WALTER ENERGY
WALTER COKE

Walter Coke, Inc.
3500 35th Avenue North
Birmingham, Alabama 35207

www.walterenergy.com

August 19, 2011

Jeffrey T. Pallas, Chief
Restoration and Underground Storage Tank Branch
U.S. Environmental Protection Agency, Region 4
Atlanta Federal Center
61 Forsyth Street, S.W.
Atlanta, GA 30303-8960

Subject: Walter Coke, Inc., Birmingham, AL
EPA ID No. ALD 000 828 848
Residential Soil Remedial Action Work Plan (June 2011)
Progress Report #2 – August 19, 2011

Dear Mr. Pallas:

Attached is Progress Report # 2 for August 19, 2011, specified by the *Residential Soil Remedial Action Work Plan (RAWP)-Phase 1*, approved by EPA in June 2011. As mentioned in our July progress report, despite significant effort Walter Coke has not been able to obtain access to all 23 properties, and appreciates EPA's assistance during the last reporting period in obtaining access to one property. We currently have clear access to 8 properties, and to date have completed or are well under way with remediation of 5 of these 8 properties.

We had previously asked EPA to complete the progress chart indicating its concurrence with tasks completed to date, but so far we have received no such concurrence. We would appreciate your looking into this issue for us.

If you have any questions, please call me at (205) 808-7972.

Sincerely,

Don Wiggins

enc:

# Residential Soil Remedial Action Work Plan (RAWP)
# Progress Report #2 – August 19, 2011

Walter Coke, Inc., Birmingham, Alabama
EPA ID No. ALD 000 828 848

1. **A description of the work completed during the reporting period**

*Table 1* provides an update of the RAWP scheduled activities and our progress toward completion. Work activities consisted of the following:

- Obtaining access agreements – the details of the efforts to obtain access agreements for the 23 properties are provided in Table 2. A summary follows:
  - Per Progress Report #1, EPA offered to assist Walter Coke with those properties for which Walter Coke was unsuccessful in obtaining access. EPA has been able to obtain access for one of these properties (ID 11), and also has obtained information to contact the owner of ID 20. The remaining properties that EPA is assisting with include 3 properties (IDs 3, 15, 17) whose owners have specifically declined access or are undecided with no reason being given, and property ID 13, which despite repeated attempts, contact with the owner has yet to be made.
  - To date, signed and cleared access agreements have been obtained for a total of 8 properties; this total now includes the named plaintiff (ID 22) in the filed toxic tort class action against Walter Coke following the owners' consent through her legal counsel, as well as ID 11 for which EPA was able to obtain access.
  - 10 properties are on hold per instruction from the Hare Wynn law firm. This law firm represents these, and other, owners and has requested that any soil removal be delayed until the law firm completes its own sampling of the properties. The law firm indicated it expected to complete its sampling by August 31, 2011, but Walter Coke has received no update from the law firm. Walter Coke will not be able to perform soil removals at these properties until notified by the law firm. Note that, before being notified of their representation by this law firm, 5 of the 10 property owners had already given Walter Coke signed access agreements, but these 5 agreements are on hold pending the law firm's completion of sampling. Walter Coke has requested that the Hare Wynn law firm provide signed access agreements for the remaining 5 properties.
- Conducting initial property inspections, once signed access was obtained – 6 property inspections were completed this reporting period; a total of 11 inspections completed to date (see Table 2 for specifics).
- Analytical results of the backfill source were obtained on July 20 (preliminary data package); final data package obtained on August 3. The source was confirmed suitable for use as backfill.
- ADEM Waste Certification # SW-073113-0053, for disposal of excavated soils from various yards and gardens near the Walter Coke facility, was obtained July 27, 2011.

- Remediation began on August 2, 2011, and proceeded as follows:
  - **Property No. 12** was excavated August 2-3, backfill was completed August 3-4, and landscaping/sod work was completed August 4. The mailbox was cemented back in place and the post-inspection walk-thru was conducted with the owner/resident on August 5. The owner/resident was happy with the work done, and signed off on the post inspection report with no additional requests or comments.
  - Excavation and backfill (with topsoil) at the Garden at **Property No. 6** was completed August 4. Slag, iron, and coke fragments were found in excavated soil at Property No. 6; fragments (some baseball-sized) were catalogued. On August 5, the post-inspection was conducted; the owner/resident was happy with the work, and signed off on the post inspection report with no additional requests or comments.
  - On August 3, in preparation for excavation, the large tree at **Property No. 19** was cut down and the stump removed by the tree service hired by Walter Coke. Owner was very happy with result. Excavation was completed August 5-9. Approximately 25% of the excavated material at Property No. 19 contained what appeared to be construction debris (roofing tar, asphalt, bricks, etc.), slag, tires, bottles, iron fragments, concrete pilings, and a drum bottom. Backfill was completed August 9-10; sod work was completed on August 11. On August 18, the post-inspection was conducted; the owner/resident was happy with the work, and signed off on the post inspection report with no additional requests or comments.
  - Excavation and backfill of **Property No. 8** was completed August 11-17. After excavation of the left yard, a post-excavation sample was collected on August 12 per the approved RAWP, and submitted to the lab for quick turnaround analysis. A copy of the analytical results for this confirmation sampling event is enclosed. The results indicate that the BaP TEQ concentration in the excavation area composite sample was 3.6 mg/kg which exceeds the cleanup level of 1.5 mg/kg. Pursuant to the RAWP, therefore, an additional 1 foot of soil was removed from the left yard on August 17. Backfill and sod work were completed on August 18. Following replacement of the driveway, the post-excavation inspection will be scheduled.
  - Excavation of **Property No. 10** was initiated on August 18.

## 2. Summary of problems or potential problems encountered during the reporting period

- After obtaining access to Property ID 7, and completing the initial property inspection and utility clearance, Walter Coke was notified by the owner that he is now represented by the Hare Wynn law firm. Therefore, 10 properties are now on hold per instruction from the Hare Wynn law firm. Of these 10 properties, Walter Coke had already obtained access to 4, which access is now on hold pending further instructions from the Hare Wynn law firm.
- Property IDs 3, 15, and 17 have either denied access or are undecided at this time – these properties were identified for EPA assistance.

- To our knowledge, despite multiple attempts, contact has not yet been made with the owner of Property IDs 13 – refer to Table 2; this property is unrelated to the Hare Wynn law firm.
- During excavation of Property IDs 6 and 19, the excavated soil contained construction debris (roofing tar, asphalt, bricks, etc.), slag, iron, and coke fragments, tires, bottles, concrete piling, and a drum bottom – several of these materials represent potential sources of PAH and arsenic contamination unrelated to any air deposition.

**3. Actions being taken to rectify problems**

- EPA was able to assist with access at one property (ID 11), and has obtained contact information for property ID 20.
- Walter Coke will maintain contact with the Hare Wynn law firm for their assistance in obtaining access at the 5 properties whose owners they represent, for which the owner had not previously granted access (IDs 1, 5, 14, 16, and 23), and to encourage the law firm to complete as soon as possible its testing of the properties included in the RAWP so that the RAWP schedule is not adversely affected. Despite multiple requests, the Hare Wynn law firm has not advised Walter Coke of its schedule.
- Walter Coke has completed its best efforts to obtain access to the remaining 4 properties (IDs 3, 13, 15, 17). Walter Coke assumes EPA will notify it of any efforts it chooses to make with the owners of these properties for access.

**4. Changes in personnel involved with RAWP implementation during the reporting period**

No changes noted.

**5. Projected work for the next reporting period**

Continue with initial property inspections, site preparation, utility clearance, and remediation, on those properties for which Walter Coke or EPA has obtained access.

Although each property is unique and the volume of soil removal required has varied, the field time to complete inspections, site preparation, soil removal, soil replacement, and landscaping repairs/replacement has ranged between 3 to 9 days per property. Using 5 as the average number of days it takes complete the RAWP work at each property based on actual field experience to date, and assuming access is obtained to the remaining RAWP properties, completing the work for the 23 RAWP properties will require 115 business days, or 23 weeks. Applying this time period to the schedule results in the completion of the RAWP field work well after November 4, 2011 - the date specified by EPA in the RAWP schedule. Walter Coke is not aware of any means by which to expedite the actual field work, but will continually look for ways to do so, without sacrificing safety or the quality of the field work.

Although Walter Coke hopes that the remaining properties scheduled for soil replacement can be completed more timely and that the RAWP schedule will not be delayed, Walter Coke is advising EPA now of this issue, and will notify EPA through these progress reports of any other delays or schedule implications.

**TABLE 1**
Schedule Status and EPA Concurrence
*Residential Soil Remedial Action Work Plan, Walter Coke, Inc., Birmingham, Alabama*

| Item | Due | Status/Completed | Completed | EPA Concurrence |
|---|---|---|---|---|
| Initiate Preparation Activities | June 27 | Completed | June 27 | |
| Distribute Community Flyer | July 1 | Completed | July 1 (mailed) | |
| Submit to EPA HSP | July 15 | Completed | July 15 | |
| Submit to EPA CIP | July 15 | Completed | July 15 | |
| **Complete Preparation Activities listed next:** | | | | |
| Obtain Consents to Access | July 22 | In progress – refer to Table 2 | | |
| Obtain ADEM Waste Disposal Approval | July 22 | Completed | July 27 | |
| Confirm backfill source availability, suitability | July 22 | Completed | July 20 | |
| Utility Locate (ongoing as work progresses) | July 22 | Initiated on July 26; On-going as work progresses | | |
| Mobilize Contractor and Initiate Site Preparation | Aug 1 | Completed | August 1 | |
| Progress Report #1 | July 15 | Completed | July 15 | |
| Progress Report #2 | Aug 19 | Completed | August 19 | |
| Progress Report #3 | Sept 16 | | | |
| Progress Report #4 | Oct 14 | | | |
| Complete Excavation and Disposal, De-Mobilize | Nov 4 | *Notice – based on the actual field time required per property to date, this deadline may not be achievable if all 23 properties grant access for removal. Walter Coke will provide EPA with schedule updates through the progress reporting process.* | | |
| Progress Report #5 | Nov 11 | | | |
| Submit to EPA Draft of Final Report | Nov 28 | | | |
| Submit to EPA Final Report | Jan 6 | | | |
| Community Meeting | Jan 19 | | | |

