | | 04/23/10 |
| Boron | 7440-42-8 | LA-505-411 | E | 25.1 | mg/kg | | | 99.48 | 1.9 | | 04/23/10 |
| **ICP-200.8 MS All possible meta Prep** | | | | | | | | | | | **04/22/10** |
| **ICP-200.8 MS All possible meta** | | | | | | | | | | | |
| Manganese | 7439-96-5 | LA-505-412 | X | 344 | mg/kg | | | 0.83 | 0.0833 | | 04/23/10 |
| Nickel | 7440-02-0 | LA-505-412 | | 10.3 | mg/kg | | | 0.83 | 0.167 | | 04/23/10 |
| Silver | 7440-22-4 | LA-505-412 | U | < 0.0833 | mg/kg | | | 0.83 | 0.0833 | | 04/23/10 |
| Antimony | 7440-36-0 | LA-505-412 | U | < 0.250 | mg/kg | | | 0.83 | 0.250 | | 04/23/10 |
| Barium | 7440-39-3 | LA-505-412 | | 63.0 | mg/kg | | | 0.83 | 0.167 | | 04/23/10 |
| Beryllium | 7440-41-7 | LA-505-412 | | 0.390 | mg/kg | | | 0.83 | 0.0416 | | 04/23/10 |
| Cadmium | 7440-43-9 | LA-505-412 | U | < 0.0833 | mg/kg | | | 0.83 | 0.0833 | | 04/23/10 |
| Chromium | 7440-47-3 | LA-505-412 | | 8.10 | mg/kg | | | 0.83 | 0.416 | | 04/23/10 |
| Cobalt | 7440-48-4 | LA-505-412 | | 9.42 | mg/kg | | | 0.83 | 0.0416 | | 04/23/10 |
| Copper | 7440-50-8 | LA-505-412 | | 20.4 | mg/kg | | | 0.83 | 0.0833 | | 04/23/10 |
| Vanadium | 7440-62-2 | LA-505-412 | | 58.2 | mg/kg | | | 0.83 | 0.167 | | 04/23/10 |
| Zinc | 7440-66-6 | LA-505-412 | | 47.5 | mg/kg | | | 0.83 | 0.666 | | 04/23/10 |
| Lead | 7439-92-1 | LA-505-412 | | 6.72 | mg/kg | | | 0.83 | 0.0833 | | 04/23/10 |

**MDL = Minimum Detection Limit**
**RQ = Result Qualifier**
**TP Err = Total Propagated Error**
**DF = Dilution Factor**

B - The analyte < the RDL but > = the IDL/MDL (inorg)
D - Analyte was identified at a secondary dilution factor.(org)
N - Spike sample recovery is outside control limits.(inorg)
T - GC/MS only - MS or MSD recovery is outside control limits.

D - Analyte was identified at a secondary dilution factor(inorg)
E - Analyte is an estimate, has potentially larger errors(inorg)
N - non GC/MS - MS or MSD recovery is outside control limits.
U - Analyzed for but not detected above limiting criteria(inorg)

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

# WSCF
# ANALYTICAL RESULTS REPORT

**Attention:** Steve Trent
**SAF Number:** F10-181
**Sample #** W10GR00987
**Client ID:** B25796 GPP WSCF

**Matrix:** SOIL

**Group #:** WSCF20100600
**Department:** Inorganic
**Sampled:** 04/19/10
**Received:** 04/19/10

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | 7439-97-6 | LA-505-412 | U | < 0.0416 | mg/kg | | | 0.83 | 0.0416 | | 04/23/10 |
| Uranium | 7440-61-1 | LA-505-412 | | 0.540 | mg/kg | | | 0.83 | 0.0416 | | 04/23/10 |
| Arsenic | 7440-38-2 | LA-505-412 | | 3.16 | mg/kg | | | 0.83 | 0.333 | | 04/23/10 |
| Selenium | 7782-49-2 | LA-505-412 | | 1.27 | mg/kg | | | 0.83 | 0.250 | | 04/23/10 |
| Thallium | 7440-28-0 | LA-505-412 | | 0.0900 | mg/kg | | | 0.83 | 0.0833 | | 04/23/10 |
| Strontium | 7440-24-6 | LA-505-412 | | 35.7 | mg/kg | | | 0.83 | 0.0833 | | 04/23/10 |
| Tin | 7440-31-5 | LA-505-412 | | 0.510 | mg/kg | | | 0.83 | 0.0416 | | 04/23/10 |
| **Total solids** | | | | | | | | | | | |
| Total solids | TS | LA-519-412 | | 92.9 | Percent | | | 1.00 | 0.0 | | 04/21/10 |

**MDL = Minimum Detection Limit**
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**TP Err = Total Propagated Error**
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B - The analyte < the RDL but > = the IDL/MDL (inorg)
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T - GC/MS only - MS or MSD recovery is outside control limits.

D - Analyte was identified at a secondary dilution factor(inorg)
E - Analyte is an estimate, has potentially larger errors(inorg)
N - non GC/MS - MS or MSD recovery is outside control limits.
U - Analyzed for but not detected above limiting criteria(inorg)

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

# WSCF
# ANALYTICAL RESULTS REPORT

**Attention:** Steve Trent
**SAF Number:** F10-181
**Sample #** W10GR00988
**Client ID:** B257C6 GPP WSCF

**Matrix:** SOIL

**Group #:** WSCF20100600
**Department:** Inorganic
**Sampled:** 04/19/10
**Received:** 04/19/10

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Anions by Ion Chromatography Prep** | | | | | | | | | | | **04/20/10** |
| **Anions by Ion Chromatography** | | | | | | | | | | | |
| Nitrogen in Nitrate | NO3-N | LA-533-410 | DU | < 1.55 | mg/kg | | | 50.00 | 1.6 | | 04/20/10 |
| **Hexavalent Chromium Prep** | | | | | | | | | | | **04/21/10** |
| **Hexavalent Chromium** | | | | | | | | | | | |
| Hexavalent Chromium | 18540-29-9 | LA-265-403 | NU | < 0.100 | mg/kg | | | 1.00 | 0.10 | | 04/22/10 |
| **ICP Metals Analysis, Grd H20 P Prep** | | | | | | | | | | | **04/20/10** |
| **ICP Metals Analysis, Grd H20 P** | | | | | | | | | | | |
| Lithium | 7439-93-2 | LA-505-411 | | 6.93 | mg/kg | | | 99.80 | 0.40 | | 04/23/10 |
| Boron | 7440-42-8 | LA-505-411 | E | 19.8 | mg/kg | | | 99.80 | 1.9 | | 04/23/10 |
| **ICP-200.8 MS All possible meta Prep** | | | | | | | | | | | **04/22/10** |
| **ICP-200.8 MS All possible meta** | | | | | | | | | | | |
| Manganese | 7439-96-5 | LA-505-412 | X | 331 | mg/kg | | | 0.97 | 0.0967 | | 04/23/10 |
| Nickel | 7440-02-0 | LA-505-412 | | 9.77 | mg/kg | | | 0.97 | 0.193 | | 04/23/10 |
| Silver | 7440-22-4 | LA-505-412 | U | < 0.0967 | mg/kg | | | 0.97 | 0.0967 | | 04/23/10 |
| Antimony | 7440-36-0 | LA-505-412 | U | < 0.290 | mg/kg | | | 0.97 | 0.290 | | 04/23/10 |
| Barium | 7440-39-3 | LA-505-412 | | 79.7 | mg/kg | | | 0.97 | 0.193 | | 04/23/10 |
| Beryllium | 7440-41-7 | LA-505-412 | | 0.260 | mg/kg | | | 0.97 | 0.0483 | | 04/23/10 |
| Cadmium | 7440-43-9 | LA-505-412 | | 0.110 | mg/kg | | | 0.97 | 0.0967 | | 04/23/10 |
| Chromium | 7440-47-3 | LA-505-412 | | 9.63 | mg/kg | | | 0.97 | 0.483 | | 04/23/10 |
| Cobalt | 7440-48-4 | LA-505-412 | | 7.20 | mg/kg | | | 0.97 | 0.0483 | | 04/23/10 |
| Copper | 7440-50-8 | LA-505-412 | | 12.8 | mg/kg | | | 0.97 | 0.0967 | | 04/23/10 |
| Vanadium | 7440-62-2 | LA-505-412 | | 45.3 | mg/kg | | | 0.97 | 0.193 | | 04/23/10 |
| Zinc | 7440-66-6 | LA-505-412 | | 38.6 | mg/kg | | | 0.97 | 0.773 | | 04/23/10 |
| Lead | 7439-92-1 | LA-505-412 | | 5.33 | mg/kg | | | 0.97 | 0.0967 | | 04/23/10 |

**MDL = Minimum Detection Limit**
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**TP Err = Total Propagated Error**
**DF = Dilution Factor**

B - The analyte < the RDL but > = the IDL/MDL (inorg)
D - Analyte was identified at a secondary dilution factor.(org)
N - Spike sample recovery is outside control limits.(inorg)
T - GC/MS only - MS or MSD recovery is outside control limits.

D - Analyte was identified at a secondary dilution factor(inorg)
E - Analyte is an estimate, has potentially larger errors(inorg)
N - non GC/MS - MS or MSD recovery is outside control limits.
U - Analyzed for but not detected above limiting criteria(inorg)

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

# WSCF
# ANALYTICAL RESULTS REPORT

**Attention:** Steve Trent
**SAF Number:** F10-181
**Sample #** W10GR00988
**Client ID:** B257C6 GPP WSCF

**Matrix:** SOIL

**Group #:** WSCF20100600
**Department:** Inorganic
**Sampled:** 04/19/10
**Received:** 04/19/10

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | 7439-97-6 | LA-505-412 | U | < 0.0483 | mg/kg | | | 0.97 | 0.0483 | | 04/23/10 |
| Uranium | 7440-61-1 | LA-505-412 | | 0.400 | mg/kg | | | 0.97 | 0.0483 | | 04/23/10 |
| Arsenic | 7440-38-2 | LA-505-412 | | 2.56 | mg/kg | | | 0.97 | 0.387 | | 04/23/10 |
| Selenium | 7782-49-2 | LA-505-412 | | 0.870 | mg/kg | | | 0.97 | 0.290 | | 04/23/10 |
| Thallium | 7440-28-0 | LA-505-412 | U | < 0.0967 | mg/kg | | | 0.97 | 0.0967 | | 04/23/10 |
| Strontium | 7440-24-6 | LA-505-412 | | 25.3 | mg/kg | | | 0.97 | 0.0967 | | 04/23/10 |
| Tin | 7440-31-5 | LA-505-412 | | 0.550 | mg/kg | | | 0.97 | 0.0483 | | 04/23/10 |
| **Total solids** | | | | | | | | | | | |
| Total solids | TS | LA-519-412 | | 93.1 | Percent | | | 1.00 | 0.0 | | 04/21/10 |

**MDL = Minimum Detection Limit**
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B - The analyte < the RDL but > = the IDL/MDL (inorg)
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# WSCF
# ANALYTICAL RESULTS REPORT

**Attention:** Steve Trent
**SAF Number:** F10-181
**Sample #** W10GR00989
**Client ID:** B257C0 GPP WSCF

**Matrix:** SOIL

**Group #:** WSCF20100600
**Department:** Inorganic
**Sampled:** 04/19/10
**Received:** 04/19/10

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Anions by Ion Chromatography Prep** | | | | | | | | | | | **04/20/10** |
| **Anions by Ion Chromatography** | | | | | | | | | | | |
| Nitrogen in Nitrate | NO3-N | LA-533-410 | DU | < 1.55 | mg/kg | | | 50.00 | 1.6 | | 04/20/10 |
| **Hexavalent Chromium Prep** | | | | | | | | | | | **04/21/10** |
| **Hexavalent Chromium** | | | | | | | | | | | |
| Hexavalent Chromium | 18540-29-9 | LA-265-403 | NU | < 0.100 | mg/kg | | | 1.00 | 0.10 | | 04/22/10 |
| **ICP Metals Analysis, Grd H20 P Prep** | | | | | | | | | | | **04/20/10** |
| **ICP Metals Analysis, Grd H20 P** | | | | | | | | | | | |
| Lithium | 7439-93-2 | LA-505-411 | | 7.90 | mg/kg | | | 99.70 | 0.40 | | 04/23/10 |
| Boron | 7440-42-8 | LA-505-411 | E | 22.0 | mg/kg | | | 99.70 | 1.9 | | 04/23/10 |
| **ICP-200.8 MS All possible meta Prep** | | | | | | | | | | | **04/22/10** |
| **ICP-200.8 MS All possible meta** | | | | | | | | | | | |
| Manganese | 7439-96-5 | LA-505-412 | X | 372 | mg/kg | | | 0.88 | 0.0883 | | 04/23/10 |
| Nickel | 7440-02-0 | LA-505-412 | | 10.4 | mg/kg | | | 0.88 | 0.177 | | 04/23/10 |
| Silver | 7440-22-4 | LA-505-412 | U | < 0.0883 | mg/kg | | | 0.88 | 0.0883 | | 04/23/10 |
| Antimony | 7440-36-0 | LA-505-412 | U | < 0.265 | mg/kg | | | 0.88 | 0.265 | | 04/23/10 |
| Barium | 7440-39-3 | LA-505-412 | | 77.1 | mg/kg | | | 0.88 | 0.177 | | 04/23/10 |
| Beryllium | 7440-41-7 | LA-505-412 | | 0.410 | mg/kg | | | 0.88 | 0.0442 | | 04/23/10 |
| Cadmium | 7440-43-9 | LA-505-412 | U | < 0.0883 | mg/kg | | | 0.88 | 0.0883 | | 04/23/10 |
| Chromium | 7440-47-3 | LA-505-412 | | 10.5 | mg/kg | | | 0.88 | 0.442 | | 04/23/10 |
| Cobalt | 7440-48-4 | LA-505-412 | | 8.14 | mg/kg | | | 0.88 | 0.0442 | | 04/23/10 |
| Copper | 7440-50-8 | LA-505-412 | | 17.4 | mg/kg | | | 0.88 | 0.0883 | | 04/23/10 |
| Vanadium | 7440-62-2 | LA-505-412 | | 45.6 | mg/kg | | | 0.88 | 0.177 | | 04/23/10 |
| Zinc | 7440-66-6 | LA-505-412 | | 39.1 | mg/kg | | | 0.88 | 0.707 | | 04/23/10 |
| Lead | 7439-92-1 | LA-505-412 | | 6.91 | mg/kg | | | 0.88 | 0.0883 | | 04/23/10 |

**MDL=Minimum Detection Limit**
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**DF=Dilution Factor**

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E - Analyte is an estimate, has potentially larger errors(inorg)
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U - Analyzed for but not detected above limiting criteria(inorg)

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# WSCF
# ANALYTICAL RESULTS REPORT

**Attention:** Steve Trent
**SAF Number:** F10-181
**Sample #** W10GR00989
**Client ID:** B257C0 GPP WSCF

**Matrix:** SOIL

**Group #:** WSCF20100600
**Department:** Inorganic
**Sampled:** 04/19/10
**Received:** 04/19/10

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | 7439-97-6 | LA-505-412 | U | < 0.0442 | mg/kg | | | 0.88 | 0.0442 | | 04/23/10 |
| Uranium | 7440-61-1 | LA-505-412 | | 0.560 | mg/kg | | | 0.88 | 0.0442 | | 04/23/10 |
| Arsenic | 7440-38-2 | LA-505-412 | | 3.43 | mg/kg | | | 0.88 | 0.353 | | 04/23/10 |
| Selenium | 7782-49-2 | LA-505-412 | | 0.960 | mg/kg | | | 0.88 | 0.265 | | 04/23/10 |
| Thallium | 7440-28-0 | LA-505-412 | | 0.120 | mg/kg | | | 0.88 | 0.0883 | | 04/23/10 |
| Strontium | 7440-24-6 | LA-505-412 | | 27.4 | mg/kg | | | 0.88 | 0.0883 | | 04/23/10 |
| Tin | 7440-31-5 | LA-505-412 | | 0.460 | mg/kg | | | 0.88 | 0.0442 | | 04/23/10 |
| **Total solids** | | | | | | | | | | | |
| Total solids | TS | LA-519-412 | | 96.7 | Percent | | | 1.00 | 0.0 | | 04/21/10 |

**MDL = Minimum Detection Limit**
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# WSCF
# ANALYTICAL RESULTS REPORT

**Attention:** Steve Trent
**SAF Number:** F10-181
**Sample #** W10GR00990
**Client ID:** B25794 GPP WSCF

**Matrix:** SOIL

**Group #:** WSCF20100600
**Department:** Inorganic
**Sampled:** 04/19/10
**Received:** 04/19/10

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Anions by Ion Chromatography Prep** | | | | | | | | | | | **04/20/10** |
| **Anions by Ion Chromatography** | | | | | | | | | | | |
| Nitrogen in Nitrate | NO3-N | LA-533-410 | DU | < 1.55 | mg/kg | | | 50.00 | 1.6 | | 04/20/10 |
| **Hexavalent Chromium Prep** | | | | | | | | | | | **04/21/10** |
| **Hexavalent Chromium** | | | | | | | | | | | |
| Hexavalent Chromium | 18540-29-9 | LA-265-403 | NU | < 0.100 | mg/kg | | | 1.00 | 0.10 | | 04/22/10 |
| **ICP Metals Analysis, Grd H20 P Prep** | | | | | | | | | | | **04/20/10** |
| **ICP Metals Analysis, Grd H20 P** | | | | | | | | | | | |
| Lithium | 7439-93-2 | LA-505-411 | | 6.72 | mg/kg | | | 99.72 | 0.40 | | 04/23/10 |
| Boron | 7440-42-8 | LA-505-411 | E | 21.4 | mg/kg | | | 99.72 | 1.9 | | 04/23/10 |
| **ICP-200.8 MS All possible meta Prep** | | | | | | | | | | | **04/22/10** |
| **ICP-200.8 MS All possible meta** | | | | | | | | | | | |
| Manganese | 7439-96-5 | LA-505-412 | X | 323 | mg/kg | | | 0.88 | 0.0882 | | 04/23/10 |
| Nickel | 7440-02-0 | LA-505-412 | | 9.02 | mg/kg | | | 0.88 | 0.176 | | 04/23/10 |
| Silver | 7440-22-4 | LA-505-412 | U | < 0.0882 | mg/kg | | | 0.88 | 0.0882 | | 04/23/10 |
| Antimony | 7440-36-0 | LA-505-412 | U | < 0.265 | mg/kg | | | 0.88 | 0.265 | | 04/23/10 |
| Barium | 7440-39-3 | LA-505-412 | | 76.6 | mg/kg | | | 0.88 | 0.176 | | 04/23/10 |
| Beryllium | 7440-41-7 | LA-505-412 | | 0.350 | mg/kg | | | 0.88 | 0.0441 | | 04/23/10 |
| Cadmium | 7440-43-9 | LA-505-412 | U | < 0.0882 | mg/kg | | | 0.88 | 0.0882 | | 04/23/10 |
| Chromium | 7440-47-3 | LA-505-412 | | 9.63 | mg/kg | | | 0.88 | 0.441 | | 04/23/10 |
| Cobalt | 7440-48-4 | LA-505-412 | | 7.26 | mg/kg | | | 0.88 | 0.0441 | | 04/23/10 |
| Copper | 7440-50-8 | LA-505-412 | | 11.0 | mg/kg | | | 0.88 | 0.0882 | | 04/23/10 |
| Vanadium | 7440-62-2 | LA-505-412 | | 44.3 | mg/kg | | | 0.88 | 0.176 | | 04/23/10 |
| Zinc | 7440-66-6 | LA-505-412 | | 40.6 | mg/kg | | | 0.88 | 0.706 | | 04/23/10 |
| Lead | 7439-92-1 | LA-505-412 | | 5.34 | mg/kg | | | 0.88 | 0.0882 | | 04/23/10 |

**MDL = Minimum Detection Limit**
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# WSCF
# ANALYTICAL RESULTS REPORT

**Attention:** Steve Trent
**SAF Number:** F10-181
**Sample #** W10GR00990
**Client ID:** B25794 GPP WSCF

**Matrix:** SOIL

**Group #:** WSCF20100600
**Department:** Inorganic
**Sampled:** 04/19/10
**Received:** 04/19/10

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | 7439-97-6 | LA-505-412 | U | < 0.0441 | mg/kg | | | 0.88 | 0.0441 | | 04/23/10 |
| Uranium | 7440-61-1 | LA-505-412 | | 0.470 | mg/kg | | | 0.88 | 0.0441 | | 04/23/10 |
| Arsenic | 7440-38-2 | LA-505-412 | | 2.65 | mg/kg | | | 0.88 | 0.353 | | 04/23/10 |
| Selenium | 7782-49-2 | LA-505-412 | | 0.840 | mg/kg | | | 0.88 | 0.265 | | 04/23/10 |
| Thallium | 7440-28-0 | LA-505-412 | U | < 0.0882 | mg/kg | | | 0.88 | 0.0882 | | 04/23/10 |
| Strontium | 7440-24-6 | LA-505-412 | | 22.9 | mg/kg | | | 0.88 | 0.0882 | | 04/23/10 |
| Tin | 7440-31-5 | LA-505-412 | | 0.690 | mg/kg | | | 0.88 | 0.0441 | | 04/23/10 |
| **Total solids** | | | | | | | | | | | |
| Total solids | TS | LA-519-412 | | 97.8 | Percent | | | 1.00 | 0.0 | | 04/21/10 |

**MDL = Minimum Detection Limit**
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**TP Err = Total Propagated Error**
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# WSCF
# ANALYTICAL RESULTS REPORT

**Attention:** Steve Trent
**SAF Number:** F10-181
**Sample #** W10GR00991
**Client ID:** B257B2 GPP WSCF

**Matrix:** SOIL

**Group #:** WSCF20100600
**Department:** Inorganic
**Sampled:** 04/19/10
**Received:** 04/19/10

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Anions by Ion Chromatography Prep** | | | | | | | | | | | **04/20/10** |
| **Anions by Ion Chromatography** | | | | | | | | | | | |
| Nitrogen in Nitrate | NO3-N | LA-533-410 | DU | < 1.55 | mg/kg | | | 50.00 | 1.6 | | 04/20/10 |
| **Hexavalent Chromium Prep** | | | | | | | | | | | **04/21/10** |
| **Hexavalent Chromium** | | | | | | | | | | | |
| Hexavalent Chromium | 18540-29-9 | LA-265-403 | NU | < 0.100 | mg/kg | | | 1.00 | 0.10 | | 04/22/10 |
| **ICP Metals Analysis, Grd H20 P Prep** | | | | | | | | | | | **04/20/10** |
| **ICP Metals Analysis, Grd H20 P** | | | | | | | | | | | |
| Lithium | 7439-93-2 | LA-505-411 | | 6.39 | mg/kg | | | 99.82 | 0.40 | | 04/23/10 |
| Boron | 7440-42-8 | LA-505-411 | E | 26.2 | mg/kg | | | 99.82 | 1.9 | | 04/23/10 |
| **ICP-200.8 MS All possible meta Prep** | | | | | | | | | | | **04/22/10** |
| **ICP-200.8 MS All possible meta** | | | | | | | | | | | |
| Manganese | 7439-96-5 | LA-505-412 | X | 324 | mg/kg | | | 0.92 | 0.0920 | | 04/23/10 |
| Nickel | 7440-02-0 | LA-505-412 | | 9.66 | mg/kg | | | 0.92 | 0.184 | | 04/23/10 |
| Silver | 7440-22-4 | LA-505-412 | U | < 0.0920 | mg/kg | | | 0.92 | 0.0920 | | 04/23/10 |
| Antimony | 7440-36-0 | LA-505-412 | U | < 0.276 | mg/kg | | | 0.92 | 0.276 | | 04/23/10 |
| Barium | 7440-39-3 | LA-505-412 | | 51.0 | mg/kg | | | 0.92 | 0.184 | | 04/23/10 |
| Beryllium | 7440-41-7 | LA-505-412 | | 0.280 | mg/kg | | | 0.92 | 0.0460 | | 04/23/10 |
| Cadmium | 7440-43-9 | LA-505-412 | U | < 0.0920 | mg/kg | | | 0.92 | 0.0920 | | 04/23/10 |
| Chromium | 7440-47-3 | LA-505-412 | | 7.22 | mg/kg | | | 0.92 | 0.460 | | 04/23/10 |
| Cobalt | 7440-48-4 | LA-505-412 | | 8.59 | mg/kg | | | 0.92 | 0.0460 | | 04/23/10 |
| Copper | 7440-50-8 | LA-505-412 | | 14.5 | mg/kg | | | 0.92 | 0.0920 | | 04/23/10 |
| Vanadium | 7440-62-2 | LA-505-412 | | 55.9 | mg/kg | | | 0.92 | 0.184 | | 04/23/10 |
| Zinc | 7440-66-6 | LA-505-412 | | 42.8 | mg/kg | | | 0.92 | 0.736 | | 04/23/10 |
| Lead | 7439-92-1 | LA-505-412 | | 4.11 | mg/kg | | | 0.92 | 0.0920 | | 04/23/10 |

**MDL = Minimum Detection Limit**
**RQ = Result Qualifier**
**TP Err = Total Propagated Error**
**DF = Dilution Factor**

B - The analyte < the RDL but > = the IDL/MDL (inorg)
D - Analyte was identified at a secondary dilution factor.(org)
N - Spike sample recovery is outside control limits.(inorg)
T - GC/MS only - MS or MSD recovery is outside control limits.

D - Analyte was identified at a secondary dilution factor(inorg)
E - Analyte is an estimate, has potentially larger errors(inorg)
N - non GC/MS - MS or MSD recovery is outside control limits.
U - Analyzed for but not detected above limiting criteria(inorg)

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

# WSCF
# ANALYTICAL RESULTS REPORT

**Attention:** Steve Trent
**SAF Number:** F10-181
**Sample #** W10GR00991
**Client ID:** B257B2 GPP WSCF

**Matrix:** SOIL

**Group #:** WSCF20100600
**Department:** Inorganic
**Sampled:** 04/19/10
**Received:** 04/19/10

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | 7439-97-6 | LA-505-412 | U | < 0.0460 | mg/kg | | | 0.92 | 0.0460 | | 04/23/10 |
| Uranium | 7440-61-1 | LA-505-412 | | 0.440 | mg/kg | | | 0.92 | 0.0460 | | 04/23/10 |
| Arsenic | 7440-38-2 | LA-505-412 | | 2.14 | mg/kg | | | 0.92 | 0.368 | | 04/23/10 |
| Selenium | 7782-49-2 | LA-505-412 | | 1.50 | mg/kg | | | 0.92 | 0.276 | | 04/23/10 |
| Thallium | 7440-28-0 | LA-505-412 | U | < 0.0920 | mg/kg | | | 0.92 | 0.0920 | | 04/23/10 |
| Strontium | 7440-24-6 | LA-505-412 | | 22.4 | mg/kg | | | 0.92 | 0.0920 | | 04/23/10 |
| Tin | 7440-31-5 | LA-505-412 | | 0.430 | mg/kg | | | 0.92 | 0.0460 | | 04/23/10 |
| **Total solids** | | | | | | | | | | | |
| Total solids | TS | LA-519-412 | | 96.5 | Percent | | | 1.00 | 0.0 | | 04/21/10 |

**MDL = Minimum Detection Limit**
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U - Analyzed for but not detected above limiting criteria(inorg)

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# WSCF
# ANALYTICAL RESULTS REPORT

**Attention:** Steve Trent
**SAF Number:** F10-181
**Sample #** W10GR00992
**Client ID:** B257B8 GPP WSCF

**Matrix:** SOIL

**Group #:** WSCF20100600
**Department:** Inorganic
**Sampled:** 04/19/10
**Received:** 04/19/10

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Anions by Ion Chromatography Prep** | | | | | | | | | | | **04/20/10** |
| **Anions by Ion Chromatography** | | | | | | | | | | | |
| Nitrogen in Nitrate | NO3-N | LA-533-410 | D | 6.83 | mg/kg | | | 50.00 | 1.6 | | 04/20/10 |
| **Hexavalent Chromium Prep** | | | | | | | | | | | **04/21/10** |
| **Hexavalent Chromium** | | | | | | | | | | | |
| Hexavalent Chromium | 18540-29-9 | LA-265-403 | NU | < 0.100 | mg/kg | | | 1.00 | 0.10 | | 04/22/10 |
| **ICP Metals Analysis, Grd H20 P Prep** | | | | | | | | | | | **04/20/10** |
| **ICP Metals Analysis, Grd H20 P** | | | | | | | | | | | |
| Lithium | 7439-93-2 | LA-505-411 | | 4.48 | mg/kg | | | 99.80 | 0.40 | | 04/23/10 |
| Boron | 7440-42-8 | LA-505-411 | E | 26.0 | mg/kg | | | 99.80 | 1.9 | | 04/23/10 |
| **ICP-200.8 MS All possible meta Prep** | | | | | | | | | | | **04/22/10** |
| **ICP-200.8 MS All possible meta** | | | | | | | | | | | |
| Manganese | 7439-96-5 | LA-505-412 | X | 299 | mg/kg | | | 0.93 | 0.0928 | | 04/23/10 |
| Nickel | 7440-02-0 | LA-505-412 | | 7.41 | mg/kg | | | 0.93 | 0.186 | | 04/23/10 |
| Silver | 7440-22-4 | LA-505-412 | U | < 0.0928 | mg/kg | | | 0.93 | 0.0928 | | 04/23/10 |
| Antimony | 7440-36-0 | LA-505-412 | U | < 0.278 | mg/kg | | | 0.93 | 0.278 | | 04/23/10 |
| Barium | 7440-39-3 | LA-505-412 | | 46.0 | mg/kg | | | 0.93 | 0.186 | | 04/23/10 |
| Beryllium | 7440-41-7 | LA-505-412 | | 0.250 | mg/kg | | | 0.93 | 0.0464 | | 04/23/10 |
| Cadmium | 7440-43-9 | LA-505-412 | U | < 0.0928 | mg/kg | | | 0.93 | 0.0928 | | 04/23/10 |
| Chromium | 7440-47-3 | LA-505-412 | | 4.33 | mg/kg | | | 0.93 | 0.464 | | 04/23/10 |
| Cobalt | 7440-48-4 | LA-505-412 | | 8.37 | mg/kg | | | 0.93 | 0.0464 | | 04/23/10 |
| Copper | 7440-50-8 | LA-505-412 | | 14.6 | mg/kg | | | 0.93 | 0.0928 | | 04/23/10 |
| Vanadium | 7440-62-2 | LA-505-412 | | 61.7 | mg/kg | | | 0.93 | 0.186 | | 04/23/10 |
| Zinc | 7440-66-6 | LA-505-412 | | 51.9 | mg/kg | | | 0.93 | 0.742 | | 04/23/10 |
| Lead | 7439-92-1 | LA-505-412 | | 3.53 | mg/kg | | | 0.93 | 0.0928 | | 04/23/10 |

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T - GC/MS only - MS or MSD recovery is outside control limits.

D - Analyte was identified at a secondary dilution factor(inorg)
E - Analyte is an estimate, has potentially larger errors(inorg)
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U - Analyzed for but not detected above limiting criteria(inorg)

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# WSCF
# ANALYTICAL RESULTS REPORT

**Attention:** Steve Trent
**SAF Number:** F10-181
**Sample #** W10GR00992
**Client ID:** B257B8 GPP WSCF

**Matrix:** SOIL

**Group #:** WSCF20100600
**Department:** Inorganic
**Sampled:** 04/19/10
**Received:** 04/19/10

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | 7439-97-6 | LA-505-412 | U | < 0.0464 | mg/kg | | | 0.93 | 0.0464 | | 04/23/10 |
| Uranium | 7440-61-1 | LA-505-412 | | 0.400 | mg/kg | | | 0.93 | 0.0464 | | 04/23/10 |
| Arsenic | 7440-38-2 | LA-505-412 | | 2.19 | mg/kg | | | 0.93 | 0.371 | | 04/23/10 |
| Selenium | 7782-49-2 | LA-505-412 | | 1.54 | mg/kg | | | 0.93 | 0.278 | | 04/23/10 |
| Thallium | 7440-28-0 | LA-505-412 | U | < 0.0928 | mg/kg | | | 0.93 | 0.0928 | | 04/23/10 |
| Strontium | 7440-24-6 | LA-505-412 | | 21.1 | mg/kg | | | 0.93 | 0.0928 | | 04/23/10 |
| Tin | 7440-31-5 | LA-505-412 | | 1.74 | mg/kg | | | 0.93 | 0.0464 | | 04/23/10 |
| **Total solids** | | | | | | | | | | | |
| Total solids | TS | LA-519-412 | | 95.5 | Percent | | | 1.00 | 0.0 | | 04/21/10 |

**MDL=Minimum Detection Limit**
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# WSCF
# ANALYTICAL RESULTS REPORT

**Attention:** Steve Trent
**SAF Number:** F10-181
**Sample #** W10GR00993
**Client ID:** B257B0 GPP WSCF

**Matrix:** SOIL

**Group #:** WSCF20100600
**Department:** Inorganic
**Sampled:** 04/19/10
**Received:** 04/19/10

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Anions by Ion Chromatography Prep** | | | | | | | | | | | **04/20/10** |
| **Anions by Ion Chromatography** | | | | | | | | | | | |
| Nitrogen in Nitrate | NO3-N | LA-533-410 | D | 7.16 | mg/kg | | | 50.00 | 1.6 | | 04/20/10 |
| **Hexavalent Chromium Prep** | | | | | | | | | | | **04/21/10** |
| **Hexavalent Chromium** | | | | | | | | | | | |
| Hexavalent Chromium | 18540-29-9 | LA-265-403 | NU | < 0.100 | mg/kg | | | 1.00 | 0.10 | | 04/22/10 |
| **ICP Metals Analysis, Grd H20 P Prep** | | | | | | | | | | | **04/20/10** |
| **ICP Metals Analysis, Grd H20 P** | | | | | | | | | | | |
| Lithium | 7439-93-2 | LA-505-411 | | 7.09 | mg/kg | | | 99.52 | 0.40 | | 04/23/10 |
| Boron | 7440-42-8 | LA-505-411 | E | 24.0 | mg/kg | | | 99.52 | 1.9 | | 04/23/10 |
| **ICP-200.8 MS All possible meta Prep** | | | | | | | | | | | **04/22/10** |
| **ICP-200.8 MS All possible meta** | | | | | | | | | | | |
| Manganese | 7439-96-5 | LA-505-412 | X | 327 | mg/kg | | | 0.89 | 0.0892 | | 04/23/10 |
| Nickel | 7440-02-0 | LA-505-412 | | 9.36 | mg/kg | | | 0.89 | 0.178 | | 04/23/10 |
| Silver | 7440-22-4 | LA-505-412 | U | < 0.0892 | mg/kg | | | 0.89 | 0.0892 | | 04/23/10 |
| Antimony | 7440-36-0 | LA-505-412 | | 0.430 | mg/kg | | | 0.89 | 0.268 | | 04/23/10 |
| Barium | 7440-39-3 | LA-505-412 | | 70.3 | mg/kg | | | 0.89 | 0.178 | | 04/23/10 |
| Beryllium | 7440-41-7 | LA-505-412 | | 0.250 | mg/kg | | | 0.89 | 0.0446 | | 04/23/10 |
| Cadmium | 7440-43-9 | LA-505-412 | | 0.100 | mg/kg | | | 0.89 | 0.0892 | | 04/23/10 |
| Chromium | 7440-47-3 | LA-505-412 | | 8.96 | mg/kg | | | 0.89 | 0.446 | | 04/23/10 |
| Cobalt | 7440-48-4 | LA-505-412 | | 7.85 | mg/kg | | | 0.89 | 0.0446 | | 04/23/10 |
| Copper | 7440-50-8 | LA-505-412 | | 13.0 | mg/kg | | | 0.89 | 0.0892 | | 04/23/10 |
| Vanadium | 7440-62-2 | LA-505-412 | | 47.2 | mg/kg | | | 0.89 | 0.178 | | 04/23/10 |
| Zinc | 7440-66-6 | LA-505-412 | | 46.6 | mg/kg | | | 0.89 | 0.713 | | 04/23/10 |
| Lead | 7439-92-1 | LA-505-412 | | 7.53 | mg/kg | | | 0.89 | 0.0892 | | 04/23/10 |

**MDL = Minimum Detection Limit**
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# WSCF
# ANALYTICAL RESULTS REPORT

**Attention:** Steve Trent
**SAF Number:** F10-181
**Sample #** W10GR00993
**Client ID:** B257B0 GPP WSCF

**Matrix:** SOIL

**Group #:** WSCF20100600
**Department:** Inorganic
**Sampled:** 04/19/10
**Received:** 04/19/10

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | 7439-97-6 | LA-505-412 | U | < 0.0446 | mg/kg | | | 0.89 | 0.0446 | | 04/23/10 |
| Uranium | 7440-61-1 | LA-505-412 | | 0.620 | mg/kg | | | 0.89 | 0.0446 | | 04/23/10 |
| Arsenic | 7440-38-2 | LA-505-412 | | 2.82 | mg/kg | | | 0.89 | 0.357 | | 04/23/10 |
| Selenium | 7782-49-2 | LA-505-412 | | 1.49 | mg/kg | | | 0.89 | 0.268 | | 04/23/10 |
| Thallium | 7440-28-0 | LA-505-412 | U | < 0.0892 | mg/kg | | | 0.89 | 0.0892 | | 04/23/10 |
| Strontium | 7440-24-6 | LA-505-412 | | 26.2 | mg/kg | | | 0.89 | 0.0892 | | 04/23/10 |
| Tin | 7440-31-5 | LA-505-412 | | 0.580 | mg/kg | | | 0.89 | 0.0446 | | 04/23/10 |
| **Total solids** | | | | | | | | | | | |
| Total solids | TS | LA-519-412 | | 94.9 | Percent | | | 1.00 | 0.0 | | 04/21/10 |

**MDL=Minimum Detection Limit**
**RQ=Result Qualifier**
**TP Err=Total Propagated Error**
**DF=Dilution Factor**

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D - Analyte was identified at a secondary dilution factor(inorg)
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# WSCF ANALYTICAL LABORATORY QC REPORT

**Department:** Inorganic

SDG Number: WSCF20100600
Matrix: SOLID
Test: Anions by Ion Chromatography

Sample Date: 04/19/10
Receive Date:04/19/10

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Lower Limit | Upper Limit | RPD(%) | RPD Limit | RQ | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Lab ID: W10GR00989** | | | | | | | | | | | |
| **BATCH QC ASSOCIATED WITH SAMPLE** | | | | | | | | | | | |
| DUP | Nitrogen in Nitrate | NO3-N | <1.55 | | RPD | | | n/a | 20.000 | U | 04/20/10 |
| MS | Nitrogen in Nitrate | NO3-N | 0.452758 | 100.613 | % Recov | 80.000 | 120.000 | | | | 04/20/10 |
| MSD | Nitrogen in Nitrate | NO3-N | 0.4573 | 101.622 | % Recov | 80.000 | 120.000 | | | | 04/20/10 |
| SPK-RPD | Nitrogen in Nitrate | NO3-N | 101.622 | | RPD | | | 0.998 | 20.000 | | 04/20/10 |
| **BATCH QC** | | | | | | | | | | | |
| BLANK | Nitrogen in Nitrate | NO3-N | <3.1e-2 | n/a | mg/L | 0.000 | 0.040 | | | U | 04/20/10 |
| BLANK | Nitrogen in Nitrate | NO3-N | <3.1e-2 | n/a | mg/L | 0.000 | 0.040 | | | U | 04/20/10 |
| LCS | Nitrogen in Nitrate | NO3-N | 90.7955 | 100.996 | % Recov | 80.000 | 120.000 | | | | 04/20/10 |
| **Lab ID: W10GR00980** | | | | | | | | | | | |
| **BATCH QC ASSOCIATED WITH SAMPLE** | | | | | | | | | | | |
| DUP | Nitrogen in Nitrate | NO3-N | 71.0578 | | RPD | | | 1.822 | 20.000 | | 04/20/10 |
| MS | Nitrogen in Nitrate | NO3-N | 0.275545 | 61.232 | % Recov | 80.000 | 120.000 | | * | | 04/20/10 |
| MSD | Nitrogen in Nitrate | NO3-N | 0.346691 | 77.042 | % Recov | 80.000 | 120.000 | | * | | 04/20/10 |
| SPK-RPD | Nitrogen in Nitrate | NO3-N | 77.042 | | RPD | | | 22.868 | 20.000 * | | 04/20/10 |
| **BATCH QC** | | | | | | | | | | | |
| BLANK | Nitrogen in Nitrate | NO3-N | <3.1e-2 | n/a | mg/L | 0.000 | 0.040 | | | U | 04/20/10 |
| BLANK | Nitrogen in Nitrate | NO3-N | <3.1e-2 | n/a | mg/L | 0.000 | 0.040 | | | U | 04/20/10 |
| LCS | Nitrogen in Nitrate | NO3-N | 88.6716 | 98.634 | % Recov | 80.000 | 120.000 | | | | 04/20/10 |