**Table 2. Progress Update Summary Table - August 19, 2011**

***Residential Soil Remedial Action Work Plan; Walter Coke, Inc. Birmingham, Alabama***

| RAWP Property ID | Address | Access Packet Sent | Certified Receipt | Access Agreements | Occupant | EPA Access Support - Comments | Property Inspection | Excavation Order | Excavation Complete | Backfill Complete | Landscaping Complete |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Harriman Park** | | | | | | | | | | | |
| 1 | 4509 37th St. N. | ✓ | Unclaimed | 7/12: 1250 - No answer; 7/12: 1750 - owner will not sign at this time, will talk to siblings;<br>7/14: 1705 - notified by daughter that owner is in the hospital; 7/18: 0900 - No answer | owner | Hare Wynn law firm (delay) | | | | | |
| 2 | 3637 44th Ave. N | ✓ | ✓ | 7/12: 0920 - Return after 5pm;<br>7/12: 1730 - talked to owners, need time to read packet;<br>7/14: 1710 - Access granted;<br>7/15: 0900 - Owner called D. Wiggins to rescind access "in light of information received" (information unknown) | owner | Agreement signed, but on hold per Hare Wynn law firm | | | | | |
| 3 | 3669 43rd Ave. N. | ✓ | ✓ | 7/12: 0910 - resident/part owner gave access then contacted D. Wiggins to inform him that sister co-owns property and denied access; original access rescinded | part owner | EPA to assist with access per July 21 conference call | | | | | |
| 4 | 3554 41st Ave. N | ✓ | Unclaimed | 7/12: 0900 - Access granted | owner | Agreement signed, but on hold per Hare Wynn law firm | Completed 7/14: 0830-0930 | | | | |
| **Collegeville** | | | | | | | | | | | |
| 5 | 4024 FL Shuttlesworth Dr. | ✓ | Unclaimed | 7/11: 1450 - No answer; 7/12: 0840 - packet given to adult daughter. Will give to father (owner);<br>7/14: 1653 - friend of daughter says she is at work<br>7/18: 0842 - No car is on the property | daughter of owner | Hare Wynn law firm (delay) | | | | | |
| 6 | 3472 33rd St. N | ✓ | ✓ | 7/11: 1345 - Access granted | owner | ----------> | Completed 7/12: 1730 - 1830 | 2 | ✓ (8/4) | ✓ (8/4) | NA (Garden) |
| 7 | 3144 34th Terrace Pl. N. | ✓ | ✓ | 7/11: 1320 - No answer; 7/11: 1735 - Access granted | owner | Agreement signed, but on hold per Hare Wynn law firm | Completed 7/18: 1030-1100 | | | | |
| 8 | 3145 34th Terrace Pl N | ✓ | ✓ | 7/11: 1311 - Access granted | owner | ----------> | Completed 7/26: 1200-1300 | 4 | ✓ (8/17) | ✓ (8/17) | ✓ (8/18) |
| 9 | 3137 34th Terrace Pl. N. | ✓ | ✓ | 7/11: 1325 - owner to decide 7/12;<br>7/13 - Access granted via return mail | owner | ----------> | Completed 8/17: 1400-1445 | 6 | | | |
| 10 | 3460 31st Way N | ✓ | Unclaimed | 7/11: 1335 - No answer; 7/11: 1725 - Access granted by rentor - owner contact info obtained<br>7/14: 1525 - Talked to owner via phone<br>7/14: 1630 - Met with owner - access granted by owner | rentor | ----------> | Completed 8/2: 1350-1430 | 5 | | | |
| 11 | 3145 34th Ct. N. | ✓ | ✓ | 7/11: 1400 - No answer; 7/12: 0830 - No answer,<br>7/14: 1106 - No answer, no evidence of resident present 8/1: EPA met with resident/owner - access granted | unknown (EPA visit) | ----------> | Completed 8/9: 1030-1110 | 7 | | | |
| 12 | 3389 33rd St. N. | ✓ | ✓ | 7/11: 1405 - Access granted | owner | ----------> | Completed 7/15: 0845 - 0930 | 1 | ✓ (8/3) | ✓ (8/4) | ✓ (8/4) |
| 13 | 3409 31st Way N. | ✓ | Unclaimed | 7/11: 1352 - No answer; 7/11: 1718 - No answer;<br>7/12: 1810 - No answer, appears no one is getting mail<br>7/14: 1103 - No answer, still old mail in box | | EPA to assist with access per July 21 conference call | | | | | |
| 14 | 3441 31st St N | ✓ | ✓ | 7/11: 1240 - denied access | owner | Hare Wynn law firm (delay) | | | | | |
| 15 | 3452 30th Way N | ✓ | ✓ | 7/11: 1245 - No answer - told by owner's stated temporary caretaker (driving by) that owner is staying with her (elsewhere) and will not provide access<br>7/11: 1750 - Visited property again to see if owner might be home - no answer | owner | EPA to assist with access per July 21 conference call | | | | | |

Highlights notes: Gray - remediation complete or in progress. Green - access granted, pending remediation. Yellow - Hare Wynn delay. No highlight - access process in-progress with EPA assistance.

**Table 2. Progress Update Summary Table - August 19, 2011**

***Residential Soil Remedial Action Work Plan; Walter Coke, Inc. Birmingham, Alabama***

| RAWP Property ID | Address | Access Packet Sent | Certified Receipt | Access Agreements | Occupant | EPA Access Support - Comments | Property Inspection | Excavation Order | Excavation Complete | Backfill Complete | Landscaping Complete |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 16 | 3456 30th Way N. | ✓ | ✓ | 7/11: 1250 - met resident who will contact owner (cousin) & call D. Wiggins; 7/14: 1635 - resident not home, owner nearby stated that he will sign if resident (cousin) signs<br>7/18: 0842 - Clairified ownership with resident, owner is Sanford Wright - Dwight Wright was contacted on 7/14, he was referring to brother's approval, not resident's approval (cousin). According to resident, Sanford Wright will not sign - resident stated that they were contacted by an attoney who is asking the resident/owners not to allow Walter Coke to "remove the evidence". | rentor | Hare Wynn law firm (delay) | | | | | |
| 17 | 3347 30th Pl. N | ✓ | ✓ | 7/11: 1300 - notified a decision had not been made - asked to return Tu-Fr, 9-1;<br>7/12: 1150 - No answer<br>7/14: 1040 - met owner (Pastor), no decision until legal advice | owner | EPA to assist with access per July 21 conference call | | | | | |
| 18 | 3361 31st St N. | ✓ | ✓ | 7/11: 1230 - No answer; 7/11: 1755 - Access granted | owner | Agreement signed, but on hold per Hare Wynn law firm | | | | | |
| 19 | 3377 33rd Pl. N | ✓ | ✓ | 7/11: 1420 - Access granted | owner | ----------> | Completed 7/12: 0900-1100 | 3 | ✓ (8/9) | ✓ (8/10) | ✓ (8/11) |
| 20 | 3369 33rd Pl. N. | ✓ | Unclaimed | 7/11: 1415 - No answer; 7/11: 1800 - No answer;<br>7/14: 1111 - No answer, powerlines cut, no meters (photo)<br>7/18: EPA has obtained owner contact information | | EPA to assist with access per July 21 conference call | | | | | |
| 21 | 3364 34th St. N | ✓ | Unclaimed | 7/11: 1440 - Access granted | owner | Agreement signed, but on hold per Hare Wynn law firm | Completed 7/12: 1300-1500 | | | | |
| 22 | 3360 34th St. N. | ✓ | ✓ | Listed plaintiff in pending law suit; access provided through her lawyer | owner | ----------> | Completed 8/17: 1100-1200 | | | | |
| 23 | 3348 34th St. N | ✓ | ✓ | 7/11: 1435 - No answer; 7/11: 1810 - No answer;<br>7/12: 1800 - No answer; 7/14: 1117 - Daughter home, Son (Alfonso McClaney) has POA and denies access | owner | Hare Wynn law firm (delay) | | | | | |

Highlights notes: Gray - remediation complete or in progress. Green - access granted, pending remediation. Yellow - Hare Wynn delay. No highlight - access process in-progress with EPA assistance.

# ANALYTICAL REPORT

Job Number: 700-60476-1

Job Description: Walter Coke RAWP

For:
CH2M Hill, Inc.
4121 Carmichael Blvd
Suite 400
Montgomery, AL 36106

Attention: Ms. Kaye Walker

Approved for release.
Suzy Lindblom
Project Manager I
8/16/2011 2:20 PM

Suzy Lindblom
Project Manager I
suzy.lindblom@testamericainc.com
08/16/2011

This statement certifies, to the best of the laboratory's knowledge, all test results meet the requirements of NELAC, except where noted in the case narrative. TestAmerica Mobile Certifications and Approvals: Alabama (Micro & DW - #40030); Arkansas (NPW - #09-028-0); Florida (DW, NPW, SCM, BT – E87089); Georgia (DW - #952); Louisiana (NPW, SCM, BT - #01992); Louisiana (DW LA090026); Mississippi (DW-CERT LETTER); North Carolina (NPW - #395); South Carolina (NPW - #75002); Tennessee (DW - #TN02979); Texas (T104704460-09A-TX); USDA (Permit # P330-08-00039); Washington (C1918).

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**Job Narrative**
**700-60476-1**

**Receipt**
All samples were received in good condition within temperature requirements.

**GC/MS Semi VOA**
Method(s) 625, 8270D, 8270D LL: The continuing calibration verification (CCV) for analytical batch 104524 exceeded control criteria for few compounds which were detected in the Reporting limit standard and were not in the samples. The data have been reported less than the RL

Method(s) 8270D LL: Three surrogates are used for this analysis. The laboratory's SOP allows one of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: (MB 700-104489/1-A). These results have been reported and qualified.

Method(s) 8270D LL: The matrix spike / matrix spike duplicate (MS/MSD) precision for batch 104489 was outside control limits. Non-homogeneity of the sample matrix is suspected. The associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) precision met acceptance criteria.