# WSCF ANALYTICAL LABORATORY QC REPORT

**Department:** Inorganic

SDG Number: WSCF20100600
Matrix: SOLID
Test: Hexavalent chromium

Sample Date: 04/12/10
Receive Date:04/12/10

Lab ID: W10GR00964

BATCH QC ASSOCIATED WITH SAMPLE

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Lower Limit | Upper Limit | RPD(%) | RPD Limit | RQ | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DUP | Hexavalent chromium | 18540-29-9 | 0.22 | | RPD | | | 31.579 | 15.000 * | | 04/22/10 |
| MS | Hexavalent chromium | 18540-29-9 | 18.2 | 92.857 | % Recov | 75.000 | 125.000 | | | | 04/22/10 |
| MS | Hexavalent chromium | 18540-29-9 | 225 | 68.182 | % Recov | 75.000 | 125.000 | | * | | 04/22/10 |
| MSD | Hexavalent chromium | 18540-29-9 | 17.8 | 94.180 | % Recov | 75.000 | 125.000 | | | | 04/22/10 |
| SPK-POST | Hexavalent chromium | 18540-29-9 | 0.0302 | 56.767 | % Recov | 75.000 | 125.000 | | * | | 04/22/10 |
| SPK-RPD | Hexavalent chromium | 18540-29-9 | 94.180 | | RPD | | | 1.415 | 20.000 | | 04/22/10 |

BATCH QC

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| BLNK-PREP | Hexavalent chromium | 18540-29-9 | < 0.10 | n/a | ug/g | 0.000 | 2.000 | | | U | 04/22/10 |
| LCS | Hexavalent chromium | 18540-29-9 | 18.2 | 95.288 | % Recov | 80.000 | 120.000 | | | | 04/22/10 |

# WSCF ANALYTICAL LABORATORY QC REPORT

**Department:** Inorganic

SDG Number: WSCF20100600
Matrix: SOLID
Test: ICP Metals Analysis, Grd H20 P

Sample Date: 04/19/10
Receive Date:04/19/10

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Lower Limit | Upper Limit | RPD(%) | RPD Limit | RQ | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lab ID: W10GR00981 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| MS | Boron | 7440-42-8 | 202.7 | 101.859 | % Recov | 75.000 | 125.000 | | | | 04/23/10 |
| MS | Lithium | 7439-93-2 | 107.126 | 107.773 | % Recov | 70.000 | 130.000 | | | | 04/23/10 |
| MSD | Boron | 7440-42-8 | 204.3 | 102.663 | % Recov | 75.000 | 125.000 | | | | 04/23/10 |
| MSD | Lithium | 7439-93-2 | 108.026 | 108.569 | % Recov | 75.000 | 125.000 | | | | 04/23/10 |
| SPK-RPD | Boron | 7440-42-8 | 102.663 | | RPD | | | 0.786 | 20.000 | | 04/23/10 |
| SPK-RPD | Lithium | 7439-93-2 | 108.569 | | RPD | | | 0.736 | 20.000 | | 04/23/10 |
| BATCH QC | | | | | | | | | | | |
| BLANK | Boron | 7440-42-8 | <1.9e-2 | n/a | ug/mL | | | | | U | 04/23/10 |
| BLANK | Lithium | 7439-93-2 | <4e-3 | n/a | ug/mL | | | | | U | 04/23/10 |
| LCS | Boron | 7440-42-8 | 132.2 | 114.957 | % Recov | 45.000 | 156.000 | | | | 04/23/10 |
| LCS | Lithium | 7439-93-2 | 6.555 | 77.666 | % Recov | 80.000 | 120.000 | | | | 04/23/10 |

REVISION 1

# WSCF ANALYTICAL LABORATORY QC REPORT

**Department:** Inorganic

SDG Number: WSCF20100600
Matrix: SOLID
Test: ICP-200.8 MS All possible meta

Sample Date: 04/19/10
Receive Date:04/19/10

Lab ID: W10GR00981
BATCH QC ASSOCIATED WITH SAMPLE

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Lower Limit | Upper Limit | RPD(%) | RPD Limit | RQ | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MS | Silver | 7440-22-4 | 93.82 | 93.820 | % Recov | 70.000 | 130.000 | | | | 04/23/10 |
| MS | Arsenic | 7440-38-2 | 96.17 | 96.170 | % Recov | 70.000 | 130.000 | | | | 04/23/10 |
| MS | Barium | 7440-39-3 | 95.95 | 95.950 | % Recov | 70.000 | 130.000 | | | | 04/23/10 |
| MS | Beryllium | 7440-41-7 | 89.72 | 89.720 | % Recov | 70.000 | 130.000 | | | | 04/23/10 |
| MS | Cadmium | 7440-43-9 | 95.22 | 95.220 | % Recov | 70.000 | 130.000 | | | | 04/23/10 |
| MS | Cobalt | 7440-48-4 | 88.83 | 88.830 | % Recov | 70.000 | 130.000 | | | | 04/23/10 |
| MS | Chromium | 7440-47-3 | 88.19 | 88.190 | % Recov | 70.000 | 130.000 | | | | 04/23/10 |
| MS | Copper | 7440-50-8 | 83.84 | 83.840 | % Recov | 70.000 | 130.000 | | | | 04/23/10 |
| MS | Mercury | 7439-97-6 | 1.92 | 96.000 | % Recov | 70.000 | 130.000 | | | | 04/23/10 |
| MS | Manganese | 7439-96-5 | 70.6 | 70.600 | % Recov | 70.000 | 130.000 | | | | 04/23/10 |
| MS | Nickel | 7440-02-0 | 85.55 | 85.550 | % Recov | 70.000 | 130.000 | | | | 04/23/10 |
| MS | Lead | 7439-92-1 | 96.4 | 96.400 | % Recov | 70.000 | 130.000 | | | | 04/23/10 |
| MS | Antimony | 7440-36-0 | 94.45 | 94.450 | % Recov | 70.000 | 130.000 | | | | 04/23/10 |
| MS | Selenium | 7782-49-2 | 99.07 | 99.070 | % Recov | 70.000 | 130.000 | | | | 04/23/10 |
| MS | Tin | 7440-31-5 | 96.4 | 96.400 | % Recov | 70.000 | 130.000 | | | | 04/23/10 |
| MS | Strontium | 7440-24-6 | 97.87 | 97.870 | % Recov | 70.000 | 130.000 | | | | 04/23/10 |
| MS | Thallium | 7440-28-0 | 97.8 | 97.800 | % Recov | 70.000 | 130.000 | | | | 04/23/10 |
| MS | Uranium | 7440-61-1 | 99.36 | 99.360 | % Recov | 70.000 | 130.000 | | | | 04/23/10 |
| MS | Vanadium | 7440-62-2 | 84.99 | 84.990 | % Recov | 70.000 | 130.000 | | | | 04/23/10 |
| MS | Zinc | 7440-66-6 | 83.2 | 83.200 | % Recov | 70.000 | 130.000 | | | | 04/23/10 |
| MSD | Silver | 7440-22-4 | 93.65 | 93.650 | % Recov | 70.000 | 130.000 | | | | 04/23/10 |
| MSD | Arsenic | 7440-38-2 | 96.45 | 96.450 | % Recov | 70.000 | 130.000 | | | | 04/23/10 |
| MSD | Barium | 7440-39-3 | 99.25 | 99.250 | % Recov | 70.000 | 130.000 | | | | 04/23/10 |
| MSD | Beryllium | 7440-41-7 | 90.38 | 90.380 | % Recov | 70.000 | 130.000 | | | | 04/23/10 |
| MSD | Cadmium | 7440-43-9 | 95.07 | 95.070 | % Recov | 70.000 | 130.000 | | | | 04/23/10 |
| MSD | Cobalt | 7440-48-4 | 88.84 | 88.840 | % Recov | 70.000 | 130.000 | | | | 04/23/10 |

# WSCF ANALYTICAL LABORATORY QC REPORT

**Department:** Inorganic

SDG Number: WSCF20100600
Matrix: SOLID
Test: ICP-200.8 MS All possible meta

Sample Date: 04/19/10
Receive Date:04/19/10

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Lower Limit | Upper Limit | RPD(%) | RPD Limit | RQ | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MSD | Chromium | 7440-47-3 | 89.03 | 89.030 | % Recov | 70.000 | 130.000 | | | | 04/23/10 |
| MSD | Copper | 7440-50-8 | 84.54 | 84.540 | % Recov | 70.000 | 130.000 | | | | 04/23/10 |
| MSD | Mercury | 7439-97-6 | 2.01 | 100.500 | % Recov | 70.000 | 130.000 | | | | 04/23/10 |
| MSD | Manganese | 7439-96-5 | 91.7 | 91.700 | % Recov | 70.000 | 130.000 | | | | 04/23/10 |
| MSD | Nickel | 7440-02-0 | 88.48 | 88.480 | % Recov | 70.000 | 130.000 | | | | 04/23/10 |
| MSD | Lead | 7439-92-1 | 96.3 | 96.300 | % Recov | 70.000 | 130.000 | | | | 04/23/10 |
| MSD | Antimony | 7440-36-0 | 93 | 93.000 | % Recov | 70.000 | 130.000 | | | | 04/23/10 |
| MSD | Selenium | 7782-49-2 | 98.98 | 98.980 | % Recov | 70.000 | 130.000 | | | | 04/23/10 |
| MSD | Tin | 7440-31-5 | 97.26 | 97.260 | % Recov | 70.000 | 130.000 | | | | 04/23/10 |
| MSD | Strontium | 7440-24-6 | 97.37 | 97.370 | % Recov | 70.000 | 130.000 | | | | 04/23/10 |
| MSD | Thallium | 7440-28-0 | 97.51 | 97.510 | % Recov | 70.000 | 130.000 | | | | 04/23/10 |
| MSD | Uranium | 7440-61-1 | 98.95 | 98.950 | % Recov | 70.000 | 130.000 | | | | 04/23/10 |
| MSD | Vanadium | 7440-62-2 | 83.09 | 83.090 | % Recov | 70.000 | 130.000 | | | | 04/23/10 |
| MSD | Zinc | 7440-66-6 | 84.2 | 84.200 | % Recov | 70.000 | 130.000 | | | | 04/23/10 |
| SPK-RPD | Silver | 7440-22-4 | 93.650 | | RPD | | | 0.181 | 20.000 | | 04/23/10 |
| SPK-RPD | Arsenic | 7440-38-2 | 96.450 | | RPD | | | 0.291 | 20.000 | | 04/23/10 |
| SPK-RPD | Barium | 7440-39-3 | 99.250 | | RPD | | | 3.381 | 20.000 | | 04/23/10 |
| SPK-RPD | Beryllium | 7440-41-7 | 90.380 | | RPD | | | 0.733 | 20.000 | | 04/23/10 |
| SPK-RPD | Cadmium | 7440-43-9 | 95.070 | | RPD | | | 0.158 | 20.000 | | 04/23/10 |
| SPK-RPD | Cobalt | 7440-48-4 | 88.840 | | RPD | | | 0.011 | 20.000 | | 04/23/10 |
| SPK-RPD | Chromium | 7440-47-3 | 89.030 | | RPD | | | 0.948 | 20.000 | | 04/23/10 |
| SPK-RPD | Copper | 7440-50-8 | 84.540 | | RPD | | | 0.831 | 20.000 | | 04/23/10 |
| SPK-RPD | Mercury | 7439-97-6 | 100.500 | | RPD | | | 4.580 | 20.000 | | 04/23/10 |
| SPK-RPD | Manganese | 7439-96-5 | 91.700 | | RPD | | | 26.001 | 20.000 * | | 04/23/10 |
| SPK-RPD | Nickel | 7440-02-0 | 88.480 | | RPD | | | 3.367 | 20.000 | | 04/23/10 |
| SPK-RPD | Lead | 7439-92-1 | 96.300 | | RPD | | | 0.104 | 20.000 | | 04/23/10 |
| SPK-RPD | Antimony | 7440-36-0 | 93.000 | | RPD | | | 1.547 | 20.000 | | 04/23/10 |
| SPK-RPD | Selenium | 7782-49-2 | 98.980 | | RPD | | | 0.091 | 20.000 | | 04/23/10 |
| SPK-RPD | Tin | 7440-31-5 | 97.260 | | RPD | | | 0.888 | 20.000 | | 04/23/10 |
| SPK-RPD | Strontium | 7440-24-6 | 97.370 | | RPD | | | 0.512 | 20.000 | | 04/23/10 |

# WSCF ANALYTICAL LABORATORY QC REPORT

**Department:** Inorganic

SDG Number: WSCF20100600
Matrix: SOLID
Test: ICP-200.8 MS All possible meta

Sample Date: 04/19/10
Receive Date:04/19/10

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Lower Limit | Upper Limit | RPD(%) | RPD Limit | RQ | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SPK-RPD | Thallium | 7440-28-0 | 97.510 | | RPD | | | 0.297 | 20.000 | | 04/23/10 |
| SPK-RPD | Uranium | 7440-61-1 | 98.950 | | RPD | | | 0.413 | 20.000 | | 04/23/10 |
| SPK-RPD | Vanadium | 7440-62-2 | 83.090 | | RPD | | | 2.261 | 20.000 | | 04/23/10 |
| SPK-RPD | Zinc | 7440-66-6 | 84.200 | | RPD | | | 1.195 | 20.000 | | 04/23/10 |
| **BATCH QC** | | | | | | | | | | | |
| BLANK | Silver | 7440-22-4 | <0.1 | n/a | ug/L | | | | | U | 04/23/10 |
| BLANK | Arsenic | 7440-38-2 | <0.4 | n/a | ug/L | | | | | U | 04/23/10 |
| BLANK | Barium | 7440-39-3 | <0.2 | n/a | ug/L | | | | | U | 04/23/10 |
| BLANK | Beryllium | 7440-41-7 | <5e-2 | n/a | ug/L | | | | | U | 04/23/10 |
| BLANK | Cedmium | 7440-43-9 | <0.1 | n/a | ug/L | | | | | U | 04/23/10 |
| BLANK | Cobalt | 7440-48-4 | <5e-2 | n/a | ug/L | | | | | U | 04/23/10 |
| BLANK | Chromium | 7440-47-3 | <0.5 | n/a | ug/L | | | | | U | 04/23/10 |
| BLANK | Copper | 7440-50-8 | <0.1 | n/a | ug/L | | | | | U | 04/23/10 |
| BLANK | Mercury | 7439-97-6 | <5e-2 | n/a | ug/L | | | | | U | 04/23/10 |
| BLANK | Manganese | 7439-96-5 | <0.1 | n/a | ug/L | | | | | U | 04/23/10 |
| BLANK | Nickel | 7440-02-0 | <0.2 | n/a | ug/L | | | | | U | 04/23/10 |
| BLANK | Lead | 7439-92-1 | <0.1 | n/a | ug/L | | | | | U | 04/23/10 |
| BLANK | Antimony | 7440-36-0 | <0.3 | n/a | ug/L | | | | | U | 04/23/10 |
| BLANK | Selenium | 7782-49-2 | <0.3 | n/a | ug/L | | | | | U | 04/23/10 |
| BLANK | Tin | 7440-31-5 | <5e-2 | n/a | ug/L | | | | | U | 04/23/10 |
| BLANK | Strontium | 7440-24-6 | <0.1 | n/a | ug/L | | | | | U | 04/23/10 |
| BLANK | Thallium | 7440-28-0 | <0.1 | n/a | ug/L | | | | | U | 04/23/10 |
| BLANK | Uranium | 7440-61-1 | <5e-2 | n/a | ug/L | | | | | U | 04/23/10 |
| BLANK | Vanadium | 7440-62-2 | <0.2 | n/a | ug/L | | | | | U | 04/23/10 |
| BLANK | Zinc | 7440-66-6 | <0.8 | n/a | ug/L | | | | | U | 04/23/10 |
| LCS | Silver | 7440-22-4 | 100.4 | 99.406 | % Recov | 81.000 | 128.000 | | | | 04/23/10 |
| LCS | Arsenic | 7440-38-2 | 133.1 | 100.833 | % Recov | 78.000 | 124.000 | | | | 04/23/10 |
| LCS | Barium | 7440-39-3 | 307.8 | 96.489 | % Recov | 77.000 | 119.000 | | | | 04/23/10 |
| LCS | Beryllium | 7440-41-7 | 88.65 | 99.050 | % Recov | 78.000 | 118.000 | | | | 04/23/10 |

# WSCF ANALYTICAL LABORATORY QC REPORT

**Department:** Inorganic

SDG Number: WSCF20100600
Matrix: SOLID
Test: ICP-200.8 MS All possible meta

Sample Date:
Receive Date:

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Lower Limit | Upper Limit | RPD(%) | RPD Limit | RQ | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| LCS | Cadmium | 7440-43-9 | 70.19 | 105.549 | % Recov | 75.000 | 127.000 | | | | 04/23/10 |
| LCS | Cobalt | 7440-48-4 | 71.34 | 97.592 | % Recov | 75.000 | 124.000 | | | | 04/23/10 |
| LCS | Chromium | 7440-47-3 | 68.43 | 93.868 | % Recov | 67.000 | 119.000 | | | | 04/23/10 |
| LCS | Copper | 7440-50-8 | 61.91 | 90.380 | % Recov | 68.000 | 122.000 | | | | 04/23/10 |
| LCS | Mercury | 7439-97-6 | 7.43 | 89.734 | % Recov | 72.000 | 117.000 | | | | 04/23/10 |
| LCS | Manganese | 7439-96-5 | 425.5 | 93.929 | % Recov | 72.000 | 123.000 | | | | 04/23/10 |
| LCS | Nickel | 7440-02-0 | 53.41 | 96.061 | % Recov | 73.000 | 123.000 | | | | 04/23/10 |
| LCS | Lead | 7439-92-1 | 126 | 96.923 | % Recov | 77.000 | 125.000 | | | | 04/23/10 |
| LCS | Antimony | 7440-36-0 | 125.8 | 139.468 | % Recov | 65.000 | 203.000 | | | | 04/23/10 |
| LCS | Selenium | 7782-49-2 | 180.9 | 112.360 | % Recov | 82.000 | 129.000 | | | | 04/23/10 |
| LCS | Tin | 7440-31-5 | 179.4 | 103.699 | % Recov | 83.000 | 127.000 | | | | 04/23/10 |
| LCS | Strontium | 7440-24-6 | 52.99 | 97.408 | % Recov | 77.000 | 118.000 | | | | 04/23/10 |
| LCS | Thallium | 7440-28-0 | 133.1 | 100.075 | % Recov | 55.000 | 130.000 | | | | 04/23/10 |
| LCS | Uranium | 7440-61-1 | 383.2 | 95.800 | % Recov | 84.000 | 110.000 | | | | 04/23/10 |
| LCS | Vanadium | 7440-62-2 | 76.97 | 92.735 | % Recov | 65.000 | 122.000 | | | | 04/23/10 |
| LCS | Zinc | 7440-66-6 | 174.2 | 98.418 | % Recov | 75.000 | 130.000 | | | | 04/23/10 |

# WSCF
# ANALYTICAL COMMENT REPORT

**Attention:** Steve Trent
**Project Number** F10-181

**Group #:** WSCF20100600
Department: Inorganic

| Sample # | Client ID | Lab Area | Test | Comment |
|---|---|---|---|---|
| | | VALGROUP | | IC Anion - MS/MSD recoveries out of limits for Fluoride, Nitrate-N, and Sulfate. Possibly due to matrix interference in sample. Data N-flagged. DTS<br><br>IC Anion - Spike RPD for Nitrate-N out of control limits. No flag required. DTS<br><br>ICP-MS: Manganese spike RPD more than 20%.Both recoveries are acceptable. "X flag<br><br>ICP-AES: Low lithium LCS recovery. Recently, the lab received a certified value for lithium but it was not updated in the Labcore system because the solids matrix is being moved to the Horizon system. The acceptance range is 73-115%.<br>Estimated boron result due to iron interference; "E" flag.<br><br>Hexavalent Chromium Duplicate > 20%. Original and DUP both l ess than four times the RL. Post and Insoluble Matrix Spikes recoveries were below 85% and 75%. Likely caused by matrix e ffects imparted by the sample. jpw2<br><br>Organics - All data moisture corrected and results reported on a dry weight basis. DTS |

Lab Areas: VALGROUP - Group Validation
LOGSAMP - Login for Sample
VALTEST - Test Validation
LOGTEST - Login for Tests
TESTDATA - Test Data Entry

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# WSCF
# ANALYTICAL COMMENT REPORT

**Attention:** Steve Trent
**Project Number** F10-181

**Group #:** WSCF20100600
Department: Inorganic

| Sample # | Client ID | Lab Area | Test | Comment |
|---|---|---|---|---|
| | | | | VOA: Trichloroethene low in MS/MSD at about 71% Rec. for the batch run early on 4/21/10. The batch run after 11a that day had all QC within limits. gar |
| | | | | SVOA: Most sample extracts are discolored. Samples B257B4 and B257B0 were opaque black extracts that were diluted 5x to protect analytical systems from contaminant overload which raises minimum reporting limits commensurately. The contaminants also caused low recovery of primarily the phenolic surrogates in some samples. Little of the contaminates elute from the column indicating either very high boiling asphalt like organics, coextracted inroganic particulate, or most likely both. This also explains the unusual lack of TICs for such contaminated samples. cgc |
| | | | | TPHD - MS recovery outside established laboratory control limits due to spiking error during sample prep. Data has been N-flagged. DTS |
| | | | | TPHD - Spike RPD outside established laboratory control limits due to spiking error during sample prep. No flag required. DTS |

Lab Areas: VALGROUP - Group Validation
LOGSAMP - Login for Sample
VALTEST - Test Validation
LOGTEST - Login for Tests
TESTDATA - Test Data Entry

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# WSCF
# ANALYTICAL COMMENT REPORT

**Attention:** Steve Trent
**Project Number** F10-181

**Group #:** WSCF20100600
Department: Inorganic

| Sample # | Client ID | Lab Area | Test | Comment |
|---|---|---|---|---|
| | | | | TPHD - Samples W10GR00983, W10GR00985, and W10GR00992: Diesel concentration reported contains a majority of compounds which elute between both diesel and motor oil retention times. Data X-flagged. DTS |
| | | | | TPHD - Sample W10GR00993 - Surrogate recovery outside established laboratory control limits. Data X-flagged. DTS |

Lab Areas: VALGROUP - Group Validation
LOGSAMP - Login for Sample
VALTEST - Test Validation
LOGTEST - Login for Tests
TESTDATA - Test Data Entry

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# WSCF
# ANALYTICAL RESULTS REPORT

**Attention:** Steve Trent
**SAF Number:** F10-181
**Sample #** W10GR00981
**Client ID:** B257C2 GPP WSCF

**Matrix:** SOIL

**Group #:** WSCF20100600
**Department:** Organic
**Sampled:** 04/19/10
**Received:** 04/19/10

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **NWTPH-D TPH Diesel Range (Wa) Prep** | | | | | | | | | | | **04/22/10** |
| **NWTPH-D TPH Diesel Range (Wa)** | | | | | | | | | | | |
| Total Pet. Hydrocarbons Diesel | TPHDIESEL | LA-523-493 | NU | < 5.20 | mg/kg | | | 1.00 | 5.2 | | 04/27/10 |
| Kerosene | TPHKEROSENE | LA-523-493 | U | < 5.20 | mg/kg | | | 1.00 | 5.2 | | 04/27/10 |
| **PCBs complete list Prep** | | | | | | | | | | | **04/22/10** |
| **PCBs complete list** | | | | | | | | | | | |
| Aroclor-1016 | 12674-11-2 | LA-523-427 | U | < 10.0 | ug/kg | | | 1.00 | 10 | | 04/26/10 |
| Aroclor-1221 | 11104-28-2 | LA-523-427 | U | < 21.0 | ug/kg | | | 1.00 | 21 | | 04/26/10 |
| Aroclor-1232 | 11141-16-5 | LA-523-427 | U | < 10.0 | ug/kg | | | 1.00 | 10 | | 04/26/10 |
| Aroclor-1242 | 53469-21-9 | LA-523-427 | U | < 10.0 | ug/kg | | | 1.00 | 10 | | 04/26/10 |
| Aroclor-1248 | 12672-29-6 | LA-523-427 | U | < 10.0 | ug/kg | | | 1.00 | 10 | | 04/26/10 |
| Aroclor-1254 | 11097-69-1 | LA-523-427 | U | < 10.0 | ug/kg | | | 1.00 | 10 | | 04/26/10 |
| Aroclor-1260 | 11096-82-5 | LA-523-427 | U | < 10.0 | ug/kg | | | 1.00 | 10 | | 04/26/10 |
| **SW-846 8270C Semi-Vols Prep** | | | | | | | | | | | **04/22/10** |
| **SW-846 8270C Semi-Vols** | | | | | | | | | | | |
| 4-Nitrophenol | 100-02-7 | LA-523-456 | U | < 340 | ug/kg | | | 1.00 | 3.4e+02 | | 04/27/10 |
| 1,4-Dichlorobenzene | 106-46-7 | LA-523-456 | U | < 260 | ug/kg | | | 1.00 | 2.6e+02 | | 04/27/10 |
| Phenol | 108-95-2 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/27/10 |
| 1,2,4-Trichlorobenzene | 120-82-1 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/27/10 |
| 2,4-Dinitrotoluene | 121-14-2 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/27/10 |
| Pyrene | 129-00-0 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/27/10 |
| 4-Chloro-3-methylphenol | 59-50-7 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/27/10 |
| N-Nitrosodi-n-dipropylamine | 621-64-7 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/27/10 |
| Acenaphthene | 83-32-9 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/27/10 |
| Pentachlorophenol | 87-86-5 | LA-523-456 | U | < 410 | ug/kg | | | 1.00 | 4.1e+02 | | 04/27/10 |

**MDL = Minimum Detection Limit**
**RQ = Result Qualifier**
**TP Err = Total Propagated Error**
**DF = Dilution Factor**

B - The analyte < the RDL but > = the IDL/MDL (inorg)
D - Analyte was identified at a secondary dilution factor.(org)
N - Spike sample recovery is outside control limits.(inorg)
T - GC/MS only - MS or MSD recovery is outside control limits.

D - Analyte was identified at a secondary dilution factor(inorg)
E - Analyte is an estimate, has potentially larger errors(inorg)
N - non GC/MS - MS or MSD recovery is outside control limits.
U - Analyzed for but not detected above limiting criteria(inorg)

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

# WSCF
# ANALYTICAL RESULTS REPORT

**Attention:** Steve Trent
**SAF Number:** F10-181
**Sample #** W10GR00981
**Client ID:** B257C2 GPP WSCF

**Matrix:** SOIL

**Group #:** WSCF20100600
**Department:** Organic
**Sampled:** 04/19/10
**Received:** 04/19/10

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2-Chlorophenol | 95-57-8 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/27/10 |
| Anthracene | 120-12-7 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/27/10 |
| Benzo(ghi)perylene | 191-24-2 | LA-523-456 | U | < 330 | ug/kg | | | 1.00 | 3.3e+02 | | 04/27/10 |
| Indeno(1,2,3-cd)pyrene | 193-39-5 | LA-523-456 | U | < 340 | ug/kg | | | 1.00 | 3.4e+02 | | 04/27/10 |
| Benzo(b)fluoranthene | 205-99-2 | LA-523-456 | U | < 210 | ug/kg | | | 1.00 | 2.1e+02 | | 04/27/10 |
| Fluoranthene | 206-44-0 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/27/10 |
| Benzo(k)fluoranthene | 207-08-9 | LA-523-456 | U | < 210 | ug/kg | | | 1.00 | 2.1e+02 | | 04/27/10 |
| Acenaphthylene | 208-96-8 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/27/10 |
| Chrysene | 218-01-9 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/27/10 |
| Benzo(a)pyrene | 50-32-8 | LA-523-456 | U | < 230 | ug/kg | | | 1.00 | 2.3e+02 | | 04/27/10 |
| Dibenz[a,h]anthracene | 53-70-3 | LA-523-456 | U | < 340 | ug/kg | | | 1.00 | 3.4e+02 | | 04/27/10 |
| Benzo(a)anthracene | 56-55-3 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/27/10 |
| Phenanthrene | 85-01-8 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/27/10 |
| Fluorene | 86-73-7 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/27/10 |
| Naphthalene | 91-20-3 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/27/10 |
| **VOA Ground Water Protection** | | | | | | | | | | | |
| 1,1-Dichloroethene | 75-35-4 | LA-523-455 | U | < 0.960 | ug/kg | | | 1.00 | 0.96 | | 04/21/10 |
| Trichloroethene | 79-01-6 | LA-523-455 | TU | < 0.190 | ug/kg | | | 1.00 | 0.19 | | 04/21/10 |
| Benzene | 71-43-2 | LA-523-455 | U | < 0.960 | ug/kg | | | 1.00 | 0.96 | | 04/21/10 |
| Toluene | 108-88-3 | LA-523-455 | U | < 0.960 | ug/kg | | | 1.00 | 0.96 | | 04/21/10 |
| Chlorobenzene | 108-90-7 | LA-523-455 | U | < 0.960 | ug/kg | | | 1.00 | 0.96 | | 04/21/10 |
| Carbon tetrachloride | 56-23-5 | LA-523-455 | U | < 0.960 | ug/kg | | | 1.00 | 0.96 | | 04/21/10 |

**MDL = Minimum Detection Limit**
**RQ = Result Qualifier**
**TP Err = Total Propagated Error**
**DF = Dilution Factor**

B - The analyte < the RDL but > = the IDL/MDL (inorg)
D - Analyte was identified at a secondary dilution factor.(org)
N - Spike sample recovery is outside control limits.(inorg)
T - GC/MS only - MS or MSD recovery is outside control limits.

D - Analyte was identified at a secondary dilution factor(inorg)
E - Analyte is an estimate, has potentially larger errors(inorg)
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U - Analyzed for but not detected above limiting criteria(inorg)

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

# WSCF
# ANALYTICAL RESULTS REPORT

**Attention:** Steve Trent
**SAF Number:** F10-181
**Sample #** W10GR00982
**Client ID:** B25798 GPP WSCF

**Matrix:** SOIL

**Group #:** WSCF20100600
**Department:** Organic
**Sampled:** 04/19/10
**Received:** 04/19/10

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **NWTPH-D TPH Diesel Range (Wa) Prep** | | | | | | | | | | | **04/22/10** |
| **NWTPH-D TPH Diesel Range (Wa)** | | | | | | | | | | | |
| Total Pet. Hydrocarbons Diesel | TPHDIESEL | LA-523-493 | NU | < 5.20 | mg/kg | | | 1.00 | 5.2 | | 04/27/10 |
| Kerosene | TPHKEROSENE | LA-523-493 | U | < 5.20 | mg/kg | | | 1.00 | 5.2 | | 04/27/10 |
| **PCBs complete list Prep** | | | | | | | | | | | **04/22/10** |
| **PCBs complete list** | | | | | | | | | | | |
| Aroclor-1016 | 12674-11-2 | LA-523-427 | U | < 10.0 | ug/kg | | | 1.00 | 10 | | 04/26/10 |
| Aroclor-1221 | 11104-28-2 | LA-523-427 | U | < 20.0 | ug/kg | | | 1.00 | 20 | | 04/26/10 |
| Aroclor-1232 | 11141-16-5 | LA-523-427 | U | < 10.0 | ug/kg | | | 1.00 | 10 | | 04/26/10 |
| Aroclor-1242 | 53469-21-9 | LA-523-427 | U | < 10.0 | ug/kg | | | 1.00 | 10 | | 04/26/10 |
| Aroclor-1248 | 12672-29-6 | LA-523-427 | U | < 10.0 | ug/kg | | | 1.00 | 10 | | 04/26/10 |
| Aroclor-1254 | 11097-69-1 | LA-523-427 | U | < 10.0 | ug/kg | | | 1.00 | 10 | | 04/26/10 |
| Aroclor-1260 | 11096-82-5 | LA-523-427 | U | < 10.0 | ug/kg | | | 1.00 | 10 | | 04/26/10 |
| **SW-846 8270C Semi-Vols Prep** | | | | | | | | | | | **04/22/10** |
| **SW-846 8270C Semi-Vols** | | | | | | | | | | | |
| 4-Nitrophenol | 100-02-7 | LA-523-456 | U | < 340 | ug/kg | | | 1.00 | 3.4e+02 | | 04/28/10 |
| 1,4-Dichlorobenzene | 106-46-7 | LA-523-456 | U | < 260 | ug/kg | | | 1.00 | 2.6e+02 | | 04/28/10 |
| Phenol | 108-95-2 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| 1,2,4-Trichlorobenzene | 120-82-1 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| 2,4-Dinitrotoluene | 121-14-2 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Pyrene | 129-00-0 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| 4-Chloro-3-methylphenol | 59-50-7 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| N-Nitrosodi-n-dipropylamine | 621-64-7 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Acenaphthene | 83-32-9 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Pentachlorophenol | 87-86-5 | LA-523-456 | U | < 410 | ug/kg | | | 1.00 | 4.1e+02 | | 04/28/10 |

**MDL = Minimum Detection Limit**
**RQ = Result Qualifier**
**TP Err = Total Propagated Error**
**DF = Dilution Factor**

B - The analyte < the RDL but > = the IDL/MDL (inorg)
D - Analyte was identified at a secondary dilution factor.(org)
N - Spike sample recovery is outside control limits.(inorg)
T - GC/MS only - MS or MSD recovery is outside control limits.

D - Analyte was identified at a secondary dilution factor(inorg)
E - Analyte is an estimate, has potentially larger errors(inorg)
N - non GC/MS - MS or MSD recovery is outside control limits.
U - Analyzed for but not detected above limiting criteria(inorg)

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# WSCF
# ANALYTICAL RESULTS REPORT

**Attention:** Steve Trent
**SAF Number:** F10-181
**Sample #** W10GR00982
**Client ID:** B25798 GPP WSCF

**Matrix:** SOIL

**Group #:** WSCF20100600
**Department:** Organic
**Sampled:** 04/19/10
**Received:** 04/19/10

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2-Chlorophenol | 95-57-8 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Anthracene | 120-12-7 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Benzo(ghi)perylene | 191-24-2 | LA-523-456 | U | < 330 | ug/kg | | | 1.00 | 3.3e+02 | | 04/28/10 |
| Indeno(1,2,3-cd)pyrene | 193-39-5 | LA-523-456 | U | < 340 | ug/kg | | | 1.00 | 3.4e+02 | | 04/28/10 |
| Benzo(b)fluoranthene | 205-99-2 | LA-523-456 | U | < 210 | ug/kg | | | 1.00 | 2.1e+02 | | 04/28/10 |
| Fluoranthene | 206-44-0 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Benzo(k)fluoranthene | 207-08-9 | LA-523-456 | U | < 210 | ug/kg | | | 1.00 | 2.1e+02 | | 04/28/10 |
| Acenaphthylene | 208-96-8 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Chrysene | 218-01-9 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Benzo(a)pyrene | 50-32-8 | LA-523-456 | U | < 230 | ug/kg | | | 1.00 | 2.3e+02 | | 04/28/10 |
| Dibenz[a,h]anthracene | 53-70-3 | LA-523-456 | U | < 340 | ug/kg | | | 1.00 | 3.4e+02 | | 04/28/10 |
| Benzo(a)anthracene | 56-55-3 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Phenanthrene | 85-01-8 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Fluorene | 86-73-7 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Naphthalene | 91-20-3 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| **VOA Ground Water Protection** | | | | | | | | | | | |
| 1,1-Dichloroethene | 75-35-4 | LA-523-455 | U | < 0.910 | ug/kg | | | 1.00 | 0.91 | | 04/21/10 |
| Trichloroethene | 79-01-6 | LA-523-455 | TU | < 0.180 | ug/kg | | | 1.00 | 0.18 | | 04/21/10 |
| Benzene | 71-43-2 | LA-523-455 | U | < 0.910 | ug/kg | | | 1.00 | 0.91 | | 04/21/10 |
| Toluene | 108-88-3 | LA-523-455 | U | < 0.910 | ug/kg | | | 1.00 | 0.91 | | 04/21/10 |
| Chlorobenzene | 108-90-7 | LA-523-455 | U | < 0.910 | ug/kg | | | 1.00 | 0.91 | | 04/21/10 |
| Carbon tetrachloride | 56-23-5 | LA-523-455 | U | < 0.910 | ug/kg | | | 1.00 | 0.91 | | 04/21/10 |

**MDL=Minimum Detection Limit**
**RQ=Result Qualifier**
**TP Err=Total Propagated Error**
**DF=Dilution Factor**

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D - Analyte was identified at a secondary dilution factor(inorg)
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U - Analyzed for but not detected above limiting criteria(inorg)

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# WSCF
# ANALYTICAL RESULTS REPORT

**Attention:** Steve Trent
**SAF Number:** F10-181
**Sample #** W10GR00983
**Client ID:** B257B6 GPP WSCF

**Matrix:** SOIL

**Group #:** WSCF20100600
**Department:** Organic
**Sampled:** 04/19/10
**Received:** 04/19/10

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **NWTPH-D TPH Diesel Range (Wa) Prep** | | | | | | | | | | | **04/22/10** |
| **NWTPH-D TPH Diesel Range (Wa)** | | | | | | | | | | | |
| Total Pet. Hydrocarbons Diesel | TPHDIESEL | LA-523-493 | NX | 61.0 | mg/kg | | | 1.00 | 5.2 | | 04/28/10 |
| Kerosene | TPHKEROSENE | LA-523-493 | U | < 5.20 | mg/kg | | | 1.00 | 5.2 | | 04/28/10 |
| **PCBs complete list Prep** | | | | | | | | | | | **04/22/10** |
| **PCBs complete list** | | | | | | | | | | | |
| Aroclor-1016 | 12674-11-2 | LA-523-427 | U | < 10.0 | ug/kg | | | 1.00 | 10 | | 04/26/10 |
| Aroclor-1221 | 11104-28-2 | LA-523-427 | U | < 21.0 | ug/kg | | | 1.00 | 21 | | 04/26/10 |
| Aroclor-1232 | 11141-16-5 | LA-523-427 | U | < 10.0 | ug/kg | | | 1.00 | 10 | | 04/26/10 |
| Aroclor-1242 | 53469-21-9 | LA-523-427 | U | < 10.0 | ug/kg | | | 1.00 | 10 | | 04/26/10 |
| Aroclor-1248 | 12672-29-6 | LA-523-427 | U | < 10.0 | ug/kg | | | 1.00 | 10 | | 04/26/10 |
| Aroclor-1254 | 11097-69-1 | LA-523-427 | U | < 10.0 | ug/kg | | | 1.00 | 10 | | 04/26/10 |
| Aroclor-1260 | 11096-82-5 | LA-523-427 | U | < 10.0 | ug/kg | | | 1.00 | 10 | | 04/26/10 |
| **SW-846 8270C Semi-Vols Prep** | | | | | | | | | | | **04/22/10** |
| **SW-846 8270C Semi-Vols** | | | | | | | | | | | |
| 4-Nitrophenol | 100-02-7 | LA-523-456 | U | < 340 | ug/kg | | | 1.00 | 3.4e+02 | | 04/28/10 |
| 1,4-Dichlorobenzene | 106-46-7 | LA-523-456 | U | < 260 | ug/kg | | | 1.00 | 2.6e+02 | | 04/28/10 |
| Phenol | 108-95-2 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| 1,2,4-Trichlorobenzene | 120-82-1 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| 2,4-Dinitrotoluene | 121-14-2 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Pyrene | 129-00-0 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| 4-Chloro-3-methylphenol | 59-50-7 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| N-Nitrosodi-n-dipropylamine | 621-64-7 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Acenaphthene | 83-32-9 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Pentachlorophenol | 87-86-5 | LA-523-456 | U | < 420 | ug/kg | | | 1.00 | 4.2e+02 | | 04/28/10 |