No other analytical or quality issues were noted.

# SAMPLE SUMMARY

Client: CH2M Hill, Inc.

Job Number: 700-60476-1

| Lab Sample ID | Client Sample ID | Client Matrix | Date/Time Sampled | Date/Time Received |
|---|---|---|---|---|
| 700-60476-1 | 0811-POSTEXL-RAWP8-L | Solid | 08/12/2011 1420 | 08/13/2011 0900 |

## EXECUTIVE SUMMARY - Detections

Client: CH2M Hill, Inc. Job Number: 700-60476-1

| Lab Sample ID / Analyte | Client Sample ID | Result | Qualifier | Reporting Limit | Units | Method |
|---|---|---|---|---|---|---|
| **700-60476-1** | **0811-POSTEXL-RAWP8-L** | | | | | |
| Benzo[k]fluoranthene | | 1100 | | 18 | ug/Kg | 8270D LL |
| Benzo[b]fluoranthene | | 3000 | | 18 | ug/Kg | 8270D LL |
| Benzo[a]pyrene | | 2300 | | 18 | ug/Kg | 8270D LL |
| Benzo[a]anthracene | | 1000 | | 18 | ug/Kg | 8270D LL |
| Chrysene | | 1300 | | 18 | ug/Kg | 8270D LL |
| Dibenz(a,h)anthracene | | 730 | | 18 | ug/Kg | 8270D LL |
| Indeno[1,2,3-cd]pyrene | | 1800 | | 18 | ug/Kg | 8270D LL |
| Percent Moisture | | 26 | | 0.10 | % | Moisture |
| Percent Solids | | 74 | | 0.10 | % | Moisture |

# METHOD SUMMARY

Client: CH2M Hill, Inc. Job Number: 700-60476-1

| Description | Lab Location | Method | Preparation Method |
|---|---|---|---|
| **Matrix: Solid** | | | |
| Semivolatile Organic Compounds by GC/MS - Low Level | TAL MOB | SW846 8270D LL | |
| Ultrasonic Extraction | TAL MOB | | SW846 3550C |
| Percent Moisture | TAL MOB | EPA Moisture | |

**Lab References:**

TAL MOB = TestAmerica Mobile

**Method References:**

EPA = US Environmental Protection Agency

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

# METHOD / ANALYST SUMMARY

Client: CH2M Hill, Inc.

Job Number: 700-60476-1

| Method | Analyst | Analyst ID |
|---|---|---|
| SW846 8270D LL | Schellinger, Eron | ES |
| EPA Moisture | Nguyen, Tiffany K | TKN |

Client: CH2M Hill, Inc. Job Number: 700-60476-1

**Client Sample ID:** **0811-POSTEXL-RAWP8-L**

Lab Sample ID: 700-60476-1 Date Sampled: 08/12/2011 1420
Client Matrix: Solid % Moisture: 25.7 Date Received: 08/13/2011 0900

**8270D LL Semivolatile Organic Compounds by GC/MS - Low Level**

| | | | | | |
|---|---|---|---|---|---|
| Analysis Method: | 8270D LL | Analysis Batch: | 700-104565 | Instrument ID: | SMB |
| Prep Method: | 3550C | Prep Batch: | 700-104489 | Lab File ID: | B081523.D |
| Dilution: | 2.0 | | | Initial Weight/Volume: | 30.0 g |
| Analysis Date: | 08/16/2011 0136 | | | Final Weight/Volume: | 1.0 mL |
| Prep Date: | 08/14/2011 1930 | | | Injection Volume: | 1 uL |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|---|---|---|---|---|---|
| Benzo[k]fluoranthene | | 1100 | | 7.0 | 18 |
| Benzo[b]fluoranthene | | 3000 | | 7.5 | 18 |
| Benzo[a]pyrene | | 2300 | | 8.6 | 18 |
| Benzo[a]anthracene | | 1000 | | 5.7 | 18 |
| Chrysene | | 1300 | | 5.1 | 18 |
| Dibenz(a,h)anthracene | | 730 | | 11 | 18 |
| Indeno[1,2,3-cd]pyrene | | 1800 | | 8.1 | 18 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|---|---|---|---|
| Nitrobenzene-d5 (Surr) | 58 | | 30 - 130 |
| Terphenyl-d14 (Surr) | 75 | | 30 - 149 |
| 2-Fluorobiphenyl | 52 | | 31 - 130 |

**General Chemistry**

**Client Sample ID:** **0811-POSTEXL-RAWP8-L**

Lab Sample ID: 700-60476-1 Date Sampled: 08/12/2011 1420

Client Matrix: Solid Date Received: 08/13/2011 0900

| Analyte | Result | Qual | Units | MDL | RL | Dil | Method |
|---|---|---|---|---|---|---|---|
| Percent Moisture | 26 | | % | 0.10 | 0.10 | 1.0 | Moisture |
| Analysis Batch: 700-104515 | Analysis Date: 08/15/2011 1052 | | | | | | DryWt Corrected: N |
| Percent Solids | 74 | | % | 0.10 | 0.10 | 1.0 | Moisture |
| Analysis Batch: 700-104515 | Analysis Date: 08/15/2011 1052 | | | | | | DryWt Corrected: N |

Client: CH2M Hill, Inc.

Job Number: 700-60476-1

## Surrogate Recovery Report

**8270D LL Semivolatile Organic Compounds by GC/MS - Low Level**

**Client Matrix: Solid**

| Lab Sample ID | Client Sample ID | NBZ %Rec | FBP %Rec | TPH %Rec |
|---|---|---|---|---|
| 700-60476-1 | 0811-POSTEXL-RAW P8-L | 58 | 52 | 75 |
| MB 700-104489/1-A | | 52 | 28X | 103 |
| LCS 700-104489/2-A | | 75 | 67 | 99 |
| LCSD 700-104489/3-A | | 73 | 64 | 96 |
| 700-60476-1 MS | 0811-POSTEXL-RAW P8-L MS | 77 | 74 | 115 |
| 700-60476-1 MSD | 0811-POSTEXL-RAW P8-L MSD | 53 | 45 | 68 |

| Surrogate | Acceptance Limits |
|---|---|
| NBZ = Nitrobenzene-d5 (Surr) | 30-130 |
| FBP = 2-Fluorobiphenyl | 31-130 |
| TPH = Terphenyl-d14 (Surr) | 30-149 |

Client: CH2M Hill, Inc.

Job Number: 700-60476-1

**Method Blank - Batch: 700-104489**

**Method: 8270D LL**
**Preparation: 3550C**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | MB 700-104489/1-A | Analysis Batch: | 700-104565 | Instrument ID: | SMB |
| Client Matrix: | Solid | Prep Batch: | 700-104489 | Lab File ID: | B081517.D |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 30.0 g |
| Analysis Date: | 08/15/2011 2225 | Units: | ug/Kg | Final Weight/Volume: | 1.0 mL |
| Prep Date: | 08/14/2011 1930 | | | Injection Volume: | 1 uL |
| Leach Date: | N/A | | | | |

| Analyte | Result | Qual | MDL | RL |
|---|---|---|---|---|
| Benzo[k]fluoranthene | 6.7 | U | 2.6 | 6.7 |
| Benzo[b]fluoranthene | 6.7 | U | 2.8 | 6.7 |
| Benzo[a]pyrene | 6.7 | U | 3.2 | 6.7 |
| Benzo[a]anthracene | 6.7 | U | 2.1 | 6.7 |
| Chrysene | 6.7 | U | 1.9 | 6.7 |
| Dibenz(a,h)anthracene | 6.7 | U | 4.1 | 6.7 |
| Indeno[1,2,3-cd]pyrene | 6.7 | U | 3.0 | 6.7 |

| Surrogate | % Rec | | Acceptance Limits |
|---|---|---|---|
| Nitrobenzene-d5 (Surr) | 52 | | 30 - 130 |
| Terphenyl-d14 (Surr) | 103 | | 30 - 149 |
| 2-Fluorobiphenyl | 28 | X | 31 - 130 |

Client: CH2M Hill, Inc. Job Number: 700-60476-1

**Lab Control Sample/**
**Lab Control Sample Duplicate Recovery Report - Batch: 700-104489**

**Method: 8270D LL**
**Preparation: 3550C**

| | | | | | |
|---|---|---|---|---|---|
| LCS Lab Sample ID: | LCS 700-104489/2-A | Analysis Batch: | 700-104565 | Instrument ID: | SMB |
| Client Matrix: | Solid | Prep Batch: | 700-104489 | Lab File ID: | B081515.D |
| Dilution: | 5.0 | Leach Batch: | N/A | Initial Weight/Volume: | 30.0 g |
| Analysis Date: | 08/15/2011 2121 | Units: | ug/Kg | Final Weight/Volume: | 1.0 mL |
| Prep Date: | 08/14/2011 1930 | | | Injection Volume: | 1 uL |
| Leach Date: | N/A | | | | |

| | | | | | |
|---|---|---|---|---|---|
| LCSD Lab Sample ID: | LCSD 700-104489/3-A | Analysis Batch: | 700-104565 | Instrument ID: | SMB |
| Client Matrix: | Solid | Prep Batch: | 700-104489 | Lab File ID: | B081516.D |
| Dilution: | 5.0 | Leach Batch: | N/A | Initial Weight/Volume: | 30.0 g |
| Analysis Date: | 08/15/2011 2153 | Units: | ug/Kg | Final Weight/Volume: | 1.0 mL |
| Prep Date: | 08/14/2011 1930 | | | Injection Volume: | 1 uL |
| Leach Date: | N/A | | | | |

| Analyte | % Rec. LCS | % Rec. LCSD | Limit | RPD | RPD Limit | LCS Qual | LCSD Qual |
|---|---|---|---|---|---|---|---|
| Benzo[k]fluoranthene | 113 | 112 | 30 - 147 | 1 | 48 | | |
| Benzo[b]fluoranthene | 102 | 98 | 34 - 138 | 4 | 51 | | |
| Benzo[a]pyrene | 105 | 100 | 30 - 132 | 5 | 55 | | |
| Benzo[a]anthracene | 101 | 97 | 39 - 134 | 4 | 43 | | |
| Chrysene | 103 | 106 | 39 - 138 | 3 | 41 | | |
| Dibenz(a,h)anthracene | 98 | 92 | 32 - 134 | 6 | 50 | | |
| Indeno[1,2,3-cd]pyrene | 100 | 92 | 26 - 140 | 8 | 50 | | |

| Surrogate | LCS % Rec | LCSD % Rec | Acceptance Limits |
|---|---|---|---|
| Nitrobenzene-d5 (Surr) | 75 | 73 | 30 - 130 |
| Terphenyl-d14 (Surr) | 99 | 96 | 30 - 149 |
| 2-Fluorobiphenyl | 67 | 64 | 31 - 130 |

**Laboratory Control/**
**Laboratory Duplicate Data Report - Batch: 700-104489**

**Method: 8270D LL**
**Preparation: 3550C**

| | | | | | |
|---|---|---|---|---|---|
| LCS Lab Sample ID: | LCS 700-104489/2-A | Units: | ug/Kg | LCSD Lab Sample ID: | LCSD 700-104489/3-A |
| Client Matrix: | Solid | | | Client Matrix: | Solid |
| Dilution: | 5.0 | | | Dilution: | 5.0 |
| Analysis Date: | 08/15/2011 2121 | | | Analysis Date: | 08/15/2011 2153 |
| Prep Date: | 08/14/2011 1930 | | | Prep Date: | 08/14/2011 1930 |
| Leach Date: | N/A | | | Leach Date: | N/A |

| Analyte | LCS Spike Amount | LCSD Spike Amount | LCS Result/Qual | LCSD Result/Qual |
|---|---|---|---|---|
| Benzo[k]fluoranthene | 667 | 667 | 751 | 747 |
| Benzo[b]fluoranthene | 667 | 667 | 679 | 653 |
| Benzo[a]pyrene | 667 | 667 | 699 | 667 |
| Benzo[a]anthracene | 667 | 667 | 672 | 645 |
| Chrysene | 667 | 667 | 685 | 707 |
| Dibenz(a,h)anthracene | 667 | 667 | 650 | 614 |
| Indeno[1,2,3-cd]pyrene | 667 | 667 | 665 | 615 |

Client: CH2M Hill, Inc.

Job Number: 700-60476-1

**Matrix Spike/**
**Matrix Spike Duplicate Recovery Report - Batch: 700-104489**

**Method: 8270D LL**
**Preparation: 3550C**

| | | | | | |
|---|---|---|---|---|---|
| MS Lab Sample ID: | 700-60476-1 | Analysis Batch: | 700-104565 | Instrument ID: | SMB |
| Client Matrix: | Solid | Prep Batch: | 700-104489 | Lab File ID: | B081524.D |
| Dilution: | 5.0 | Leach Batch: | N/A | Initial Weight/Volume: | 30.0 g |
| Analysis Date: | 08/16/2011 0208 | | | Final Weight/Volume: | 1.0 mL |
| Prep Date: | 08/14/2011 1930 | | | Injection Volume: | 1 uL |
| Leach Date: | N/A | | | | |

| | | | | | |
|---|---|---|---|---|---|
| MSD Lab Sample ID: | 700-60476-1 | Analysis Batch: | 700-104565 | Instrument ID: | SMB |
| Client Matrix: | Solid | Prep Batch: | 700-104489 | Lab File ID: | B081525.D |
| Dilution: | 5.0 | Leach Batch: | N/A | Initial Weight/Volume: | 30.0 g |
| Analysis Date: | 08/16/2011 0240 | | | Final Weight/Volume: | 1.0 mL |
| Prep Date: | 08/14/2011 1930 | | | Injection Volume: | 1 uL |
| Leach Date: | N/A | | | | |

| | % Rec. | | | | | | |
|---|---|---|---|---|---|---|---|
| Analyte | MS | MSD | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
| Benzo[k]fluoranthene | 117 | 70 | 30 - 147 | 60 | 48 | | F |
| Benzo[b]fluoranthene | 147 | -5 | 34 - 138 | 62 | 51 | F | F |
| Benzo[a]pyrene | 169 | 78 | 30 - 132 | 57 | 55 | F | F |
| Benzo[a]anthracene | 94 | 60 | 39 - 134 | 54 | 43 | | F |
| Chrysene | 102 | 57 | 39 - 138 | 54 | 41 | | F |
| Dibenz(a,h)anthracene | 104 | 73 | 32 - 134 | 61 | 50 | | F |
| Indeno[1,2,3-cd]pyrene | 138 | 72 | 26 - 140 | 55 | 50 | | F |

| Surrogate | MS % Rec | MSD % Rec | Acceptance Limits |
|---|---|---|---|
| Nitrobenzene-d5 (Surr) | 77 | 53 | 30 - 130 |
| Terphenyl-d14 (Surr) | 115 | 68 | 30 - 149 |
| 2-Fluorobiphenyl | 74 | 45 | 31 - 130 |

Client: CH2M Hill, Inc.

Job Number: 700-60476-1

**Matrix Spike/**
**Matrix Spike Duplicate Recovery Report - Batch: 700-104489**

**Method: 8270D LL**
**Preparation: 3550C**

| | | | |
|---|---|---|---|
| MS Lab Sample ID: | 700-60476-1 | Units: ug/Kg | |
| Client Matrix: | Solid | | |
| Dilution: | 5.0 | | |
| Analysis Date: | 08/16/2011 0208 | | |
| Prep Date: | 08/14/2011 1930 | | |
| Leach Date: | N/A | | |

| | |
|---|---|
| MSD Lab Sample ID: | 700-60476-1 |
| Client Matrix: | Solid |
| Dilution: | 5.0 |
| Analysis Date: | 08/16/2011 0240 |
| Prep Date: | 08/14/2011 1930 |
| Leach Date: | N/A |

| Analyte | Sample Result/Qual | MS Spike Amount | MSD Spike Amount | MS Result/Qual | | MSD Result/Qual | |
|---|---|---|---|---|---|---|---|
| Benzo[k]fluoranthene | 1100 | 1790 | 897 | 3190 | | 1720 | F |
| Benzo[b]fluoranthene | 3000 | 1790 | 897 | 5650 | F | 2980 | F |
| Benzo[a]pyrene | 2300 | 1790 | 897 | 5300 | F | 2960 | F |
| Benzo[a]anthracene | 1000 | 1790 | 897 | 2720 | | 1570 | F |
| Chrysene | 1300 | 1790 | 897 | 3090 | | 1780 | F |
| Dibenz(a,h)anthracene | 730 | 1790 | 897 | 2610 | | 1390 | F |
| Indeno[1,2,3-cd]pyrene | 1800 | 1790 | 897 | 4260 | | 2420 | F |

Client: CH2M Hill, Inc.

Job Number: 700-60476-1

**Duplicate - Batch: 700-104515**

**Method: Moisture**
**Preparation: N/A**

| | | | | | |
|---|---|---|---|---|---|
| Lab Sample ID: | 700-60476-1 | Analysis Batch: | 700-104515 | Instrument ID: | BALANCE1 |
| Client Matrix: | Solid | Prep Batch: | N/A | Lab File ID: | N/A |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | |
| Analysis Date: | 08/15/2011 1052 | Units: | % | Final Weight/Volume: | |
| Prep Date: | N/A | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Sample Result/Qual | Result | RPD | Limit | Qual |
|---|---|---|---|---|---|
| Percent Moisture | 26 | 25 | 2.0 | 5.0 | |
| Percent Solids | 74 | 75 | 0.6 | 5.0 | |

# DATA REPORTING QUALIFIERS

Client: CH2M Hill, Inc. Job Number: 700-60476-1

| Lab Section | Qualifier | Description |
|---|---|---|
| GC/MS Semi VOA | | |
| | U | Indicates the analyte was analyzed for but not detected. |
| | F | MS or MSD exceeds the control limits |
| | F | RPD of the MS and MSD exceeds the control limits |
| | X | Surrogate is outside control limits |

Client: CH2M Hill, Inc.

Job Number: 700-60476-1

## QC Association Summary

| Lab Sample ID | Client Sample ID | Report Basis | Client Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| **GC/MS Semi VOA** | | | | | |
| **Prep Batch: 700-104489** | | | | | |
| LCS 700-104489/2-A | Lab Control Sample | T | Solid | 3550C | |
| LCSD 700-104489/3-A | Lab Control Sample Duplicate | T | Solid | 3550C | |
| MB 700-104489/1-A | Method Blank | T | Solid | 3550C | |
| 700-60476-1 | 0811-POSTEXL-RAWP8-L | T | Solid | 3550C | |
| 700-60476-1MS | Matrix Spike | T | Solid | 3550C | |
| 700-60476-1MSD | Matrix Spike Duplicate | T | Solid | 3550C | |
| **Analysis Batch:700-104565** | | | | | |
| LCS 700-104489/2-A | Lab Control Sample | T | Solid | 8270D LL | 700-104489 |
| LCSD 700-104489/3-A | Lab Control Sample Duplicate | T | Solid | 8270D LL | 700-104489 |
| MB 700-104489/1-A | Method Blank | T | Solid | 8270D LL | 700-104489 |
| 700-60476-1 | 0811-POSTEXL-RAWP8-L | T | Solid | 8270D LL | 700-104489 |
| 700-60476-1MS | Matrix Spike | T | Solid | 8270D LL | 700-104489 |
| 700-60476-1MSD | Matrix Spike Duplicate | T | Solid | 8270D LL | 700-104489 |

**Report Basis**
T = Total

| | | | | | |
|---|---|---|---|---|---|
| **General Chemistry** | | | | | |
| **Analysis Batch:700-104515** | | | | | |
| 700-60476-1 | 0811-POSTEXL-RAWP8-L | T | Solid | Moisture | |
| 700-60476-1DU | Duplicate | T | Solid | Moisture | |