**MDL = Minimum Detection Limit**
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# WSCF
# ANALYTICAL RESULTS REPORT

**Attention:** Steve Trent
**SAF Number:** F10-181
**Sample #** W10GR00983
**Client ID:** B257B6 GPP WSCF

**Matrix:** SOIL

**Group #:** WSCF20100600
**Department:** Organic
**Sampled:** 04/19/10
**Received:** 04/19/10

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2-Chlorophenol | 95-57-8 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Anthracene | 120-12-7 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Benzo(ghi)perylene | 191-24-2 | LA-523-456 | U | < 340 | ug/kg | | | 1.00 | 3.4e+02 | | 04/28/10 |
| Indeno(1,2,3-cd)pyrene | 193-39-5 | LA-523-456 | U | < 340 | ug/kg | | | 1.00 | 3.4e+02 | | 04/28/10 |
| Benzo(b)fluoranthene | 205-99-2 | LA-523-456 | U | < 210 | ug/kg | | | 1.00 | 2.1e+02 | | 04/28/10 |
| Fluoranthene | 206-44-0 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Benzo(k)fluoranthene | 207-08-9 | LA-523-456 | U | < 210 | ug/kg | | | 1.00 | 2.1e+02 | | 04/28/10 |
| Acenaphthylene | 208-96-8 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Chrysene | 218-01-9 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Benzo(a)pyrene | 50-32-8 | LA-523-456 | U | < 240 | ug/kg | | | 1.00 | 2.4e+02 | | 04/28/10 |
| Dibenz[a,h]anthracene | 53-70-3 | LA-523-456 | U | < 340 | ug/kg | | | 1.00 | 3.4e+02 | | 04/28/10 |
| Benzo(a)anthracene | 56-55-3 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Phenanthrene | 85-01-8 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Fluorene | 86-73-7 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Naphthalene | 91-20-3 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| **VOA Ground Water Protection** | | | | | | | | | | | |
| 1,1-Dichloroethene | 75-35-4 | LA-523-455 | U | < 0.940 | ug/kg | | | 1.00 | 0.94 | | 04/21/10 |
| Trichloroethene | 79-01-6 | LA-523-455 | TU | < 0.190 | ug/kg | | | 1.00 | 0.19 | | 04/21/10 |
| Benzene | 71-43-2 | LA-523-455 | U | < 0.940 | ug/kg | | | 1.00 | 0.94 | | 04/21/10 |
| Toluene | 108-88-3 | LA-523-455 | U | < 0.940 | ug/kg | | | 1.00 | 0.94 | | 04/21/10 |
| Chlorobenzene | 108-90-7 | LA-523-455 | U | < 0.940 | ug/kg | | | 1.00 | 0.94 | | 04/21/10 |
| Carbon tetrachloride | 56-23-5 | LA-523-455 | U | < 0.940 | ug/kg | | | 1.00 | 0.94 | | 04/21/10 |

**MDL=Minimum Detection Limit**
**RQ=Result Qualifier**
**TP Err=Total Propagated Error**
**DF=Dilution Factor**

B - The analyte < the RDL but >= the IDL/MDL (inorg)
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N - Spike sample recovery is outside control limits.(inorg)
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# WSCF
# ANALYTICAL RESULTS REPORT

**Attention:** Steve Trent
**SAF Number:** F10-181
**Sample #** W10GR00984
**Client ID:** B257C4 GPP WSCF

**Matrix:** SOIL

**Group #:** WSCF20100600
**Department:** Organic
**Sampled:** 04/19/10
**Received:** 04/19/10

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **NWTPH-D TPH Diesel Range (Wa) Prep** | | | | | | | | | | | **04/22/10** |
| **NWTPH-D TPH Diesel Range (Wa)** | | | | | | | | | | | |
| Total Pet. Hydrocarbons Diesel | TPHDIESEL | LA-523-493 | NU | < 5.20 | mg/kg | | | 1.00 | 5.2 | | 04/28/10 |
| Kerosene | TPHKEROSENE | LA-523-493 | U | < 5.20 | mg/kg | | | 1.00 | 5.2 | | 04/28/10 |
| **PCBs complete list Prep** | | | | | | | | | | | **04/22/10** |
| **PCBs complete list** | | | | | | | | | | | |
| Aroclor-1016 | 12674-11-2 | LA-523-427 | U | < 10.0 | ug/kg | | | 1.00 | 10 | | 04/26/10 |
| Aroclor-1221 | 11104-28-2 | LA-523-427 | U | < 20.0 | ug/kg | | | 1.00 | 20 | | 04/26/10 |
| Aroclor-1232 | 11141-16-5 | LA-523-427 | U | < 10.0 | ug/kg | | | 1.00 | 10 | | 04/26/10 |
| Aroclor-1242 | 53469-21-9 | LA-523-427 | U | < 10.0 | ug/kg | | | 1.00 | 10 | | 04/26/10 |
| Aroclor-1248 | 12672-29-6 | LA-523-427 | U | < 10.0 | ug/kg | | | 1.00 | 10 | | 04/26/10 |
| Aroclor-1254 | 11097-69-1 | LA-523-427 | U | < 10.0 | ug/kg | | | 1.00 | 10 | | 04/26/10 |
| Aroclor-1260 | 11096-82-5 | LA-523-427 | U | < 10.0 | ug/kg | | | 1.00 | 10 | | 04/26/10 |
| **SW-846 8270C Semi-Vols Prep** | | | | | | | | | | | **04/22/10** |
| **SW-846 8270C Semi-Vols** | | | | | | | | | | | |
| 4-Nitrophenol | 100-02-7 | LA-523-456 | U | < 340 | ug/kg | | | 1.00 | 3.4e+02 | | 04/28/10 |
| 1,4-Dichlorobenzene | 106-46-7 | LA-523-456 | U | < 260 | ug/kg | | | 1.00 | 2.6e+02 | | 04/28/10 |
| Phenol | 108-95-2 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| 1,2,4-Trichlorobenzene | 120-82-1 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| 2,4-Dinitrotoluene | 121-14-2 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Pyrene | 129-00-0 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| 4-Chloro-3-methylphenol | 59-50-7 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| N-Nitrosodi-n-dipropylamine | 621-64-7 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Acenaphthene | 83-32-9 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Pentachlorophenol | 87-86-5 | LA-523-456 | U | < 420 | ug/kg | | | 1.00 | 4.2e+02 | | 04/28/10 |

**MDL=Minimum Detection Limit**
**RQ=Result Qualifier**
**TP Err=Total Propagated Error**
**DF=Dilution Factor**

B - The analyte < the RDL but >= the IDL/MDL (inorg)
D - Analyte was identified at a secondary dilution factor.(org)
N - Spike sample recovery is outside control limits.(inorg)
T - GC/MS only - MS or MSD recovery is outside control limits.

D - Analyte was identified at a secondary dilution factor(inorg)
E - Analyte is an estimate, has potentially larger errors(inorg)
N - non GC/MS - MS or MSD recovery is outside control limits.
U - Analyzed for but not detected above limiting criteria(inorg)

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

# WSCF
# ANALYTICAL RESULTS REPORT

**Attention:** Steve Trent
**SAF Number:** F10-181
**Sample #** W10GR00984
**Client ID:** B257C4 GPP WSCF

**Matrix:** SOIL

**Group #:** WSCF20100600
**Department:** Organic
**Sampled:** 04/19/10
**Received:** 04/19/10

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2-Chlorophenol | 95-57-8 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Anthracene | 120-12-7 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Benzo(ghi)perylene | 191-24-2 | LA-523-456 | U | < 330 | ug/kg | | | 1.00 | 3.3e+02 | | 04/28/10 |
| Indeno(1,2,3-cd)pyrene | 193-39-5 | LA-523-456 | U | < 340 | ug/kg | | | 1.00 | 3.4e+02 | | 04/28/10 |
| Benzo(b)fluoranthene | 205-99-2 | LA-523-456 | U | < 210 | ug/kg | | | 1.00 | 2.1e+02 | | 04/28/10 |
| Fluoranthene | 206-44-0 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Benzo(k)fluoranthene | 207-08-9 | LA-523-456 | U | < 210 | ug/kg | | | 1.00 | 2.1e+02 | | 04/28/10 |
| Acenaphthylene | 208-96-8 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Chrysene | 218-01-9 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Benzo(a)pyrene | 50-32-8 | LA-523-456 | U | < 230 | ug/kg | | | 1.00 | 2.3e+02 | | 04/28/10 |
| Dibenz[a,h]anthracene | 53-70-3 | LA-523-456 | U | < 340 | ug/kg | | | 1.00 | 3.4e+02 | | 04/28/10 |
| Benzo(a)anthracene | 56-55-3 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Phenanthrene | 85-01-8 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Fluorene | 86-73-7 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Naphthalene | 91-20-3 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| **VOA Ground Water Protection** | | | | | | | | | | | |
| 1,1-Dichloroethene | 75-35-4 | LA-523-455 | U | < 0.880 | ug/kg | | | 1.00 | 0.88 | | 04/21/10 |
| Trichloroethene | 79-01-6 | LA-523-455 | TU | < 0.180 | ug/kg | | | 1.00 | 0.18 | | 04/21/10 |
| Benzene | 71-43-2 | LA-523-455 | U | < 0.880 | ug/kg | | | 1.00 | 0.88 | | 04/21/10 |
| Toluene | 108-88-3 | LA-523-455 | U | < 0.880 | ug/kg | | | 1.00 | 0.88 | | 04/21/10 |
| Chlorobenzene | 108-90-7 | LA-523-455 | U | < 0.880 | ug/kg | | | 1.00 | 0.88 | | 04/21/10 |
| Carbon tetrachloride | 56-23-5 | LA-523-455 | U | < 0.880 | ug/kg | | | 1.00 | 0.88 | | 04/21/10 |

**MDL=Minimum Detection Limit**
**RQ=Result Qualifier**
**TP Err=Total Propagated Error**
**DF=Dilution Factor**

B - The analyte < the RDL but > = the IDL/MDL (inorg)
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D - Analyte was identified at a secondary dilution factor(inorg)
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# WSCF
# ANALYTICAL RESULTS REPORT

**Attention:** Steve Trent
**SAF Number:** F10-181
**Sample #** W10GR00985
**Client ID:** B257B4 GPP WSCF

**Matrix:** SOIL

**Group #:** WSCF20100600
**Department:** Organic
**Sampled:** 04/19/10
**Received:** 04/19/10

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **NWTPH-D TPH Diesel Range (Wa) Prep** | | | | | | | | | | | **04/22/10** |
| **NWTPH-D TPH Diesel Range (Wa)** | | | | | | | | | | | |
| Total Pet. Hydrocarbons Diesel | TPHDIESEL | LA-523-493 | DNX | 300 | mg/kg | | | 10.00 | 53 | | 04/28/10 |
| Kerosene | TPHKEROSENE | LA-523-493 | DU | < 53.0 | mg/kg | | | 10.00 | 53 | | 04/28/10 |
| **PCBs complete list Prep** | | | | | | | | | | | **04/22/10** |
| **PCBs complete list** | | | | | | | | | | | |
| Aroclor-1016 | 12674-11-2 | LA-523-427 | DU | < 21.0 | ug/kg | | | 2.00 | 21 | | 04/27/10 |
| Aroclor-1221 | 11104-28-2 | LA-523-427 | DU | < 42.0 | ug/kg | | | 2.00 | 42 | | 04/27/10 |
| Aroclor-1232 | 11141-16-5 | LA-523-427 | DU | < 21.0 | ug/kg | | | 2.00 | 21 | | 04/27/10 |
| Aroclor-1242 | 53469-21-9 | LA-523-427 | DU | < 21.0 | ug/kg | | | 2.00 | 21 | | 04/27/10 |
| Aroclor-1248 | 12672-29-6 | LA-523-427 | DU | < 21.0 | ug/kg | | | 2.00 | 21 | | 04/27/10 |
| Aroclor-1254 | 11097-69-1 | LA-523-427 | DU | < 21.0 | ug/kg | | | 2.00 | 21 | | 04/27/10 |
| Aroclor-1260 | 11096-82-5 | LA-523-427 | D | 580 | ug/kg | | | 2.00 | 21 | | 04/27/10 |
| **SW-846 8270C Semi-Vols Prep** | | | | | | | | | | | **04/22/10** |
| **SW-846 8270C Semi-Vols** | | | | | | | | | | | |
| 4-Nitrophenol | 100-02-7 | LA-523-456 | U | < 1.80e+03 | ug/kg | | | 5.00 | 1.8e+03 | | 04/28/10 |
| 1,4-Dichlorobenzene | 106-46-7 | LA-523-456 | U | < 1.30e+03 | ug/kg | | | 5.00 | 1.3e+03 | | 04/28/10 |
| Phenol | 108-95-2 | LA-523-456 | U | < 800 | ug/kg | | | 5.00 | 8.0e+02 | | 04/28/10 |
| 1,2,4-Trichlorobenzene | 120-82-1 | LA-523-456 | U | < 800 | ug/kg | | | 5.00 | 8.0e+02 | | 04/28/10 |
| 2,4-Dinitrotoluene | 121-14-2 | LA-523-456 | U | < 800 | ug/kg | | | 5.00 | 8.0e+02 | | 04/28/10 |
| Pyrene | 129-00-0 | LA-523-456 | U | < 800 | ug/kg | | | 5.00 | 8.0e+02 | | 04/28/10 |
| 4-Chloro-3-methylphenol | 59-50-7 | LA-523-456 | U | < 800 | ug/kg | | | 5.00 | 8.0e+02 | | 04/28/10 |
| N-Nitrosodi-n-dipropylamine | 621-64-7 | LA-523-456 | U | < 800 | ug/kg | | | 5.00 | 8.0e+02 | | 04/28/10 |
| Acenaphthene | 83-32-9 | LA-523-456 | U | < 800 | ug/kg | | | 5.00 | 8.0e+02 | | 04/28/10 |
| Pentachlorophenol | 87-86-5 | LA-523-456 | U | < 2.10e+03 | ug/kg | | | 5.00 | 2.1e+03 | | 04/28/10 |

**MDL = Minimum Detection Limit**
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**TP Err = Total Propagated Error**
**DF = Dilution Factor**

B - The analyte < the RDL but > = the IDL/MDL (inorg)
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T - GC/MS only - MS or MSD recovery is outside control limits.

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E - Analyte is an estimate, has potentially larger errors(inorg)
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# WSCF
# ANALYTICAL RESULTS REPORT

**Attention:** Steve Trent
**SAF Number:** F10-181
**Sample #** W10GR00985
**Client ID:** B257B4 GPP WSCF

**Matrix:** SOIL

**Group #:** WSCF20100600
**Department:** Organic
**Sampled:** 04/19/10
**Received:** 04/19/10

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2-Chlorophenol | 95-57-8 | LA-523-456 | U | < 800 | ug/kg | | | 5.00 | 8.0e+02 | | 04/28/10 |
| Anthracene | 120-12-7 | LA-523-456 | U | < 800 | ug/kg | | | 5.00 | 8.0e+02 | | 04/28/10 |
| Benzo(ghi)perylene | 191-24-2 | LA-523-456 | U | < 1.70e+03 | ug/kg | | | 5.00 | 1.7e+03 | | 04/28/10 |
| Indeno(1,2,3-cd)pyrene | 193-39-5 | LA-523-456 | U | < 1.80e+03 | ug/kg | | | 5.00 | 1.8e+03 | | 04/28/10 |
| Benzo(b)fluoranthene | 205-99-2 | LA-523-456 | U | < 1.10e+03 | ug/kg | | | 5.00 | 1.1e+03 | | 04/28/10 |
| Fluoranthene | 206-44-0 | LA-523-456 | U | < 800 | ug/kg | | | 5.00 | 8.0e+02 | | 04/28/10 |
| Benzo(k)fluoranthene | 207-08-9 | LA-523-456 | U | < 1.10e+03 | ug/kg | | | 5.00 | 1.1e+03 | | 04/28/10 |
| Acenaphthylene | 208-96-8 | LA-523-456 | U | < 800 | ug/kg | | | 5.00 | 8.0e+02 | | 04/28/10 |
| Chrysene | 218-01-9 | LA-523-456 | U | < 800 | ug/kg | | | 5.00 | 8.0e+02 | | 04/28/10 |
| Benzo(a)pyrene | 50-32-8 | LA-523-456 | U | < 1.20e+03 | ug/kg | | | 5.00 | 1.2e+03 | | 04/28/10 |
| Dibenz[a,h]anthracene | 53-70-3 | LA-523-456 | U | < 1.80e+03 | ug/kg | | | 5.00 | 1.8e+03 | | 04/28/10 |
| Benzo(a)anthracene | 56-55-3 | LA-523-456 | U | < 800 | ug/kg | | | 5.00 | 8.0e+02 | | 04/28/10 |
| Phenanthrene | 85-01-8 | LA-523-456 | U | < 800 | ug/kg | | | 5.00 | 8.0e+02 | | 04/28/10 |
| Fluorene | 86-73-7 | LA-523-456 | U | < 800 | ug/kg | | | 5.00 | 8.0e+02 | | 04/28/10 |
| Naphthalene | 91-20-3 | LA-523-456 | U | < 800 | ug/kg | | | 5.00 | 8.0e+02 | | 04/28/10 |
| **VOA Ground Water Protection** | | | | | | | | | | | |
| 1,1-Dichloroethene | 75-35-4 | LA-523-455 | U | < 0.940 | ug/kg | | | 1.00 | 0.94 | | 04/21/10 |
| Trichloroethene | 79-01-6 | LA-523-455 | TU | < 0.190 | ug/kg | | | 1.00 | 0.19 | | 04/21/10 |
| Benzene | 71-43-2 | LA-523-455 | U | < 0.940 | ug/kg | | | 1.00 | 0.94 | | 04/21/10 |
| Toluene | 108-88-3 | LA-523-455 | U | < 0.940 | ug/kg | | | 1.00 | 0.94 | | 04/21/10 |
| Chlorobenzene | 108-90-7 | LA-523-455 | U | < 0.940 | ug/kg | | | 1.00 | 0.94 | | 04/21/10 |
| Carbon tetrachloride | 56-23-5 | LA-523-455 | U | < 0.940 | ug/kg | | | 1.00 | 0.94 | | 04/21/10 |

**MDL = Minimum Detection Limit**
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**DF = Dilution Factor**

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# WSCF
# ANALYTICAL RESULTS REPORT

**Attention:** Steve Trent
**SAF Number:** F10-181
**Sample #** W10GR00986
**Client ID:** B257C8 GPP WSCF

**Matrix:** SOIL

**Group #:** WSCF20100600
**Department:** Organic
**Sampled:** 04/19/10
**Received:** 04/19/10

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **NWTPH-D TPH Diesel Range (Wa) Prep** | | | | | | | | | | | **04/22/10** |
| **NWTPH-D TPH Diesel Range (Wa)** | | | | | | | | | | | |
| Total Pet. Hydrocarbons Diesel | TPHDIESEL | LA-523-493 | NU | < 5.30 | mg/kg | | | 1.00 | 5.3 | | 04/28/10 |
| Kerosene | TPHKEROSENE | LA-523-493 | U | < 5.30 | mg/kg | | | 1.00 | 5.3 | | 04/28/10 |
| **PCBs complete list Prep** | | | | | | | | | | | **04/22/10** |
| **PCBs complete list** | | | | | | | | | | | |
| Aroclor-1016 | 12674-11-2 | LA-523-427 | U | < 10.0 | ug/kg | | | 1.00 | 10 | | 04/26/10 |
| Aroclor-1221 | 11104-28-2 | LA-523-427 | U | < 21.0 | ug/kg | | | 1.00 | 21 | | 04/26/10 |
| Aroclor-1232 | 11141-16-5 | LA-523-427 | U | < 10.0 | ug/kg | | | 1.00 | 10 | | 04/26/10 |
| Aroclor-1242 | 53469-21-9 | LA-523-427 | U | < 10.0 | ug/kg | | | 1.00 | 10 | | 04/26/10 |
| Aroclor-1248 | 12672-29-6 | LA-523-427 | U | < 10.0 | ug/kg | | | 1.00 | 10 | | 04/26/10 |
| Aroclor-1254 | 11097-69-1 | LA-523-427 | U | < 10.0 | ug/kg | | | 1.00 | 10 | | 04/26/10 |
| Aroclor-1260 | 11096-82-5 | LA-523-427 | U | < 10.0 | ug/kg | | | 1.00 | 10 | | 04/26/10 |
| **SW-846 8270C Semi-Vols Prep** | | | | | | | | | | | **04/22/10** |
| **SW-846 8270C Semi-Vols** | | | | | | | | | | | |
| 4-Nitrophenol | 100-02-7 | LA-523-456 | U | < 350 | ug/kg | | | 1.00 | 3.5e+02 | | 04/28/10 |
| 1,4-Dichlorobenzene | 106-46-7 | LA-523-456 | U | < 270 | ug/kg | | | 1.00 | 2.7e+02 | | 04/28/10 |
| Phenol | 108-95-2 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| 1,2,4-Trichlorobenzene | 120-82-1 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| 2,4-Dinitrotoluene | 121-14-2 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Pyrene | 129-00-0 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| 4-Chloro-3-methylphenol | 59-50-7 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| N-Nitrosodi-n-dipropylamine | 621-64-7 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Acenaphthene | 83-32-9 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Pentachlorophenol | 87-86-5 | LA-523-456 | U | < 420 | ug/kg | | | 1.00 | 4.2e+02 | | 04/28/10 |

**MDL = Minimum Detection Limit**
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B - The analyte < the RDL but > = the IDL/MDL (inorg)
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# WSCF
# ANALYTICAL RESULTS REPORT

**Attention:** Steve Trent
**SAF Number:** F10-181
**Sample #** W10GR00986
**Client ID:** B257C8 GPP WSCF

**Matrix:** SOIL

**Group #:** WSCF20100600
**Department:** Organic
**Sampled:** 04/19/10
**Received:** 04/19/10

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2-Chlorophenol | 95-57-8 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Anthracene | 120-12-7 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Benzo(ghi)perylene | 191-24-2 | LA-523-456 | U | < 340 | ug/kg | | | 1.00 | 3.4e+02 | | 04/28/10 |
| Indeno(1,2,3-cd)pyrene | 193-39-5 | LA-523-456 | U | < 350 | ug/kg | | | 1.00 | 3.5e+02 | | 04/28/10 |
| Benzo(b)fluoranthene | 205-99-2 | LA-523-456 | U | < 210 | ug/kg | | | 1.00 | 2.1e+02 | | 04/28/10 |
| Fluoranthene | 206-44-0 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Benzo(k)fluoranthene | 207-08-9 | LA-523-456 | U | < 210 | ug/kg | | | 1.00 | 2.1e+02 | | 04/28/10 |
| Acenaphthylene | 208-96-8 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Chrysene | 218-01-9 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Benzo(a)pyrene | 50-32-8 | LA-523-456 | U | < 240 | ug/kg | | | 1.00 | 2.4e+02 | | 04/28/10 |
| Dibenz[a,h]anthracene | 53-70-3 | LA-523-456 | U | < 350 | ug/kg | | | 1.00 | 3.5e+02 | | 04/28/10 |
| Benzo(a)anthracene | 56-55-3 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Phenanthrene | 85-01-8 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Fluorene | 86-73-7 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Naphthalene | 91-20-3 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| **VOA Ground Water Protection** | | | | | | | | | | | |
| 1,1-Dichloroethene | 75-35-4 | LA-523-455 | U | < 1.00 | ug/kg | | | 1.00 | 1.0 | | 04/21/10 |
| Trichloroethene | 79-01-6 | LA-523-455 | TU | < 0.200 | ug/kg | | | 1.00 | 0.20 | | 04/21/10 |
| Benzene | 71-43-2 | LA-523-455 | U | < 1.00 | ug/kg | | | 1.00 | 1.0 | | 04/21/10 |
| Toluene | 108-88-3 | LA-523-455 | U | < 1.00 | ug/kg | | | 1.00 | 1.0 | | 04/21/10 |
| Chlorobenzene | 108-90-7 | LA-523-455 | U | < 1.00 | ug/kg | | | 1.00 | 1.0 | | 04/21/10 |
| Carbon tetrachloride | 56-23-5 | LA-523-455 | U | < 1.00 | ug/kg | | | 1.00 | 1.0 | | 04/21/10 |

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# WSCF
# ANALYTICAL RESULTS REPORT

**Attention:** Steve Trent
**SAF Number:** F10-181
**Sample #** W10GR00987
**Client ID:** B25796 GPP WSCF

**Matrix:** SOIL

**Group #:** WSCF20100600
**Department:** Organic
**Sampled:** 04/19/10
**Received:** 04/19/10

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **NWTPH-D TPH Diesel Range (Wa) Prep** | | | | | | | | | | | **04/22/10** |
| **NWTPH-D TPH Diesel Range (Wa)** | | | | | | | | | | | |
| Total Pet. Hydrocarbons Diesel | TPHDIESEL | LA-523-493 | NU | < 5.40 | mg/kg | | | 1.00 | 5.4 | | 04/28/10 |
| Kerosene | TPHKEROSENE | LA-523-493 | U | < 5.40 | mg/kg | | | 1.00 | 5.4 | | 04/28/10 |
| **PCBs complete list Prep** | | | | | | | | | | | **04/22/10** |
| **PCBs complete list** | | | | | | | | | | | |
| Aroclor-1016 | 12674-11-2 | LA-523-427 | U | < 11.0 | ug/kg | | | 1.00 | 11 | | 04/26/10 |
| Aroclor-1221 | 11104-28-2 | LA-523-427 | U | < 21.0 | ug/kg | | | 1.00 | 21 | | 04/26/10 |
| Aroclor-1232 | 11141-16-5 | LA-523-427 | U | < 11.0 | ug/kg | | | 1.00 | 11 | | 04/26/10 |
| Aroclor-1242 | 53469-21-9 | LA-523-427 | U | < 11.0 | ug/kg | | | 1.00 | 11 | | 04/26/10 |
| Aroclor-1248 | 12672-29-6 | LA-523-427 | U | < 11.0 | ug/kg | | | 1.00 | 11 | | 04/26/10 |
| Aroclor-1254 | 11097-69-1 | LA-523-427 | U | < 11.0 | ug/kg | | | 1.00 | 11 | | 04/26/10 |
| Aroclor-1260 | 11096-82-5 | LA-523-427 | U | < 11.0 | ug/kg | | | 1.00 | 11 | | 04/26/10 |
| **SW-846 8270C Semi-Vols Prep** | | | | | | | | | | | **04/22/10** |
| **SW-846 8270C Semi-Vols** | | | | | | | | | | | |
| 4-Nitrophenol | 100-02-7 | LA-523-456 | U | < 360 | ug/kg | | | 1.00 | 3.6e+02 | | 04/28/10 |
| 1,4-Dichlorobenzene | 106-46-7 | LA-523-456 | U | < 270 | ug/kg | | | 1.00 | 2.7e+02 | | 04/28/10 |
| Phenol | 108-95-2 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| 1,2,4-Trichlorobenzene | 120-82-1 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| 2,4-Dinitrotoluene | 121-14-2 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Pyrene | 129-00-0 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| 4-Chloro-3-methylphenol | 59-50-7 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| N-Nitrosodi-n-dipropylamine | 621-64-7 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Acenaphthene | 83-32-9 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Pentachlorophenol | 87-86-5 | LA-523-456 | U | < 430 | ug/kg | | | 1.00 | 4.3e+02 | | 04/28/10 |

**MDL=Minimum Detection Limit**
**RQ=Result Qualifier**
**TP Err=Total Propagated Error**
**DF=Dilution Factor**

B - The analyte < the RDL but > = the IDL/MDL (inorg)
D - Analyte was identified at a secondary dilution factor.(org)
N - Spike sample recovery is outside control limits.(inorg)
T - GC/MS only - MS or MSD recovery is outside control limits.

D - Analyte was identified at a secondary dilution factor(inorg)
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N - non GC/MS - MS or MSD recovery is outside control limits.
U - Analyzed for but not detected above limiting criteria(inorg)

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

# WSCF
# ANALYTICAL RESULTS REPORT

**Attention:** Steve Trent
**SAF Number:** F10-181
**Sample #** W10GR00987
**Client ID:** B25796 GPP WSCF

**Matrix:** SOIL

**Group #:** WSCF20100600
**Department:** Organic
**Sampled:** 04/19/10
**Received:** 04/19/10

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2-Chlorophenol | 95-57-8 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Anthracene | 120-12-7 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Benzo(ghi)perylene | 191-24-2 | LA-523-456 | U | < 350 | ug/kg | | | 1.00 | 3.5e+02 | | 04/28/10 |
| Indeno(1,2,3-cd)pyrene | 193-39-5 | LA-523-456 | U | < 360 | ug/kg | | | 1.00 | 3.6e+02 | | 04/28/10 |
| Benzo(b)fluoranthene | 205-99-2 | LA-523-456 | U | < 220 | ug/kg | | | 1.00 | 2.2e+02 | | 04/28/10 |
| Fluoranthene | 206-44-0 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Benzo(k)fluoranthene | 207-08-9 | LA-523-456 | U | < 220 | ug/kg | | | 1.00 | 2.2e+02 | | 04/28/10 |
| Acenaphthylene | 208-96-8 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Chrysene | 218-01-9 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Benzo(a)pyrene | 50-32-8 | LA-523-456 | U | < 240 | ug/kg | | | 1.00 | 2.4e+02 | | 04/28/10 |
| Dibenz[a,h]anthracene | 53-70-3 | LA-523-456 | U | < 360 | ug/kg | | | 1.00 | 3.6e+02 | | 04/28/10 |
| Benzo(a)anthracene | 56-55-3 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Phenanthrene | 85-01-8 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Fluorene | 86-73-7 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Naphthalene | 91-20-3 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| **VOA Ground Water Protection** | | | | | | | | | | | |
| 1,1-Dichloroethene | 75-35-4 | LA-523-455 | U | < 0.870 | ug/kg | | | 1.00 | 0.87 | | 04/21/10 |
| Trichloroethene | 79-01-6 | LA-523-455 | TU | < 0.170 | ug/kg | | | 1.00 | 0.17 | | 04/21/10 |
| Benzene | 71-43-2 | LA-523-455 | U | < 0.870 | ug/kg | | | 1.00 | 0.87 | | 04/21/10 |
| Toluene | 108-88-3 | LA-523-455 | U | < 0.870 | ug/kg | | | 1.00 | 0.87 | | 04/21/10 |
| Chlorobenzene | 108-90-7 | LA-523-455 | U | < 0.870 | ug/kg | | | 1.00 | 0.87 | | 04/21/10 |
| Carbon tetrachloride | 56-23-5 | LA-523-455 | U | < 0.870 | ug/kg | | | 1.00 | 0.87 | | 04/21/10 |

**MDL=Minimum Detection Limit**
**RQ=Result Qualifier**
**TP Err=Total Propagated Error**
**DF=Dilution Factor**

B - The analyte < the RDL but > = the IDL/MDL (inorg)
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# WSCF
# ANALYTICAL RESULTS REPORT

**Attention:** Steve Trent
**SAF Number:** F10-181
**Sample #** W10GR00988
**Client ID:** B257C6 GPP WSCF

**Matrix:** SOIL

**Group #:** WSCF20100600
**Department:** Organic
**Sampled:** 04/19/10
**Received:** 04/19/10

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **NWTPH-D TPH Diesel Range (Wa) Prep** | | | | | | | | | | | **04/22/10** |
| **NWTPH-D TPH Diesel Range (Wa)** | | | | | | | | | | | |
| Total Pet. Hydrocarbons Diesel | TPHDIESEL | LA-523-493 | NU | < 5.40 | mg/kg | | | 1.00 | 5.4 | | 04/28/10 |
| Kerosene | TPHKEROSENE | LA-523-493 | U | < 5.40 | mg/kg | | | 1.00 | 5.4 | | 04/28/10 |
| **PCBs complete list Prep** | | | | | | | | | | | **04/22/10** |
| **PCBs complete list** | | | | | | | | | | | |
| Aroclor-1016 | 12674-11-2 | LA-523-427 | U | < 11.0 | ug/kg | | | 1.00 | 11 | | 04/26/10 |
| Aroclor-1221 | 11104-28-2 | LA-523-427 | U | < 21.0 | ug/kg | | | 1.00 | 21 | | 04/26/10 |
| Aroclor-1232 | 11141-16-5 | LA-523-427 | U | < 11.0 | ug/kg | | | 1.00 | 11 | | 04/26/10 |
| Aroclor-1242 | 53469-21-9 | LA-523-427 | U | < 11.0 | ug/kg | | | 1.00 | 11 | | 04/26/10 |
| Aroclor-1248 | 12672-29-6 | LA-523-427 | U | < 11.0 | ug/kg | | | 1.00 | 11 | | 04/26/10 |
| Aroclor-1254 | 11097-69-1 | LA-523-427 | | 40.0 | ug/kg | | | 1.00 | 11 | | 04/26/10 |
| Aroclor-1260 | 11096-82-5 | LA-523-427 | | 160 | ug/kg | | | 1.00 | 11 | | 04/26/10 |
| **SW-846 8270C Semi-Vols Prep** | | | | | | | | | | | **04/22/10** |
| **SW-846 8270C Semi-Vols** | | | | | | | | | | | |
| 4-Nitrophenol | 100-02-7 | LA-523-456 | U | < 350 | ug/kg | | | 1.00 | 3.5e+02 | | 04/28/10 |
| 1,4-Dichlorobenzene | 106-46-7 | LA-523-456 | U | < 270 | ug/kg | | | 1.00 | 2.7e+02 | | 04/28/10 |
| Phenol | 108-95-2 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| 1,2,4-Trichlorobenzene | 120-82-1 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| 2,4-Dinitrotoluene | 121-14-2 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Pyrene | 129-00-0 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| 4-Chloro-3-methylphenol | 59-50-7 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| N-Nitrosodi-n-dipropylamine | 621-64-7 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Acenaphthene | 83-32-9 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Pentachlorophenol | 87-86-5 | LA-523-456 | U | < 430 | ug/kg | | | 1.00 | 4.3e+02 | | 04/28/10 |

**MDL = Minimum Detection Limit**
**RQ = Result Qualifier**
**TP Err = Total Propagated Error**
**DF = Dilution Factor**

B - The analyte < the RDL but > = the IDL/MDL (inorg)
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D - Analyte was identified at a secondary dilution factor(inorg)
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# WSCF
# ANALYTICAL RESULTS REPORT

**Attention:** Steve Trent
**SAF Number:** F10-181
**Sample #** W10GR00988
**Client ID:** B257C6 GPP WSCF

**Matrix:** SOIL

**Group #:** WSCF20100600
**Department:** Organic
**Sampled:** 04/19/10
**Received:** 04/19/10

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2-Chlorophenol | 95-57-8 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Anthracene | 120-12-7 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Benzo(ghi)perylene | 191-24-2 | LA-523-456 | U | < 350 | ug/kg | | | 1.00 | 3.5e+02 | | 04/28/10 |
| Indeno(1,2,3-cd)pyrene | 193-39-5 | LA-523-456 | U | < 350 | ug/kg | | | 1.00 | 3.5e+02 | | 04/28/10 |
| Benzo(b)fluoranthene | 205-99-2 | LA-523-456 | U | < 210 | ug/kg | | | 1.00 | 2.1e+02 | | 04/28/10 |
| Fluoranthene | 206-44-0 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Benzo(k)fluoranthene | 207-08-9 | LA-523-456 | U | < 220 | ug/kg | | | 1.00 | 2.2e+02 | | 04/28/10 |
| Acenaphthylene | 208-96-8 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Chrysene | 218-01-9 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Benzo(a)pyrene | 50-32-8 | LA-523-456 | U | < 240 | ug/kg | | | 1.00 | 2.4e+02 | | 04/28/10 |
| Dibenz(a,h)anthracene | 53-70-3 | LA-523-456 | U | < 350 | ug/kg | | | 1.00 | 3.5e+02 | | 04/28/10 |
| Benzo(a)anthracene | 56-55-3 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Phenanthrene | 85-01-8 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Fluorene | 86-73-7 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Naphthalene | 91-20-3 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| **VOA Ground Water Protection** | | | | | | | | | | | |
| 1,1-Dichloroethene | 75-35-4 | LA-523-455 | U | < 1.20 | ug/kg | | | 1.00 | 1.2 | | 04/21/10 |
| Trichloroethene | 79-01-6 | LA-523-455 | TU | < 0.240 | ug/kg | | | 1.00 | 0.24 | | 04/21/10 |
| Benzene | 71-43-2 | LA-523-455 | U | < 1.20 | ug/kg | | | 1.00 | 1.2 | | 04/21/10 |
| Toluene | 108-88-3 | LA-523-455 | U | < 1.20 | ug/kg | | | 1.00 | 1.2 | | 04/21/10 |
| Chlorobenzene | 108-90-7 | LA-523-455 | U | < 1.20 | ug/kg | | | 1.00 | 1.2 | | 04/21/10 |
| Carbon tetrachloride | 56-23-5 | LA-523-455 | U | < 1.20 | ug/kg | | | 1.00 | 1.2 | | 04/21/10 |

**MDL=Minimum Detection Limit**
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**DF=Dilution Factor**

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# WSCF
# ANALYTICAL RESULTS REPORT

**Attention:** Steve Trent
**SAF Number:** F10-181
**Sample #** W10GR00989
**Client ID:** B257C0 GPP WSCF
**Matrix:** SOIL

**Group #:** WSCF20100600
**Department:** Organic
**Sampled:** 04/19/10
**Received:** 04/19/10

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **NWTPH-D TPH Diesel Range (Wa) Prep** | | | | | | | | | | | **04/22/10** |
| **NWTPH-D TPH Diesel Range (Wa)** | | | | | | | | | | | |
| Total Pet. Hydrocarbons Diesel | TPHDIESEL | LA-523-493 | NU | < 5.20 | mg/kg | | | 1.00 | 5.2 | | 04/28/10 |
| Kerosene | TPHKEROSENE | LA-523-493 | U | < 5.20 | mg/kg | | | 1.00 | 5.2 | | 04/28/10 |
| **PCBs complete list Prep** | | | | | | | | | | | **04/22/10** |
| **PCBs complete list** | | | | | | | | | | | |
| Aroclor-1016 | 12674-11-2 | LA-523-427 | U | < 10.0 | ug/kg | | | 1.00 | 10 | | 04/26/10 |
| Aroclor-1221 | 11104-28-2 | LA-523-427 | U | < 21.0 | ug/kg | | | 1.00 | 21 | | 04/26/10 |
| Aroclor-1232 | 11141-16-5 | LA-523-427 | U | < 10.0 | ug/kg | | | 1.00 | 10 | | 04/26/10 |
| Aroclor-1242 | 53469-21-9 | LA-523-427 | U | < 10.0 | ug/kg | | | 1.00 | 10 | | 04/26/10 |
| Aroclor-1248 | 12672-29-6 | LA-523-427 | U | < 10.0 | ug/kg | | | 1.00 | 10 | | 04/26/10 |
| Aroclor-1254 | 11097-69-1 | LA-523-427 | U | < 10.0 | ug/kg | | | 1.00 | 10 | | 04/26/10 |
| Aroclor-1260 | 11096-82-5 | LA-523-427 | U | < 10.0 | ug/kg | | | 1.00 | 10 | | 04/26/10 |
| **SW-846 8270C Semi-Vols Prep** | | | | | | | | | | | **04/22/10** |
| **SW-846 8270C Semi-Vols** | | | | | | | | | | | |
| 4-Nitrophenol | 100-02-7 | LA-523-456 | U | < 340 | ug/kg | | | 1.00 | 3.4e+02 | | 04/28/10 |
| 1,4-Dichlorobenzene | 106-46-7 | LA-523-456 | U | < 260 | ug/kg | | | 1.00 | 2.6e+02 | | 04/28/10 |
| Phenol | 108-95-2 | LA-523-456 | U | < 150 | ug/kg | | | 1.00 | 1.5e+02 | | 04/28/10 |
| 1,2,4-Trichlorobenzene | 120-82-1 | LA-523-456 | U | < 150 | ug/kg | | | 1.00 | 1.5e+02 | | 04/28/10 |
| 2,4-Dinitrotoluene | 121-14-2 | LA-523-456 | U | < 150 | ug/kg | | | 1.00 | 1.5e+02 | | 04/28/10 |
| Pyrene | 129-00-0 | LA-523-456 | U | < 150 | ug/kg | | | 1.00 | 1.5e+02 | | 04/28/10 |
| 4-Chloro-3-methylphenol | 59-50-7 | LA-523-456 | U | < 150 | ug/kg | | | 1.00 | 1.5e+02 | | 04/28/10 |
| N-Nitrosodi-n-dipropylamine | 621-64-7 | LA-523-456 | U | < 150 | ug/kg | | | 1.00 | 1.5e+02 | | 04/28/10 |
| Acenaphthene | 83-32-9 | LA-523-456 | U | < 150 | ug/kg | | | 1.00 | 1.5e+02 | | 04/28/10 |
| Pentachlorophenol | 87-86-5 | LA-523-456 | U | < 410 | ug/kg | | | 1.00 | 4.1e+02 | | 04/28/10 |

**MDL = Minimum Detection Limit**
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B - The analyte < the RDL but > = the IDL/MDL (inorg)
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# WSCF
# ANALYTICAL RESULTS REPORT

**Attention:** Steve Trent
**SAF Number:** F10-181
**Sample #** W10GR00989
**Client ID:** B257C0 GPP WSCF

**Matrix:** SOIL

**Group #:** WSCF20100600
**Department:** Organic
**Sampled:** 04/19/10
**Received:** 04/19/10

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2-Chlorophenol | 95-57-8 | LA-523-456 | U | < 150 | ug/kg | | | 1.00 | 1.5e+02 | | 04/28/10 |
| Anthracene | 120-12-7 | LA-523-456 | U | < 150 | ug/kg | | | 1.00 | 1.5e+02 | | 04/28/10 |
| Benzo(ghi)perylene | 191-24-2 | LA-523-456 | U | < 330 | ug/kg | | | 1.00 | 3.3e+02 | | 04/28/10 |
| Indeno(1,2,3-cd)pyrene | 193-39-5 | LA-523-456 | U | < 340 | ug/kg | | | 1.00 | 3.4e+02 | | 04/28/10 |
| Benzo(b)fluoranthene | 205-99-2 | LA-523-456 | U | < 210 | ug/kg | | | 1.00 | 2.1e+02 | | 04/28/10 |
| Fluoranthene | 206-44-0 | LA-523-456 | U | < 150 | ug/kg | | | 1.00 | 1.5e+02 | | 04/28/10 |
| Benzo(k)fluoranthene | 207-08-9 | LA-523-456 | U | < 210 | ug/kg | | | 1.00 | 2.1e+02 | | 04/28/10 |
| Acenaphthylene | 208-96-8 | LA-523-456 | U | < 150 | ug/kg | | | 1.00 | 1.5e+02 | | 04/28/10 |
| Chrysene | 218-01-9 | LA-523-456 | U | < 150 | ug/kg | | | 1.00 | 1.5e+02 | | 04/28/10 |
| Benzo(a)pyrene | 50-32-8 | LA-523-456 | U | < 230 | ug/kg | | | 1.00 | 2.3e+02 | | 04/28/10 |
| Dibenz[a,h]anthracene | 53-70-3 | LA-523-456 | U | < 340 | ug/kg | | | 1.00 | 3.4e+02 | | 04/28/10 |
| Benzo(a)anthracene | 56-55-3 | LA-523-456 | U | < 150 | ug/kg | | | 1.00 | 1.5e+02 | | 04/28/10 |
| Phenanthrene | 85-01-8 | LA-523-456 | U | < 150 | ug/kg | | | 1.00 | 1.5e+02 | | 04/28/10 |
| Fluorene | 86-73-7 | LA-523-456 | U | < 150 | ug/kg | | | 1.00 | 1.5e+02 | | 04/28/10 |
| Naphthalene | 91-20-3 | LA-523-456 | U | < 150 | ug/kg | | | 1.00 | 1.5e+02 | | 04/28/10 |
| **VOA Ground Water Protection** | | | | | | | | | | | |
| 1,1-Dichloroethene | 75-35-4 | LA-523-455 | U | < 0.980 | ug/kg | | | 1.00 | 0.98 | | 04/21/10 |
| Trichloroethene | 79-01-6 | LA-523-455 | TU | < 0.200 | ug/kg | | | 1.00 | 0.20 | | 04/21/10 |
| Benzene | 71-43-2 | LA-523-455 | U | < 0.980 | ug/kg | | | 1.00 | 0.98 | | 04/21/10 |
| Toluene | 108-88-3 | LA-523-455 | U | < 0.980 | ug/kg | | | 1.00 | 0.98 | | 04/21/10 |
| Chlorobenzene | 108-90-7 | LA-523-455 | U | < 0.980 | ug/kg | | | 1.00 | 0.98 | | 04/21/10 |
| Carbon tetrachloride | 56-23-5 | LA-523-455 | U | < 0.980 | ug/kg | | | 1.00 | 0.98 | | 04/21/10 |

**MDL = Minimum Detection Limit**
**RQ = Result Qualifier**
**TP Err = Total Propagated Error**
**DF = Dilution Factor**

B - The analyte < the RDL but > = the IDL/MDL (inorg)
D - Analyte was identified at a secondary dilution factor.(org)
N - Spike sample recovery is outside control limits.(inorg)
T - GC/MS only - MS or MSD recovery is outside control limits.

D - Analyte was identified at a secondary dilution factor(inorg)
E - Analyte is an estimate, has potentially larger errors(inorg)
N - non GC/MS - MS or MSD recovery is outside control limits.
U - Analyzed for but not detected above limiting criteria(inorg)

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

# WSCF
# ANALYTICAL RESULTS REPORT

**Attention:** Steve Trent
**SAF Number:** F10-181
**Sample #** W10GR00990
**Client ID:** B25794 GPP WSCF

**Matrix:** SOIL

**Group #:** WSCF20100600
**Department:** Organic
**Sampled:** 04/19/10
**Received:** 04/19/10

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **NWTPH-D TPH Diesel Range (Wa) Prep** | | | | | | | | | | | **04/22/10** |
| **NWTPH-D TPH Diesel Range (Wa)** | | | | | | | | | | | |
| Total Pet. Hydrocarbons Diesel | TPHDIESEL | LA-523-493 | NU | < 5.10 | mg/kg | | | 1.00 | 5.1 | | 04/28/10 |
| Kerosene | TPHKEROSENE | LA-523-493 | U | < 5.10 | mg/kg | | | 1.00 | 5.1 | | 04/28/10 |
| **PCBs complete list Prep** | | | | | | | | | | | **04/22/10** |
| **PCBs complete list** | | | | | | | | | | | |
| Aroclor-1016 | 12674-11-2 | LA-523-427 | U | < 10.0 | ug/kg | | | 1.00 | 10 | | 04/26/10 |
| Aroclor-1221 | 11104-28-2 | LA-523-427 | U | < 20.0 | ug/kg | | | 1.00 | 20 | | 04/26/10 |
| Aroclor-1232 | 11141-16-5 | LA-523-427 | U | < 10.0 | ug/kg | | | 1.00 | 10 | | 04/26/10 |
| Aroclor-1242 | 53469-21-9 | LA-523-427 | U | < 10.0 | ug/kg | | | 1.00 | 10 | | 04/26/10 |
| Aroclor-1248 | 12672-29-6 | LA-523-427 | U | < 10.0 | ug/kg | | | 1.00 | 10 | | 04/26/10 |
| Aroclor-1254 | 11097-69-1 | LA-523-427 | U | < 10.0 | ug/kg | | | 1.00 | 10 | | 04/26/10 |
| Aroclor-1260 | 11096-82-5 | LA-523-427 | U | < 10.0 | ug/kg | | | 1.00 | 10 | | 04/26/10 |
| **SW-846 8270C Semi-Vols Prep** | | | | | | | | | | | **04/22/10** |
| **SW-846 8270C Semi-Vols** | | | | | | | | | | | |
| 4-Nitrophenol | 100-02-7 | LA-523-456 | U | < 340 | ug/kg | | | 1.00 | 3.4e+02 | | 04/28/10 |
| 1,4-Dichlorobenzene | 106-46-7 | LA-523-456 | U | < 260 | ug/kg | | | 1.00 | 2.6e+02 | | 04/28/10 |
| Phenol | 108-95-2 | LA-523-456 | U | < 150 | ug/kg | | | 1.00 | 1.5e+02 | | 04/28/10 |
| 1,2,4-Trichlorobenzene | 120-82-1 | LA-523-456 | U | < 150 | ug/kg | | | 1.00 | 1.5e+02 | | 04/28/10 |
| 2,4-Dinitrotoluene | 121-14-2 | LA-523-456 | U | < 150 | ug/kg | | | 1.00 | 1.5e+02 | | 04/28/10 |
| Pyrene | 129-00-0 | LA-523-456 | U | < 150 | ug/kg | | | 1.00 | 1.5e+02 | | 04/28/10 |
| 4-Chloro-3-methylphenol | 59-50-7 | LA-523-456 | U | < 150 | ug/kg | | | 1.00 | 1.5e+02 | | 04/28/10 |
| N-Nitrosodi-n-dipropylamine | 621-64-7 | LA-523-456 | U | < 150 | ug/kg | | | 1.00 | 1.5e+02 | | 04/28/10 |
| Acenaphthene | 83-32-9 | LA-523-456 | U | < 150 | ug/kg | | | 1.00 | 1.5e+02 | | 04/28/10 |
| Pentachlorophenol | 87-86-5 | LA-523-456 | U | < 410 | ug/kg | | | 1.00 | 4.1e+02 | | 04/28/10 |

**MDL=Minimum Detection Limit**
**RQ=Result Qualifier**
**TP Err=Total Propagated Error**
**DF=Dilution Factor**

B - The analyte < the RDL but > = the IDL/MDL (inorg)
D - Analyte was identified at a secondary dilution factor.(org)
N - Spike sample recovery is outside control limits.(inorg)
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D - Analyte was identified at a secondary dilution factor(inorg)
E - Analyte is an estimate, has potentially larger errors(inorg)
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U - Analyzed for but not detected above limiting criteria(inorg)

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

# WSCF
# ANALYTICAL RESULTS REPORT

**Attention:** Steve Trent
**SAF Number:** F10-181
**Sample #** W10GR00990
**Client ID:** B25794 GPP WSCF

**Matrix:** SOIL

**Group #:** WSCF20100600
**Department:** Organic
**Sampled:** 04/19/10
**Received:** 04/19/10

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2-Chlorophenol | 95-57-8 | LA-523-456 | U | < 150 | ug/kg | | | 1.00 | 1.5e+02 | | 04/28/10 |
| Anthracene | 120-12-7 | LA-523-456 | U | < 150 | ug/kg | | | 1.00 | 1.5e+02 | | 04/28/10 |
| Benzo(ghi)perylene | 191-24-2 | LA-523-456 | U | < 330 | ug/kg | | | 1.00 | 3.3e+02 | | 04/28/10 |
| Indeno(1,2,3-cd)pyrene | 193-39-5 | LA-523-456 | U | < 340 | ug/kg | | | 1.00 | 3.4e+02 | | 04/28/10 |
| Benzo(b)fluoranthene | 205-99-2 | LA-523-456 | U | < 200 | ug/kg | | | 1.00 | 2.0e+02 | | 04/28/10 |
| Fluoranthene | 206-44-0 | LA-523-456 | U | < 150 | ug/kg | | | 1.00 | 1.5e+02 | | 04/28/10 |
| Benzo(k)fluoranthene | 207-08-9 | LA-523-456 | U | < 210 | ug/kg | | | 1.00 | 2.1e+02 | | 04/28/10 |
| Acenaphthylene | 208-96-8 | LA-523-456 | U | < 150 | ug/kg | | | 1.00 | 1.5e+02 | | 04/28/10 |
| Chrysene | 218-01-9 | LA-523-456 | U | < 150 | ug/kg | | | 1.00 | 1.5e+02 | | 04/28/10 |
| Benzo(a)pyrene | 50-32-8 | LA-523-456 | U | < 230 | ug/kg | | | 1.00 | 2.3e+02 | | 04/28/10 |
| Dibenz[a,h]anthracene | 53-70-3 | LA-523-456 | U | < 340 | ug/kg | | | 1.00 | 3.4e+02 | | 04/28/10 |
| Benzo(a)anthracene | 56-55-3 | LA-523-456 | U | < 150 | ug/kg | | | 1.00 | 1.5e+02 | | 04/28/10 |
| Phenanthrene | 85-01-8 | LA-523-456 | U | < 150 | ug/kg | | | 1.00 | 1.5e+02 | | 04/28/10 |
| Fluorene | 86-73-7 | LA-523-456 | U | < 150 | ug/kg | | | 1.00 | 1.5e+02 | | 04/28/10 |
| Naphthalene | 91-20-3 | LA-523-456 | U | < 150 | ug/kg | | | 1.00 | 1.5e+02 | | 04/28/10 |
| **VOA Ground Water Protection** | | | | | | | | | | | |
| 1,1-Dichloroethene | 75-35-4 | LA-523-455 | U | < 1.10 | ug/kg | | | 1.00 | 1.1 | | 04/21/10 |
| Trichloroethene | 79-01-6 | LA-523-455 | U | < 0.220 | ug/kg | | | 1.00 | 0.22 | | 04/21/10 |
| Benzene | 71-43-2 | LA-523-455 | U | < 1.10 | ug/kg | | | 1.00 | 1.1 | | 04/21/10 |
| Toluene | 108-88-3 | LA-523-455 | U | < 1.10 | ug/kg | | | 1.00 | 1.1 | | 04/21/10 |
| Chlorobenzene | 108-90-7 | LA-523-455 | U | < 1.10 | ug/kg | | | 1.00 | 1.1 | | 04/21/10 |
| Carbon tetrachloride | 56-23-5 | LA-523-455 | U | < 1.10 | ug/kg | | | 1.00 | 1.1 | | 04/21/10 |

**MDL = Minimum Detection Limit**
**RQ = Result Qualifier**
**TP Err = Total Propagated Error**
**DF = Dilution Factor**

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# WSCF
# ANALYTICAL RESULTS REPORT

**Attention:** Steve Trent
**SAF Number:** F10-181
**Sample #** W10GR00991
**Client ID:** B257B2 GPP WSCF

**Matrix:** SOIL

**Group #:** WSCF20100600
**Department:** Organic
**Sampled:** 04/19/10
**Received:** 04/19/10

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **NWTPH-D TPH Diesel Range (Wa) Prep** | | | | | | | | | | | **04/22/10** |
| **NWTPH-D TPH Diesel Range (Wa)** | | | | | | | | | | | |
| Total Pet. Hydrocarbons Diesel | TPHDIESEL | LA-523-493 | NU | < 5.20 | mg/kg | | | 1.00 | 5.2 | | 04/28/10 |
| Kerosene | TPHKEROSENE | LA-523-493 | U | < 5.20 | mg/kg | | | 1.00 | 5.2 | | 04/28/10 |
| **PCBs complete list Prep** | | | | | | | | | | | **04/22/10** |
| **PCBs complete list** | | | | | | | | | | | |
| Aroclor-1016 | 12674-11-2 | LA-523-427 | U | < 10.0 | ug/kg | | | 1.00 | 10 | | 04/26/10 |
| Aroclor-1221 | 11104-28-2 | LA-523-427 | U | < 21.0 | ug/kg | | | 1.00 | 21 | | 04/26/10 |
| Aroclor-1232 | 11141-16-5 | LA-523-427 | U | < 10.0 | ug/kg | | | 1.00 | 10 | | 04/26/10 |
| Aroclor-1242 | 53469-21-9 | LA-523-427 | U | < 10.0 | ug/kg | | | 1.00 | 10 | | 04/26/10 |
| Aroclor-1248 | 12672-29-6 | LA-523-427 | U | < 10.0 | ug/kg | | | 1.00 | 10 | | 04/26/10 |
| Aroclor-1254 | 11097-69-1 | LA-523-427 | U | < 10.0 | ug/kg | | | 1.00 | 10 | | 04/26/10 |
| Aroclor-1260 | 11096-82-5 | LA-523-427 | U | < 10.0 | ug/kg | | | 1.00 | 10 | | 04/26/10 |
| **SW-846 8270C Semi-Vols Prep** | | | | | | | | | | | **04/22/10** |
| **SW-846 8270C Semi-Vols** | | | | | | | | | | | |
| 4-Nitrophenol | 100-02-7 | LA-523-456 | U | < 340 | ug/kg | | | 1.00 | 3.4e+02 | | 04/28/10 |
| 1,4-Dichlorobenzene | 106-46-7 | LA-523-456 | U | < 260 | ug/kg | | | 1.00 | 2.6e+02 | | 04/28/10 |
| Phenol | 108-95-2 | LA-523-456 | U | < 150 | ug/kg | | | 1.00 | 1.5e+02 | | 04/28/10 |
| 1,2,4-Trichlorobenzene | 120-82-1 | LA-523-456 | U | < 150 | ug/kg | | | 1.00 | 1.5e+02 | | 04/28/10 |
| 2,4-Dinitrotoluene | 121-14-2 | LA-523-456 | U | < 150 | ug/kg | | | 1.00 | 1.5e+02 | | 04/28/10 |
| Pyrene | 129-00-0 | LA-523-456 | U | < 150 | ug/kg | | | 1.00 | 1.5e+02 | | 04/28/10 |
| 4-Chloro-3-methylphenol | 59-50-7 | LA-523-456 | U | < 150 | ug/kg | | | 1.00 | 1.5e+02 | | 04/28/10 |
| N-Nitrosodi-n-dipropylamine | 621-64-7 | LA-523-456 | U | < 150 | ug/kg | | | 1.00 | 1.5e+02 | | 04/28/10 |
| Acenaphthene | 83-32-9 | LA-523-456 | U | < 150 | ug/kg | | | 1.00 | 1.5e+02 | | 04/28/10 |
| Pentachlorophenol | 87-86-5 | LA-523-456 | U | < 410 | ug/kg | | | 1.00 | 4.1e+02 | | 04/28/10 |

**MDL = Minimum Detection Limit**
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B - The analyte < the RDL but > = the IDL/MDL (inorg)
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# WSCF
# ANALYTICAL RESULTS REPORT

**Attention:** Steve Trent
**SAF Number:** F10-181
**Sample #** W10GR00991
**Client ID:** B257B2 GPP WSCF

**Matrix:** SOIL

**Group #:** WSCF20100600
**Department:** Organic
**Sampled:** 04/19/10
**Received:** 04/19/10

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2-Chlorophenol | 95-57-8 | LA-523-456 | U | < 150 | ug/kg | | | 1.00 | 1.5e+02 | | 04/28/10 |
| Anthracene | 120-12-7 | LA-523-456 | U | < 150 | ug/kg | | | 1.00 | 1.5e+02 | | 04/28/10 |
| Benzo(ghi)perylene | 191-24-2 | LA-523-456 | U | < 330 | ug/kg | | | 1.00 | 3.3e+02 | | 04/28/10 |
| Indeno(1,2,3-cd)pyrene | 193-39-5 | LA-523-456 | U | < 340 | ug/kg | | | 1.00 | 3.4e+02 | | 04/28/10 |
| Benzo(b)fluoranthene | 205-99-2 | LA-523-456 | U | < 210 | ug/kg | | | 1.00 | 2.1e+02 | | 04/28/10 |
| Fluoranthene | 206-44-0 | LA-523-456 | U | < 150 | ug/kg | | | 1.00 | 1.5e+02 | | 04/28/10 |
| Benzo(k)fluoranthene | 207-08-9 | LA-523-456 | U | < 210 | ug/kg | | | 1.00 | 2.1e+02 | | 04/28/10 |
| Acenaphthylene | 208-96-8 | LA-523-456 | U | < 150 | ug/kg | | | 1.00 | 1.5e+02 | | 04/28/10 |
| Chrysene | 218-01-9 | LA-523-456 | U | < 150 | ug/kg | | | 1.00 | 1.5e+02 | | 04/28/10 |
| Benzo(a)pyrene | 50-32-8 | LA-523-456 | U | < 230 | ug/kg | | | 1.00 | 2.3e+02 | | 04/28/10 |
| Dibenz[a,h]anthracene | 53-70-3 | LA-523-456 | U | < 340 | ug/kg | | | 1.00 | 3.4e+02 | | 04/28/10 |
| Benzo(a)anthracene | 56-55-3 | LA-523-456 | U | < 150 | ug/kg | | | 1.00 | 1.5e+02 | | 04/28/10 |
| Phenanthrene | 85-01-8 | LA-523-456 | U | < 150 | ug/kg | | | 1.00 | 1.5e+02 | | 04/28/10 |
| Fluorene | 86-73-7 | LA-523-456 | U | < 150 | ug/kg | | | 1.00 | 1.5e+02 | | 04/28/10 |
| Naphthalene | 91-20-3 | LA-523-456 | U | < 150 | ug/kg | | | 1.00 | 1.5e+02 | | 04/28/10 |
| **VOA Ground Water Protection** | | | | | | | | | | | |
| 1,1-Dichloroethene | 75-35-4 | LA-523-455 | U | < 0.750 | ug/kg | | | 1.00 | 0.75 | | 04/21/10 |
| Trichloroethene | 79-01-6 | LA-523-455 | U | < 0.150 | ug/kg | | | 1.00 | 0.15 | | 04/21/10 |
| Benzene | 71-43-2 | LA-523-455 | U | < 0.750 | ug/kg | | | 1.00 | 0.75 | | 04/21/10 |
| Toluene | 108-88-3 | LA-523-455 | U | < 0.750 | ug/kg | | | 1.00 | 0.75 | | 04/21/10 |
| Chlorobenzene | 108-90-7 | LA-523-455 | U | < 0.750 | ug/kg | | | 1.00 | 0.75 | | 04/21/10 |
| Carbon tetrachloride | 56-23-5 | LA-523-455 | U | < 0.750 | ug/kg | | | 1.00 | 0.75 | | 04/21/10 |

**MDL = Minimum Detection Limit**
**RQ = Result Qualifier**
**TP Err = Total Propagated Error**
**DF = Dilution Factor**

B - The analyte < the RDL but > = the IDL/MDL (inorg)
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# WSCF
# ANALYTICAL RESULTS REPORT

**Attention:** Steve Trent
**SAF Number:** F10-181
**Sample #** W10GR00992
**Client ID:** B257B8 GPP WSCF

**Matrix:** SOIL

**Group #:** WSCF20100600
**Department:** Organic
**Sampled:** 04/19/10
**Received:** 04/19/10

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **NWTPH-D TPH Diesel Range (Wa) Prep** | | | | | | | | | | | **04/22/10** |
| **NWTPH-D TPH Diesel Range (Wa)** | | | | | | | | | | | |
| Total Pet. Hydrocarbons Diesel | TPHDIESEL | LA-523-493 | NX | 62.0 | mg/kg | | | 1.00 | 5.2 | | 04/28/10 |
| Kerosene | TPHKEROSENE | LA-523-493 | U | < 5.20 | mg/kg | | | 1.00 | 5.2 | | 04/28/10 |
| **PCBs complete list Prep** | | | | | | | | | | | **04/22/10** |
| **PCBs complete list** | | | | | | | | | | | |
| Aroclor-1016 | 12674-11-2 | LA-523-427 | U | < 10.0 | ug/kg | | | 1.00 | 10 | | 04/26/10 |
| Aroclor-1221 | 11104-28-2 | LA-523-427 | U | < 21.0 | ug/kg | | | 1.00 | 21 | | 04/26/10 |
| Aroclor-1232 | 11141-16-5 | LA-523-427 | U | < 10.0 | ug/kg | | | 1.00 | 10 | | 04/26/10 |
| Aroclor-1242 | 53469-21-9 | LA-523-427 | U | < 10.0 | ug/kg | | | 1.00 | 10 | | 04/26/10 |
| Aroclor-1248 | 12672-29-6 | LA-523-427 | U | < 10.0 | ug/kg | | | 1.00 | 10 | | 04/26/10 |
| Aroclor-1254 | 11097-69-1 | LA-523-427 | U | < 10.0 | ug/kg | | | 1.00 | 10 | | 04/26/10 |
| Aroclor-1260 | 11096-82-5 | LA-523-427 | | 73.0 | ug/kg | | | 1.00 | 10 | | 04/26/10 |
| **SW-846 8270C Semi-Vols Prep** | | | | | | | | | | | **04/22/10** |
| **SW-846 8270C Semi-Vols** | | | | | | | | | | | |
| 4-Nitrophenol | 100-02-7 | LA-523-456 | U | < 340 | ug/kg | | | 1.00 | 3.4e+02 | | 04/28/10 |
| 1,4-Dichlorobenzene | 106-46-7 | LA-523-456 | U | < 260 | ug/kg | | | 1.00 | 2.6e+02 | | 04/28/10 |
| Phenol | 108-95-2 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| 1,2,4-Trichlorobenzene | 120-82-1 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| 2,4-Dinitrotoluene | 121-14-2 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Pyrene | 129-00-0 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| 4-Chloro-3-methylphenol | 59-50-7 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| N-Nitrosodi-n-dipropylamine | 621-64-7 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Acenaphthene | 83-32-9 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Pentachlorophenol | 87-86-5 | LA-523-456 | U | < 420 | ug/kg | | | 1.00 | 4.2e+02 | | 04/28/10 |

**MDL = Minimum Detection Limit**
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**TP Err = Total Propagated Error**
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# WSCF
# ANALYTICAL RESULTS REPORT

**Attention:** Steve Trent
**SAF Number:** F10-181
**Sample #** W10GR00992
**Client ID:** B257B8 GPP WSCF

**Matrix:** SOIL

**Group #:** WSCF20100600
**Department:** Organic
**Sampled:** 04/19/10
**Received:** 04/19/10

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2-Chlorophenol | 95-57-8 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Anthracene | 120-12-7 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Benzo(ghi)perylene | 191-24-2 | LA-523-456 | U | < 340 | ug/kg | | | 1.00 | 3.4e+02 | | 04/28/10 |
| Indeno(1,2,3-cd)pyrene | 193-39-5 | LA-523-456 | U | < 340 | ug/kg | | | 1.00 | 3.4e+02 | | 04/28/10 |
| Benzo(b)fluoranthene | 205-99-2 | LA-523-456 | U | < 210 | ug/kg | | | 1.00 | 2.1e+02 | | 04/28/10 |
| Fluoranthene | 206-44-0 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Benzo(k)fluoranthene | 207-08-9 | LA-523-456 | U | < 210 | ug/kg | | | 1.00 | 2.1e+02 | | 04/28/10 |
| Acenaphthylene | 208-96-8 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Chrysene | 218-01-9 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Benzo(a)pyrene | 50-32-8 | LA-523-456 | U | < 240 | ug/kg | | | 1.00 | 2.4e+02 | | 04/28/10 |
| Dibenz[a,h]anthracene | 53-70-3 | LA-523-456 | U | < 340 | ug/kg | | | 1.00 | 3.4e+02 | | 04/28/10 |
| Benzo(a)anthracene | 56-55-3 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Phenanthrene | 85-01-8 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Fluorene | 86-73-7 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| Naphthalene | 91-20-3 | LA-523-456 | U | < 160 | ug/kg | | | 1.00 | 1.6e+02 | | 04/28/10 |
| **VOA Ground Water Protection** | | | | | | | | | | | |
| 1,1-Dichloroethene | 75-35-4 | LA-523-455 | U | < 0.810 | ug/kg | | | 1.00 | 0.81 | | 04/21/10 |
| Trichloroethene | 79-01-6 | LA-523-455 | U | < 0.160 | ug/kg | | | 1.00 | 0.16 | | 04/21/10 |
| Benzene | 71-43-2 | LA-523-455 | U | < 0.810 | ug/kg | | | 1.00 | 0.81 | | 04/21/10 |
| Toluene | 108-88-3 | LA-523-455 | U | < 0.810 | ug/kg | | | 1.00 | 0.81 | | 04/21/10 |
| Chlorobenzene | 108-90-7 | LA-523-455 | U | < 0.810 | ug/kg | | | 1.00 | 0.81 | | 04/21/10 |
| Carbon tetrachloride | 56-23-5 | LA-523-455 | U | < 0.810 | ug/kg | | | 1.00 | 0.81 | | 04/21/10 |

**MDL = Minimum Detection Limit**
**RQ = Result Qualifier**
**TP Err = Total Propagated Error**
**DF = Dilution Factor**

B - The analyte < the RDL but > = the IDL/MDL (inorg)
D - Analyte was identified at a secondary dilution factor.(org)
N - Spike sample recovery is outside control limits.(inorg)
T - GC/MS only - MS or MSD recovery is outside control limits.

D - Analyte was identified at a secondary dilution factor(inorg)
E - Analyte is an estimate, has potentially larger errors(inorg)
N - non GC/MS - MS or MSD recovery is outside control limits.
U - Analyzed for but not detected above limiting criteria(inorg)

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

# WSCF
# ANALYTICAL RESULTS REPORT

**Attention:** Steve Trent
**SAF Number:** F10-181
**Sample #** W10GR00993
**Client ID:** B257B0 GPP WSCF

**Matrix:** SOIL

**Group #:** WSCF20100600
**Department:** Organic
**Sampled:** 04/19/10
**Received:** 04/19/10

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **NWTPH-D TPH Diesel Range (Wa) Prep** | | | | | | | | | | | **04/22/10** |
| **NWTPH-D TPH Diesel Range (Wa)** | | | | | | | | | | | |
| Total Pet. Hydrocarbons Diesel | TPHDIESEL | LA-523-493 | NU | < 5.30 | mg/kg | | | 1.00 | 5.3 | | 04/28/10 |
| Kerosene | TPHKEROSENE | LA-523-493 | U | < 5.30 | mg/kg | | | 1.00 | 5.3 | | 04/28/10 |
| **PCBs complete list Prep** | | | | | | | | | | | **04/22/10** |
| **PCBs complete list** | | | | | | | | | | | |
| Aroclor-1016 | 12674-11-2 | LA-523-427 | U | < 11.0 | ug/kg | | | 1.00 | 11 | | 04/26/10 |
| Aroclor-1221 | 11104-28-2 | LA-523-427 | U | < 21.0 | ug/kg | | | 1.00 | 21 | | 04/26/10 |
| Aroclor-1232 | 11141-16-5 | LA-523-427 | U | < 11.0 | ug/kg | | | 1.00 | 11 | | 04/26/10 |
| Aroclor-1242 | 53469-21-9 | LA-523-427 | U | < 11.0 | ug/kg | | | 1.00 | 11 | | 04/26/10 |
| Aroclor-1248 | 12672-29-6 | LA-523-427 | U | < 11.0 | ug/kg | | | 1.00 | 11 | | 04/26/10 |
| Aroclor-1254 | 11097-69-1 | LA-523-427 | U | < 11.0 | ug/kg | | | 1.00 | 11 | | 04/26/10 |
| Aroclor-1260 | 11096-82-5 | LA-523-427 | U | < 11.0 | ug/kg | | | 1.00 | 11 | | 04/26/10 |
| **SW-846 8270C Semi-Vols Prep** | | | | | | | | | | | **04/22/10** |
| **SW-846 8270C Semi-Vols** | | | | | | | | | | | |
| 4-Nitrophenol | 100-02-7 | LA-523-456 | U | < 1.70e+03 | ug/kg | | | 5.00 | 1.7e+03 | | 04/28/10 |
| 1,4-Dichlorobenzene | 106-46-7 | LA-523-456 | U | < 1.30e+03 | ug/kg | | | 5.00 | 1.3e+03 | | 04/28/10 |
| Phenol | 108-95-2 | LA-523-456 | U | < 790 | ug/kg | | | 5.00 | 7.9e+02 | | 04/28/10 |
| 1,2,4-Trichlorobenzene | 120-82-1 | LA-523-456 | U | < 790 | ug/kg | | | 5.00 | 7.9e+02 | | 04/28/10 |
| 2,4-Dinitrotoluene | 121-14-2 | LA-523-456 | U | < 790 | ug/kg | | | 5.00 | 7.9e+02 | | 04/28/10 |
| Pyrene | 129-00-0 | LA-523-456 | U | < 790 | ug/kg | | | 5.00 | 7.9e+02 | | 04/28/10 |
| 4-Chloro-3-methylphenol | 59-50-7 | LA-523-456 | U | < 790 | ug/kg | | | 5.00 | 7.9e+02 | | 04/28/10 |
| N-Nitrosodi-n-dipropylamine | 621-64-7 | LA-523-456 | U | < 790 | ug/kg | | | 5.00 | 7.9e+02 | | 04/28/10 |
| Acenaphthene | 83-32-9 | LA-523-456 | U | < 790 | ug/kg | | | 5.00 | 7.9e+02 | | 04/28/10 |
| Pentachlorophenol | 87-86-5 | LA-523-456 | U | < 2.10e+03 | ug/kg | | | 5.00 | 2.1e+03 | | 04/28/10 |

**MDL = Minimum Detection Limit**
**RQ = Result Qualifier**
**TP Err = Total Propagated Error**
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B - The analyte < the RDL but > = the IDL/MDL (inorg)
D - Analyte was identified at a secondary dilution factor.(org)
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E - Analyte is an estimate, has potentially larger errors(inorg)
N - non GC/MS - MS or MSD recovery is outside control limits.
U - Analyzed for but not detected above limiting criteria(inorg)

• - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

# WSCF
# ANALYTICAL RESULTS REPORT

**Attention:** Steve Trent
**SAF Number:** F10-181
**Sample #** W10GR00993
**Client ID:** B257B0 GPP WSCF

**Matrix:** SOIL

**Group #:** WSCF20100600
**Department:** Organic
**Sampled:** 04/19/10
**Received:** 04/19/10

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2-Chlorophenol | 95-57-8 | LA-523-456 | U | < 790 | ug/kg | | | 5.00 | 7.9e+02 | | 04/28/10 |
| Anthracene | 120-12-7 | LA-523-456 | U | < 790 | ug/kg | | | 5.00 | 7.9e+02 | | 04/28/10 |
| Benzo(ghi)perylene | 191-24-2 | LA-523-456 | U | < 1.70e+03 | ug/kg | | | 5.00 | 1.7e+03 | | 04/28/10 |
| Indeno(1,2,3-cd)pyrene | 193-39-5 | LA-523-456 | U | < 1.70e+03 | ug/kg | | | 5.00 | 1.7e+03 | | 04/28/10 |
| Benzo(b)fluoranthene | 205-99-2 | LA-523-456 | U | < 1.10e+03 | ug/kg | | | 5.00 | 1.1e+03 | | 04/28/10 |
| Fluoranthene | 206-44-0 | LA-523-456 | U | < 790 | ug/kg | | | 5.00 | 7.9e+02 | | 04/28/10 |
| Benzo(k)fluoranthene | 207-08-9 | LA-523-456 | U | < 1.10e+03 | ug/kg | | | 5.00 | 1.1e+03 | | 04/28/10 |
| Acenaphthylene | 208-96-8 | LA-523-456 | U | < 790 | ug/kg | | | 5.00 | 7.9e+02 | | 04/28/10 |
| Chrysene | 218-01-9 | LA-523-456 | U | < 790 | ug/kg | | | 5.00 | 7.9e+02 | | 04/28/10 |
| Benzo(a)pyrene | 50-32-8 | LA-523-456 | U | < 1.20e+03 | ug/kg | | | 5.00 | 1.2e+03 | | 04/28/10 |
| Dibenz[a,h]anthracene | 53-70-3 | LA-523-456 | U | < 1.70e+03 | ug/kg | | | 5.00 | 1.7e+03 | | 04/28/10 |
| Benzo(a)anthracene | 56-55-3 | LA-523-456 | U | < 790 | ug/kg | | | 5.00 | 7.9e+02 | | 04/28/10 |
| Phenanthrene | 85-01-8 | LA-523-456 | U | < 790 | ug/kg | | | 5.00 | 7.9e+02 | | 04/28/10 |
| Fluorene | 86-73-7 | LA-523-456 | U | < 790 | ug/kg | | | 5.00 | 7.9e+02 | | 04/28/10 |
| Naphthalene | 91-20-3 | LA-523-456 | U | < 790 | ug/kg | | | 5.00 | 7.9e+02 | | 04/28/10 |
| **VOA Ground Water Protection** | | | | | | | | | | | |
| 1,1-Dichloroethene | 75-35-4 | LA-523-455 | U | < 1.00 | ug/kg | | | 1.00 | 1.0 | | 04/21/10 |
| Trichloroethene | 79-01-6 | LA-523-455 | U | < 0.200 | ug/kg | | | 1.00 | 0.20 | | 04/21/10 |
| Benzene | 71-43-2 | LA-523-455 | U | < 1.00 | ug/kg | | | 1.00 | 1.0 | | 04/21/10 |
| Toluene | 108-88-3 | LA-523-455 | U | < 1.00 | ug/kg | | | 1.00 | 1.0 | | 04/21/10 |
| Chlorobenzene | 108-90-7 | LA-523-455 | U | < 1.00 | ug/kg | | | 1.00 | 1.0 | | 04/21/10 |
| Carbon tetrachloride | 56-23-5 | LA-523-455 | U | < 1.00 | ug/kg | | | 1.00 | 1.0 | | 04/21/10 |

**MDL = Minimum Detection Limit**
**RQ = Result Qualifier**
**TP Err = Total Propagated Error**
**DF = Dilution Factor**

B - The analyte < the RDL but > = the IDL/MDL (inorg)
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D - Analyte was identified at a secondary dilution factor(inorg)
E - Analyte is an estimate, has potentially larger errors(inorg)
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U - Analyzed for but not detected above limiting criteria(inorg)

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

# WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20100600
Matrix: SOLID
Test: NWTPH-D TPH Diesel Range (Wa)

Sample Date: 04/19/10
Receive Date:04/19/10

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Lower Limit | Upper Limit | RPD(%) | RPD Limit | RQ | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lab ID: W10GR00981 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| SURR | ortho-Terphenyl Surr | 84-15-1 | 24.833 | 120.000 | % Recov | 70.000 | 130.000 | | | | 04/27/10 |
| Lab ID: W10GR00982 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| MS | ortho-Terphenyl Surr | 84-15-1 | 23.302 | 113.000 | % Recov | 70.000 | 130.000 | | | | 04/27/10 |
| MS | Total Pet. Hydrocarbons Diesel | TPHDIESEL | 6.6871 | 6.460 | % Recov | 75.000 | 125.000 | | | * | 04/27/10 |
| MSD | ortho-Terphenyl Surr | 84-15-1 | 25.540 | 124.000 | % Recov | 70.000 | 130.000 | | | | 04/27/10 |
| MSD | Total Pet. Hydrocarbons Diesel | TPHDIESEL | 115.29 | 112.000 | % Recov | 75.000 | 125.000 | | | | 04/27/10 |
| SPK-RPD | ortho-Terphenyl Surr | 84-15-1 | 124.000 | | RPD | | | 9.283 | 30.000 | | 04/27/10 |
| SPK-RPD | Total Pet. Hydrocarbons Diesel | TPHDIESEL | 112.000 | | RPD | | | 178.187 | 30.000 | * | 04/27/10 |
| SURR | ortho-Terphenyl Surr | 84-15-1 | 24.523 | 119.000 | % Recov | 70.000 | 130.000 | | | | 04/27/10 |
| Lab ID: W10GR00983 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| SURR | ortho-Terphenyl Surr | 84-15-1 | 27.036 | 129.000 | % Recov | 70.000 | 130.000 | | | | 04/28/10 |
| Lab ID: W10GR00984 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| SURR | ortho-Terphenyl Surr | 84-15-1 | 23.344 | 113.000 | % Recov | 70.000 | 130.000 | | | | 04/28/10 |
| Lab ID: W10GR00985 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| SURR | ortho-Terphenyl Surr | 84-15-1 | 21.895 | 102.000 | % Recov | 70.000 | 130.000 | | | | 04/28/10 |
| Lab ID: W10GR00986 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |

# WSCF ANALYTICAL LABORATORY QC REPORT

**Department:** Organic

SDG Number: WSCF20100600
Matrix: SOLID
Test: NWTPH-D TPH Diesel Range (Wa)