**Report Basis**
T = Total

Client: CH2M Hill, Inc. Job Number: 700-60476-1

## Laboratory Chronicle

**Lab ID:** **700-60476-1** **Client ID:** **0811-POSTEXL-RAWP8-L**

Sample Date/Time: 08/12/2011 14:20 Received Date/Time: 08/13/2011 09:00

| Method | Bottle ID | Run | Analysis Batch | Prep Batch | Date Prepared / Analyzed | Dil | Lab | Analyst |
|---|---|---|---|---|---|---|---|---|
| P:3550C | 700-60476-A-1-A | | 700-104565 | 700-104489 | 08/14/2011 19:30 | 2 | TAL MOB | TV |
| A:8270D LL | 700-60476-A-1-A | | 700-104565 | 700-104489 | 08/16/2011 01:36 | 2 | TAL MOB | ES |
| A:Moisture | 700-60476-B-1 | | 700-104515 | | 08/15/2011 10:52 | 1 | TAL MOB | TKN |

**Lab ID:** **700-60476-1 MS** **Client ID:** **0811-POSTEXL-RAWP8-L**

Sample Date/Time: 08/12/2011 14:20 Received Date/Time: 08/13/2011 09:00

| Method | Bottle ID | Run | Analysis Batch | Prep Batch | Date Prepared / Analyzed | Dil | Lab | Analyst |
|---|---|---|---|---|---|---|---|---|
| P:3550C | 700-60476-A-1-B MS | | 700-104565 | 700-104489 | 08/14/2011 19:30 | 5 | TAL MOB | TV |
| A:8270D LL | 700-60476-A-1-B MS | | 700-104565 | 700-104489 | 08/16/2011 02:08 | 5 | TAL MOB | ES |

**Lab ID:** **700-60476-1 MSD** **Client ID:** **0811-POSTEXL-RAWP8-L**

Sample Date/Time: 08/12/2011 14:20 Received Date/Time: 08/13/2011 09:00

| Method | Bottle ID | Run | Analysis Batch | Prep Batch | Date Prepared / Analyzed | Dil | Lab | Analyst |
|---|---|---|---|---|---|---|---|---|
| P:3550C | 700-60476-A-1-C MSD | | 700-104565 | 700-104489 | 08/14/2011 19:30 | 5 | TAL MOB | TV |
| A:8270D LL | 700-60476-A-1-C MSD | | 700-104565 | 700-104489 | 08/16/2011 02:40 | 5 | TAL MOB | ES |

**Lab ID:** **700-60476-1 DU** **Client ID:** **0811-POSTEXL-RAWP8-L**

Sample Date/Time: 08/12/2011 14:20 Received Date/Time: 08/13/2011 09:00

| Method | Bottle ID | Run | Analysis Batch | Prep Batch | Date Prepared / Analyzed | Dil | Lab | Analyst |
|---|---|---|---|---|---|---|---|---|
| A:Moisture | 700-60476-B-1 DU | | 700-104515 | | 08/15/2011 10:52 | 1 | TAL MOB | TKN |

**Lab ID:** **MB** **Client ID:** **N/A**

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

| Method | Bottle ID | Run | Analysis Batch | Prep Batch | Date Prepared / Analyzed | Dil | Lab | Analyst |
|---|---|---|---|---|---|---|---|---|
| P:3550C | MB 700-104489/1-A | | 700-104565 | 700-104489 | 08/14/2011 19:30 | 1 | TAL MOB | TV |
| A:8270D LL | MB 700-104489/1-A | | 700-104565 | 700-104489 | 08/15/2011 22:25 | 1 | TAL MOB | ES |

**Lab ID:** **LCS** **Client ID:** **N/A**

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

| Method | Bottle ID | Run | Analysis Batch | Prep Batch | Date Prepared / Analyzed | Dil | Lab | Analyst |
|---|---|---|---|---|---|---|---|---|
| P:3550C | LCS 700-104489/2-A | | 700-104565 | 700-104489 | 08/14/2011 19:30 | 5 | TAL MOB | TV |
| A:8270D LL | LCS 700-104489/2-A | | 700-104565 | 700-104489 | 08/15/2011 21:21 | 5 | TAL MOB | ES |

Client: CH2M Hill, Inc.

Job Number: 700-60476-1

## Laboratory Chronicle

**Lab ID:** **LCSD** **Client ID:** **N/A**

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

| Method | Bottle ID | Run | Analysis Batch | Prep Batch | Date Prepared / Analyzed | Dil | Lab | Analyst |
|---|---|---|---|---|---|---|---|---|
| P:3550C | LCSD 700-104489/3-A | | 700-104565 | 700-104489 | 08/14/2011 19:30 | 5 | TAL MOB | TV |
| A:8270D LL | LCSD 700-104489/3-A | | 700-104565 | 700-104489 | 08/15/2011 21:53 | 5 | TAL MOB | ES |

**Lab References:**
TAL MOB = TestAmerica Mobile

# Certification Summary

Client: CH2M Hill, Inc.
Project/Site: Walter Coke RAWP

TestAmerica Job ID: 700-60476-1

| Laboratory | Authority | Program | EPA Region | Certification ID |
|---|---|---|---|---|
| TestAmerica Mobile | Alabama | State Program | 4 | 40030 |
| TestAmerica Mobile | Arkansas | State Program | 6 | 88-0765 |
| TestAmerica Mobile | Florida | NELAC | 4 | E87089 |
| TestAmerica Mobile | Georgia | State Program | 4 | 952 |
| TestAmerica Mobile | Louisiana | NELAC | 6 | 30673 |
| TestAmerica Mobile | Louisiana | NELAC | 6 | LA0900026 |
| TestAmerica Mobile | Mississippi | State Program | 4 | N/A |
| TestAmerica Mobile | North Carolina | North Carolina DENR | 4 | 395 |
| TestAmerica Mobile | South Carolina | State Program | 4 | 75002 |
| TestAmerica Mobile | Tennessee | State Program | 4 | 2979 |
| TestAmerica Mobile | Texas | NELAC | 6 | T104704460-09A-TX |
| TestAmerica Mobile | USDA | USDA | | P330-08-00039 |
| TestAmerica Mobile | Washington | State Program | 10 | C1918 |

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

# Method 8270D Low Level

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## Semivolatile Organic Compounds (GC/MS) Low Level by Method 8270D

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Mobile Job No.: 700-60476-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): ZB-5MS ID: 0.25(mm)

| Client Sample ID | Lab Sample ID | NBZ # | FBP # | TPH # |
|---|---|---|---|---|
| 0811-POSTEXL-RAWP8-L | 700-60476-1 | 58 | 52 | 75 |
| | MB 700-104489/1-A | 52 | 28 X | 103 |
| | LCS 700-104489/2-A | 75 | 67 | 99 |
| | LCSD 700-104489/3-A | 73 | 64 | 96 |
| 0811-POSTEXL-RAWP8-L MS | 700-60476-1 MS | 77 | 74 | 115 |
| 0811-POSTEXL-RAWP8-L MSD | 700-60476-1 MSD | 53 | 45 | 68 |

| | QC LIMITS |
|---|---|
| NBZ = Nitrobenzene-d5 (Surr) | 30-130 |
| FBP = 2-Fluorobiphenyl | 31-130 |
| TPH = Terphenyl-d14 (Surr) | 30-149 |

# Column to be used to flag recovery values

FORM II 8270D LL

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Mobile Job No.: 700-60476-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: B081515.D

Lab ID: LCS 700-104489/2-A Client ID:

| COMPOUND | SPIKE ADDED (ug/Kg) | LCS CONCENTRATION (ug/Kg) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Benzo[k]fluoranthene | 667 | 751 | 113 | 30-147 | |
| Benzo[b]fluoranthene | 667 | 679 | 102 | 34-138 | |
| Benzo[a]pyrene | 667 | 699 | 105 | 30-132 | |
| Benzo[a]anthracene | 667 | 672 | 101 | 39-134 | |
| Chrysene | 667 | 685 | 103 | 39-138 | |
| Dibenz(a,h)anthracene | 667 | 650 | 98 | 32-134 | |
| Indeno[1,2,3-cd]pyrene | 667 | 665 | 100 | 26-140 | |

# Column to be used to flag recovery and RPD values

FORM III 8270D LL

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Mobile Job No.: 700-60476-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: B081516.D

Lab ID: LCSD 700-104489/3-A Client ID:

| COMPOUND | SPIKE ADDED (ug/Kg) | LCSD CONCENTRATION (ug/Kg) | LCSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Benzo[k]fluoranthene | 667 | 747 | 112 | 1 | 48 | 30-147 | |
| Benzo[b]fluoranthene | 667 | 653 | 98 | 4 | 51 | 34-138 | |
| Benzo[a]pyrene | 667 | 667 | 100 | 5 | 55 | 30-132 | |
| Benzo[a]anthracene | 667 | 645 | 97 | 4 | 43 | 39-134 | |
| Chrysene | 667 | 707 | 106 | 3 | 41 | 39-138 | |
| Dibenz(a,h)anthracene | 667 | 614 | 92 | 6 | 50 | 32-134 | |
| Indeno[1,2,3-cd]pyrene | 667 | 615 | 92 | 8 | 50 | 26-140 | |

# Column to be used to flag recovery and RPD values

FORM III 8270D LL

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Mobile Job No.: 700-60476-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: B081524.D

Lab ID: 700-60476-1 MS Client ID: 0811-POSTEXL-RAWP8-L MS

| COMPOUND | SPIKE ADDED (ug/Kg) | SAMPLE CONCENTRATION (ug/Kg) | MS CONCENTRATION (ug/Kg) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Benzo[k]fluoranthene | 1790 | 1100 | 3190 | 117 | 30-147 | |
| Benzo[b]fluoranthene | 1790 | 3000 | 5650 | 147 | 34-138 | F |
| Benzo[a]pyrene | 1790 | 2300 | 5300 | 169 | 30-132 | F |
| Benzo[a]anthracene | 1790 | 1000 | 2720 | 94 | 39-134 | |
| Chrysene | 1790 | 1300 | 3090 | 102 | 39-138 | |
| Dibenz(a,h)anthracene | 1790 | 730 | 2610 | 104 | 32-134 | |
| Indeno[1,2,3-cd]pyrene | 1790 | 1800 | 4260 | 138 | 26-140 | |

# Column to be used to flag recovery and RPD values

FORM III 8270D LL

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Mobile Job No.: 700-60476-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: B081525.D