Sample Date: 04/19/10
Receive Date:04/19/10

| QC Type | Analyte | | CAS # | QC Found | QC Yield | Units | Lower Limit | Upper Limit | RPD(%) | RPD Limit | RQ | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SURR | ortho-Terphenyl | Surr | 84-15-1 | 20.368 | 96.700 | % Recov | 70.000 | 130.000 | | | | 04/28/10 |
| Lab ID: W10GR00987 | | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | | |
| SURR | ortho-Terphenyl | Surr | 84-15-1 | 20.598 | 95.800 | % Recov | 70.000 | 130.000 | | | | 04/28/10 |
| Lab ID: W10GR00988 | | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | | |
| SURR | ortho-Terphenyl | Surr | 84-15-1 | 15.932 | 74.300 | % Recov | 70.000 | 130.000 | | | | 04/28/10 |
| Lab ID: W10GR00989 | | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | | |
| SURR | ortho-Terphenyl | Surr | 84-15-1 | 20.048 | 97.300 | % Recov | 70.000 | 130.000 | | | | 04/28/10 |
| Lab ID: W10GR00990 | | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | | |
| SURR | ortho-Terphenyl | Surr | 84-15-1 | 22.160 | 109.000 | % Recov | 70.000 | 130.000 | | | | 04/28/10 |
| Lab ID: W10GR00991 | | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | | |
| SURR | ortho-Terphenyl | Surr | 84-15-1 | 18.564 | 89.800 | % Recov | 70.000 | 130.000 | | | | 04/28/10 |
| Lab ID: W10GR00992 | | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | | |
| SURR | ortho-Terphenyl | Surr | 84-15-1 | 23.705 | 114.000 | % Recov | 70.000 | 130.000 | | | | 04/28/10 |
| Lab ID: W10GR00993 | | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | | |
| SURR | ortho-Terphenyl | Surr | 84-15-1 | 14.218 | 67.600 | % Recov | 70.000 | 130.000 | | | | 04/28/10 |

# WSCF ANALYTICAL LABORATORY QC REPORT

**Department:** Organic

SDG Number: WSCF20100600
Matrix: SOLID
Test: NWTPH-D TPH Diesel Range (Wa)

Sample Date:
Receive Date:

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Lower Limit | Upper Limit | RPD(%) | RPD Limit | RQ | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **BATCH QC** | | | | | | | | | | | |
| BLANK | Kerosene | TPHKEROSENE | < 5.0 | n/a | ug/Kg | | | | | U | 04/27/10 |
| BLANK | ortho-Terphenyl Surr | 84-15-1 | 21.643 | 108.000 | % Recov | 70.000 | 130.000 | | | | 04/27/10 |
| BLANK | Total Pet. Hydrocarbons Diesel | TPHDIESEL | < 5.0 | n/a | ug/Kg | | | | | U | 04/27/10 |
| LCS | ortho-Terphenyl Surr | 84-15-1 | 23.179 | 116.000 | % Recov | 70.000 | 130.000 | | | | 04/27/10 |
| LCS | Total Pet. Hydrocarbons Diesel | TPHDIESEL | 107.42 | 107.000 | % Recov | 80.000 | 120.000 | | | | 04/27/10 |

# WSCF ANALYTICAL LABORATORY QC REPORT

**Department:** Organic

SDG Number: WSCF20100600
Matrix: SOLID
Test: PCBs complete list

Sample Date: 04/16/10
Receive Date:04/16/10

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Lower Limit | Upper Limit | RPD(%) | RPD Limit | RQ | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Lab ID: W10GR00979** | | | | | | | | | | | |
| **BATCH QC ASSOCIATED WITH SAMPLE** | | | | | | | | | | | |
| MS | Aroclor-1260 | 11096-82-5 | 178.15 | 86.100 | % Recov | 75.000 | 125.000 | | | | 04/26/10 |
| MS | Decachlorobiphenyl | 2051-24-3 | 158.97 | 76.800 | % Recov | 50.000 | 150.000 | | | | 04/26/10 |
| MS | Tetrachloro-m-xylene | 877-09-8 | 166.45 | 80.400 | % Recov | 50.000 | 150.000 | | | | 04/26/10 |
| MSD | Aroclor-1260 | 11096-82-5 | 184.19 | 87.700 | % Recov | 75.000 | 125.000 | | | | 04/26/10 |
| MSD | Decachlorobiphenyl | 2051-24-3 | 143.62 | 68.400 | % Recov | 50.000 | 150.000 | | | | 04/26/10 |
| MSD | Tetrachloro-m-xylene | 877-09-8 | 166.71 | 79.400 | % Recov | 50.000 | 150.000 | | | | 04/26/10 |
| SPK-RPD | Aroclor-1260 | 11096-82-5 | 87.700 | | RPD | | | 1.841 | 25.000 | | 04/26/10 |
| SPK-RPD | Decachlorobiphenyl | 2051-24-3 | 68.400 | | RPD | | | 11.570 | 20.000 | | 04/26/10 |
| SPK-RPD | Tetrachloro-m-xylene | 877-09-8 | 79.400 | | RPD | | | 1.252 | 20.000 | | 04/26/10 |
| **Lab ID: W10GR00981** | | | | | | | | | | | |
| **BATCH QC ASSOCIATED WITH SAMPLE** | | | | | | | | | | | |
| SURR | Decachlorobiphenyl | 2051-24-3 | 173.23 | 83.400 | % Recov | 50.000 | 150.000 | | | | 04/26/10 |
| SURR | Tetrachloro-m-xylene | 877-09-8 | 156.13 | 75.200 | % Recov | 50.000 | 150.000 | | | | 04/26/10 |
| **Lab ID: W10GR00982** | | | | | | | | | | | |
| **BATCH QC ASSOCIATED WITH SAMPLE** | | | | | | | | | | | |
| SURR | Decachlorobiphenyl | 2051-24-3 | 215.67 | 105.000 | % Recov | 50.000 | 150.000 | | | | 04/26/10 |
| SURR | Tetrachloro-m-xylene | 877-09-8 | 168.40 | 82.200 | % Recov | 50.000 | 150.000 | | | | 04/26/10 |
| **Lab ID: W10GR00983** | | | | | | | | | | | |
| **BATCH QC ASSOCIATED WITH SAMPLE** | | | | | | | | | | | |
| SURR | Decachlorobiphenyl | 2051-24-3 | 198.59 | 95.300 | % Recov | 50.000 | 150.000 | | | | 04/26/10 |
| SURR | Tetrachloro-m-xylene | 877-09-8 | 163.20 | 78.400 | % Recov | 50.000 | 150.000 | | | | 04/26/10 |

# WSCF ANALYTICAL LABORATORY QC REPORT

**Department:** Organic

SDG Number: WSCF20100600
Matrix: SOLID
Test: PCBs complete list

Sample Date: 04/19/10
Receive Date:04/19/10

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Lower Limit | Upper Limit | RPD(%) | RPD Limit | RQ | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lab ID: W10GR00984 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| SURR | Decachlorobiphenyl | 2051-24-3 | 181.24 | 89.600 | % Recov | 50.000 | 150.000 | | | | 04/26/10 |
| SURR | Tetrachloro-m-xylene | 877-09-8 | 158.70 | 78.500 | % Recov | 50.000 | 150.000 | | | | 04/26/10 |
| Lab ID: W10GR00985 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| SURR | Decachlorobiphenyl | 2051-24-3 | 177.04 | 83.700 | % Recov | 50.000 | 150.000 | | | | 04/27/10 |
| SURR | Tetrachloro-m-xylene | 877-09-8 | 181.62 | 85.800 | % Recov | 50.000 | 150.000 | | | | 04/27/10 |
| Lab ID: W10GR00986 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| SURR | Decachlorobiphenyl | 2051-24-3 | 177.44 | 84.600 | % Recov | 50.000 | 150.000 | | | | 04/26/10 |
| SURR | Tetrachloro-m-xylene | 877-09-8 | 164.53 | 78.400 | % Recov | 50.000 | 150.000 | | | | 04/26/10 |
| Lab ID: W10GR00987 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| SURR | Decachlorobiphenyl | 2051-24-3 | 177.34 | 83.900 | % Recov | 50.000 | 150.000 | | | | 04/26/10 |
| SURR | Tetrachloro-m-xylene | 877-09-8 | 153.83 | 72.800 | % Recov | 50.000 | 150.000 | | | | 04/26/10 |
| Lab ID: W10GR00988 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| SURR | Decachlorobiphenyl | 2051-24-3 | 171.19 | 81.100 | % Recov | 50.000 | 150.000 | | | | 04/26/10 |
| SURR | Tetrachloro-m-xylene | 877-09-8 | 164.50 | 78.000 | % Recov | 50.000 | 150.000 | | | | 04/26/10 |
| Lab ID: W10GR00989 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| SURR | Decachlorobiphenyl | 2051-24-3 | 167.33 | 81.400 | % Recov | 50.000 | 150.000 | | | | 04/26/10 |
| SURR | Tetrachloro-m-xylene | 877-09-8 | 158.00 | 76.900 | % Recov | 50.000 | 150.000 | | | | 04/26/10 |

# WSCF ANALYTICAL LABORATORY QC REPORT

**Department:** Organic

SDG Number: WSCF20100600
Matrix: SOLID
Test: PCBs complete list

Sample Date: 04/19/10
Receive Date:04/19/10

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Lower Limit | Upper Limit | RPD(%) | RPD Limit | RQ | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lab ID: W10GR00990 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| SURR | Decachlorobiphenyl | 2051-24-3 | 156.51 | 77.200 | % Recov | 50.000 | 150.000 | | | | 04/26/10 |
| SURR | Tetrachloro-m-xylene | 877-09-8 | 153.63 | 75.800 | % Recov | 50.000 | 150.000 | | | | 04/26/10 |
| Lab ID: W10GR00991 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| SURR | Decachlorobiphenyl | 2051-24-3 | 178.76 | 87.000 | % Recov | 50.000 | 150.000 | | | | 04/26/10 |
| SURR | Tetrachloro-m-xylene | 877-09-8 | 163.55 | 79.600 | % Recov | 50.000 | 150.000 | | | | 04/26/10 |
| Lab ID: W10GR00992 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| SURR | Decachlorobiphenyl | 2051-24-3 | 170.21 | 81.900 | % Recov | 50.000 | 150.000 | | | | 04/26/10 |
| SURR | Tetrachloro-m-xylene | 877-09-8 | 153.10 | 73.600 | % Recov | 50.000 | 150.000 | | | | 04/26/10 |
| Lab ID: W10GR00993 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| SURR | Decachlorobiphenyl | 2051-24-3 | 165.17 | 78.600 | % Recov | 50.000 | 150.000 | | | | 04/26/10 |
| SURR | Tetrachloro-m-xylene | 877-09-8 | 167.57 | 79.800 | % Recov | 50.000 | 150.000 | | | | 04/26/10 |
| BATCH QC | | | | | | | | | | | |
| BLANK | Aroclor-1016 | 12674-11-2 | < 10 | n/a | UGKG | | | | | U | 04/26/10 |
| BLANK | Aroclor-1221 | 11104-28-2 | < 20 | n/a | ug/Kg | | | | | U | 04/26/10 |
| BLANK | Aroclor-1232 | 11141-16-5 | < 10 | n/a | ug/Kg | | | | | U | 04/26/10 |
| BLANK | Aroclor-1242 | 53469-21-9 | < 10 | n/a | ug/Kg | | | | | U | 04/26/10 |
| BLANK | Aroclor-1248 | 12672-29-6 | < 10 | n/a | ug/Kg | | | | | U | 04/26/10 |
| BLANK | Aroclor-1254 | 11097-69-1 | < 10 | n/a | ug/Kg | | | | | U | 04/26/10 |
| BLANK | Aroclor-1260 | 11096-82-5 | < 10 | n/a | ug/Kg | | | | | U | 04/26/10 |
| BLANK | Decachlorobiphenyl | 2051-24-3 | 174.51 | 87.300 | % Recov | 50.000 | 150.000 | | | | 04/26/10 |

# WSCF ANALYTICAL LABORATORY QC REPORT

**Department:** Organic

SDG Number: WSCF20100600
Matrix: SOLID
Test: PCBs complete list

Sample Date:
Receive Date:

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Lower Limit | Upper Limit | RPD(%) | RPD Limit | RQ | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| BLANK | Tetrachloro-m-xylene | 877-09-8 | 124.53 | 62.300 | % Recov | 50.000 | 150.000 | | | | 04/26/10 |
| LCS | Aroclor-1260 | 11096-82-5 | 203.25 | 102.000 | % Recov | 70.000 | 130.000 | | | | 04/26/10 |
| LCS | Decachlorobiphenyl | 2051-24-3 | 177.07 | 88.500 | % Recov | 50.000 | 150.000 | | | | 04/26/10 |
| LCS | Tetrachloro-m-xylene | 877-09-8 | 136.11 | 68.100 | % Recov | 50.000 | 150.000 | | | | 04/26/10 |

# WSCF ANALYTICAL LABORATORY QC REPORT

**Department:** Organic

SDG Number: WSCF20100600
Matrix: SOLID
Test: SW-846 8270C Semi-Vols

Sample Date: 04/19/10
Receive Date:04/19/10

Lab ID: W10GR00981
BATCH QC ASSOCIATED WITH SAMPLE

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Lower Limit | Upper Limit | RPD(%) | RPD Limit | RQ | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MS | 1,2,4-Trichlorobenzene | 120-82-1 | 5833.4 | 93.900 | % Recov | 75.000 | 121.000 | | | | 04/27/10 |
| MS | 1,4-Dichlorobenzene | 106-46-7 | 5042.4 | 81.100 | % Recov | 68.000 | 121.000 | | | | 04/27/10 |
| MS | 2,4-Dinitrotoluene | 121-14-2 | 5260.2 | 84.600 | % Recov | 66.000 | 113.000 | | | | 04/27/10 |
| MS | 2-Fluorophenol(Surr) | 367-12-4 | 3269.9 | 78.900 | % Recov | 72.000 | 120.000 | | | | 04/27/10 |
| MS | Acenaphthene | 83-32-9 | 5493.3 | 88.400 | % Recov | 69.000 | 125.000 | | | | 04/27/10 |
| MS | 4-Chloro-3-methylphenol | 59-50-7 | 5554.9 | 89.400 | % Recov | 68.000 | 116.000 | | | | 04/27/10 |
| MS | 2-Chlorophenol | 95-57-8 | 5507.9 | 88.600 | % Recov | 65.000 | 124.000 | | | | 04/27/10 |
| MS | N-Nitrosodi-n-dipropylamine | 621-64-7 | 5691.7 | 91.600 | % Recov | 69.000 | 127.000 | | | | 04/27/10 |
| MS | 2-Fluorobiphenyl(Surr) | 321-60-8 | 3358.2 | 81.000 | % Recov | 66.000 | 122.000 | | | | 04/27/10 |
| MS | Phenol | 108-95-2 | 5530.0 | 89.000 | % Recov | 71.000 | 122.000 | | | | 04/27/10 |
| MS | Nitrobenzene-d5(Surr) | 4165-60-0 | 3280.1 | 79.200 | % Recov | 63.000 | 125.000 | | | | 04/27/10 |
| MS | 4-Nitrophenol | 100-02-7 | 5809.9 | 93.500 | % Recov | 55.000 | 113.000 | | | | 04/27/10 |
| MS | Pentachlorophenol | 87-86-5 | 4885.0 | 78.600 | % Recov | 50.000 | 113.000 | | | | 04/27/10 |
| MS | Phenol-d5(Surr) | 4165-62-2 | 3376.9 | 81.500 | % Recov | 66.000 | 124.000 | | | | 04/27/10 |
| MS | Pyrene | 129-00-0 | 5655.1 | 91.000 | % Recov | 67.000 | 125.000 | | | | 04/27/10 |
| MS | 2,4,6-Tribromophenol(Surr) | 118-79-6 | 3506.0 | 84.600 | % Recov | 49.000 | 120.000 | | | | 04/27/10 |
| MS | Terphenyl-d14(Surr) | 98904-43-9 | 3624.0 | 87.500 | % Recov | 58.000 | 128.000 | | | | 04/27/10 |
| MSD | 1,2,4-Trichlorobenzene | 120-82-1 | 6045.2 | 97.100 | % Recov | 75.000 | 121.000 | | | | 04/27/10 |
| MSD | 1,4-Dichlorobenzene | 106-46-7 | 5246.0 | 84.300 | % Recov | 68.000 | 121.000 | | | | 04/27/10 |
| MSD | 2,4-Dinitrotoluene | 121-14-2 | 5367.8 | 86.200 | % Recov | 66.000 | 113.000 | | | | 04/27/10 |
| MSD | 2-Fluorophenol(Surr) | 367-12-4 | 3262.8 | 78.600 | % Recov | 72.000 | 120.000 | | | | 04/27/10 |
| MSD | Acenaphthene | 83-32-9 | 5510.9 | 88.500 | % Recov | 69.000 | 125.000 | | | | 04/27/10 |
| MSD | 4-Chloro-3-methylphenol | 59-50-7 | 5655.7 | 90.800 | % Recov | 68.000 | 116.000 | | | | 04/27/10 |
| MSD | 2-Chlorophenol | 95-57-8 | 5758.3 | 92.500 | % Recov | 65.000 | 124.000 | | | | 04/27/10 |
| MSD | N-Nitrosodi-n-dipropylamine | 621-64-7 | 5800.1 | 93.200 | % Recov | 69.000 | 127.000 | | | | 04/27/10 |
| MSD | 2-Fluorobiphenyl(Surr) | 321-60-8 | 3081.5 | 74.200 | % Recov | 66.000 | 122.000 | | | | 04/27/10 |

# WSCF ANALYTICAL LABORATORY QC REPORT

**Department:** Organic

SDG Number: WSCF20100600
Matrix: SOLID
Test: SW-846 8270C Semi-Vols

Sample Date: 04/19/10
Receive Date:04/19/10

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Lower Limit | Upper Limit | RPD(%) | RPD Limit | RQ | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MSD | Phenol | 108-95-2 | 5696.3 | 91.500 | % Recov | 71.000 | 122.000 | | | | 04/27/10 |
| MSD | Nitrobenzene-d5(Surr) | 4165-60-0 | 3260.6 | 78.600 | % Recov | 63.000 | 125.000 | | | | 04/27/10 |
| MSD | 4-Nitrophenol | 100-02-7 | 5818.2 | 93.400 | % Recov | 55.000 | 113.000 | | | | 04/27/10 |
| MSD | Pentachlorophenol | 87-86-5 | 5196.5 | 83.500 | % Recov | 50.000 | 113.000 | | | | 04/27/10 |
| MSD | Phenol-d5(Surr) | 4165-62-2 | 3271.0 | 78.800 | % Recov | 66.000 | 124.000 | | | | 04/27/10 |
| MSD | Pyrene | 129-00-0 | 5859.9 | 94.100 | % Recov | 67.000 | 125.000 | | | | 04/27/10 |
| MSD | 2,4,6-Tribromophenol(Surr) | 118-79-6 | 3302.5 | 79.600 | % Recov | 49.000 | 120.000 | | | | 04/27/10 |
| MSD | Terphenyl-d14(Surr) | 98904-43-9 | 3457.0 | 83.300 | % Recov | 58.000 | 128.000 | | | | 04/27/10 |
| SPK-RPD | 1,2,4-Trichlorobenzene | 120-82-1 | 97.100 | | RPD | | | 3.351 | 20.000 | | 04/27/10 |
| SPK-RPD | 1,4-Dichlorobenzene | 106-46-7 | 84.300 | | RPD | | | 3.869 | 20.000 | | 04/27/10 |
| SPK-RPD | 2,4-Dinitrotoluene | 121-14-2 | 86.200 | | RPD | | | 1.874 | 20.000 | | 04/27/10 |
| SPK-RPD | 2-Fluorophenol(Surr) | 367-12-4 | 78.600 | | RPD | | | 0.381 | 20.000 | | 04/27/10 |
| SPK-RPD | Acenaphthene | 83-32-9 | 88.500 | | RPD | | | 0.113 | 20.000 | | 04/27/10 |
| SPK-RPD | 4-Chloro-3-methylphenol | 59-50-7 | 90.800 | | RPD | | | 1.554 | 20.000 | | 04/27/10 |
| SPK-RPD | 2-Chlorophenol | 95-57-8 | 92.500 | | RPD | | | 4.307 | 20.000 | | 04/27/10 |
| SPK-RPD | N-Nitrosodi-n-dipropylamine | 621-64-7 | 93.200 | | RPD | | | 1.732 | 20.000 | | 04/27/10 |
| SPK-RPD | 2-Fluorobiphenyl(Surr) | 321-60-8 | 74.200 | | RPD | | | 8.763 | 20.000 | | 04/27/10 |
| SPK-RPD | Phenol | 108-95-2 | 91.500 | | RPD | | | 2.770 | 20.000 | | 04/27/10 |
| SPK-RPD | Nitrobenzene-d5(Surr) | 4165-60-0 | 78.600 | | RPD | | | 0.760 | 20.000 | | 04/27/10 |
| SPK-RPD | 4-Nitrophenol | 100-02-7 | 93.400 | | RPD | | | 0.107 | 20.000 | | 04/27/10 |
| SPK-RPD | Pentachlorophenol | 87-86-5 | 83.500 | | RPD | | | 6.046 | 20.000 | | 04/27/10 |
| SPK-RPD | Phenol-d5(Surr) | 4165-62-2 | 78.800 | | RPD | | | 3.369 | 20.000 | | 04/27/10 |
| SPK-RPD | Pyrene | 129-00-0 | 94.100 | | RPD | | | 3.350 | 20.000 | | 04/27/10 |
| SPK-RPD | 2,4,6-Tribromophenol(Surr) | 118-79-6 | 79.600 | | RPD | | | 6.090 | 20.000 | | 04/27/10 |
| SPK-RPD | Terphenyl-d14(Surr) | 98904-43-9 | 83.300 | | RPD | | | 4.918 | 20.000 | | 04/27/10 |
| SURR | 2-Fluorophenol(Surr) | 367-12-4 | 2855.2 | 68.900 | % Recov | 72.000 | 120.000 | | | | 04/27/10 |
| SURR | 2-Fluorobiphenyl(Surr) | 321-60-8 | 2800.1 | 67.600 | % Recov | 66.000 | 122.000 | | | | 04/27/10 |
| SURR | Nitrobenzene-d5(Surr) | 4165-60-0 | 3131.2 | 75.600 | % Recov | 63.000 | 125.000 | | | | 04/27/10 |
| SURR | Phenol-d5(Surr) | 4165-62-2 | 2799.6 | 67.600 | % Recov | 66.000 | 124.000 | | | | 04/27/10 |
| SURR | 2,4,6-Tribromophenol(Surr) | 118-79-6 | 2029.8 | 49.000 | % Recov | 49.000 | 120.000 | | | | 04/27/10 |

# WSCF ANALYTICAL LABORATORY QC REPORT

**Department:** Organic

SDG Number: WSCF20100600
Matrix: SOLID
Test: SW-846 8270C Semi-Vols

Sample Date: 04/19/10
Receive Date:04/19/10

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Lower Limit | Upper Limit | RPD(%) | RPD Limit | RQ | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SURR | Terphenyl-d14(Surr) | 98904-43-9 | 3558.8 | 85.900 | % Recov | 58.000 | 128.000 | | | | 04/27/10 |
| **Lab ID: W10GR00982** | | | | | | | | | | | |
| **BATCH QC ASSOCIATED WITH SAMPLE** | | | | | | | | | | | |
| SURR | 2-Fluorophenol(Surr) | 367-12-4 | 3399.7 | 82.000 | % Recov | 72.000 | 120.000 | | | | 04/28/10 |
| SURR | 2-Fluorobiphenyl(Surr) | 321-60-8 | 3172.0 | 76.500 | % Recov | 66.000 | 122.000 | | | | 04/28/10 |
| SURR | Nitrobenzene-d5(Surr) | 4165-60-0 | 3564.6 | 86.000 | % Recov | 63.000 | 125.000 | | | | 04/28/10 |
| SURR | Phenol-d5(Surr) | 4165-62-2 | 3208.6 | 77.400 | % Recov | 66.000 | 124.000 | | | | 04/28/10 |
| SURR | 2,4,6-Tribromophenol(Surr) | 118-79-6 | 2596.6 | 62.700 | % Recov | 49.000 | 120.000 | | | | 04/28/10 |
| SURR | Terphenyl-d14(Surr) | 98904-43-9 | 4910.8 | 118.000 | % Recov | 58.000 | 128.000 | | | | 04/28/10 |
| **Lab ID: W10GR00983** | | | | | | | | | | | |
| **BATCH QC ASSOCIATED WITH SAMPLE** | | | | | | | | | | | |
| SURR | 2-Fluorophenol(Surr) | 367-12-4 | 5800.6 | 107.000 | % Recov | 72.000 | 120.000 | | | | 04/28/10 |
| SURR | 2-Fluorobiphenyl(Surr) | 321-60-8 | 5278.7 | 97.200 | % Recov | 66.000 | 122.000 | | | | 04/28/10 |
| SURR | Nitrobenzene-d5(Surr) | 4165-60-0 | 5839.3 | 108.000 | % Recov | 63.000 | 125.000 | | | | 04/28/10 |
| SURR | Phenol-d5(Surr) | 4165-62-2 | 5582.3 | 103.000 | % Recov | 66.000 | 124.000 | | | | 04/28/10 |
| SURR | 2,4,6-Tribromophenol(Surr) | 118-79-6 | 4599.5 | 84.700 | % Recov | 49.000 | 120.000 | | | | 04/28/10 |
| SURR | Terphenyl-d14(Surr) | 98904-43-9 | 6989.5 | 129.000 | % Recov | 58.000 | 128.000 | | | • | 04/28/10 |
| **Lab ID: W10GR00984** | | | | | | | | | | | |
| **BATCH QC ASSOCIATED WITH SAMPLE** | | | | | | | | | | | |
| SURR | 2-Fluorophenol(Surr) | 367-12-4 | 2571.7 | 62.000 | % Recov | 72.000 | 120.000 | | | • | 04/28/10 |
| SURR | 2-Fluorobiphenyl(Surr) | 321-60-8 | 3375.4 | 81.300 | % Recov | 66.000 | 122.000 | | | | 04/28/10 |
| SURR | Nitrobenzene-d5(Surr) | 4165-60-0 | 3526.6 | 85.000 | % Recov | 63.000 | 125.000 | | | | 04/28/10 |
| SURR | Phenol-d5(Surr) | 4165-62-2 | 3179.3 | 76.600 | % Recov | 66.000 | 124.000 | | | | 04/28/10 |
| SURR | 2,4,6-Tribromophenol(Surr) | 118-79-6 | 2174.3 | 52.400 | % Recov | 49.000 | 120.000 | | | | 04/28/10 |
| SURR | Terphenyl-d14(Surr) | 98904-43-9 | 3894.5 | 93.800 | % Recov | 58.000 | 128.000 | | | | 04/28/10 |

# WSCF ANALYTICAL LABORATORY QC REPORT

**Department:** Organic

SDG Number: WSCF20100600
Matrix: SOLID
Test: SW-846 8270C Semi-Vols

Sample Date: 04/19/10
Receive Date:04/19/10

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Lower Limit | Upper Limit | RPD(%) | RPD Limit | RQ | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lab ID: W10GR00985 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| SURR | 2-Fluorophenol(Surr) | 367-12-4 | 19371 | 90.500 | % Recov | 72.000 | 120.000 | | | | 04/28/10 |
| SURR | 2-Fluorobiphenyl(Surr) | 321-60-8 | 19496 | 91.000 | % Recov | 66.000 | 122.000 | | | | 04/28/10 |
| SURR | Nitrobenzene-d5(Surr) | 4165-60-0 | 20142 | 94.100 | % Recov | 63.000 | 125.000 | | | | 04/28/10 |
| SURR | Phenol-d5(Surr) | 4165-62-2 | 19498 | 91.100 | % Recov | 66.000 | 124.000 | | | | 04/28/10 |
| SURR | 2,4,6-Tribromophenol(Surr) | 118-79-6 | 19137 | 89.400 | % Recov | 49.000 | 120.000 | | | | 04/28/10 |
| SURR | Terphenyl-d14(Surr) | 98904-43-9 | 22678 | 106.000 | % Recov | 58.000 | 128.000 | | | | 04/28/10 |
| Lab ID: W10GR00986 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| SURR | 2-Fluorophenol(Surr) | 367-12-4 | 2355.4 | 55.900 | % Recov | 72.000 | 120.000 | | | * | 04/28/10 |
| SURR | 2-Fluorobiphenyl(Surr) | 321-60-8 | 2735.8 | 65.000 | % Recov | 66.000 | 122.000 | | | * | 04/28/10 |
| SURR | Nitrobenzene-d5(Surr) | 4165-60-0 | 3082.2 | 73.200 | % Recov | 63.000 | 125.000 | | | | 04/28/10 |
| SURR | Phenol-d5(Surr) | 4165-62-2 | 2614.3 | 62.100 | % Recov | 66.000 | 124.000 | | | * | 04/28/10 |
| SURR | 2,4,6-Tribromophenol(Surr) | 118-79-6 | 2074.8 | 49.300 | % Recov | 49.000 | 120.000 | | | | 04/28/10 |
| SURR | Terphenyl-d14(Surr) | 98904-43-9 | 3621.1 | 86.000 | % Recov | 58.000 | 128.000 | | | | 04/28/10 |
| Lab ID: W10GR00987 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| SURR | 2-Fluorophenol(Surr) | 367-12-4 | 3258.1 | 75.700 | % Recov | 72.000 | 120.000 | | | | 04/28/10 |
| SURR | 2-Fluorobiphenyl(Surr) | 321-60-8 | 3058.1 | 71.000 | % Recov | 66.000 | 122.000 | | | | 04/28/10 |
| SURR | Nitrobenzene-d5(Surr) | 4165-60-0 | 3561.7 | 82.700 | % Recov | 63.000 | 125.000 | | | | 04/28/10 |
| SURR | Phenol-d5(Surr) | 4165-62-2 | 3237.7 | 75.200 | % Recov | 66.000 | 124.000 | | | | 04/28/10 |
| SURR | 2,4,6-Tribromophenol(Surr) | 118-79-6 | 2829.7 | 65.700 | % Recov | 49.000 | 120.000 | | | | 04/28/10 |
| SURR | Terphenyl-d14(Surr) | 98904-43-9 | 4821.2 | 112.000 | % Recov | 58.000 | 128.000 | | | | 04/28/10 |
| Lab ID: W10GR00988 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |

# WSCF ANALYTICAL LABORATORY QC REPORT

**Department:** Organic

SDG Number: WSCF20100600
Matrix: SOLID
Test: SW-846 8270C Semi-Vols

Sample Date: 04/19/10
Receive Date:04/19/10

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Lower Limit | Upper Limit | RPD(%) | RPD Limit | RQ | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SURR | 2-Fluorophenol(Surr) | 367-12-4 | 3095.3 | 72.100 | % Recov | 72.000 | 120.000 | | | | 04/28/10 |
| SURR | 2-Fluorobiphenyl(Surr) | 321-60-8 | 3276.8 | 76.300 | % Recov | 66.000 | 122.000 | | | | 04/28/10 |
| SURR | Nitrobenzene-d5(Surr) | 4165-60-0 | 3891.4 | 90.600 | % Recov | 63.000 | 125.000 | | | | 04/28/10 |
| SURR | Phenol-d5(Surr) | 4165-62-2 | 3355.6 | 78.100 | % Recov | 66.000 | 124.000 | | | | 04/28/10 |
| SURR | 2,4,6-Tribromophenol(Surr) | 118-79-6 | 2755.9 | 64.200 | % Recov | 49.000 | 120.000 | | | | 04/28/10 |
| SURR | Terphenyl-d14(Surr) | 98904-43-9 | 4566.8 | 106.000 | % Recov | 58.000 | 128.000 | | | | 04/28/10 |
| Lab ID: W10GR00989 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| SURR | 2-Fluorophenol(Surr) | 367-12-4 | 3601.8 | 87.400 | % Recov | 72.000 | 120.000 | | | | 04/28/10 |
| SURR | 2-Fluorobiphenyl(Surr) | 321-60-8 | 3532.8 | 85.700 | % Recov | 66.000 | 122.000 | | | | 04/28/10 |
| SURR | Nitrobenzene-d5(Surr) | 4165-60-0 | 3990.8 | 96.900 | % Recov | 63.000 | 125.000 | | | | 04/28/10 |
| SURR | Phenol-d5(Surr) | 4165-62-2 | 3506.3 | 85.100 | % Recov | 66.000 | 124.000 | | | | 04/28/10 |
| SURR | 2,4,6-Tribromophenol(Surr) | 118-79-6 | 3062.8 | 74.300 | % Recov | 49.000 | 120.000 | | | | 04/28/10 |
| SURR | Terphenyl-d14(Surr) | 98904-43-9 | 4623.3 | 112.000 | % Recov | 58.000 | 128.000 | | | | 04/28/10 |
| Lab ID: W10GR00990 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| SURR | 2-Fluorophenol(Surr) | 367-12-4 | 2470.4 | 60.500 | % Recov | 72.000 | 120.000 | | | * | 04/28/10 |
| SURR | 2-Fluorobiphenyl(Surr) | 321-60-8 | 2256.2 | 55.300 | % Recov | 66.000 | 122.000 | | | * | 04/28/10 |
| SURR | Nitrobenzene-d5(Surr) | 4165-60-0 | 2759.5 | 67.600 | % Recov | 63.000 | 125.000 | | | | 04/28/10 |
| SURR | Phenol-d5(Surr) | 4165-62-2 | 2235.4 | 54.800 | % Recov | 66.000 | 124.000 | | | * | 04/28/10 |
| SURR | 2,4,6-Tribromophenol(Surr) | 118-79-6 | 1623.4 | 39.800 | % Recov | 49.000 | 120.000 | | | * | 04/28/10 |
| SURR | Terphenyl-d14(Surr) | 98904-43-9 | 3271.0 | 80.100 | % Recov | 58.000 | 128.000 | | | | 04/28/10 |
| Lab ID: W10GR00991 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| SURR | 2-Fluorophenol(Surr) | 367-12-4 | 2645.4 | 64.000 | % Recov | 72.000 | 120.000 | | | * | 04/28/10 |
| SURR | 2-Fluorobiphenyl(Surr) | 321-60-8 | 2470.8 | 59.800 | % Recov | 66.000 | 122.000 | | | * | 04/28/10 |
| SURR | Nitrobenzene-d5(Surr) | 4165-60-0 | 3074.1 | 74.400 | % Recov | 63.000 | 125.000 | | | | 04/28/10 |

# WSCF ANALYTICAL LABORATORY QC REPORT

**Department:** Organic

SDG Number: WSCF20100600
Matrix: SOLID
Test: SW-846 8270C Semi-Vols

Sample Date: 04/19/10
Receive Date:04/19/10

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Lower Limit | Upper Limit | RPD(%) | RPD Limit | RQ | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SURR | Phenol-d5(Surr) | 4165-62-2 | 2558.8 | 61.900 | % Recov | 66.000 | 124.000 | | * | | 04/28/10 |
| SURR | 2,4,6-Tribromophenol(Surr) | 118-79-6 | 2074.3 | 50.200 | % Recov | 49.000 | 120.000 | | | | 04/28/10 |
| SURR | Terphenyl-d14(Surr) | 98904-43-9 | 4247.3 | 103.000 | % Recov | 58.000 | 128.000 | | | | 04/28/10 |
| **Lab ID: W10GR00992** | | | | | | | | | | | |
| **BATCH QC ASSOCIATED WITH SAMPLE** | | | | | | | | | | | |
| SURR | 2-Fluorophenol(Surr) | 367-12-4 | 2489.0 | 59.600 | % Recov | 72.000 | 120.000 | | * | | 04/28/10 |
| SURR | 2-Fluorobiphenyl(Surr) | 321-60-8 | 2182.2 | 52.200 | % Recov | 66.000 | 122.000 | | * | | 04/28/10 |
| SURR | Nitrobenzene-d5(Surr) | 4165-60-0 | 2799.1 | 67.000 | % Recov | 63.000 | 125.000 | | | | 04/28/10 |
| SURR | Phenol-d5(Surr) | 4165-62-2 | 2606.1 | 62.400 | % Recov | 66.000 | 124.000 | | * | | 04/28/10 |
| SURR | 2,4,6-Tribromophenol(Surr) | 118-79-6 | 2149.1 | 51.400 | % Recov | 49.000 | 120.000 | | | | 04/28/10 |
| SURR | Terphenyl-d14(Surr) | 98904-43-9 | 3243.3 | 77.600 | % Recov | 58.000 | 128.000 | | | | 04/28/10 |
| **Lab ID: W10GR00993** | | | | | | | | | | | |
| **BATCH QC ASSOCIATED WITH SAMPLE** | | | | | | | | | | | |
| SURR | 2-Fluorophenol(Surr) | 367-12-4 | 21584 | 103.000 | % Recov | 72.000 | 120.000 | | | | 04/28/10 |
| SURR | 2-Fluorobiphenyl(Surr) | 321-60-8 | 20046 | 95.400 | % Recov | 66.000 | 122.000 | | | | 04/28/10 |
| SURR | Nitrobenzene-d5(Surr) | 4165-60-0 | 20692 | 98.500 | % Recov | 63.000 | 125.000 | | | | 04/28/10 |
| SURR | Phenol-d5(Surr) | 4165-62-2 | 20122 | 95.800 | % Recov | 66.000 | 124.000 | | | | 04/28/10 |
| SURR | 2,4,6-Tribromophenol(Surr) | 118-79-6 | 19774 | 94.100 | % Recov | 49.000 | 120.000 | | | | 04/28/10 |
| SURR | Terphenyl-d14(Surr) | 98904-43-9 | 24743 | 118.000 | % Recov | 58.000 | 128.000 | | | | 04/28/10 |
| **BATCH QC** | | | | | | | | | | | |
| BLANK | 1,2,4-Trichlorobenzene | 120-82-1 | < 150 | n/a | ug/Kg | | | | | U | 04/27/10 |
| BLANK | 1,4-Dichlorobenzene | 106-46-7 | < 250 | n/a | ug/Kg | | | | | U | 04/27/10 |
| BLANK | 2,4-Dinitrotoluene | 121-14-2 | < 150 | n/a | ug/Kg | | | | | U | 04/27/10 |
| BLANK | 2-Fluorophenol(Surr) | 367-12-4 | 3780.5 | 94.500 | % Recov | 72.000 | 120.000 | | | | 04/27/10 |
| BLANK | Acenaphthene | 83-32-9 | < 150 | n/a | ug/Kg | | | | | U | 04/27/10 |
| BLANK | Acenaphthylene | 208-96-8 | < 150 | n/a | ug/Kg | | | | | U | 04/27/10 |
| BLANK | Anthracene | 120-12-7 | < 150 | n/a | ug/Kg | | | | | U | 04/27/10 |

# WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20100600
Matrix: SOLID
Test: SW-846 8270C Semi-Vols

Sample Date:
Receive Date:

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Lower Limit | Upper Limit | RPD(%) | RPD Limit | RQ | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| BLANK | Benzo(a)anthracene | 56-55-3 | < 150 | n/a | ug/Kg | | | | | U | 04/27/10 |
| BLANK | Benzo(b)fluoranthene | 205-99-2 | < 200 | n/a | ug/Kg | | | | | U | 04/27/10 |
| BLANK | Benzo(ghi)perylene | 191-24-2 | < 320 | n/a | ug/Kg | | | | | U | 04/27/10 |
| BLANK | Benzo(a)pyrene | 50-32-8 | < 230 | n/a | ug/Kg | | | | | U | 04/27/10 |
| BLANK | Benzo(k)fluoranthene | 207-08-9 | < 200 | n/a | ug/Kg | | | | | U | 04/27/10 |
| BLANK | 4-Chloro-3-methylphenol | 59-50-7 | < 150 | n/a | ug/Kg | | | | | U | 04/27/10 |
| BLANK | 2-Chlorophenol | 95-57-8 | < 150 | n/a | ug/Kg | | | | | U | 04/27/10 |
| BLANK | Chrysene | 218-01-9 | < 150 | n/a | ug/Kg | | | | | U | 04/27/10 |
| BLANK | Dibenz[a,h]anthracene | 53-70-3 | < 330 | n/a | ug/Kg | | | | | U | 04/27/10 |
| BLANK | N-Nitrosodi-n-dipropylamine | 621-64-7 | < 150 | n/a | ug/Kg | | | | | U | 04/27/10 |
| BLANK | 2-Fluorobiphenyl(Surr) | 321-60-8 | 3764.6 | 94.100 | % Recov | 66.000 | 122.000 | | | | 04/27/10 |
| BLANK | Fluorene | 86-73-7 | < 150 | n/a | ug/Kg | | | | | U | 04/27/10 |
| BLANK | Fluoranthene | 206-44-0 | < 150 | n/a | ug/Kg | | | | | U | 04/27/10 |
| BLANK | Indeno(1,2,3-cd)pyrene | 193-39-5 | < 330 | n/a | ug/Kg | | | | | U | 04/27/10 |
| BLANK | Phenol | 108-95-2 | < 150 | n/a | ug/Kg | | | | | U | 04/27/10 |
| BLANK | Naphthalene | 91-20-3 | < 150 | n/a | ug/Kg | | | | | U | 04/27/10 |
| BLANK | Nitrobenzene-d5(Surr) | 4165-60-0 | 3717.4 | 92.900 | % Recov | 63.000 | 125.000 | | | | 04/27/10 |
| BLANK | 4-Nitrophenol | 100-02-7 | < 330 | n/a | ug/Kg | | | | | U | 04/27/10 |
| BLANK | Pentachlorophenol | 87-86-5 | < 400 | n/a | ug/Kg | | | | | U | 04/27/10 |
| BLANK | Phenanthrene | 85-01-8 | < 150 | n/a | ug/Kg | | | | | U | 04/27/10 |
| BLANK | Phenol-d5(Surr) | 4165-62-2 | 3695.1 | 92.400 | % Recov | 66.000 | 124.000 | | | | 04/27/10 |
| BLANK | Pyrene | 129-00-0 | < 150 | n/a | ug/Kg | | | | | U | 04/27/10 |
| BLANK | 2,4,6-Tribromophenol(Surr) | 118-79-6 | 3104.5 | 77.600 | % Recov | 49.000 | 120.000 | | | | 04/27/10 |
| BLANK | Terphenyl-d14(Surr) | 98904-43-9 | 4066.1 | 102.000 | % Recov | 58.000 | 128.000 | | | | 04/27/10 |
| LCS | 1,2,4-Trichlorobenzene | 120-82-1 | 6149.4 | 102.000 | % Recov | 76.000 | 118.000 | | | | 04/27/10 |
| LCS | 1,4-Dichlorobenzene | 106-46-7 | 5211.3 | 86.900 | % Recov | 68.000 | 121.000 | | | | 04/27/10 |
| LCS | 2,4-Dinitrotoluene | 121-14-2 | 5552.1 | 92.500 | % Recov | 68.000 | 112.000 | | | | 04/27/10 |
| LCS | 2-Fluorophenol(Surr) | 367-12-4 | 3605.7 | 90.100 | % Recov | 50.000 | 110.000 | | | | 04/27/10 |
| LCS | Acenaphthene | 83-32-9 | 5712.5 | 95.200 | % Recov | 75.000 | 121.000 | | | | 04/27/10 |
| LCS | 4-Chloro-3-methylphenol | 59-50-7 | 5872.4 | 97.900 | % Recov | 68.000 | 117.000 | | | | 04/27/10 |

# WSCF ANALYTICAL LABORATORY QC REPORT

**Department:** Organic

SDG Number: WSCF20100600
Matrix: SOLID
Test: SW-846 8270C Semi-Vols

Sample Date:
Receive Date:

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Lower Limit | Upper Limit | RPD(%) | RPD Limit | RQ | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| LCS | 2-Chlorophenol | 95-57-8 | 5765.7 | 96.100 | % Recov | 84.000 | 114.000 | | | | 04/27/10 |
| LCS | N-Nitrosodi-n-dipropylamine | 621-64-7 | 5819.5 | 97.000 | % Recov | 76.000 | 119.000 | | | | 04/27/10 |
| LCS | 2-Fluorobiphenyl(Surr) | 321-60-8 | 3638.4 | 91.000 | % Recov | 58.000 | 109.000 | | | | 04/27/10 |
| LCS | Phenol | 108-95-2 | 5777.3 | 96.300 | % Recov | 80.000 | 113.000 | | | | 04/27/10 |
| LCS | Nitrobenzene-d5(Surr) | 4165-60-0 | 3517.0 | 87.900 | % Recov | 60.000 | 118.000 | | | | 04/27/10 |
| LCS | 4-Nitrophenol | 100-02-7 | 5943.9 | 99.100 | % Recov | 42.000 | 123.000 | | | | 04/27/10 |
| LCS | Pentachlorophenol | 87-86-5 | 4355.5 | 72.600 | % Recov | 55.000 | 120.000 | | | | 04/27/10 |
| LCS | Phenol-d5(Surr) | 4165-62-2 | 3720.1 | 93.000 | % Recov | 59.000 | 116.000 | | | | 04/27/10 |
| LCS | Pyrene | 129-00-0 | 6142.6 | 102.000 | % Recov | 67.000 | 122.000 | | | | 04/27/10 |
| LCS | 2,4,6-Tribromophenol(Surr) | 118-79-6 | 3610.8 | 90.300 | % Recov | 60.000 | 120.000 | | | | 04/27/10 |
| LCS | Terphenyl-d14(Surr) | 98904-43-9 | 3962.5 | 99.100 | % Recov | 60.000 | 120.000 | | | | 04/27/10 |

# WSCF ANALYTICAL LABORATORY QC REPORT

**Department:** Organic

SDG Number: WSCF20100600
Matrix: SOLID
Test: VOA Ground Water Protection

Sample Date: 04/16/10
Receive Date:04/16/10

Lab ID: W10GR00980
BATCH QC ASSOCIATED WITH SAMPLE

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Lower Limit | Upper Limit | RPD(%) | RPD Limit | RQ | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MS | 1,1-Dichloroethene | 75-35-4 | 38.980 | 109.000 | % Recov | 63.000 | 117.000 | | | | 04/21/10 |
| MS | Benzene | 71-43-2 | 39.830 | 111.000 | % Recov | 75.000 | 129.000 | | | | 04/21/10 |
| MS | 4-Bromofluorobenzene(Surr) | 460-00-4 | 55.210 | 77.000 | % Recov | 75.000 | 125.000 | | | | 04/21/10 |
| MS | Chlorobenzene | 108-90-7 | 42.190 | 118.000 | % Recov | 79.000 | 119.000 | | | | 04/21/10 |
| MS | 1,2-Dichloroethane-d4(Surr) | 17060-07-0 | 78.240 | 109.000 | % Recov | 75.000 | 125.000 | | | | 04/21/10 |
| MS | Toluene-d8(Surr) | 2037-26-5 | 62.750 | 87.500 | % Recov | 75.000 | 125.000 | | | | 04/21/10 |
| MS | Toluene | 108-88-3 | 33.400 | 93.200 | % Recov | 76.000 | 120.000 | | | | 04/21/10 |
| MS | Trichloroethene | 79-01-6 | 25.700 | 71.700 | % Recov | 73.000 | 123.000 | | | * | 04/21/10 |
| MSD | 1,1-Dichloroethene | 75-35-4 | 43.640 | 108.000 | % Recov | 63.000 | 117.000 | | | | 04/21/10 |
| MSD | Benzene | 71-43-2 | 43.480 | 108.000 | % Recov | 75.000 | 129.000 | | | | 04/21/10 |
| MSD | 4-Bromofluorobenzene(Surr) | 460-00-4 | 65.000 | 80.600 | % Recov | 75.000 | 125.000 | | | | 04/21/10 |
| MSD | Chlorobenzene | 108-90-7 | 47.230 | 117.000 | % Recov | 79.000 | 119.000 | | | | 04/21/10 |
| MSD | 1,2-Dichloroethane-d4(Surr) | 17060-07-0 | 89.480 | 111.000 | % Recov | 75.000 | 125.000 | | | | 04/21/10 |
| MSD | Toluene-d8(Surr) | 2037-26-5 | 74.460 | 92.300 | % Recov | 75.000 | 125.000 | | | | 04/21/10 |
| MSD | Toluene | 108-88-3 | 37.400 | 92.800 | % Recov | 76.000 | 120.000 | | | | 04/21/10 |
| MSD | Trichloroethene | 79-01-6 | 28.780 | 71.400 | % Recov | 73.000 | 123.000 | | | * | 04/21/10 |
| SPK-RPD | 1,1-Dichloroethene | 75-35-4 | 108.000 | | RPD | | | 0.922 | 20.000 | | 04/21/10 |
| SPK-RPD | Benzene | 71-43-2 | 108.000 | | RPD | | | 2.740 | 20.000 | | 04/21/10 |
| SPK-RPD | 4-Bromofluorobenzene(Surr) | 460-00-4 | 80.600 | | RPD | | | 4.569 | 20.000 | | 04/21/10 |
| SPK-RPD | Chlorobenzene | 108-90-7 | 117.000 | | RPD | | | 0.851 | 20.000 | | 04/21/10 |
| SPK-RPD | 1,2-Dichloroethane-d4(Surr) | 17060-07-0 | 111.000 | | RPD | | | 1.818 | 20.000 | | 04/21/10 |
| SPK-RPD | Toluene-d8(Surr) | 2037-26-5 | 92.300 | | RPD | | | 5.339 | 20.000 | | 04/21/10 |
| SPK-RPD | Toluene | 108-88-3 | 92.800 | | RPD | | | 0.430 | 20.000 | | 04/21/10 |
| SPK-RPD | Trichloroethene | 79-01-6 | 71.400 | | RPD | | | 0.419 | 20.000 | | 04/21/10 |

# WSCF ANALYTICAL LABORATORY QC REPORT

**Department:** Organic

SDG Number: WSCF20100600
Matrix: SOLID
Test: VOA Ground Water Protection

Sample Date: 04/19/10
Receive Date:04/19/10

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Lower Limit | Upper Limit | RPD(%) | RPD Limit | RQ | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lab ID: W10GR00981 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| SURR | 4-Bromofluorobenzene(Surr) | 460-00-4 | 41.550 | 86.400 | % Recov | 75.000 | 125.000 | | | | 04/21/10 |
| SURR | 1,2-Dichloroethane-d4(Surr) | 17060-07-0 | 52.810 | 110.000 | % Recov | 75.000 | 125.000 | | | | 04/21/10 |
| SURR | Toluene-d8(Surr) | 2037-26-5 | 55.210 | 115.000 | % Recov | 80.000 | 126.000 | | | | 04/21/10 |
| Lab ID: W10GR00982 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| SURR | 4-Bromofluorobenzene(Surr) | 460-00-4 | 39.360 | 86.600 | % Recov | 75.000 | 125.000 | | | | 04/21/10 |
| SURR | 1,2-Dichloroethane-d4(Surr) | 17060-07-0 | 49.700 | 109.000 | % Recov | 75.000 | 125.000 | | | | 04/21/10 |
| SURR | Toluene-d8(Surr) | 2037-26-5 | 51.720 | 114.000 | % Recov | 80.000 | 126.000 | | | | 04/21/10 |
| Lab ID: W10GR00983 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| SURR | 4-Bromofluorobenzene(Surr) | 460-00-4 | 37.880 | 80.900 | % Recov | 75.000 | 125.000 | | | | 04/21/10 |
| SURR | 1,2-Dichloroethane-d4(Surr) | 17060-07-0 | 53.000 | 113.000 | % Recov | 75.000 | 125.000 | | | | 04/21/10 |
| SURR | Toluene-d8(Surr) | 2037-26-5 | 50.570 | 108.000 | % Recov | 80.000 | 126.000 | | | | 04/21/10 |
| Lab ID: W10GR00984 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| SURR | 4-Bromofluorobenzene(Surr) | 460-00-4 | 39.310 | 89.200 | % Recov | 75.000 | 125.000 | | | | 04/21/10 |
| SURR | 1,2-Dichloroethane-d4(Surr) | 17060-07-0 | 48.970 | 111.000 | % Recov | 75.000 | 125.000 | | | | 04/21/10 |
| SURR | Toluene-d8(Surr) | 2037-26-5 | 43.180 | 98.000 | % Recov | 80.000 | 126.000 | | | | 04/21/10 |
| Lab ID: W10GR00985 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| SURR | 4-Bromofluorobenzene(Surr) | 460-00-4 | 39.200 | 83.200 | % Recov | 75.000 | 125.000 | | | | 04/21/10 |
| SURR | 1,2-Dichloroethane-d4(Surr) | 17060-07-0 | 54.040 | 115.000 | % Recov | 75.000 | 125.000 | | | | 04/21/10 |
| SURR | Toluene-d8(Surr) | 2037-26-5 | 47.480 | 101.000 | % Recov | 80.000 | 126.000 | | | | 04/21/10 |

# WSCF ANALYTICAL LABORATORY QC REPORT

**Department:** Organic

SDG Number: WSCF20100600
Matrix: SOLID
Test: VOA Ground Water Protection

Sample Date: 04/19/10
Receive Date:04/19/10

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Lower Limit | Upper Limit | RPD(%) | RPD Limit | RQ | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Lab ID: W10GR00986** | | | | | | | | | | | |
| **BATCH QC ASSOCIATED WITH SAMPLE** | | | | | | | | | | | |
| SURR | 4-Bromofluorobenzene(Surr) | 460-00-4 | 46.430 | 93.000 | % Recov | 75.000 | 125.000 | | | | 04/21/10 |
| SURR | 1,2-Dichloroethane-d4(Surr) | 17060-07-0 | 56.480 | 113.000 | % Recov | 75.000 | 125.000 | | | | 04/21/10 |
| SURR | Toluene-d8(Surr) | 2037-26-5 | 55.930 | 112.000 | % Recov | 80.000 | 126.000 | | | | 04/21/10 |
| **Lab ID: W10GR00987** | | | | | | | | | | | |
| **BATCH QC ASSOCIATED WITH SAMPLE** | | | | | | | | | | | |
| SURR | 4-Bromofluorobenzene(Surr) | 460-00-4 | 39.250 | 90.400 | % Recov | 75.000 | 125.000 | | | | 04/21/10 |
| SURR | 1,2-Dichloroethane-d4(Surr) | 17060-07-0 | 47.380 | 109.000 | % Recov | 75.000 | 125.000 | | | | 04/21/10 |
| SURR | Toluene-d8(Surr) | 2037-26-5 | 49.510 | 114.000 | % Recov | 80.000 | 126.000 | | | | 04/21/10 |
| **Lab ID: W10GR00988** | | | | | | | | | | | |
| **BATCH QC ASSOCIATED WITH SAMPLE** | | | | | | | | | | | |
| SURR | 4-Bromofluorobenzene(Surr) | 460-00-4 | 59.750 | 100.000 | % Recov | 75.000 | 125.000 | | | | 04/21/10 |
| SURR | 1,2-Dichloroethane-d4(Surr) | 17060-07-0 | 69.900 | 117.000 | % Recov | 75.000 | 125.000 | | | | 04/21/10 |
| SURR | Toluene-d8(Surr) | 2037-26-5 | 58.120 | 97.400 | % Recov | 80.000 | 126.000 | | | | 04/21/10 |
| **Lab ID: W10GR00989** | | | | | | | | | | | |
| **BATCH QC ASSOCIATED WITH SAMPLE** | | | | | | | | | | | |
| SURR | 4-Bromofluorobenzene(Surr) | 460-00-4 | 48.810 | 100.000 | % Recov | 75.000 | 125.000 | | | | 04/21/10 |
| SURR | 1,2-Dichloroethane-d4(Surr) | 17060-07-0 | 54.770 | 112.000 | % Recov | 75.000 | 125.000 | | | | 04/21/10 |
| SURR | Toluene-d8(Surr) | 2037-26-5 | 55.250 | 113.000 | % Recov | 80.000 | 126.000 | | | | 04/21/10 |
| **BATCH QC** | | | | | | | | | | | |
| BLANK | 1,1-Dichloroethene | 75-35-4 | < 1.0 | n/a | ug/Kg | | | | | U | 04/20/10 |
| BLANK | Benzene | 71-43-2 | < 1.0 | n/a | ug/Kg | | | | | U | 04/20/10 |
| BLANK | 4-Bromofluorobenzene(Surr) | 460-00-4 | 46.170 | 92.300 | % Recov | 75.000 | 125.000 | | | | 04/20/10 |
| BLANK | Carbon tetrachloride | 56-23-5 | < 1.0 | n/a | ug/Kg | | | | | U | 04/20/10 |

# WSCF ANALYTICAL LABORATORY QC REPORT

**Department:** Organic

SDG Number: WSCF20100600
Matrix: SOLID
Test: VOA Ground Water Protection

Sample Date:
Receive Date:

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Lower Limit | Upper Limit | RPD(%) | RPD Limit | RQ | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| BLANK | Chlorobenzene | 108-90-7 | < 1.0 | n/a | ug/Kg | | | | | U | 04/20/10 |
| BLANK | 1,2-Dichloroethane-d4(Surr) | 17060-07-0 | 54.560 | 109.000 | % Recov | 75.000 | 125.000 | | | | 04/20/10 |
| BLANK | Toluene-d8(Surr) | 2037-26-5 | 56.830 | 114.000 | % Recov | 80.000 | 126.000 | | | | 04/20/10 |
| BLANK | Toluene | 108-88-3 | < 1.0 | n/a | ug/Kg | | | | | U | 04/20/10 |
| BLANK | Trichloroethene | 79-01-6 | < 0.20 | n/a | ug/Kg | | | | | U | 04/20/10 |
| LCS | 1,1-Dichloroethene | 75-35-4 | 28.700 | 115.000 | % Recov | 75.000 | 125.000 | | | | 04/20/10 |
| LCS | Benzene | 71-43-2 | 26.560 | 106.000 | % Recov | 75.000 | 125.000 | | | | 04/20/10 |
| LCS | 4-Bromofluorobenzene(Surr) | 460-00-4 | 46.160 | 92.300 | % Recov | 75.000 | 125.000 | | | | 04/20/10 |
| LCS | Chlorobenzene | 108-90-7 | 27.660 | 111.000 | % Recov | 75.000 | 125.000 | | | | 04/20/10 |
| LCS | 1,2-Dichloroethane-d4(Surr) | 17060-07-0 | 53.560 | 107.000 | % Recov | 75.000 | 125.000 | | | | 04/20/10 |
| LCS | Toluene-d8(Surr) | 2037-26-5 | 56.070 | 112.000 | % Recov | 80.000 | 126.000 | | | | 04/20/10 |
| LCS | Toluene | 108-88-3 | 29.510 | 118.000 | % Recov | 75.000 | 125.000 | | | | 04/20/10 |
| LCS | Trichloroethene | 79-01-6 | 19.380 | 77.500 | % Recov | 75.000 | 125.000 | | | | 04/20/10 |

Lab ID: W10GR00990
BATCH QC ASSOCIATED WITH SAMPLE

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MS | 1,1-Dichloroethene | 75-35-4 | 18.730 | 70.300 | % Recov | 63.000 | 117.000 | | | | 04/21/10 |
| MS | Benzene | 71-43-2 | 30.200 | 113.000 | % Recov | 75.000 | 129.000 | | | | 04/21/10 |
| MS | 4-Bromofluorobenzene(Surr) | 460-00-4 | 58.020 | 109.000 | % Recov | 75.000 | 125.000 | | | | 04/21/10 |
| MS | Chlorobenzene | 108-90-7 | 27.530 | 103.000 | % Recov | 79.000 | 119.000 | | | | 04/21/10 |
| MS | 1,2-Dichloroethane-d4(Surr) | 17060-07-0 | 63.310 | 119.000 | % Recov | 75.000 | 125.000 | | | | 04/21/10 |
| MS | Toluene-d8(Surr) | 2037-26-5 | 61.020 | 115.000 | % Recov | 75.000 | 125.000 | | | | 04/21/10 |
| MS | Toluene | 108-88-3 | 31.220 | 117.000 | % Recov | 76.000 | 120.000 | | | | 04/21/10 |
| MS | Trichloroethene | 79-01-6 | 20.380 | 76.500 | % Recov | 73.000 | 123.000 | | | | 04/21/10 |
| MSD | 1,1-Dichloroethene | 75-35-4 | 23.610 | 85.000 | % Recov | 63.000 | 117.000 | | | | 04/21/10 |
| MSD | Benzene | 71-43-2 | 30.650 | 110.000 | % Recov | 75.000 | 129.000 | | | | 04/21/10 |
| MSD | 4-Bromofluorobenzene(Surr) | 460-00-4 | 51.400 | 92.500 | % Recov | 75.000 | 125.000 | | | | 04/21/10 |
| MSD | Chlorobenzene | 108-90-7 | 30.200 | 109.000 | % Recov | 79.000 | 119.000 | | | | 04/21/10 |
| MSD | 1,2-Dichloroethane-d4(Surr) | 17060-07-0 | 61.000 | 110.000 | % Recov | 75.000 | 125.000 | | | | 04/21/10 |
| MSD | Toluene-d8(Surr) | 2037-26-5 | 60.490 | 109.000 | % Recov | 75.000 | 125.000 | | | | 04/21/10 |

# WSCF ANALYTICAL LABORATORY QC REPORT

**Department:** Organic

SDG Number: WSCF20100600
Matrix: SOLID
Test: VOA Ground Water Protection

Sample Date: 04/19/10
Receive Date:04/19/10

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Lower Limit | Upper Limit | RPD(%) | RPD Limit | RQ | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MSD | Toluene | 108-88-3 | 32.140 | 116.000 | % Recov | 76.000 | 120.000 | | | | 04/21/10 |
| MSD | Trichloroethene | 79-01-6 | 21.360 | 76.900 | % Recov | 73.000 | 123.000 | | | | 04/21/10 |
| SPK-RPD | 1,1-Dichloroethene | 75-35-4 | 85.000 | | RPD | | | 18.931 | 20.000 | | 04/21/10 |
| SPK-RPD | Benzene | 71-43-2 | 110.000 | | RPD | | | 2.691 | 20.000 | | 04/21/10 |
| SPK-RPD | 4-Bromofluorobenzene(Surr) | 460-00-4 | 92.500 | | RPD | | | 16.377 | 20.000 | | 04/21/10 |
| SPK-RPD | Chlorobenzene | 108-90-7 | 109.000 | | RPD | | | 5.660 | 20.000 | | 04/21/10 |
| SPK-RPD | 1,2-Dichloroethane-d4(Surr) | 17060-07-0 | 110.000 | | RPD | | | 7.860 | 20.000 | | 04/21/10 |
| SPK-RPD | Toluene-d8(Surr) | 2037-26-5 | 109.000 | | RPD | | | 5.357 | 20.000 | | 04/21/10 |
| SPK-RPD | Toluene | 108-88-3 | 116.000 | | RPD | | | 0.858 | 20.000 | | 04/21/10 |
| SPK-RPD | Trichloroethene | 79-01-6 | 76.900 | | RPD | | | 0.522 | 20.000 | | 04/21/10 |
| SURR | 4-Bromofluorobenzene(Surr) | 460-00-4 | 49.470 | 91.000 | % Recov | 75.000 | 125.000 | | | | 04/21/10 |
| SURR | 1,2-Dichloroethane-d4(Surr) | 17060-07-0 | 60.460 | 111.000 | % Recov | 75.000 | 125.000 | | | | 04/21/10 |
| SURR | Toluene-d8(Surr) | 2037-26-5 | 62.250 | 114.000 | % Recov | 80.000 | 126.000 | | | | 04/21/10 |

Lab ID: W10GR00991
BATCH QC ASSOCIATED WITH SAMPLE

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SURR | 4-Bromofluorobenzene(Surr) | 460-00-4 | 31.650 | 84.300 | % Recov | 75.000 | 125.000 | | | | 04/21/10 |
| SURR | 1,2-Dichloroethane-d4(Surr) | 17060-07-0 | 42.880 | 114.000 | % Recov | 75.000 | 125.000 | | | | 04/21/10 |
| SURR | Toluene-d8(Surr) | 2037-26-5 | 42.770 | 114.000 | % Recov | 80.000 | 126.000 | | | | 04/21/10 |

Lab ID: W10GR00992
BATCH QC ASSOCIATED WITH SAMPLE

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SURR | 4-Bromofluorobenzene(Surr) | 460-00-4 | 32.760 | 81.300 | % Recov | 75.000 | 125.000 | | | | 04/21/10 |
| SURR | 1,2-Dichloroethane-d4(Surr) | 17060-07-0 | 45.610 | 113.000 | % Recov | 75.000 | 125.000 | | | | 04/21/10 |
| SURR | Toluene-d8(Surr) | 2037-26-5 | 45.180 | 112.000 | % Recov | 80.000 | 126.000 | | | | 04/21/10 |

Lab ID: W10GR00993
BATCH QC ASSOCIATED WITH SAMPLE

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SURR | 4-Bromofluorobenzene(Surr) | 460-00-4 | 39.820 | 78.600 | % Recov | 75.000 | 125.000 | | | | 04/21/10 |
| SURR | 1,2-Dichloroethane-d4(Surr) | 17060-07-0 | 57.020 | 113.000 | % Recov | 75.000 | 125.000 | | | | 04/21/10 |

# WSCF ANALYTICAL LABORATORY QC REPORT

**Department:** Organic

SDG Number: WSCF20100600
Matrix: SOLID
Test: VOA Ground Water Protection

Sample Date: 04/19/10
Receive Date:04/19/10

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Lower Limit | Upper Limit | RPD(%) | RPD Limit | RQ | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SURR | Toluene-d8(Surr) | 2037-26-5 | 53.330 | 105.000 | % Recov | 80.000 | 126.000 | | | | 04/21/10 |
| **BATCH QC** | | | | | | | | | | | |
| BLANK | 1,1-Dichloroethene | 75-35-4 | < 1.0 | n/a | ug/Kg | | | | | U | 04/21/10 |
| BLANK | Benzene | 71-43-2 | < 1.0 | n/a | ug/Kg | | | | | U | 04/21/10 |
| BLANK | 4-Bromofluorobenzene(Surr) | 460-00-4 | 49.760 | 99.500 | % Recov | 75.000 | 125.000 | | | | 04/21/10 |
| BLANK | Carbon tetrachloride | 56-23-5 | < 1.0 | n/a | ug/Kg | | | | | U | 04/21/10 |
| BLANK | Chlorobenzene | 108-90-7 | < 1.0 | n/a | ug/Kg | | | | | U | 04/21/10 |
| BLANK | 1,2-Dichloroethane-d4(Surr) | 17060-07-0 | 51.560 | 103.000 | % Recov | 75.000 | 125.000 | | | | 04/21/10 |
| BLANK | Toluene-d8(Surr) | 2037-26-5 | 55.060 | 110.000 | % Recov | 80.000 | 126.000 | | | | 04/21/10 |
| BLANK | Toluene | 108-88-3 | < 1.0 | n/a | ug/Kg | | | | | U | 04/21/10 |
| BLANK | Trichloroethene | 79-01-6 | < 0.20 | n/a | ug/Kg | | | | | U | 04/21/10 |
| LCS | 1,1-Dichloroethene | 75-35-4 | 28.390 | 114.000 | % Recov | 75.000 | 125.000 | | | | 04/21/10 |
| LCS | Benzene | 71-43-2 | 26.780 | 107.000 | % Recov | 75.000 | 125.000 | | | | 04/21/10 |
| LCS | 4-Bromofluorobenzene(Surr) | 460-00-4 | 48.880 | 97.800 | % Recov | 75.000 | 125.000 | | | | 04/21/10 |
| LCS | Chlorobenzene | 108-90-7 | 27.090 | 108.000 | % Recov | 75.000 | 125.000 | | | | 04/21/10 |
| LCS | 1,2-Dichloroethane-d4(Surr) | 17060-07-0 | 52.340 | 105.000 | % Recov | 75.000 | 125.000 | | | | 04/21/10 |
| LCS | Toluene-d8(Surr) | 2037-26-5 | 54.240 | 108.000 | % Recov | 80.000 | 126.000 | | | | 04/21/10 |
| LCS | Toluene | 108-88-3 | 28.510 | 114.000 | % Recov | 75.000 | 125.000 | | | | 04/21/10 |
| LCS | Trichloroethene | 79-01-6 | 19.680 | 78.700 | % Recov | 75.000 | 125.000 | | | | 04/21/10 |

# WSCF
# ANALYTICAL COMMENT REPORT

**Attention:** Steve Trent
**Project Number** F10-181

**Group #:** WSCF20100600
Department: Organic

| Sample # | Client ID | Lab Area | Test | Comment |
|---|---|---|---|---|
| | | VALGROUP | | IC Anion - MS/MSD recoveries out of limits for Fluoride, Nitrate-N, and Sulfate. Possibly due to matrix interference in sample. Data N-flagged. DTS<br><br>IC Anion - Spike RPD for Nitrate-N out of control limits. No flag required. DTS<br><br>ICP-MS: Manganese spike RPD more than 20%.Both recoveries are acceptable. "X flag<br><br>ICP-AES: Low lithium LCS recovery. Recently, the lab received a certified value for lithium but it was not updated in the Labcore system because the solids matrix is being moved to the Horizon system. The acceptance range is 73-115%.<br>Estimated boron result due to iron interference; "E" flag.<br><br>Hexavalent Chromium Duplicate > 20%. Original and DUP both l ess than four times the RL. Post and Insoluble Matrix Spikes recoveries were below 85% and 75%. Likely caused by matrix e ffects imparted by the sample. jpw2<br><br>Organics - All data moisture corrected and results reported on a dry weight basis. DTS |

Lab Areas: VALGROUP - Group Validation; LOGSAMP - Login for Sample; VALTEST - Test Validation; LOGTEST - Login for Tests; TESTDATA - Test Data Entry

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# WSCF
# ANALYTICAL COMMENT REPORT

**Attention:** Steve Trent
**Project Number** F10-181

**Group #:** WSCF20100600
Department: Organic

| Sample # | Client ID | Lab Area | Test | Comment |
|---|---|---|---|---|
| | | | | VOA: Trichloroethene low in MS/MSD at about 71% Rec. for the batch run early on 4/21/10. The batch run after 11a that day had all QC within limits. gar |
| | | | | SVOA: Most sample extracts are discolored. Samples B257B4 and B257B0 were opaque black extracts that were diluted 5x to protect analytical systems from contaminant overload which raises minimum reporting limits commensurately. The contaminants also caused low recovery of primarily the phenolic surrogates in some samples. Little of the contaminates elute from the column indicating either very high boiling asphalt like organics, coextracted inroganic particulate, or most likely both. This also explains the unusual lack of TICs for such contaminated samples. cgc |
| | | | | TPHD - MS recovery outside established laboratory control limits due to spiking error during sample prep. Data has been N-flagged. DTS |
| | | | | TPHD - Spike RPD outside established laboratory control limits due to spiking error during sample prep. No flag required. DTS |

Lab Areas: VALGROUP - Group Validation
LOGSAMP - Login for Sample
VALTEST - Test Validation
LOGTEST - Login for Tests
TESTDATA - Test Data Entry

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REVISION 1

# WSCF
# ANALYTICAL COMMENT REPORT

**Attention:** Steve Trent
**Project Number** F10-181

**Group #:** WSCF20100600
Department: Organic

| Sample # | Client ID | Lab Area | Test | Comment |
|---|---|---|---|---|
| | | | | TPHD - Samples W10GR00983, W10GR00985, and W10GR00992: Diesel concentration reported contains a majority of compounds which elute between both diesel and motor oil retention times. Data X-flagged. DTS |
| | | | | TPHD - Sample W10GR00993 - Surrogate recovery outside established laboratory control limits. Data X-flagged. DTS |

Lab Areas: VALGROUP - Group Validation
LOGSAMP - Login for Sample
VALTEST - Test Validation
LOGTEST - Login for Tests
TESTDATA - Test Data Entry

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42100-SLF-10-162

ATTACHMENT 4

**SAMPLE RECEIPT INFORMATION w/SAMPLE RECORD SHEETS**

Consisting of 42 pages
Including cover page

REVISION 1

**Waste Sampling and Characterization Facility**
P.O. BOX 1970 S3-30, Richland, WA 99352
PHONE: (509) 373-7004/FAX: (509) 373-7134

File
04/27/10

ACKNOWLEDGMENT OF SAMPLES RECEIVED

Groundwater Remediation Program

Richland, WA 99354
Attn: Steve Trent

Customer Code: GPP
PO#: 302222/ES10
Group#: 20100600
Project#: F10-181
Proj Mgr: Steve Trent
Phone: 373-5869

The following samples were received from you on 04/19/10. They have been scheduled for the tests listed beside each sample. If this information is incorrect, please contact your service representative. Thank you for using Waste Sampling and Characterization Facility.

| Sample# | Sample Id | Tests Scheduled | Matrix | Sample Date |
|---|---|---|---|---|
| W10GR00981 | B257C2 | GPP @2008 @TPHD-WA @GPP6010 @VOA-GPP @IC-30 CR+6 @PCBGPP PERSOLID @SVOCGPP | Solid, or handle as if solid | 04/19/10 |
| W10GR00982 | B25798 | GPP @2008 @TPHD-WA @GPP6010 @VOA-GPP @IC-30 CR+6 @PCBGPP PERSOLID @SVOCGPP | Solid, or handle as if solid | 04/19/10 |
| W10GR00983 | B257B6 | GPP @2008 @TPHD-WA @GPP6010 @VOA-GPP @IC-30 CR+6 @PCBGPP PERSOLID @SVOCGPP | Solid, or handle as if solid | 04/19/10 |
| W10GR00984 | B257C4 | GPP @2008 @TPHD-WA @GPP6010 @VOA-GPP @IC-30 CR+6 @PCBGPP PERSOLID @SVOCGPP | Solid, or handle as if solid | 04/19/10 |
| W10GR00985 | B257B4 | GPP @2008 @TPHD-WA @GPP6010 @VOA-GPP @IC-30 CR+6 @PCBGPP PERSOLID @SVOCGPP | Solid, or handle as if solid | 04/19/10 |
| W10GR00986 | B257C8 | GPP @2008 @TPHD-WA @GPP6010 @VOA-GPP @IC-30 CR+6 @PCBGPP PERSOLID @SVOCGPP | Solid, or handle as if solid | 04/19/10 |
| W10GR00987 | B25796 | GPP @2008 @TPHD-WA @GPP6010 @VOA-GPP @IC-30 CR+6 @PCBGPP PERSOLID @SVOCGPP | Solid, or handle as if solid | 04/19/10 |
| W10GR00988 | B257C6 | GPP @2008 @TPHD-WA @GPP6010 @VOA-GPP @IC-30 CR+6 @PCBGPP PERSOLID @SVOCGPP | Solid, or handle as if solid | 04/19/10 |
| W10GR00989 | B257C0 | GPP @2008 @TPHD-WA @GPP6010 @VOA-GPP @IC-30 CR+6 @PCBGPP PERSOLID @SVOCGPP | Solid, or handle as if solid | 04/19/10 |
| W10GR00990 | B25794 | GPP @2008 @TPHD-WA @GPP6010 @VOA-GPP @IC-30 CR+6 @PCBGPP PERSOLID @SVOCGPP | Solid, or handle as if solid | 04/19/10 |

Groundwater Remediation Program

Richland, WA 99354
Attn: Steve Trent

Customer Code: GPP
PO#: 302222/ES10
Group#: 20100600
Project#: F10-181
Proj Mgr: Steve Trent
Phone: 373-5869

| Sample# | Sample Id | Tests Scheduled | Matrix | | | | Sample Date |
|---|---|---|---|---|---|---|---|
| W10GR00991 | B257B2 | GPP | Solid, or handle as if solid | | | | 04/19/10 |
| | | @2008 | @GPP6010 | @IC-30 | @PCBGPP | @SVOCGPP | |
| | | @TPHD-WA | @VOA-GPP | CR+6 | PERSOLID | | |
| W10GR00992 | B257B8 | GPP | Solid, or handle as if solid | | | | 04/19/10 |
| | | @2008 | @GPP6010 | @IC-30 | @PCBGPP | @SVOCGPP | |
| | | @TPHD-WA | @VOA-GPP | CR+6 | PERSOLID | | |
| W10GR00993 | B257B0 | GPP | Solid, or handle as if solid | | | | 04/19/10 |
| | | @2008 | @GPP6010 | @IC-30 | @PCBGPP | @SVOCGPP | |
| | | @TPHD-WA | @VOA-GPP | CR+6 | PERSOLID | | |

Test Acronym Description

| Test Acronym | Description |
|---|---|
| @2008 | ICP-200.8 MS All possible meta |
| @GPP6010 | ICP Metals Analysis, Grd H20 P |
| @IC-30 | Anions by Ion Chromatography |
| @PCBGPP | PCBs complete list |
| @SVOCGPP | SW-846 8270C Semi-Vols |
| @TPHD-WA | NWTPH-D TPH Diesel Range (Wa) |
| @VOA-GPP | VOA Ground Water Protection |
| CR+6 | Hexavalent chromium |
| PERSOLID | Percent Solids |

CH2MHill Plateau Remediation Company

# CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F10-181-010



| | | | |
|---|---|---|---|
| COLLECTOR: KB Hulse CHPRC 04/27/10 | COMPANY CONTACT: WIDRIG, DL | TELEPHONE NO.: 376-2858 | PROJECT COORDINATOR: WIDRIG, DL |
| PRICE CODE: 8B | DATA TURNAROUND: 7 Days / 15 Days | AIR QUALITY: ☐ | |
| SAMPLING LOCATION: 600-40; ZPC 2-9 | PROJECT DESIGNATION: 600-40 Verification Sampling and Analysis - Soil | SAF NO.: F10-181 | |
| ICE CHEST NO.: GWS 175 | FIELD LOGBOOK NO.: HNF-N-507 11 | ACTUAL SAMPLE DEPTH: Surface | COA: 302222ES10 |
| METHOD OF SHIPMENT: GOVERNMENT VEHICLE | SHIPPED TO: Waste Sampling & Characterization 2C100600 | OFFSITE PROPERTY NO. | BILL OF LADING/AIR BILL NO.: N/A |

MATRIX*: A=Air, DL=Drum Liquids, DS=Drum Solids, L=Liquid, O=Oil, S=Soil, SE=Sediment, T=Tissue, V=Vegetation, W=Water, WI=Wipe, X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

| PRESERVATION | Cool <-7C and >-20C | Cool~4C | Cool~4C | Cool~4C | Cool~4C | Cool~4C |
|---|---|---|---|---|---|---|
| HOLDING TIME | 14 Days | 14/40 Days | 6 Months | 30 Days | 365/365 Days | 28 Days/48 Hours |
| TYPE OF CONTAINER | aGs | aG | G/P | G/P | aG | G/P |
| NO. OF CONTAINER(S) | 5 | 1 | 1 | 1 | 1 | 1 |
| VOLUME | 40mL | 250mL | 250mL | 60mL | 250mL | 120mL |
| SAMPLE ANALYSIS | SEE ITEM (1) IN SPECIAL INSTRUCTIONS | SEE ITEM (2) IN SPECIAL INSTRUCTIONS | SEE ITEM (3) IN SPECIAL INSTRUCTIONS | Chromium Hex - 7196; | SEE ITEM (4) IN SPECIAL INSTRUCTIONS | IC Anions - 300.0 (Nitrogen in Nitrate); |

| SAMPLE NO. | MATRIX* | SAMPLE DATE | SAMPLE TIME | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| B257C2 | SOIL | APR 19 2010 | 1130 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

W106R00981

| CHAIN OF POSSESSION | | SIGN/ PRINT NAMES | |
|---|---|---|---|
| RELINQUISHED BY/REMOVED FROM: KB Hulse CHPRC | DATE/TIME: APR 19 2010 1445 | RECEIVED BY/STORED IN: TA Frazier | DATE/TIME: APR 19 2010 1445 |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME |

SPECIAL INSTRUCTIONS

SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

| | | | |
|---|---|---|---|
| LABORATORY SECTION | RECEIVED BY | TITLE | DATE/TIME |
| FINAL SAMPLE DISPOSITION | DISPOSAL METHOD | DISPOSED BY | DATE/TIME |

REVISION 1

| CH2MHill Plateau Remediation Company | CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST | | | F10-181-010 | PAGE 2 OF 2 |
|---|---|---|---|---|---|
| COLLECTOR KB Hulse CHPRC | COMPANY CONTACT WIDRIG, DL | TELEPHONE NO. 376-2858 | PROJECT COORDINATOR WIDRIG, DL | PRICE CODE 8B | DATA TURNAROUND |
| SAMPLING LOCATION 600-40; ZPC 2-9 | PROJECT DESIGNATION 600-40 Verification Sampling and Analysis - Soil | | SAF NO. F10-181 | AIR QUALITY ☐ | 7 Days / 15 Days |
| ICE CHEST NO. GWS 175 | FIELD LOGBOOK NO. HNF-N-507 11 | ACTUAL SAMPLE DEPTH Surface | COA 302222ES10 | METHOD OF SHIPMENT GOVERNMENT VEHICLE | |
| SHIPPED TO Waste Sampling & Characterization | OFFSITE PROPERTY NO. | | BILL OF LADING/AIR BILL NO. N/A | | |

**SPECIAL INSTRUCTIONS**

** All VOA samples will be collected using EPA Method 5035A.☐** VOA sample bottle sets will include 5 bottles for low level analysis.☐** The laboratory is to use one of the low level VOA bottles for moisture content determination.☐** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be include as part of the sample ID reported in the final data packages.☐☐** Only those constituents of concern requested shall be reported in any preliminary or final hardcopy data reports, or EDDs. If a sample is chosen for matrix spike, it shall be identified in the narrative, and the spike compounds shall be identified in the narative or removed from all Data Reports. No TICs shall be reported.

(1) VOA - 5035/8260 (LOW LEVEL) {Carbon tetrachloride};

(2) Semi-VOA - 8270 (TCL) {Acenaphthene, Acenaphthylene, Anthracene, Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(ghi)perylene, Benzo(k)fluoranthene, Chrysene, Dibenz[a,h]anthracene, Fluoranthene, Fluorene, Indeno(1,2,3-cd)pyrene, Naphthalene, Phenanthrene, Pyrene}; TPH-DieselKerosene Range - WTPH-D {Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range};

(3) ICP Metals - 6010 (Add-On) {Boron, Lithium}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Selenium, Strontium, Thallium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};

(4) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260};

**Appendix 2 - Sample Record Sheet, -7°C and -20°C Only (Spin Bars)**

# SAMPLE RECORD SHEET

Location: 2PC-2-9

Sampler Initials and Date: XSZL 4-19-10

| Sample Number | Sample Suffix[1] | | | Initial Weight[2] (grams) | Total Weight[3] (grams) | Soil Weight[4] (grams) | Methanol in sample bottle (ml) |
|---|---|---|---|---|---|---|---|
| B257C2 | K | No Methanol | | 32.3 | 37.6 | 5.3 | No Methanol |
| B257C2 | L | | | 31.7 | 37.1 | 5.4 | |
| B257C2 | M | | | 32.2 | 38.2 | 6.0 | |
| B257C2 | N | | | 31.4 | 36.8 | 5.4 | |
| B257C2 | P | | | 31.9 | 37.1 | 5.2 | |

[1]Sample suffix of K, L, M, N, and P relate to low-level concentration samples and will not have any preservation beyond freezing between -7°C and -20°C.
[2]Initial weight is to include all labels, stickers, bags, spin bars (for samples with suffix K, L, M, N and P) and anything else that will be associated with the bottle when it is weighed with the sample.
[3]Ensure that everything weighed for the empty bottle and no additional items (besides the sample) is weighed.
[4]Soil weight is the vial with sample minus Initial Weight.

CH2MHill Plateau Remediation Company

# CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F10-181-003



| | | | |
|---|---|---|---|
| COLLECTOR: KB Hulse CHPRC | COMPANY CONTACT: WIDRIG, DL | TELEPHONE NO.: 376-2858 | PROJECT COORDINATOR: WIDRIG, DL |
| SAMPLING LOCATION: 600-40; ZPC 1-3 | PROJECT DESIGNATION: 600-40 Verification Sampling and Analysis - Soil | | SAF NO.: F10-181 |
| ICE CHEST NO.: GWS 175 | FIELD LOGBOOK NO.: HNF-N-507 11 | ACTUAL SAMPLE DEPTH: Surface | COA: 302222ES10 |
| SHIPPED TO: Waste Sampling & Characterization | OFFSITE PROPERTY NO. | | BILL OF LADING/AIR BILL NO.: N/A |

PRICE CODE: 8B

AIR QUALITY: ☐

DATA TURNAROUND: 7 Days / 15 Days

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| PRESERVATION | | | Cool <-7C and >-20C | Cool~4C | Cool~4C | Cool~4C | Cool~4C | Cool~4C |
| HOLDING TIME | | | 14 Days | 14/40 Days | 6 Months | 30 Days | 365/365 Days | 28 Days/48 Hours |
| TYPE OF CONTAINER | | | aGs | aG | G/P | G/P | aG | G/P |
| NO. OF CONTAINER(S) | | | 5 | 1 | 1 | 1 | 1 | 1 |
| VOLUME | | | 40mL | 250mL | 250mL | 60mL | 250mL | 120mL |
| SAMPLE ANALYSIS | | | SEE ITEM (1) IN SPECIAL INSTRUCTIONS | SEE ITEM (2) IN SPECIAL INSTRUCTIONS | SEE ITEM (3) IN SPECIAL INSTRUCTIONS | Chromium Hex - 7196; | SEE ITEM (4) IN SPECIAL INSTRUCTIONS | IC Anions - 300.0 (Nitrogen in Nitrate); |
| SAMPLE NO. | MATRIX* | SAMPLE DATE | SAMPLE TIME | | | | | |
| B25798 982 | SOIL | APR 19 2010 | 1128 | ✓ | ✓ | ✓ | ✓ | ✓ |

CHAIN OF POSSESSION — SIGN/ PRINT NAMES

| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME |
|---|---|---|---|
| KB Hulse CHPRC KB Hulse | APR 19 2010 | TA FRAZIER | APR 19 2010 |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

~~to~~ 1445 4/15/10 ~~1345~~

~~to~~ 1445 4/15/10 ~~1345~~

SPECIAL INSTRUCTIONS

SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

| | | | |
|---|---|---|---|
| LABORATORY SECTION | RECEIVED BY | TITLE | DATE/TIME |
| FINAL SAMPLE DISPOSITION | DISPOSAL METHOD | DISPOSED BY | DATE/TIME |

REVISION 1

| CH2MHill Plateau Remediation Company | CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST | | | F10-181-003 | PAGE 2 OF 2 |
|---|---|---|---|---|---|
| COLLECTOR KB Hulse CHPRC | COMPANY CONTACT WIDRIG, DL | TELEPHONE NO. 376-2858 | PROJECT COORDINATOR WIDRIG, DL | PRICE CODE 8B | DATA TURNAROUND 7 Days / 15 Days |
| SAMPLING LOCATION 600-40; ZPC 1-3 | PROJECT DESIGNATION 600-40 Verification Sampling and Analysis - Soil | | SAF NO. F10-181 | AIR QUALITY ☐ | |
| ICE CHEST NO. GWS 175 | FIELD LOGBOOK NO. HNF-N-507 11 | ACTUAL SAMPLE DEPTH Surface | COA 302222ES10 | METHOD OF SHIPMENT GOVERNMENT VEHICLE | |
| SHIPPED TO Waste Sampling & Characterization | OFFSITE PROPERTY NO. | | BILL OF LADING/AIR BILL NO. N/A | | |

**SPECIAL INSTRUCTIONS**

** All VOA samples will be collected using EPA Method 5035A.☐** VOA sample bottle sets will include 5 bottles for low level analysis.☐** The laboratory is to use one of the low level VOA bottles for moisture content determination.☐** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be include as part of the sample ID reported in the final data packages.☐☐** Only those constituents of concern requested shall be reported in any preliminary or final hardcopy data reports, or EDDs. If a sample is chosen for matrix spike, it shall be identified in the narrative, and the spike compounds shall be identified in the narative or removed from all Data Reports. No TICs shall be reported.

(1) VOA - 5035/8260 (LOW LEVEL) {Carbon tetrachloride};

(2) Semi-VOA - 8270 (TCL) {Acenaphthene, Acenaphthylene, Anthracene, Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(ghi)perylene, Benzo(k)fluoranthene, Chrysene, Dibenz[a,h]anthracene, Fluoranthene, Fluorene, Indeno(1,2,3-cd)pyrene, Naphthalene, Phenanthrene, Pyrene}; TPH-DieselKerosene Range - WTPH-D {Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range};

(3) ICP Metals - 6010 (Add-On) {Boron, Lithium}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Selenium, Strontium, Thallium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};

(4) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260};

**Appendix 2 - Sample Record Sheet, -7°C and -20°C Only (Spin Bars)**

# SAMPLE RECORD SHEET

Location: 600-40 Verification ZPC 1-3

Sampler Initials and Date: CBL 4-19-10

| Sample Number | Sample Suffix[1] | | | Initial Weight[2] (grams) | Total Weight[3] (grams) | Soil Weight[4] (grams) | Methanol in sample bottle (ml) |
|---|---|---|---|---|---|---|---|
| 1325798 | K | No Methanol | | 31.2 | 36.0 | 4.8 | No Methanol |
| | L | | | 32.6 | 37.8 | 5.2 | |
| | M | | | 32.4 | 37.9 | 5.5 | |
| | N | | | 32.4 | 38.1 | 5.7 | |
| | P | | | 30.9 | 36.6 | 5.7 | |

[1]Sample suffix of K, L, M, N, and P relate to low-level concentration samples and will not have any preservation beyond freezing between -7°C and -20°C.
[2]Initial weight is to include all labels, stickers, bags, spin bars (for samples with suffix K, L, M, N and P) and anything else that will be associated with the bottle when it is weighed with the sample.
[3]Ensure that everything weighed for the empty bottle and no additional items (besides the sample) is weighed.
[4]Soil weight is the vial with sample minus Initial Weight.

| CH2MHill Plateau Remediation Company | CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST | | | F10-181-007 | PAGE 1 OF 2 |
|---|---|---|---|---|---|
| COLLECTOR: KB Hulse CHPRC | COMPANY CONTACT: WIDRIG, DL | TELEPHONE NO.: 376-2858 | PROJECT COORDINATOR: WIDRIG, DL | PRICE CODE: 8B | DATA TURNAROUND: 7 Days / 15 Days |
| SAMPLING LOCATION: 600-40; ZPC 1-7 | PROJECT DESIGNATION: 600-40 Verification Sampling and Analysis - Soil | | SAF NO.: F10-181 | AIR QUALITY: ☐ | |
| ICE CHEST NO.: GWS175 | FIELD LOGBOOK NO.: HNF-N-507 11 | ACTUAL SAMPLE DEPTH: Surface | COA: 302222ES10 | METHOD OF SHIPMENT: GOVERNMENT VEHICLE | |
| SHIPPED TO: Waste Sampling & Characterization | OFFSITE PROPERTY NO. | | BILL OF LADING/AIR BILL NO.: N/A | | |

MATRIX*: A=Air, DL=Drum Liquids, DS=Drum Solids, L=Liquid, O=Oil, S=Soil, SE=Sediment, T=Tissue, V=Vegetation, W=Water, WI=Wipe, X=Other

**POSSIBLE SAMPLE HAZARDS/ REMARKS**: Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

**SPECIAL HANDLING AND/OR STORAGE**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PRESERVATION | | | Cool <-7C and >-20C | Cool~4C | Cool~4C | Cool~4C | Cool~4C | Cool~4C |
| HOLDING TIME | | | 14 Days | 14/40 Days | 6 Months | 30 Days | 365/365 Days | 28 Days/48 Hours |
| TYPE OF CONTAINER | | | aGs | aG | G/P | G/P | aG | G/P |
| NO. OF CONTAINER(S) | | | 5 | 1 | 1 | 1 | 1 | 1 |
| VOLUME | | | 40mL | 250mL | 250mL | 60mL | 250mL | 120mL |
| SAMPLE ANALYSIS | | | SEE ITEM (1) IN SPECIAL INSTRUCTIONS | SEE ITEM (2) IN SPECIAL INSTRUCTIONS | SEE ITEM (3) IN SPECIAL INSTRUCTIONS | Chromium Hex - 7196; | SEE ITEM (4) IN SPECIAL INSTRUCTIONS | IC Anions - 300.0 (Nitrogen in Nitrate); |
| SAMPLE NO. | MATRIX* | SAMPLE DATE | SAMPLE TIME | | | | | |
| B257B6 983 | SOIL | APR 19 2010 | 1120 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

| CHAIN OF POSSESSION | | SIGN/ PRINT NAMES | |
|---|---|---|---|
| RELINQUISHED BY/REMOVED FROM: KB Hulse CHPRC | DATE/TIME: APR 19 2010 (4/19-10 1345 ~~1445~~) | RECEIVED BY/STORED IN: JA FRAZIER | DATE/TIME: APR 19 2010 (4/19-10 1345 ~~1445~~) |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME |

**SPECIAL INSTRUCTIONS**

SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

| | | | |
|---|---|---|---|
| LABORATORY SECTION | RECEIVED BY | TITLE | DATE/TIME |
| FINAL SAMPLE DISPOSITION | DISPOSAL METHOD | DISPOSED BY | DATE/TIME |

REVISION 1

| CH2MHill Plateau Remediation Company | CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST | | | F10-181-007 | PAGE 2 OF 2 |
|---|---|---|---|---|---|
| COLLECTOR: KB Hulse CHPRC | COMPANY CONTACT: WIDRIG, DL | TELEPHONE NO.: 376-2858 | PROJECT COORDINATOR: WIDRIG, DL | PRICE CODE: 8B | DATA TURNAROUND: 7 Days / 15 Days |
| SAMPLING LOCATION: 600-40; ZPC 1-7 | PROJECT DESIGNATION: 600-40 Verification Sampling and Analysis - Soil | | SAF NO.: F10-181 | AIR QUALITY: ☐ | |
| ICE CHEST NO.: GWS175 | FIELD LOGBOOK NO.: HNF-N-507 11 | ACTUAL SAMPLE DEPTH: | COA: 302222ES10 | METHOD OF SHIPMENT: GOVERNMENT VEHICLE | |
| SHIPPED TO: Waste Sampling & Characterization | OFFSITE PROPERTY NO.: | | BILL OF LADING/AIR BILL NO.: N/A | | |

**SPECIAL INSTRUCTIONS**

** All VOA samples will be collected using EPA Method 5035A.☐** VOA sample bottle sets will include 5 bottles for low level analysis.☐** The laboratory is to use one of the low level VOA bottles for moisture content determination.☐** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be include as part of the sample ID reported in the final data packages.☐☐** Only those constituents of concern requested shall be reported in any preliminary or final hardcopy data reports, or EDDs. If a sample is chosen for matrix spike, it shall be identified in the narrative, and the spike compounds shall be identified in the narative or removed from all Data Reports. No TICs shall be reported.

(1) VOA - 5035/8260 (LOW LEVEL) {Carbon tetrachloride};

(2) Semi-VOA - 8270 (TCL) {Acenaphthene, Acenaphthylene, Anthracene, Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(ghi)perylene, Benzo(k)fluoranthene, Chrysene, Dibenz[a,h]anthracene, Fluoranthene, Fluorene, Indeno(1,2,3-cd)pyrene, Naphthalene, Phenanthrene, Pyrene}; TPH-DieselKerosene Range - WTPH-D {Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range};

(3) ICP Metals - 6010 (Add-On) {Boron, Lithium}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Selenium, Strontium, Thallium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};

(4) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260};

**Appendix 2 - Sample Record Sheet, -7°C and -20°C Only (Spin Bars)**

# SAMPLE RECORD SHEET

Location: 600-40 Verification 7PC 1-7

Sampler Initials and Date: UBC 4-19-10

| Sample Number | Sample Suffix[1] | | | Initial Weight[2] (grams) | Total Weight[3] (grams) | Soil Weight[4] (grams) | Methanol in sample bottle (ml) |
|---|---|---|---|---|---|---|---|
| B257B6 | K | No Methanol | | 31.4 | 36.8 | 5.4 | No Methanol |
| | L | | | 31.8 | 37.0 | 5.2 | |
| | M | | | 31.6 | 37.2 | 5.6 | |
| | N | | | 32.4 | 38.3 | 5.9 | |
| | P | | | 32.6 | 38.4 | 5.8 | |

[1]Sample suffix of K, L, M, N, and P relate to low-level concentration samples and will not have any preservation beyond freezing between -7°C and -20°C.

[2]Initial weight is to include all labels, stickers, bags, spin bars (for samples with suffix K, L, M, N and P) and anything else that will be associated with the bottle when it is weighed with the sample.

[3]Ensure that everything weighed for the empty bottle and no additional items (besides the sample) is weighed.

[4]Soil weight is the vial with sample minus Initial Weight.

CH2MHill Plateau Remediation Company

# CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F10-181-011



| | | | |
|---|---|---|---|
| COLLECTOR: KB Hulse CHPRC | COMPANY CONTACT: WIDRIG, DL | TELEPHONE NO.: 376-2858 | PROJECT COORDINATOR: WIDRIG, DL |
| SAMPLING LOCATION: 600-40; ZPC 2-10 | PROJECT DESIGNATION: 600-40 Verification Sampling and Analysis - Soil | | SAF NO.: F10-181 |
| ICE CHEST NO.: GWS 175 | FIELD LOGBOOK NO.: HNF-N-507 11 | ACTUAL SAMPLE DEPTH: Surface | COA: 302222ES10 |
| SHIPPED TO: Waste Sampling & Characterization | OFFSITE PROPERTY NO. | | BILL OF LADING/AIR BILL NO.: N/A |

PRICE CODE: BB

AIR QUALITY: ☐

DATA TURNAROUND: 7 Days / 15 Days

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

MATRIX*: A=Air, DL=Drum Liquids, DS=Drum Solids, L=Liquid, O=Oil, S=Soil, SE=Sediment, T=Tissue, V=Vegetation, W=Water, WI=Wipe, X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

| PRESERVATION | Cool <-7C and >-20C | Cool~4C | Cool~4C | Cool~4C | Cool~4C | Cool~4C |
|---|---|---|---|---|---|---|
| HOLDING TIME | 14 Days | 14/40 Days | 6 Months | 30 Days | 365/365 Days | 28 Days/48 Hours |
| TYPE OF CONTAINER | aGs | aG | G/P | G/P | aG | G/P |
| NO. OF CONTAINER(S) | 5 | 1 | 1 | 1 | 1 | 1 |
| VOLUME | 40mL | 250mL | 250mL | 60mL | 250mL | 120mL |
| SAMPLE ANALYSIS | SEE ITEM (1) IN SPECIAL INSTRUCTIONS | SEE ITEM (2) IN SPECIAL INSTRUCTIONS | SEE ITEM (3) IN SPECIAL INSTRUCTIONS | Chromium Hex - 7196; | SEE ITEM (4) IN SPECIAL INSTRUCTIONS | IC Anions - 300.0 (Nitrogen in Nitrate); |

| SAMPLE NO. | MATRIX* | SAMPLE DATE | SAMPLE TIME | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| B257C4 984 | SOIL | APR 19 2010 | 1032 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

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| CHAIN OF POSSESSION | DATE/TIME | SIGN/ PRINT NAMES | DATE/TIME |
|---|---|---|---|
| RELINQUISHED BY/REMOVED FROM: KB Hulse CHPRC | APR 19 2010 1445 | RECEIVED BY/STORED IN: JA FIBZIER | APR 19 2010 1445 |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME |

SPECIAL INSTRUCTIONS

SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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| | | | |
|---|---|---|---|
| LABORATORY SECTION | RECEIVED BY | TITLE | DATE/TIME |
| FINAL SAMPLE DISPOSITION | DISPOSAL METHOD | DISPOSED BY | DATE/TIME |

REVISION 1

| CH2MHill Plateau Remediation Company | CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST | | | F10-181-011 | PAGE 2 OF 2 |
|---|---|---|---|---|---|
| COLLECTOR KB Hulse CHPRC | COMPANY CONTACT WIDRIG, DL | TELEPHONE NO. 376-2858 | PROJECT COORDINATOR WIDRIG, DL | PRICE CODE 8B | DATA TURNAROUND 7 Days / 15 Days |
| SAMPLING LOCATION 600-40; ZPC 2-10 | PROJECT DESIGNATION 600-40 Verification Sampling and Analysis - Soil | | SAF NO. F10-181 | AIR QUALITY ☐ | |
| ICE CHEST NO. GWS 175 | FIELD LOGBOOK NO. HNF-N-507 11 | ACTUAL SAMPLE DEPTH Surface | COA 302222ES10 | METHOD OF SHIPMENT GOVERNMENT VEHICLE | |
| SHIPPED TO Waste Sampling & Characterization | OFFSITE PROPERTY NO. | | BILL OF LADING/AIR BILL NO. N/A | | |

**SPECIAL INSTRUCTIONS**

** All VOA samples will be collected using EPA Method 5035A.☐** VOA sample bottle sets will include 5 bottles for low level analysis.☐** The laboratory is to use one of the low level VOA bottles for moisture content determination.☐** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be include as part of the sample ID reported in the final data packages.☐☐** Only those constituents of concern requested shall be reported in any preliminary or final hardcopy data reports, or EDDs. If a sample is chosen for matrix spike, it shall be identified in the narrative, and the spike compounds shall be identified in the narative or removed from all Data Reports. No TICs shall be reported.

(1) VOA - 5035/8260 (LOW LEVEL) {Carbon tetrachloride};

(2) Semi-VOA - 8270 (TCL) {Acenaphthene, Acenaphthylene, Anthracene, Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(ghi)perylene, Benzo(k)fluoranthene, Chrysene, Dibenz[a,h]anthracene, Fluoranthene, Fluorene, Indeno(1,2,3-cd)pyrene, Naphthalene, Phenanthrene, Pyrene}; TPH-DieselKerosene Range - WTPH-D {Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range};

(3) ICP Metals - 6010 (Add-On) {Boron, Lithium}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Selenium, Strontium, Thallium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};

(4) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260};

**Appendix 2 - Sample Record Sheet, -7°C and -20°C Only (Spin Bars)**

# SAMPLE RECORD SHEET

Location: ZPC-2-10

Sampler Initials and Date: JSW 4-19-10

| Sample Number | Sample Suffix[1] | | | Initial Weight[2] (grams) | Total Weight[3] (grams) | Soil Weight[4] (grams) | Methanol in sample bottle (ml) |
|---|---|---|---|---|---|---|---|
| B25704 | K | No Methanol | | 32.0 | 37.4 | 5.4 | No Methanol |
| B25704 | L | | | 32.2 | 38.0 | 5.8 | |
| B25704 | M | | | 32.2 | 38.1 | 5.9 | |
| B25704 | N | | | 32.2 | 37.7 | 5.5 | |
| B25704 | P | | | 32.1 | 37.8 | 5.7 | |

[1]Sample suffix of K, L, M, N, and P relate to low-level concentration samples and will not have any preservation beyond freezing between -7°C and -20°C.
[2]Initial weight is to include all labels, stickers, bags, spin bars (for samples with suffix K, L, M, N and P) and anything else that will be associated with the bottle when it is weighed with the sample.
[3]Ensure that everything weighed for the empty bottle and no additional items (besides the sample) is weighed.
[4]Soil weight is the vial with sample minus Initial Weight.

CH2MHill Plateau Remediation Company

# CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F10-181-006



COLLECTOR: KB Hulse CHPRC

COMPANY CONTACT: WIDRIG, DL

TELEPHONE NO.: 376-2858

PROJECT COORDINATOR: WIDRIG, DL

PRICE CODE: 8B

DATA TURNAROUND: 7 Days / 15 Days

AIR QUALITY: ☐

SAMPLING LOCATION: 600-40; ZPC 1-6

PROJECT DESIGNATION: 600-40 Verification Sampling and Analysis - Soil

SAF NO.: F10-181

ICE CHEST NO.: GW5-175

FIELD LOGBOOK NO.: HNF-N-507 11

ACTUAL SAMPLE DEPTH: Surface

COA: 302222ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

SHIPPED TO: Waste Sampling & Characterization

OFFSITE PROPERTY NO.:

BILL OF LADING/AIR BILL NO.: N/A

MATRIX*: A=Air, DL=Drum Liquids, DS=Drum Solids, L=Liquid, O=Oil, S=Soil, SE=Sediment, T=Tissue, V=Vegetation, W=Water, WI=Wipe, X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

| PRESERVATION | Cool <-7C and >-20C | Cool~4C | Cool~4C | Cool~4C | Cool~4C | Cool~4C |
|---|---|---|---|---|---|---|
| HOLDING TIME | 14 Days | 14/40 Days | 6 Months | 30 Days | 365/365 Days | 28 Days/48 Hours |
| TYPE OF CONTAINER | aGs | aG | G/P | G/P | aG | G/P |
| NO. OF CONTAINER(S) | 5 | 1 | 1 | 1 | 1 | 1 |
| VOLUME | 40mL | 250mL | 250mL | 60mL | 250mL | 120mL |
| SAMPLE ANALYSIS | SEE ITEM (1) IN SPECIAL INSTRUCTIONS | SEE ITEM (2) IN SPECIAL INSTRUCTIONS | SEE ITEM (3) IN SPECIAL INSTRUCTIONS | Chromium Hex - 7196; | SEE ITEM (4) IN SPECIAL INSTRUCTIONS | IC Anions - 300.0 (Nitrogen in Nitrate); |

| SAMPLE NO. | MATRIX* | SAMPLE DATE | SAMPLE TIME | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| B257B4 985 | SOIL | APR 19 2010 | 1145 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME |
|---|---|---|---|
| KB Hulse CHPRC | APR 19 2010 1345 | TA FINAZIER | APR 19 2010 1445 |
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SPECIAL INSTRUCTIONS

SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

| LABORATORY SECTION | RECEIVED BY | TITLE | DATE/TIME |
|---|---|---|---|
| FINAL SAMPLE DISPOSITION | DISPOSAL METHOD | DISPOSED BY | DATE/TIME |

REVISION 1

| CH2MHill Plateau Remediation Company | CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST | | F10-181-006 | PAGE 2 OF 2 |
|---|---|---|---|---|
| COLLECTOR KB Hulse CHPRC | COMPANY CONTACT WIDRIG, DL | TELEPHONE NO. 376-2858 | PROJECT COORDINATOR WIDRIG, DL | PRICE CODE 8B / AIR QUALITY ☐ / DATA TURNAROUND 7 Days / 15 Days |
| SAMPLING LOCATION 600-40; ZPC 1-6 | PROJECT DESIGNATION 600-40 Verification Sampling and Analysis - Soil | | SAF NO. F10-181 | |
| ICE CHEST NO. G4S-175 | FIELD LOGBOOK NO. HNF-N-507 11 | ACTUAL SAMPLE DEPTH Surface | COA 302222ES10 | METHOD OF SHIPMENT GOVERNMENT VEHICLE |
| SHIPPED TO Waste Sampling & Characterization | OFFSITE PROPERTY NO. | | BILL OF LADING/AIR BILL NO. N/A | |

**SPECIAL INSTRUCTIONS**

** All VOA samples will be collected using EPA Method 5035A.☐** VOA sample bottle sets will include 5 bottles for low level analysis.☐** The laboratory is to use one of the low level VOA bottles for moisture content determination.☐** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be include as part of the sample ID reported in the final data packages.☐☐** Only those constituents of concern requested shall be reported in any preliminary or final hardcopy data reports, or EDDs. If a sample is chosen for matrix spike, it shall be identified in the narrative, and the spike compounds shall be identified in the narative or removed from all Data Reports. No TICs shall be reported.

(1) VOA - 5035/8260 (LOW LEVEL) {Carbon tetrachloride};

(2) Semi-VOA - 8270 (TCL) {Acenaphthene, Acenaphthylene, Anthracene, Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(ghi)perylene, Benzo(k)fluoranthene, Chrysene, Dibenz[a,h]anthracene, Fluoranthene, Fluorene, Indeno(1,2,3-cd)pyrene, Naphthalene, Phenanthrene, Pyrene}; TPH-DieselKerosene Range - WTPH-D {Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range};

(3) ICP Metals - 6010 (Add-On) {Boron, Lithium}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Selenium, Strontium, Thallium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};

(4) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260};

ORIGINAL

REVISION 1

**Appendix 2 - Sample Record Sheet, -7°C and -20°C Only (Spin Bars)**

# SAMPLE RECORD SHEET

Location: 600-40 Verification ZPC 1-6

Sampler Initials and Date: CBR 4-19-10

| Sample Number | Sample Suffix[1] | | | Initial Weight[2] (grams) | Total Weight[3] (grams) | Soil Weight[4] (grams) | Methanol in sample bottle (ml) |
|---|---|---|---|---|---|---|---|
| B25794 | K | No Methanol | | 31.8 | 37.2 | 5.4 | No Methanol |
| | L | | | 31.3 | 37.4 | 6.1 | |
| | M | | | 31.8 | 37.4 | 5.6 | |
| | N | | | 32.8 | 39.0 | 6.2 | |
| | P | | | 32.1 | 37.8 | 5.7 | |

[1]Sample suffix of K, L, M, N, and P relate to low-level concentration samples and will not have any preservation beyond freezing between -7°C and -20°C.
[2]Initial weight is to include all labels, stickers, bags, spin bars (for samples with suffix K, L, M, N and P) and anything else that will be associated with the bottle when it is weighed with the sample.
[3]Ensure that everything weighed for the empty bottle and no additional items (besides the sample) is weighed.
[4]Soil weight is the vial with sample minus Initial Weight.

CH2MHill Plateau Remediation Company

# CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F10-181-013



COLLECTOR: KB Hulse CHPRC

COMPANY CONTACT: WIDRIG, DL

TELEPHONE NO.: 376-2858

PROJECT COORDINATOR: WIDRIG, DL

PRICE CODE: 8B

DATA TURNAROUND: 7 Days / 15 Days

AIR QUALITY: ☐

SAMPLING LOCATION: 600-40; ZPC 3-12

PROJECT DESIGNATION: 600-40 Verification Sampling and Analysis - Soil

SAF NO.: F10-181

ICE CHEST NO.: GWS-175

FIELD LOGBOOK NO.: HNF-N-507 11

ACTUAL SAMPLE DEPTH: Surface

COA: 302222ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

SHIPPED TO: Waste Sampling & Characterization

OFFSITE PROPERTY NO.:

BILL OF LADING/AIR BILL NO.: N/A

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE:

| PRESERVATION | Cool <-7C and >-20C | Cool~4C | Cool~4C | Cool~4C | Cool~4C | Cool~4C |
|---|---|---|---|---|---|---|
| HOLDING TIME | 14 Days | 14/40 Days | 6 Months | 30 Days | 365/365 Days | 28 Days/48 Hours |
| TYPE OF CONTAINER | aGs | aG | G/P | G/P | aG | G/P |
| NO. OF CONTAINER(S) | 5 | 1 | 1 | 1 | 1 | 1 |
| VOLUME | 40mL | 250mL | 250mL | 60mL | 250mL | 120mL |
| SAMPLE ANALYSIS | SEE ITEM (1) IN SPECIAL INSTRUCTIONS | SEE ITEM (2) IN SPECIAL INSTRUCTIONS | SEE ITEM (3) IN SPECIAL INSTRUCTIONS | Chromium Hex - 7196; | SEE ITEM (4) IN SPECIAL INSTRUCTIONS | IC Anions - 300.0 (Nitrogen in Nitrate); |

| SAMPLE NO. | | MATRIX* | SAMPLE DATE | SAMPLE TIME | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| B257C8 | 986 | SOIL | APR 19 2010 | 1052 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

## CHAIN OF POSSESSION / SIGN/ PRINT NAMES

| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME |
|---|---|---|---|
| KB Hulse CHPRC KB Hulse | APR 19 2010 1445 | TA Franklin | APR 19 2010 1445 |
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SPECIAL INSTRUCTIONS: SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

LABORATORY SECTION: RECEIVED BY | TITLE | DATE/TIME

FINAL SAMPLE DISPOSITION: DISPOSAL METHOD | DISPOSED BY | DATE/TIME

REVISION 1

| CH2MHill Plateau Remediation Company | CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST | | | F10-181-013 | PAGE 2 OF 2 |
|---|---|---|---|---|---|
| COLLECTOR KB Hulse CHPRC | COMPANY CONTACT WIDRIG, DL | TELEPHONE NO. 376-2858 | PROJECT COORDINATOR WIDRIG, DL | PRICE CODE 8B | DATA TURNAROUND 7 Days / 15 Days |
| SAMPLING LOCATION 600-40; ZPC 3-12 | PROJECT DESIGNATION 600-40 Verification Sampling and Analysis - Soil | | SAF NO. F10-181 | AIR QUALITY ☐ | |
| ICE CHEST NO. GWS175 | FIELD LOGBOOK NO. HNF-N-507 11 | ACTUAL SAMPLE DEPTH Surface | COA 302222ES10 | METHOD OF SHIPMENT GOVERNMENT VEHICLE | |
| SHIPPED TO Waste Sampling & Characterization | OFFSITE PROPERTY NO. | | BILL OF LADING/AIR BILL NO. N/A | | |

**SPECIAL INSTRUCTIONS**

** All VOA samples will be collected using EPA Method 5035A.☐** VOA sample bottle sets will include 5 bottles for low level analysis.☐** The laboratory is to use one of the low level VOA bottles for moisture content determination.☐** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be include as part of the sample ID reported in the final data packages.☐☐** Only those constituents of concern requested shall be reported in any preliminary or final hardcopy data reports, or EDDs. If a sample is chosen for matrix spike, it shall be identified in the narrative, and the spike compounds shall be identified in the narative or removed from all Data Reports. No TICs shall be reported.

(1) VOA - 5035/8260 (LOW LEVEL) {Carbon tetrachloride};

(2) Semi-VOA - 8270 (TCL) {Acenaphthene, Acenaphthylene, Anthracene, Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(ghi)perylene, Benzo(k)fluoranthene, Chrysene, Dibenz[a,h]anthracene, Fluoranthene, Fluorene, Indeno(1,2,3-cd)pyrene, Naphthalene, Phenanthrene, Pyrene}; TPH-DieselKerosene Range - WTPH-D {Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range};

(3) ICP Metals - 6010 (Add-On) {Boron, Lithium}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Selenium, Strontium, Thallium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};

(4) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260};

**Appendix 2 - Sample Record Sheet, -7°C and -20°C Only (Spin Bars)**

# SAMPLE RECORD SHEET

Location: ZPC-3-12

Sampler Initials and Date: JBZ 4-19-10

| Sample Number | Sample Suffix[1] | | | Initial Weight[2] (grams) | Total Weight[3] (grams) | Soil Weight[4] (grams) | Methanol in sample bottle (ml) |
|---|---|---|---|---|---|---|---|
| B257C8 | K | No Methanol | | 31.3 | 36.7 | 5.4 | No Methanol |
| B257C8 | L | | | 31.5 | 36.7 | 5.2 | |
| B257C8 | M | | | 32.3 | 37.7 | 5.4 | |
| B257C8 | N | | | 31.3 | 36.9 | 5.3 | |
| B257C8 | P | | | 31.7 | 37.4 | 5.7 | |

[1]Sample suffix of K, L, M, N, and P relate to low-level concentration samples and will not have any preservation beyond freezing between -7°C and -20°C.
[2]Initial weight is to include all labels, stickers, bags, spin bars (for samples with suffix K, L, M, N and P) and anything else that will be associated with the bottle when it is weighed with the sample.
[3]Ensure that everything weighed for the empty bottle and no additional items (besides the sample) is weighed.
[4]Soil weight is the vial with sample minus Initial Weight.

CH2MHill Plateau Remediation Company

# CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F10-181-002



COLLECTOR: KB Hulse, CHPRC

COMPANY CONTACT: WIDRIG, DL

TELEPHONE NO.: 376-2858

PROJECT COORDINATOR: WIDRIG, DL

PRICE CODE: 8B

DATA TURNAROUND: 7 Days / 15 Days

AIR QUALITY: ☐

SAMPLING LOCATION: 600-40; ZPC 1-2

PROJECT DESIGNATION: 600-40 Verification Sampling and Analysis - Soil

SAF NO.: F10-181

ICE CHEST NO.: GWS-175

FIELD LOGBOOK NO.: HNF-N-507 11

ACTUAL SAMPLE DEPTH: Surface

COA: 302222ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

SHIPPED TO: Waste Sampling & Characterization

OFFSITE PROPERTY NO.:

BILL OF LADING/AIR BILL NO.: N/A

MATRIX*: A=Air, DL=Drum Liquids, DS=Drum Solids, L=Liquid, O=Oil, S=Soil, SE=Sediment, T=Tissue, V=Vegetation, W=Water, WI=Wipe, X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE:

| PRESERVATION | Cool <-7C and >-20C | Cool~4C | Cool~4C | Cool~4C | Cool~4C | Cool~4C |
|---|---|---|---|---|---|---|
| HOLDING TIME | 14 Days | 14/40 Days | 6 Months | 30 Days | 365/365 Days | 28 Days/48 Hours |
| TYPE OF CONTAINER | aGs | aG | G/P | G/P | aG | G/P |
| NO. OF CONTAINER(S) | 5 | 1 | 1 | 1 | 1 | 1 |
| VOLUME | 40mL | 250mL | 250mL | 60mL | 250mL | 120mL |
| SAMPLE ANALYSIS | SEE ITEM (1) IN SPECIAL INSTRUCTIONS | SEE ITEM (2) IN SPECIAL INSTRUCTIONS | SEE ITEM (3) IN SPECIAL INSTRUCTIONS | Chromium Hex - 7196; | SEE ITEM (4) IN SPECIAL INSTRUCTIONS | IC Anions - 300.0 (Nitrogen in Nitrate); |

| SAMPLE NO. | | MATRIX* | SAMPLE DATE | SAMPLE TIME | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| B25796 | 987 | SOIL | APR 19 2010 | 1107 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

## CHAIN OF POSSESSION / SIGN/ PRINT NAMES

| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME |
|---|---|---|---|
| CHPRC | APR 19 2010 1445 | TA Frazier | APR 19 2010 1445 |
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SPECIAL INSTRUCTIONS: SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

LABORATORY SECTION: RECEIVED BY | TITLE | DATE/TIME

FINAL SAMPLE DISPOSITION: DISPOSAL METHOD | DISPOSED BY | DATE/TIME

REVISION 1

| CH2MHill Plateau Remediation Company | CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST | | | F10-181-002 | PAGE 2 OF 2 |
|---|---|---|---|---|---|
| COLLECTOR: KB Hulse CHPRC | COMPANY CONTACT: WIDRIG, DL | TELEPHONE NO.: 376-2858 | PROJECT COORDINATOR: WIDRIG, DL | PRICE CODE: 8B | DATA TURNAROUND: 7 Days / 15 Days |
| SAMPLING LOCATION: 600-40; ZPC 1-2 | PROJECT DESIGNATION: 600-40 Verification Sampling and Analysis - Soil | | SAF NO.: F10-181 | AIR QUALITY: ☐ | |
| ICE CHEST NO.: GWS-175 | FIELD LOGBOOK NO.: HNF-N-507 11 | ACTUAL SAMPLE DEPTH: Surface | COA: 302222ES10 | METHOD OF SHIPMENT: GOVERNMENT VEHICLE | |
| SHIPPED TO: Waste Sampling & Characterization | OFFSITE PROPERTY NO. | | BILL OF LADING/AIR BILL NO.: N/A | | |

**SPECIAL INSTRUCTIONS**

** All VOA samples will be collected using EPA Method 5035A.☐** VOA sample bottle sets will include 5 bottles for low level analysis.☐** The laboratory is to use one of the low level VOA bottles for moisture content determination.☐** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be include as part of the sample ID reported in the final data packages.☐☐** Only those constituents of concern requested shall be reported in any preliminary or final hardcopy data reports, or EDDs. If a sample is chosen for matrix spike, it shall be identified in the narrative, and the spike compounds shall be identified in the narative or removed from all Data Reports. No TICs shall be reported.