Lab ID: 700-60476-1 MSD Client ID: 0811-POSTEXL-RAWP8-L MSD

| COMPOUND | SPIKE ADDED (ug/Kg) | MSD CONCENTRATION (ug/Kg) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Benzo[k]fluoranthene | 897 | 1720 | 70 | 60 | 48 | 30-147 | F |
| Benzo[b]fluoranthene | 897 | 2980 | -5 | 62 | 51 | 34-138 | F |
| Benzo[a]pyrene | 897 | 2960 | 78 | 57 | 55 | 30-132 | F |
| Benzo[a]anthracene | 897 | 1570 | 60 | 54 | 43 | 39-134 | F |
| Chrysene | 897 | 1780 | 57 | 54 | 41 | 39-138 | F |
| Dibenz(a,h)anthracene | 897 | 1390 | 73 | 61 | 50 | 32-134 | F |
| Indeno[1,2,3-cd]pyrene | 897 | 2420 | 72 | 55 | 50 | 26-140 | F |

# Column to be used to flag recovery and RPD values

FORM III 8270D LL

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Mobile Job No.: 700-60476-1

SDG No.:

Lab File ID: B081517.D Lab Sample ID: MB 700-104489/1-A

Matrix: Solid Date Extracted: 08/14/2011 19:30

Instrument ID: SMB Date Analyzed: 08/15/2011 22:25

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | LCS 700-104489/2-A | B081515.D | 08/15/2011 21:21 |
| | LCSD 700-104489/3-A | B081516.D | 08/15/2011 21:53 |
| 0811-POSTEXL-RAWP8-L | 700-60476-1 | B081523.D | 08/16/2011 01:36 |
| 0811-POSTEXL-RAWP8-L MS | 700-60476-1 MS | B081524.D | 08/16/2011 02:08 |
| 0811-POSTEXL-RAWP8-L MSD | 700-60476-1 MSD | B081525.D | 08/16/2011 02:40 |

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Mobile Job No.: 700-60476-1

SDG No.:

Lab File ID: B081502.D DFTPP Injection Date: 08/15/2011

Instrument ID: SMB DFTPP Injection Time: 14:30

Analysis Batch No.: 104565

| M/E | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 51 | 10-80% of Base Peak | 24.7 |
| 68 | Less than 2% of mass 69 | 0.2 |
| 70 | Less than 2% of mass 69 | 0.3 |
| 127 | 10-80% of Base Peak | 44.3 |
| 197 | Less than 2% of mass 198 | 0.0 |
| 198 | Base peak | 100.0 |
| 199 | 5-9% of mass 198 | 6.8 |
| 275 | 10-60% of Base Peak | 24.1 |
| 365 | Greater than 1% of mass 198 | 3.4 |
| 441 | present but less than 24% of mass 442 | 15.4 |
| 442 | Greater than 50% of mass 198 | 102.2 |
| 443 | 15-24% of mass 442 | 19.2 |

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|
| | IC 700-104565/2 | B081504.D | 08/15/2011 | 15:23 |
| | IC 700-104565/3 | B081505.D | 08/15/2011 | 15:56 |
| | IC 700-104565/4 | B081506.D | 08/15/2011 | 16:29 |
| | IC 700-104565/5 | B081507.D | 08/15/2011 | 17:02 |
| | IC 700-104565/6 | B081508.D | 08/15/2011 | 17:35 |
| | IC 700-104565/7 | B081509.D | 08/15/2011 | 18:08 |
| | ICIS 700-104565/8 | B081510.D | 08/15/2011 | 18:41 |
| | IC 700-104565/9 | B081511.D | 08/15/2011 | 19:13 |
| | IC 700-104565/10 | B081512.D | 08/15/2011 | 19:45 |
| | IC 700-104565/11 | B081513.D | 08/15/2011 | 20:17 |
| | ICV 700-104565/12 | B081514.D | 08/15/2011 | 20:49 |
| | LCS 700-104489/2-A | B081515.D | 08/15/2011 | 21:21 |
| | LCSD 700-104489/3-A | B081516.D | 08/15/2011 | 21:53 |
| | MB 700-104489/1-A | B081517.D | 08/15/2011 | 22:25 |
| 0811-POSTEXL-RAWP8-L | 700-60476-1 | B081523.D | 08/16/2011 | 01:36 |
| 0811-POSTEXL-RAWP8-L MS | 700-60476-1 MS | B081524.D | 08/16/2011 | 02:08 |
| 0811-POSTEXL-RAWP8-L MSD | 700-60476-1 MSD | B081525.D | 08/16/2011 | 02:40 |

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Mobile Job No.: 700-60476-1

SDG No.:

Sample No.: ICIS 700-104565/8 Date Analyzed: 08/15/2011 18:41

Instrument ID: SMB GC Column: ZB-5MS ID: 0.25(mm)

Lab File ID (Standard): B081510.D Heated Purge: (Y/N) N

Calibration ID: 716

| | | DCB | | NPT | | ANT | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | AREA # | RT # | AREA # | RT # |
| INITIAL CALIBRATION MID-POINT | | 128685 | 6.17 | 670667 | 7.68 | 400503 | 9.82 |
| UPPER LIMIT | | 257370 | 6.67 | 1341334 | 8.18 | 801006 | 10.32 |
| LOWER LIMIT | | 64343 | 5.67 | 335334 | 7.18 | 200252 | 9.32 |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| ICV 700-104565/12 | | 118634 | 6.17 | 655948 | 7.68 | 394259 | 9.82 |
| LCS 700-104489/2-A | | 111324 | 6.17 | 600825 | 7.68 | 396849 | 9.82 |
| LCSD 700-104489/3-A | | 115253 | 6.27 | 598556 | 7.77 | 391583 | 9.91 |
| MB 700-104489/1-A | | 89832 | 6.22 | 348725 | 7.68 | 266827 | 9.95 |
| 700-60476-1 | 0811-POSTEXL-RAWP8-L | 130588 | 6.31 | 673761 | 7.80 | 412393 | 9.95 |
| 700-60476-1 MS | 0811-POSTEXL-RAWP8-L MS | 108249 | 6.18 | 668526 | 7.68 | 420088 | 9.81 |
| 700-60476-1 MSD | 0811-POSTEXL-RAWP8-L MSD | 106220 | 6.18 | 667702 | 7.68 | 424638 | 9.81 |

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII 8270D LL

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Mobile Job No.: 700-60476-1

SDG No.:

Sample No.: ICIS 700-104565/8 Date Analyzed: 08/15/2011 18:41

Instrument ID: SMB GC Column: ZB-5MS ID: 0.25(mm)

Lab File ID (Standard): B081510.D Heated Purge: (Y/N) N

Calibration ID: 716

| | | PHN | | CRY | | PRY | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | AREA # | RT # | AREA # | RT # |
| INITIAL CALIBRATION MID-POINT | | 764688 | 11.64 | 843695 | 14.89 | 505007 | 16.70 |
| UPPER LIMIT | | 1529376 | 12.14 | 1687390 | 15.39 | 1010014 | 17.20 |
| LOWER LIMIT | | 382344 | 11.14 | 421848 | 14.39 | 252504 | 16.20 |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| ICV 700-104565/12 | | 723827 | 11.63 | 849933 | 14.89 | 546744 | 16.70 |
| LCS 700-104489/2-A | | 702539 | 11.63 | 729249 | 14.89 | 446954 | 16.70 |
| LCSD 700-104489/3-A | | 704941 | 11.74 | 741055 | 14.99 | 442970 | 16.83 |
| MB 700-104489/1-A | | 608758 | 11.77 | 457667 | 14.90 | 311447 | 16.70 |
| 700-60476-1 | 0811-POSTEXL-RAWP8-L | 767437 | 11.77 | 788359 | 14.91 | 780333 | 16.71 |
| 700-60476-1 MS | 0811-POSTEXL-RAWP8-L MS | 729195 | 11.64 | 725276 | 14.89 | 747547 | 16.71 |
| 700-60476-1 MSD | 0811-POSTEXL-RAWP8-L MSD | 734885 | 11.64 | 751593 | 14.89 | 670210 | 16.71 |

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII 8270D LL

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Mobile | Job No.: 700-60476-1

SDG No.:

Client Sample ID: 0811-POSTEXL-RAWP8-L | Lab Sample ID: 700-60476-1

Matrix: Solid | Lab File ID: B081523.D

Analysis Method: 8270D LL | Date Collected: 08/12/2011 14:20

Extract. Method: 3550C | Date Extracted: 08/14/2011 19:30

Sample wt/vol: 30.0(g) | Date Analyzed: 08/16/2011 01:36

Con. Extract Vol.: 1.0(mL) | Dilution Factor: 2

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 25.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 104565 | Units: ug/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 207-08-9 | Benzo[k]fluoranthene | 1100 | | 18 | 7.0 |
| 205-99-2 | Benzo[b]fluoranthene | 3000 | | 18 | 7.5 |
| 50-32-8 | Benzo[a]pyrene | 2300 | | 18 | 8.6 |
| 56-55-3 | Benzo[a]anthracene | 1000 | | 18 | 5.7 |
| 218-01-9 | Chrysene | 1300 | | 18 | 5.1 |
| 53-70-3 | Dibenz(a,h)anthracene | 730 | | 18 | 11 |
| 193-39-5 | Indeno[1,2,3-cd]pyrene | 1800 | | 18 | 8.1 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 (Surr) | 58 | | 30-130 |
| 1718-51-0 | Terphenyl-d14 (Surr) | 75 | | 30-149 |
| 321-60-8 | 2-Fluorobiphenyl | 52 | | 31-130 |

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica Mobile Job No.: 700-60476-1 Analy Batch No.: 104565

SDG No.:

Instrument ID: SMB GC Column: ZB-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/15/2011 15:23 Calibration End Date: 08/15/2011 20:17 Calibration ID: 716

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 700-104565/2 | B081504.D |
| Level 2 | IC 700-104565/3 | B081505.D |
| Level 3 | IC 700-104565/4 | B081506.D |
| Level 4 | IC 700-104565/5 | B081507.D |
| Level 5 | IC 700-104565/6 | B081508.D |
| Level 6 | IC 700-104565/7 | B081509.D |
| Level 7 | ICIS 700-104565/8 | B081510.D |
| Level 8 | IC 700-104565/9 | B081511.D |
| Level 9 | IC 700-104565/10 | B081512.D |
| Level 10 | IC 700-104565/11 | B081513.D |

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| Naphthalene | 1.0200<br>0.9745 | 1.0458<br>0.9863 | 1.0068<br>1.0162 | 0.9634<br>1.0336 | 0.9906<br>+++++ | Ave | | 1.0041 | | | 0.1000 | 2.7 | | 20.0 | | | |
| 2-Methylnaphthalene | 0.4841<br>0.6679 | 0.5069<br>0.6831 | 0.5288<br>0.6862 | 0.5288<br>0.6769 | 0.6192<br>+++++ | Ave | | 0.5980 | | | 0.1000 | 14.2 | | 20.0 | | | |
| 1-Methylnaphthalene | 0.4766<br>0.6502 | 0.5440<br>0.6697 | 0.5252<br>0.6765 | 0.5259<br>0.6777 | 0.6074<br>+++++ | Ave | | 0.5948 | | | 0.1000 | 13.1 | | 20.0 | | | |
| Acenaphthylene | 1.5014<br>1.8283 | 1.6585<br>1.7501 | 1.6862<br>1.7159 | 1.6993<br>1.6428 | 1.7888<br>+++++ | Ave | | 1.6968 | | | 0.1000 | 5.6 | | 20.0 | | | |
| Acenaphthene | 0.9580<br>0.9655 | 0.9667<br>0.9900 | 1.0737<br>1.0299 | 1.0207<br>1.0473 | 1.0069<br>+++++ | Ave | | 1.0065 | | | 0.1000 | 4.0 | | 20.0 | | | |
| Fluorene | 1.3608<br>1.5084 | 1.4480<br>1.4048 | 1.5536<br>1.3676 | 1.6283<br>1.3835 | 1.6164<br>+++++ | Ave | | 1.4746 | | | 0.1000 | 7.2 | | 20.0 | | | |
| Phenanthrene | 1.1334<br>1.0536 | 1.1421<br>1.1042 | 1.1095<br>1.1684 | 1.0626<br>1.2121 | 1.0445<br>+++++ | Ave | | 1.1145 | | | 0.1000 | 5.0 | | 20.0 | | | |
| Anthracene | 0.4674<br>0.7844 | 0.4210<br>0.9678 | 0.5111<br>1.0914 | 0.5592<br>1.1239 | 0.6418<br>+++++ | QuaF | | 1.0123 | -0.014 | | | | | | 0.9988 | | 0.9900 |
| Fluoranthene | 0.8597<br>1.1335 | 0.8805<br>1.2296 | 0.9761<br>1.2828 | 1.0069<br>1.2609 | 1.1277<br>+++++ | Ave | | 1.0842 | | | 0.1000 | 14.8 | | 20.0 | | | |
| Pyrene | 0.7991<br>0.9529 | 0.8743<br>1.0897 | 0.8494<br>1.1276 | 0.8885<br>1.1402 | 0.8781<br>+++++ | Ave | | 0.9555 | | | 0.1000 | 13.6 | | 20.0 | | | |
| Benzo[a]anthracene | 0.8125<br>0.8034 | 0.6871<br>0.9564 | 0.6948<br>1.0443 | 0.7850<br>1.1081 | 0.8133<br>+++++ | QuaF | | 1.0534 | -0.017 | | | | | | 0.9994 | | 0.9900 |
| Chrysene | 0.8898<br>0.9024 | 0.9773<br>0.9755 | 0.9589<br>0.9350 | 0.9533<br>0.9740 | 0.9090<br>+++++ | Ave | | 0.9417 | | | 0.1000 | 3.6 | | 20.0 | | | |
| Benzo[b]fluoranthene | 0.9503<br>0.8591 | 0.8931<br>0.9572 | 0.7854<br>0.9118 | 0.8342<br>1.0616 | 0.8655<br>+++++ | Ave | | 0.9020 | | | 0.1000 | 9.0 | | 20.0 | | | |

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica Mobile Job No.: 700-60476-1 Analy Batch No.: 104565

SDG No.:

Instrument ID: SMB GC Column: ZB-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/15/2011 15:23 Calibration End Date: 08/15/2011 20:17 Calibration ID: 716

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| Benzo[k]fluoranthene | 0.6812<br>0.7669 | 0.6756<br>0.8704 | 0.6989<br>0.8983 | 0.7628<br>0.9139 | 0.7720<br>+++++ | Ave | | 0.7822 | | | 0.1000 | 11.8 | | 20.0 | | | |
| Benzo[a]pyrene | 0.3642<br>0.4064 | 0.2646<br>0.5039 | 0.2526<br>0.5821 | 0.2933<br>0.7354 | 0.3254<br>+++++ | QuaF | | 2.0319 | -0.115 | | | | | | 0.9992 | | 0.9900 |
| Indeno[1,2,3-cd]pyrene | 0.9263<br>0.5582 | 0.6108<br>0.7386 | 0.5113<br>0.8150 | 0.5844<br>1.0309 | 0.5569<br>+++++ | QuaF | | 1.4329 | -0.056 | | | | | | 0.9992 | | 0.9900 |
| Dibenz(a,h)anthracene | 0.7257<br>0.4619 | 0.5339<br>0.6362 | 0.4070<br>0.6896 | 0.4958<br>0.8981 | 0.4666<br>+++++ | QuaF | | 1.6940 | -0.081 | | | | | | 0.9991 | | 0.9900 |
| Benzo[g,h,i]perylene | 0.7081<br>0.4365 | 0.4737<br>0.5701 | 0.4017<br>0.6680 | 0.4657<br>0.8789 | 0.4484<br>+++++ | QuaF | | 1.7889 | -0.093 | | | | | | 0.9989 | | 0.9900 |
| Nitrobenzene-d5 (Surr) | 0.2583<br>0.3566 | 0.3114<br>0.3481 | 0.3484<br>0.3543 | 0.3288<br>0.3436 | 0.3497<br>0.3648 | Ave | | 0.3364 | | | 0.1000 | 9.3 | | 20.0 | | | |
| 2-Fluorobiphenyl | 1.6040<br>1.5072 | 1.7366<br>1.3682 | 1.6962<br>1.3423 | 1.8018<br>1.3389 | 1.6786<br>1.6458 | Ave | | 1.5720 | | | 0.1000 | 10.9 | | 20.0 | | | |
| Terphenyl-d14 (Surr) | 0.8229<br>0.8455 | 0.8795<br>0.8328 | 0.8916<br>0.8423 | 0.9473<br>0.8293 | 0.9113<br>1.0702 | Ave | | 0.8873 | | | 0.1000 | 8.6 | | 20.0 | | | |

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Mobile Job No.: 700-60476-1 Analy Batch No.: 104565

SDG No.:

Instrument ID: SMB GC Column: ZB-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/15/2011 15:23 Calibration End Date: 08/15/2011 20:17 Calibration ID: 716

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 700-104565/2 | B081504.D |
| Level 2 | IC 700-104565/3 | B081505.D |
| Level 3 | IC 700-104565/4 | B081506.D |
| Level 4 | IC 700-104565/5 | B081507.D |
| Level 5 | IC 700-104565/6 | B081508.D |
| Level 6 | IC 700-104565/7 | B081509.D |
| Level 7 | ICIS 700-104565/8 | B081510.D |
| Level 8 | IC 700-104565/9 | B081511.D |
| Level 9 | IC 700-104565/10 | B081512.D |
| Level 10 | IC 700-104565/11 | B081513.D |

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/ML) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| Naphthalene | NPT | Ave | 12960<br>658439 | 18662<br>1322956 | 60506<br>3162769 | 109487<br>6708319 | 236536<br>+++++ | 0.100<br>5.00 | 0.200<br>10.0 | 0.500<br>20.0 | 1.00<br>40.0 | 2.00<br>+++++ |
| 2-Methylnaphthalene | NPT | Ave | 6151<br>451259 | 9045<br>916260 | 31782<br>2135683 | 60099<br>4393404 | 147845<br>+++++ | 0.100<br>5.00 | 0.200<br>10.0 | 0.500<br>20.0 | 1.00<br>40.0 | 2.00<br>+++++ |
| 1-Methylnaphthalene | NPT | Ave | 6055<br>439285 | 9708<br>898332 | 31565<br>2105459 | 59768<br>4398653 | 145040<br>+++++ | 0.100<br>5.00 | 0.200<br>10.0 | 0.500<br>20.0 | 1.00<br>40.0 | 2.00<br>+++++ |
| Acenaphthylene | ANT | Ave | 8659<br>659969 | 13523<br>1401824 | 47417<br>3315358 | 86736<br>6769576 | 206037<br>+++++ | 0.100<br>5.00 | 0.200<br>10.0 | 0.500<br>20.0 | 1.00<br>40.0 | 2.00<br>+++++ |
| Acenaphthene | ANT | Ave | 5525<br>348530 | 7882<br>792982 | 30192<br>1989905 | 52101<br>4315470 | 115977<br>+++++ | 0.100<br>5.00 | 0.200<br>10.0 | 0.500<br>20.0 | 1.00<br>40.0 | 2.00<br>+++++ |
| Fluorene | ANT | Ave | 7848<br>544516 | 11807<br>1125230 | 43689<br>2642260 | 83115<br>5700956 | 186177<br>+++++ | 0.100<br>5.00 | 0.200<br>10.0 | 0.500<br>20.0 | 1.00<br>40.0 | 2.00<br>+++++ |
| Phenanthrene | PHN | Ave | 15673<br>826313 | 21334<br>1688763 | 76471<br>4103592 | 135248<br>8927134 | 292888<br>+++++ | 0.100<br>5.00 | 0.200<br>10.0 | 0.500<br>20.0 | 1.00<br>40.0 | 2.00<br>+++++ |
| Anthracene | PHN | QuaF | 6463<br>615238 | 7865<br>1480149 | 35230<br>3833298 | 71173<br>8278035 | 179960<br>+++++ | 0.100<br>5.00 | 0.200<br>10.0 | 0.500<br>20.0 | 1.00<br>40.0 | 2.00<br>+++++ |
| Fluoranthene | PHN | Ave | 11889<br>889003 | 16447<br>1880523 | 67278<br>4505395 | 128148<br>9287090 | 316194<br>+++++ | 0.100<br>5.00 | 0.200<br>10.0 | 0.500<br>20.0 | 1.00<br>40.0 | 2.00<br>+++++ |
| Pyrene | CRY | Ave | 8557<br>751225 | 11827<br>1838792 | 50056<br>4618399 | 99026<br>9503341 | 237967<br>+++++ | 0.100<br>5.00 | 0.200<br>10.0 | 0.500<br>20.0 | 1.00<br>40.0 | 2.00<br>+++++ |
| Benzo[a]anthracene | CRY | QuaF | 8700<br>633392 | 9294<br>1613793 | 40946<br>4277125 | 87485<br>9236113 | 220401<br>+++++ | 0.100<br>5.00 | 0.200<br>10.0 | 0.500<br>20.0 | 1.00<br>40.0 | 2.00<br>+++++ |
| Chrysene | CRY | Ave | 9528<br>711392 | 13220<br>1645972 | 56512<br>3829325 | 106246<br>8118660 | 246334<br>+++++ | 0.100<br>5.00 | 0.200<br>10.0 | 0.500<br>20.0 | 1.00<br>40.0 | 2.00<br>+++++ |
| Benzo[b]fluoranthene | CRY | Ave | 10176<br>677249 | 12081<br>1615126 | 46287<br>3734321 | 92969<br>8848342 | 234539<br>+++++ | 0.100<br>5.00 | 0.200<br>10.0 | 0.500<br>20.0 | 1.00<br>40.0 | 2.00<br>+++++ |
| Benzo[k]fluoranthene | CRY | Ave | 7294<br>604592 | 9139<br>1468702 | 41187<br>3679306 | 85017<br>7617441 | 209196<br>+++++ | 0.100<br>5.00 | 0.200<br>10.0 | 0.500<br>20.0 | 1.00<br>40.0 | 2.00<br>+++++ |