(1) VOA - 5035/8260 (LOW LEVEL) {Carbon tetrachloride};

(2) Semi-VOA - 8270 (TCL) {Acenaphthene, Acenaphthylene, Anthracene, Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(ghi)perylene, Benzo(k)fluoranthene, Chrysene, Dibenz[a,h]anthracene, Fluoranthene, Fluorene, Indeno(1,2,3-cd)pyrene, Naphthalene, Phenanthrene, Pyrene}; TPH-DieselKerosene Range - WTPH-D {Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range};

(3) ICP Metals - 6010 (Add-On) {Boron, Lithium}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Selenium, Strontium, Thallium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};

(4) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260};

**Appendix 2 - Sample Record Sheet, -7°C and -20°C Only (Spin Bars)**

# SAMPLE RECORD SHEET

Location: ZPC-1-2

Sampler Initials and Date: [illegible] 4-19-10

| Sample Number | Sample Suffix[1] | | | Initial Weight[2] (grams) | Total Weight[3] (grams) | Soil Weight[4] (grams) | Methanol in sample bottle (ml) |
|---|---|---|---|---|---|---|---|
| B25796 | K | No Methanol | | 31.6 | 37.5 | 5.9 | No Methanol |
| B25796 | L | | | 32.1 | 38.3 | 6.2 | |
| B25796 | M | | | 31.5 | 37.6 | 6.1 | |
| B25796 | N | | | 31.6 | 37.7 | 6.1 | |
| B25796 | P | | | 32.0 | 38.5 | 6.5 | |

[1]Sample suffix of K, L, M, N, and P relate to low-level concentration samples and will not have any preservation beyond freezing between -7°C and -20°C.
[2]Initial weight is to include all labels, stickers, bags, spin bars (for samples with suffix K, L, M, N and P) and anything else that will be associated with the bottle when it is weighed with the sample.
[3]Ensure that everything weighed for the empty bottle and no additional items (besides the sample) is weighed.
[4]Soil weight is the vial with sample minus Initial Weight.

CH2MHill Plateau Remediation Company

# CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F10-181-012



COLLECTOR: KB Hulse CHPRC

COMPANY CONTACT: WIDRIG, DL

TELEPHONE NO.: 376-2858

PROJECT COORDINATOR: WIDRIG, DL

PRICE CODE: 8B

DATA TURNAROUND: 7 Days / 15 Days

AIR QUALITY: ☐

SAMPLING LOCATION: 600-40; ZPC 3-11

PROJECT DESIGNATION: 600-40 Verification Sampling and Analysis - Soil

SAF NO.: F10-181

ICE CHEST NO.: G4S-175

FIELD LOGBOOK NO.: HNF-N-507 11

ACTUAL SAMPLE DEPTH: Surface

COA: 302222ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

SHIPPED TO: Waste Sampling & Characterization

OFFSITE PROPERTY NO.:

BILL OF LADING/AIR BILL NO.: N/A

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE:

| PRESERVATION | Cool <-7C and >-20C | Cool~4C | Cool~4C | Cool~4C | Cool~4C | Cool~4C |
|---|---|---|---|---|---|---|
| HOLDING TIME | 14 Days | 14/40 Days | 6 Months | 30 Days | 365/365 Days | 28 Days/48 Hours |
| TYPE OF CONTAINER | aGs | aG | G/P | G/P | aG | G/P |
| NO. OF CONTAINER(S) | 5 | 1 | 1 | 1 | 1 | 1 |
| VOLUME | 40mL | 250mL | 250mL | 60mL | 250mL | 120mL |
| SAMPLE ANALYSIS | SEE ITEM (1) IN SPECIAL INSTRUCTIONS | SEE ITEM (2) IN SPECIAL INSTRUCTIONS | SEE ITEM (3) IN SPECIAL INSTRUCTIONS | Chromium Hex - 7196; | SEE ITEM (4) IN SPECIAL INSTRUCTIONS | IC Anions - 300.0 (Nitrogen in Nitrate); |

| SAMPLE NO. | | MATRIX* | SAMPLE DATE | SAMPLE TIME | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| B257C6 | 988 | SOIL | APR 19 2010 | 1047 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

| CHAIN OF POSSESSION | | SIGN/ PRINT NAMES | |
|---|---|---|---|
| RELINQUISHED BY/REMOVED FROM: KB Hulse CHPRC | DATE/TIME: APR 19 2010 1445 | RECEIVED BY/STORED IN: TA Frazier | DATE/TIME: APR 19 2010 1445 |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME |

SPECIAL INSTRUCTIONS

SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

| LABORATORY SECTION | RECEIVED BY | TITLE | DATE/TIME |
|---|---|---|---|
| FINAL SAMPLE DISPOSITION | DISPOSAL METHOD | DISPOSED BY | DATE/TIME |

REVISION 1

| CH2MHill Plateau Remediation Company | CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST | | | F10-181-012 | PAGE 2 OF 2 |
|---|---|---|---|---|---|
| COLLECTOR KB Hulse CHPRC | COMPANY CONTACT WIDRIG, DL | TELEPHONE NO. 376-2858 | PROJECT COORDINATOR WIDRIG, DL | PRICE CODE 8B | DATA TURNAROUND 7 Days / 15 Days |
| SAMPLING LOCATION 600-40; ZPC 3-11 | PROJECT DESIGNATION 600-40 Verification Sampling and Analysis - Soil | | SAF NO. F10-181 | AIR QUALITY ☐ | |
| ICE CHEST NO. GWS-175 | FIELD LOGBOOK NO. HNFN-507 11 | ACTUAL SAMPLE DEPTH Surface | COA 302222ES10 | METHOD OF SHIPMENT GOVERNMENT VEHICLE | |
| SHIPPED TO Waste Sampling & Characterization | OFFSITE PROPERTY NO. | | BILL OF LADING/AIR BILL NO. N/A | | |

**SPECIAL INSTRUCTIONS**

** All VOA samples will be collected using EPA Method 5035A.☐** VOA sample bottle sets will include 5 bottles for low level analysis.☐** The laboratory is to use one of the low level VOA bottles for moisture content determination.☐** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be include as part of the sample ID reported in the final data packages.☐☐** Only those constituents of concern requested shall be reported in any preliminary or final hardcopy data reports, or EDDs. If a sample is chosen for matrix spike, it shall be identified in the narrative, and the spike compounds shall be identified in the narative or removed from all Data Reports. No TICs shall be reported.

(1) VOA - 5035/8260 (LOW LEVEL) {Carbon tetrachloride};

(2) Semi-VOA - 8270 (TCL) {Acenaphthene, Acenaphthylene, Anthracene, Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(ghi)perylene, Benzo(k)fluoranthene, Chrysene, Dibenz[a,h]anthracene, Fluoranthene, Fluorene, Indeno(1,2,3-cd)pyrene, Naphthalene, Phenanthrene, Pyrene}; TPH-DieselKerosene Range - WTPH-D {Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range};

(3) ICP Metals - 6010 (Add-On) {Boron, Lithium}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Selenium, Strontium, Thallium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};

(4) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260};

**Appendix 2 - Sample Record Sheet, -7°C and -20°C Only (Spin Bars)**

# SAMPLE RECORD SHEET

Location: ZPC 3-11

Sampler Initials and Date: [illegible] 4-19-10

| Sample Number | Sample Suffix[1] | | | Initial Weight[2] (grams) | Total Weight[3] (grams) | Soil Weight[4] (grams) | Methanol in sample bottle (ml) |
|---|---|---|---|---|---|---|---|
| B257C6 | K | No Methanol | | 32.8 | 37.0 | 4.2 | No Methanol |
| B257C6 | L | | | 32.5 | 36.9 | 4.6 | |
| B257C6 | M | | | 32.1 | 36.4 | 4.3 | |
| B257C6 | N | | | 32.1 | 36.6 | 4.5 | |
| B257C6 | P | | | 32.3 | 37.1 | 4.8 | |

[1]Sample suffix of K, L, M, N, and P relate to low-level concentration samples and will not have any preservation beyond freezing between -7°C and -20°C.
[2]Initial weight is to include all labels, stickers, bags, spin bars (for samples with suffix K, L, M, N and P) and anything else that will be associated with the bottle when it is weighed with the sample.
[3]Ensure that everything weighed for the empty bottle and no additional items (besides the sample) is weighed.
[4]Soil weight is the vial with sample minus Initial Weight.

CH2MHill Plateau Remediation Company

# CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F10-181-009



COLLECTOR: KB Hulse CHPRC

COMPANY CONTACT: WIDRIG, DL

TELEPHONE NO.: 376-2858

PROJECT COORDINATOR: WIDRIG, DL

PRICE CODE: 8B

DATA TURNAROUND: 7 Days / 15 Days

AIR QUALITY: ☐

SAMPLING LOCATION: 600-40; ZPC 2-8

PROJECT DESIGNATION: 600-40 Verification Sampling and Analysis - Soil

SAF NO.: F10-181

ICE CHEST NO.: GWS 175

FIELD LOGBOOK NO.: HNF-N-507 11

ACTUAL SAMPLE DEPTH: Surface

COA: 302222ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

SHIPPED TO: Waste Sampling & Characterization

OFFSITE PROPERTY NO.:

BILL OF LADING/AIR BILL NO.: N/A

MATRIX*: A=Air, DL=Drum Liquids, DS=Drum Solids, L=Liquid, O=Oil, S=Soil, SE=Sediment, T=Tissue, V=Vegetation, W=Water, WI=Wipe, X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE:

| PRESERVATION | Cool <-7C and >-20C | Cool~4C | Cool~4C | Cool~4C | Cool~4C | Cool~4C |
|---|---|---|---|---|---|---|
| HOLDING TIME | 14 Days | 14/40 Days | 6 Months | 30 Days | 365/365 Days | 28 Days/48 Hours |
| TYPE OF CONTAINER | aGs | aG | G/P | G/P | aG | G/P |
| NO. OF CONTAINER(S) | 5 | 1 | 1 | 1 | 1 | 1 |
| VOLUME | 40mL | 250mL | 250mL | 60mL | 250mL | 120mL |
| SAMPLE ANALYSIS | SEE ITEM (1) IN SPECIAL INSTRUCTIONS | SEE ITEM (2) IN SPECIAL INSTRUCTIONS | SEE ITEM (3) IN SPECIAL INSTRUCTIONS | Chromium Hex - 7196; | SEE ITEM (4) IN SPECIAL INSTRUCTIONS | IC Anions - 300.0 (Nitrogen In Nitrate); |

| SAMPLE NO. | MATRIX* | SAMPLE DATE | SAMPLE TIME | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| B257C0 989 | SOIL | APR 19 2010 | 1043 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME |
|---|---|---|---|
| KB Hulse CHPRC | 1445 APR 19 2010 | TA Frazier | 1445 APR 19 2010 |
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SPECIAL INSTRUCTIONS: SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

LABORATORY SECTION: RECEIVED BY | TITLE | DATE/TIME

FINAL SAMPLE DISPOSITION: DISPOSAL METHOD | DISPOSED BY | DATE/TIME

REVISION 1

| CH2MHill Plateau Remediation Company | CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST | | | F10-181-009 | PAGE 2 OF 2 |
|---|---|---|---|---|---|
| COLLECTOR: KB Hulse, CHPRC | COMPANY CONTACT: WIDRIG, DL | TELEPHONE NO.: 376-2858 | PROJECT COORDINATOR: WIDRIG, DL | PRICE CODE: 8B | DATA TURNAROUND: 7 Days / 15 Days |
| SAMPLING LOCATION: 600-40; ZPC 2-8 | PROJECT DESIGNATION: 600-40 Verification Sampling and Analysis - Soil | | SAF NO.: F10-181 | AIR QUALITY: ☐ | |
| ICE CHEST NO.: GWS 175 | FIELD LOGBOOK NO.: HNF-N-507 11 | ACTUAL SAMPLE DEPTH: Surface | COA: 302222ES10 | METHOD OF SHIPMENT: GOVERNMENT VEHICLE | |
| SHIPPED TO: Waste Sampling & Characterization | OFFSITE PROPERTY NO. | | BILL OF LADING/AIR BILL NO.: N/A | | |

**SPECIAL INSTRUCTIONS**

** All VOA samples will be collected using EPA Method 5035A.☐** VOA sample bottle sets will include 5 bottles for low level analysis.☐** The laboratory is to use one of the low level VOA bottles for moisture content determination.☐** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be include as part of the sample ID reported in the final data packages.☐☐** Only those constituents of concern requested shall be reported in any preliminary or final hardcopy data reports, or EDDs. If a sample is chosen for matrix spike, it shall be identified in the narrative, and the spike compounds shall be identified in the narative or removed from all Data Reports. No TICs shall be reported.

(1) VOA - 5035/8260 (LOW LEVEL) {Carbon tetrachloride};

(2) Semi-VOA - 8270 (TCL) {Acenaphthene, Acenaphthylene, Anthracene, Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(ghi)perylene, Benzo(k)fluoranthene, Chrysene, Dibenz[a,h]anthracene, Fluoranthene, Fluorene, Indeno(1,2,3-cd)pyrene, Naphthalene, Phenanthrene, Pyrene}; TPH-DieselKerosene Range - WTPH-D {Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range};

(3) ICP Metals - 6010 (Add-On) {Boron, Lithium}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Selenium, Strontium, Thallium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};

(4) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260};

**Appendix 2 - Sample Record Sheet, -7°C and -20°C Only (Spin Bars)**

# SAMPLE RECORD SHEET

Location: ZPC 2-8

Sampler Initials and Date: JSB 4-19-10

| Sample Number | Sample Suffix[1] | | | Initial Weight[2] (grams) | Total Weight[3] (grams) | Soil Weight[4] (grams) | Methanol in sample bottle (ml) |
|---|---|---|---|---|---|---|---|
| B257C0 | K | No Methanol | | 32.5 | 37.0 | 4.5 | No Methanol |
| B257C0 | L | | | 32.2 | 37.4 | 5.2 | |
| B257C0 | M | | | 31.8 | 36.6 | 4.8 | |
| B257C0 | N | | | 31.8 | 36.5 | 4.7 | |
| B257C0 | P | | | 31.9 | 37.2 | 5.3 | |

[1]Sample suffix of K, L, M, N, and P relate to low-level concentration samples and will not have any preservation beyond freezing between -7°C and -20°C.
[2]Initial weight is to include all labels, stickers, bags, spin bars (for samples with suffix K, L, M, N and P) and anything else that will be associated with the bottle when it is weighed with the sample.
[3]Ensure that everything weighed for the empty bottle and no additional items (besides the sample) is weighed.
[4]Soil weight is the vial with sample minus Initial Weight.

| CH2MHill Plateau Remediation Company | CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST | | | F10-181-001 | PAGE 1 OF 2 |
|---|---|---|---|---|---|
| COLLECTOR: KB Hulse, CHPRC | COMPANY CONTACT: WIDRIG, DL | TELEPHONE NO.: 376-2858 | PROJECT COORDINATOR: WIDRIG, DL | PRICE CODE: 8B | DATA TURNAROUND: 7 Days / 15 Days |
| SAMPLING LOCATION: 600-40; ZPC 1-1 | PROJECT DESIGNATION: 600-40 Verification Sampling and Analysis - Soil | | SAF NO.: F10-181 | AIR QUALITY: ☐ | |
| ICE CHEST NO.: GES-175 | FIELD LOGBOOK NO.: HNF-N-507 11 | ACTUAL SAMPLE DEPTH: Surface | COA: 302222ES10 | METHOD OF SHIPMENT: GOVERNMENT VEHICLE | |
| SHIPPED TO: Waste Sampling & Characterization | OFFSITE PROPERTY NO.: N/A | | BILL OF LADING/AIR BILL NO.: N/A | | |

MATRIX*: A=Air, DL=Drum Liquids, DS=Drum Solids, L=Liquid, O=Oil, S=Soil, SE=Sediment, T=Tissue, V=Vegetation, W=Water, WI=Wipe, X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

| PRESERVATION | Cool <-7C and >-20C | Cool~4C | Cool~4C | Cool~4C | Cool~4C | Cool~4C |
|---|---|---|---|---|---|---|
| HOLDING TIME | 14 Days | 14/40 Days | 6 Months | 30 Days | 365/365 Days | 28 Days/48 Hours |
| TYPE OF CONTAINER | aGs | aG | G/P | G/P | aG | G/P |
| NO. OF CONTAINER(S) | 5 | 1 | 1 | 1 | 1 | 1 |
| VOLUME | 40mL | 250mL | 250mL | 60mL | 250mL | 120mL |
| SAMPLE ANALYSIS | SEE ITEM (1) IN SPECIAL INSTRUCTIONS | SEE ITEM (2) IN SPECIAL INSTRUCTIONS | SEE ITEM (3) IN SPECIAL INSTRUCTIONS | Chromium Hex - 7196; | SEE ITEM (4) IN SPECIAL INSTRUCTIONS | IC Anions - 300.0 (Nitrogen in Nitrate); |

| SAMPLE NO. | | MATRIX* | SAMPLE DATE | SAMPLE TIME | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| B25794 | 990 | SOIL | APR 19 2010 | 1105 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME |
|---|---|---|---|
| KB Hulse CHPRC [signature] | 1445 APR 19 2010 | JA Frazier [signature] | 1445 APR 19 2010 |
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SPECIAL INSTRUCTIONS

SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

| LABORATORY SECTION | RECEIVED BY | TITLE | DATE/TIME |
|---|---|---|---|
| FINAL SAMPLE DISPOSITION | DISPOSAL METHOD | DISPOSED BY | DATE/TIME |

REVISION 1

| CH2MHill Plateau Remediation Company | CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST | | | F10-181-001 | PAGE 2 OF 2 |
|---|---|---|---|---|---|
| COLLECTOR<br>KB Hulse<br>CHPRC | COMPANY CONTACT<br>WIDRIG, DL | TELEPHONE NO.<br>376-2858 | PROJECT COORDINATOR<br>WIDRIG, DL | PRICE CODE 8B | DATA TURNAROUND<br>7 Days / 15 Days |
| SAMPLING LOCATION<br>600-40; ZPC 1-1 | PROJECT DESIGNATION<br>600-40 Verification Sampling and Analysis - Soil | | SAF NO.<br>F10-181 | AIR QUALITY ☐ | |
| ICE CHEST NO.<br>GWS 175 | FIELD LOGBOOK NO.<br>HNF-N-507 11 | ACTUAL SAMPLE DEPTH<br>Surface | COA<br>302222ES10 | METHOD OF SHIPMENT<br>GOVERNMENT VEHICLE | |
| SHIPPED TO<br>Waste Sampling & Characterization | OFFSITE PROPERTY NO.<br>N/A | | BILL OF LADING/AIR BILL NO.<br>N/A | | |

**SPECIAL INSTRUCTIONS**

** All VOA samples will be collected using EPA Method 5035A.☐** VOA sample bottle sets will include 5 bottles for low level analysis.☐** The laboratory is to use one of the low level VOA bottles for moisture content determination.☐** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be include as part of the sample ID reported in the final data packages.☐☐** Only those constituents of concern requested shall be reported in any preliminary or final hardcopy data reports, or EDDs. If a sample is chosen for matrix spike, it shall be identified in the narrative, and the spike compounds shall be identified in the narative or removed from all Data Reports. No TICs shall be reported.

(1) VOA - 5035/8260 (LOW LEVEL) {Carbon tetrachloride};

(2) Semi-VOA - 8270 (TCL) {Acenaphthene, Acenaphthylene, Anthracene, Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(ghi)perylene, Benzo(k)fluoranthene, Chrysene, Dibenz[a,h]anthracene, Fluoranthene, Fluorene, Indeno(1,2,3-cd)pyrene, Naphthalene, Phenanthrene, Pyrene}; TPH-DieselKerosene Range - WTPH-D {Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range};

(3) ICP Metals - 6010 (Add-On) {Boron, Lithium}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Selenium, Strontium, Thallium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};

(4) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260};

**Appendix 2 - Sample Record Sheet, -7°C and -20°C Only (Spin Bars)**

# SAMPLE RECORD SHEET

Location: 7PC-1-1

Sampler Initials and Date: [illegible] 4-19-10

| Sample Number | Sample Suffix[1] | | | Initial Weight[2] (grams) | Total Weight[3] (grams) | Soil Weight[4] (grams) | Methanol in sample bottle (ml) |
|---|---|---|---|---|---|---|---|
| B25794 | K | No Methanol | | 32.2 | 37.0 | 4.8 | No Methanol |
| B25794 | L | | | 31.4 | 36.0 | 4.6 | |
| B25794 | M | | | 32.3 | 37.9 | 5.6 | |
| B25794 | N | | | 31.4 | 37.0 | 5.6 | |
| B25794 | P | | | 31.6 | 36.3 | 4.7 | |

[1]Sample suffix of K, L, M, N, and P relate to low-level concentration samples and will not have any preservation beyond freezing between -7°C and -20°C.

[2]Initial weight is to include all labels, stickers, bags, spin bars (for samples with suffix K, L, M, N and P) and anything else that will be associated with the bottle when it is weighed with the sample.

[3]Ensure that everything weighed for the empty bottle and no additional items (besides the sample) is weighed.

[4]Soil weight is the vial with sample minus Initial Weight.

CH2MHill Plateau Remediation Company

# CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F10-181-005



| | | | |
|---|---|---|---|
| COLLECTOR: KB Hulse CHPRC | COMPANY CONTACT: WIDRIG, DL | TELEPHONE NO.: 376-2858 | PROJECT COORDINATOR: WIDRIG, DL |
| PRICE CODE: 8B | AIR QUALITY: ☐ | DATA TURNAROUND: 7 Days / 15 Days | |
| SAMPLING LOCATION: 600-40; ZPC 1-5 | PROJECT DESIGNATION: 600-40 Verification Sampling and Analysis - Soil | SAF NO.: F10-181 | |
| ICE CHEST NO.: GWS 175 | FIELD LOGBOOK NO.: HNF-N-507 11 | ACTUAL SAMPLE DEPTH: Surface | COA: 302222ES10 |
| METHOD OF SHIPMENT: GOVERNMENT VEHICLE | | | |
| SHIPPED TO: Waste Sampling & Characterization | OFFSITE PROPERTY NO. | BILL OF LADING/AIR BILL NO.: N/A | |

MATRIX*: A=Air, DL=Drum Liquids, DS=Drum Solids, L=Liquid, O=Oil, S=Soil, SE=Sediment, T=Tissue, V=Vegetation, W=Water, WI=Wipe, X=Other

**POSSIBLE SAMPLE HAZARDS/ REMARKS**
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

**SPECIAL HANDLING AND/OR STORAGE**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PRESERVATION | Cool <-7C and >-20C | Cool~4C | Cool~4C | Cool~4C | Cool~4C | Cool~4C | Cool~4C |
| HOLDING TIME | 14 Days | 14/40 Days | 6 Months | 30 Days | 365/365 Days | 28 Days/48 Hours |
| TYPE OF CONTAINER | aGs | aG | G/P | G/P | aG | G/P |
| NO. OF CONTAINER(S) | 5 | 1 | 1 | 1 | 1 | 1 |
| VOLUME | 40mL | 250mL | 250mL | 60mL | 250mL | 120mL |
| SAMPLE ANALYSIS | SEE ITEM (1) IN SPECIAL INSTRUCTIONS | SEE ITEM (2) IN SPECIAL INSTRUCTIONS | SEE ITEM (3) IN SPECIAL INSTRUCTIONS | Chromium Hex - 7196; | SEE ITEM (4) IN SPECIAL INSTRUCTIONS | IC Anions - 300.0 (Nitrogen in Nitrate); |

| SAMPLE NO. | MATRIX* | SAMPLE DATE | SAMPLE TIME | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| B257B2 991 | SOIL | APR 19 2010 | 1125 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

| CHAIN OF POSSESSION | | SIGN/ PRINT NAMES | |
|---|---|---|---|
| RELINQUISHED BY/REMOVED FROM: KB Hulse | DATE/TIME: APR 19 2010 1445 | RECEIVED BY/STORED IN: TA FRAZIER | DATE/TIME: APR 19 2010 1445 |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME |

**SPECIAL INSTRUCTIONS**
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

| | | | |
|---|---|---|---|
| LABORATORY SECTION | RECEIVED BY | TITLE | DATE/TIME |
| FINAL SAMPLE DISPOSITION | DISPOSAL METHOD | DISPOSED BY | DATE/TIME |

REVISION 1

| CH2MHill Plateau Remediation Company | CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST | | | F10-181-005 | PAGE 2 OF 2 |
|---|---|---|---|---|---|
| COLLECTOR: KB Hulse CHPRC | COMPANY CONTACT: WIDRIG, DL | TELEPHONE NO.: 376-2858 | PROJECT COORDINATOR: WIDRIG, DL | PRICE CODE: 8B | DATA TURNAROUND: 7 Days / 15 Days |
| SAMPLING LOCATION: 600-40; ZPC 1-5 | PROJECT DESIGNATION: 600-40 Verification Sampling and Analysis - Soil | | SAF NO.: F10-181 | AIR QUALITY: ☐ | |
| ICE CHEST NO.: GWS175 | FIELD LOGBOOK NO.: HNF-N-507 11 | ACTUAL SAMPLE DEPTH: Surface | COA: 302222ES10 | METHOD OF SHIPMENT: GOVERNMENT VEHICLE | |
| SHIPPED TO: Waste Sampling & Characterization | OFFSITE PROPERTY NO. | | BILL OF LADING/AIR BILL NO.: N/A | | |

**SPECIAL INSTRUCTIONS**

** All VOA samples will be collected using EPA Method 5035A.☐** VOA sample bottle sets will include 5 bottles for low level analysis.☐** The laboratory is to use one of the low level VOA bottles for moisture content determination.☐** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be include as part of the sample ID reported in the final data packages.☐☐** Only those constituents of concern requested shall be reported in any preliminary or final hardcopy data reports, or EDDs. If a sample is chosen for matrix spike, it shall be identified in the narrative, and the spike compounds shall be identified in the narative or removed from all Data Reports. No TICs shall be reported.

(1) VOA - 5035/8260 (LOW LEVEL) {Carbon tetrachloride};

(2) Semi-VOA - 8270 (TCL) {Acenaphthene, Acenaphthylene, Anthracene, Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(ghi)perylene, Benzo(k)fluoranthene, Chrysene, Dibenz[a,h]anthracene, Fluoranthene, Fluorene, Indeno(1,2,3-cd)pyrene, Naphthalene, Phenanthrene, Pyrene}; TPH-DieselKerosene Range - WTPH-D {Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range};

(3) ICP Metals - 6010 (Add-On) {Boron, Lithium}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Selenium, Strontium, Thallium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};

(4) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260};

ORIGINAL

**Appendix 2 - Sample Record Sheet, -7°C and -20°C Only (Spin Bars)**

# SAMPLE RECORD SHEET

Location: ZPC-1-5

Sampler Initials and Date: 4-19-10 [illegible]

| Sample Number | Sample Suffix[1] | | | Initial Weight[2] (grams) | Total Weight[3] (grams) | Soil Weight[4] (grams) | Methanol in sample bottle (ml) |
|---|---|---|---|---|---|---|---|
| B257B2 | K | No Methanol | | 33.2 | 38.9 | 5.7 | No Methanol |
| B257B2 | L | | | 31.7 | 38.2 | 6.5 | |
| B257B2 | M | | | 31.7 | 38.1 | 6.4 | |
| B257B2 | N | | | 32.3 | 38.6 | 6.3 | |
| B257B2 | P | | | 32.4 | 39.3 | 6.9 | |

[1]Sample suffix of K, L, M, N, and P relate to low-level concentration samples and will not have any preservation beyond freezing between -7°C and -20°C.
[2]Initial weight is to include all labels, stickers, bags, spin bars (for samples with suffix K, L, M, N and P) and anything else that will be associated with the bottle when it is weighed with the sample.
[3]Ensure that everything weighed for the empty bottle and no additional items (besides the sample) is weighed.
[4]Soil weight is the vial with sample minus Initial Weight.

CH2MHill Plateau Remediation Company

# CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F10-181-008



| | | | |
|---|---|---|---|
| COLLECTOR: KB Hulse CHPRC | COMPANY CONTACT: WIDRIG, DL | TELEPHONE NO.: 376-2858 | PROJECT COORDINATOR: WIDRIG, DL |
| SAMPLING LOCATION: 600-40; ZPC 1-7 DUP | PROJECT DESIGNATION: 600-40 Verification Sampling and Analysis - Soil | | SAF NO.: F10-181 |
| ICE CHEST NO.: GWS175 | FIELD LOGBOOK NO.: HNF-N-507 11 | ACTUAL SAMPLE DEPTH: Surface | COA: 302222ES10 |
| SHIPPED TO: Waste Sampling & Characterization | OFFSITE PROPERTY NO. | | BILL OF LADING/AIR BILL NO.: N/A |

PRICE CODE: 8B

AIR QUALITY: ☐

DATA TURNAROUND: 7 Days / 15 Days

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

MATRIX*: A=Air, DL=Drum Liquids, DS=Drum Solids, L=Liquid, O=Oil, S=Soil, SE=Sediment, T=Tissue, V=Vegetation, W=Water, WI=Wipe, X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

| PRESERVATION | Cool <-7C and >-20C | Cool~4C | Cool~4C | Cool~4C | Cool~4C | Cool~4C |
|---|---|---|---|---|---|---|
| HOLDING TIME | 14 Days | 14/40 Days | 6 Months | 30 Days | 365/365 Days | 28 Days/48 Hours |
| TYPE OF CONTAINER | aGs | aG | G/P | G/P | aG | G/P |
| NO. OF CONTAINER(S) | 5 | 1 | 1 | 1 | 1 | 1 |
| VOLUME | 40mL | 250mL | 250mL | 60mL | 250mL | 120mL |
| SAMPLE ANALYSIS | SEE ITEM (1) IN SPECIAL INSTRUCTIONS | SEE ITEM (2) IN SPECIAL INSTRUCTIONS | SEE ITEM (3) IN SPECIAL INSTRUCTIONS | Chromium Hex - 7196; | SEE ITEM (4) IN SPECIAL INSTRUCTIONS | IC Anions - 300.0 (Nitrogen in Nitrate); |

| SAMPLE NO. | MATRIX* | SAMPLE DATE | SAMPLE TIME | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| B257B8 992 | SOIL | APR 19 2010 | 1120 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

| CHAIN OF POSSESSION | DATE/TIME | SIGN/ PRINT NAMES | DATE/TIME |
|---|---|---|---|
| RELINQUISHED BY/REMOVED FROM: KB Hulse CHPRC | 4/19/10 1345 APR 19 2010 | RECEIVED BY/STORED IN: TA FRAZIER | 4/19/10 1445 APR 19 2010 |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME |

SPECIAL INSTRUCTIONS

SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

| | | | |
|---|---|---|---|
| LABORATORY SECTION | RECEIVED BY | TITLE | DATE/TIME |
| FINAL SAMPLE DISPOSITION | DISPOSAL METHOD | DISPOSED BY | DATE/TIME |

REVISION 1

| CH2MHill Plateau Remediation Company | CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST | | | F10-181-008 | PAGE 2 OF 2 |
|---|---|---|---|---|---|
| COLLECTOR KB Hulse CHPRC | COMPANY CONTACT WIDRIG, DL | TELEPHONE NO. 376-2858 | PROJECT COORDINATOR WIDRIG, DL | PRICE CODE 8B | DATA TURNAROUND 7 Days / 15 Days |
| SAMPLING LOCATION 600-40; ZPC 1-7 DUP | PROJECT DESIGNATION 600-40 Verification Sampling and Analysis - Soil | | SAF NO. F10-181 | AIR QUALITY ☐ | |
| ICE CHEST NO. GW5175 | FIELD LOGBOOK NO. HNF-N-507 11 | ACTUAL SAMPLE DEPTH Surface | COA 302222ES10 | METHOD OF SHIPMENT GOVERNMENT VEHICLE | |
| SHIPPED TO Waste Sampling & Characterization | OFFSITE PROPERTY NO. | | BILL OF LADING/AIR BILL NO. N/A | | |

**SPECIAL INSTRUCTIONS**

** All VOA samples will be collected using EPA Method 5035A.☐** VOA sample bottle sets will include 5 bottles for low level analysis.☐** The laboratory is to use one of the low level VOA bottles for moisture content determination.☐** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be include as part of the sample ID reported in the final data packages.☐☐** Only those constituents of concern requested shall be reported in any preliminary or final hardcopy data reports, or EDDs. If a sample is chosen for matrix spike, it shall be identified in the narrative, and the spike compounds shall be identified in the narative or removed from all Data Reports. No TICs shall be reported.

(1) VOA - 5035/8260 (LOW LEVEL) {Carbon tetrachloride};

(2) Semi-VOA - 8270 (TCL) {Acenaphthene, Acenaphthylene, Anthracene, Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(ghi)perylene, Benzo(k)fluoranthene, Chrysene, Dibenz[a,h]anthracene, Fluoranthene, Fluorene, Indeno(1,2,3-cd)pyrene, Naphthalene, Phenanthrene, Pyrene}; TPH-DieselKerosene Range - WTPH-D {Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range};

(3) ICP Metals - 6010 (Add-On) {Boron, Lithium}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Selenium, Strontium, Thallium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};

(4) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260};

**Appendix 2 - Sample Record Sheet, -7°C and -20°C Only (Spin Bars)**

## SAMPLE RECORD SHEET

Location: 600-40 Verification ZPG 1-7

Sampler Initials and Date: CBL 4-19-10

| Sample Number | Sample Suffix[1] | | | Initial Weight[2] (grams) | Total Weight[3] (grams) | Soil Weight[4] (grams) | Methanol in sample bottle (ml) |
|---|---|---|---|---|---|---|---|
| B257B8 | K | No Methanol | | 31.7 | 38.2 | 6.5 | No Methanol |
| | L | | | 32.1 | 37.5 | 5.4 | |
| | M | | | 31.4 | 36.9 | 5.5 | |
| | N | | | 32.2 | 37.6 | 5.4 | |
| | P | | | 31.6 | 37.6 | 6.0 | |

[1]Sample suffix of K, L, M, N, and P relate to low-level concentration samples and will not have any preservation beyond freezing between -7°C and -20°C.

[2]Initial weight is to include all labels, stickers, bags, spin bars (for samples with suffix K, L, M, N and P) and anything else that will be associated with the bottle when it is weighed with the sample.

[3]Ensure that everything weighed for the empty bottle and no additional items (besides the sample) is weighed.

[4]Soil weight is the vial with sample minus Initial Weight.

CH2MHill Plateau Remediation Company

# CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F10-181-004



| | | | |
|---|---|---|---|
| COLLECTOR: KB Hulse CHPRC | COMPANY CONTACT: WIDRIG, DL | TELEPHONE NO.: 376-2858 | PROJECT COORDINATOR: WIDRIG, DL |
| SAMPLING LOCATION: 600-40; ZPC 1-4 | PROJECT DESIGNATION: 600-40 Verification Sampling and Analysis - Soil | | SAF NO.: F10-181 |
| ICE CHEST NO.: GWS175 | FIELD LOGBOOK NO.: HNF-N-507 11 | ACTUAL SAMPLE DEPTH: Surface | COA: 302222ES10 |
| SHIPPED TO: Waste Sampling & Characterization | OFFSITE PROPERTY NO. | | BILL OF LADING/AIR BILL NO.: N/A |

PRICE CODE: 8B

AIR QUALITY: ☐

DATA TURNAROUND: 7 Days / 15 Days

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

MATRIX*: A=Air; DL=Drum Liquids; DS=Drum Solids; L=Liquid; O=Oil; S=Soil; SE=Sediment; T=Tissue; V=Vegetation; W=Water; WI=Wipe; X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

| PRESERVATION | Cool <-7C and >-20C | Cool~4C | Cool~4C | Cool~4C | Cool~4C | Cool~4C |
|---|---|---|---|---|---|---|
| HOLDING TIME | 14 Days | 14/40 Days | 6 Months | 30 Days | 365/365 Days | 28 Days/48 Hours |
| TYPE OF CONTAINER | aGs | aG | G/P | G/P | aG | G/P |
| NO. OF CONTAINER(S) | 5 | 1 | 1 | 1 | 1 | 1 |
| VOLUME | 40mL | 250mL | 250mL | 60mL | 250mL | 120mL |
| SAMPLE ANALYSIS | SEE ITEM (1) IN SPECIAL INSTRUCTIONS | SEE ITEM (2) IN SPECIAL INSTRUCTIONS | SEE ITEM (3) IN SPECIAL INSTRUCTIONS | Chromium Hex - 7196; | SEE ITEM (4) IN SPECIAL INSTRUCTIONS | IC Anions - 300.0 (Nitrogen in Nitrate); |

| SAMPLE NO. | | MATRIX* | SAMPLE DATE | SAMPLE TIME | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| B257B0 | 993 | SOIL | APR 19 2010 | 1141 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

| CHAIN OF POSSESSION | DATE/TIME | SIGN/ PRINT NAMES | DATE/TIME |
|---|---|---|---|
| RELINQUISHED BY/REMOVED FROM: KB Hulse CHPRC | APR 19 2010 ~~1345~~ 1445 4/19/10 | RECEIVED BY/STORED IN: JA Frazier | APR 19 2010 ~~1345~~ 1445 4/19/10 |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME |

SPECIAL INSTRUCTIONS

SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

| | | | |
|---|---|---|---|
| LABORATORY SECTION | RECEIVED BY | TITLE | DATE/TIME |
| FINAL SAMPLE DISPOSITION | DISPOSAL METHOD | DISPOSED BY | DATE/TIME |

REVISION 1

| CH2MHill Plateau Remediation Company | CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST | | | F10-181-004 | PAGE 2 OF 2 |
|---|---|---|---|---|---|
| COLLECTOR KB Hulse CHPRC | COMPANY CONTACT WIDRIG, DL | TELEPHONE NO. 376-2858 | PROJECT COORDINATOR WIDRIG, DL | PRICE CODE 8B | DATA TURNAROUND |
| SAMPLING LOCATION 600-40; ZPC 1-4 | PROJECT DESIGNATION 600-40 Verification Sampling and Analysis - Soil | | SAF NO. F10-181 | AIR QUALITY ☐ | 7 Days / 15 Days |
| ICE CHEST NO. GW5175 | FIELD LOGBOOK NO. HNF-N-507 11 | ACTUAL SAMPLE DEPTH Surface | COA 302222ES10 | METHOD OF SHIPMENT GOVERNMENT VEHICLE | |
| SHIPPED TO Waste Sampling & Characterization | OFFSITE PROPERTY NO. | | BILL OF LADING/AIR BILL NO. N/A | | |

**SPECIAL INSTRUCTIONS**

** All VOA samples will be collected using EPA Method 5035A.☐** VOA sample bottle sets will include 5 bottles for low level analysis.☐** The laboratory is to use one of the low level VOA bottles for moisture content determination.☐** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be include as part of the sample ID reported in the final data packages.☐☐** Only those constituents of concern requested shall be reported in any preliminary or final hardcopy data reports, or EDDs. If a sample is chosen for matrix spike, it shall be identified in the narrative, and the spike compounds shall be identified in the narative or removed from all Data Reports. No TICs shall be reported.

(1) VOA - 5035/8260 (LOW LEVEL) {Carbon tetrachloride};

(2) Semi-VOA - 8270 (TCL) {Acenaphthene, Acenaphthylene, Anthracene, Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(ghi)perylene, Benzo(k)fluoranthene, Chrysene, Dibenz[a,h]anthracene, Fluoranthene, Fluorene, Indeno(1,2,3-cd)pyrene, Naphthalene, Phenanthrene, Pyrene}; TPH-DieselKerosene Range - WTPH-D {Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range};

(3) ICP Metals - 6010 (Add-On) {Boron, Lithium}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Selenium, Strontium, Thallium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};

(4) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260};

**Appendix 2 - Sample Record Sheet, -7°C and -20°C Only (Spin Bars)**

# SAMPLE RECORD SHEET

Location: 600-40 Verification ZPC 1-4

Sampler Initials and Date: CBC 4-19-10

| Sample Number | Sample Suffix[1] | | | Initial Weight[2] (grams) | Total Weight[3] (grams) | Soil Weight[4] (grams) | Methanol in sample bottle (ml) |
|---|---|---|---|---|---|---|---|
| B257B0 | K | No Methanol | | 31.6 | 36.5 | 4.9 | No Methanol |
| | L | | | 31.0 | 34.7 | 3.7 | |
| | M | | | 32.8 | 38.0 | 5.2 | |
| | N | | | 31.4 | 37.2 | 5.8 | |
| | P | | | 32.0 | 38.8 | 6.8 | |

[1]Sample suffix of K, L, M, N, and P relate to low-level concentration samples and will not have any preservation beyond freezing between -7°C and -20°C.
[2]Initial weight is to include all labels, stickers, bags, spin bars (for samples with suffix K, L, M, N and P) and anything else that will be associated with the bottle when it is weighed with the sample.
[3]Ensure that everything weighed for the empty bottle and no additional items (besides the sample) is weighed.
[4]Soil weight is the vial with sample minus Initial Weight.