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Mobile Job No.: 700-60476-1 Analy Batch No.: 104565

SDG No.:

Instrument ID: SMB GC Column: ZB-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/15/2011 15:23 Calibration End Date: 08/15/2011 20:17 Calibration ID: 716

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/ML) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| Benzo[a]pyrene | CRY | QuaF | 3900<br>320391 | 3579<br>850329 | 14884<br>2384055 | 32688<br>6129861 | 88174<br>+++++ | 0.100<br>5.00 | 0.200<br>10.0 | 0.500<br>20.0 | 1.00<br>40.0 | 2.00<br>+++++ |
| Indeno[1,2,3-cd]pyrene | CRY | QuaF | 9919<br>440064 | 8263<br>1246318 | 30132<br>3337904 | 65131<br>8592608 | 150918<br>+++++ | 0.100<br>5.00 | 0.200<br>10.0 | 0.500<br>20.0 | 1.00<br>40.0 | 2.00<br>+++++ |
| Dibenz(a,h)anthracene | CRY | QuaF | 7771<br>364154 | 7222<br>1073500 | 23989<br>2824330 | 55259<br>7485781 | 126458<br>+++++ | 0.100<br>5.00 | 0.200<br>10.0 | 0.500<br>20.0 | 1.00<br>40.0 | 2.00<br>+++++ |
| Benzo[g,h,i]perylene | CRY | QuaF | 7582<br>344130 | 6408<br>961914 | 23672<br>2735759 | 51902<br>7325604 | 121512<br>+++++ | 0.100<br>5.00 | 0.200<br>10.0 | 0.500<br>20.0 | 1.00<br>40.0 | 2.00<br>+++++ |
| Nitrobenzene-d5 (Surr) | NPT | Ave | 3282<br>240955 | 5557<br>466880 | 20937<br>1102666 | 37369<br>2230153 | 83514<br>3451179 | 0.100<br>5.00 | 0.200<br>10.0 | 0.500<br>20.0 | 1.00<br>40.0 | 2.00<br>75.0 |
| 2-Fluorobiphenyl | ANT | Ave | 9251<br>544065 | 14160<br>1095956 | 47697<br>2593562 | 91969<br>5517160 | 193347<br>8364917 | 0.100<br>5.00 | 0.200<br>10.0 | 0.500<br>20.0 | 1.00<br>40.0 | 2.00<br>75.0 |
| Terphenyl-d14 (Surr) | CRY | Ave | 8811<br>666534 | 11897<br>1405299 | 52547<br>3449661 | 105574<br>6912604 | 246952<br>11103250 | 0.100<br>5.00 | 0.200<br>10.0 | 0.500<br>20.0 | 1.00<br>40.0 | 2.00<br>75.0 |

Curve Type Legend:
Ave = Average ISTD
QuaF = Quadratic ISTD forced zero

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Mobile Job No.: 700-60476-1

SDG No.:

Lab Sample ID: ICV 700-104565/12 Calibration Date: 08/15/2011 20:49

Instrument ID: SMB Calib Start Date: 08/15/2011 15:23

GC Column: ZB-5MS ID: 0.25(mm) Calib End Date: 08/15/2011 20:17

Lab File ID: B081514.D Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Naphthalene | Ave | 1.004 | 0.9533 | 0.1000 | 9490 | 10000 | -2.9 | 30.0 |
| 2-Methylnaphthalene | Ave | 0.5980 | 0.6651 | 0.1000 | 11100 | 10000 | 5.7 | 30.0 |
| 1-Methylnaphthalene | Ave | 0.5948 | 0.7387 | 0.1000 | 12400 | 10000 | 16.6 | 30.0 |
| Acenaphthylene | Ave | 1.697 | 1.663 | 0.1000 | 9800 | 10000 | 2.0 | 30.0 |
| Acenaphthene | Ave | 1.007 | 0.9391 | 0.1000 | 9330 | 10000 | -6.3 | 30.0 |
| Fluorene | Ave | 1.475 | 1.282 | 0.1000 | 8690 | 10000 | 11.6 | 30.0 |
| Phenanthrene | Ave | 1.114 | 1.015 | 0.1000 | 9110 | 10000 | -5.5 | 30.0 |
| Anthracene | QuaF | 0.7298 | 0.9883 | 0.1000 | 9730 | 10000 | -4.8 | 30.0 |
| Fluoranthene | Ave | 1.084 | 1.162 | 0.1000 | 10700 | 10000 | 13.0 | 30.0 |
| Pyrene | Ave | 0.9555 | 1.017 | 0.1000 | 10600 | 10000 | -20.9 | 30.0 |
| Benzo[a]anthracene | QuaF | 0.8561 | 0.999 | 0.1000 | 10200 | 10000 | -2.8 | 30.0 |
| Chrysene | Ave | 0.9417 | 0.9377 | 0.1000 | 9960 | 10000 | -3.4 | 30.0 |
| Benzo[b]fluoranthene | Ave | 0.9020 | 0.8706 | 0.1000 | 9650 | 10000 | 3.8 | 30.0 |
| Benzo[k]fluoranthene | Ave | 0.7822 | 0.9116 | 0.1000 | 11700 | 10000 | 6.1 | 30.0 |
| Benzo[a]pyrene | QuaF | 0.4142 | 0.5920 | 0.1000 | 11200 | 10000 | -7.2 | 30.0 |
| Indeno[1,2,3-cd]pyrene | QuaF | 0.7036 | 0.7530 | 0.1000 | 10200 | 10000 | 1.5 | 30.0 |
| Dibenz(a,h)anthracene | QuaF | 0.5905 | 0.6186 | 0.1000 | 9860 | 10000 | -1.4 | 30.0 |
| Benzo[g,h,i]perylene | QuaF | 0.5612 | 0.5805 | 0.1000 | 9760 | 10000 | -2.4 | 30.0 |
| Nitrobenzene-d5 (Surr) | Ave | 0.3364 | 0.3532 | 0.1000 | 10500 | 10000 | 2.2 | 30.0 |
| 2-Fluorobiphenyl | Ave | 1.572 | 1.320 | 0.1000 | 8400 | 10000 | 6.8 | 30.0 |
| Terphenyl-d14 (Surr) | Ave | 0.8873 | 0.7817 | 0.1000 | 8810 | 10000 | -18.4 | 30.0 |

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Mobile | Job No.: 700-60476-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 700-104489/1-A

Matrix: Solid | Lab File ID: B081517.D

Analysis Method: 8270D LL | Date Collected:

Extract. Method: 3550C | Date Extracted: 08/14/2011 19:30

Sample wt/vol: 30.0(g) | Date Analyzed: 08/15/2011 22:25

Con. Extract Vol.: 1.0(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 104565 | Units: ug/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 207-08-9 | Benzo[k]fluoranthene | 6.7 | U | 6.7 | 2.6 |
| 205-99-2 | Benzo[b]fluoranthene | 6.7 | U | 6.7 | 2.8 |
| 50-32-8 | Benzo[a]pyrene | 6.7 | U | 6.7 | 3.2 |
| 56-55-3 | Benzo[a]anthracene | 6.7 | U | 6.7 | 2.1 |
| 218-01-9 | Chrysene | 6.7 | U | 6.7 | 1.9 |
| 53-70-3 | Dibenz(a,h)anthracene | 6.7 | U | 6.7 | 4.1 |
| 193-39-5 | Indeno[1,2,3-cd]pyrene | 6.7 | U | 6.7 | 3.0 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 (Surr) | 52 | | 30-130 |
| 1718-51-0 | Terphenyl-d14 (Surr) | 103 | | 30-149 |
| 321-60-8 | 2-Fluorobiphenyl | 28 | X | 31-130 |

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Mobile
Job No.: 700-60476-1
SDG No.:
Client Sample ID:
Lab Sample ID: LCS 700-104489/2-A
Matrix: Solid
Lab File ID: B081515.D
Analysis Method: 8270D LL
Date Collected:
Extract. Method: 3550C
Date Extracted: 08/14/2011 19:30
Sample wt/vol: 30.0(g)
Date Analyzed: 08/15/2011 21:21
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 5
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 104565
Units: ug/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 207-08-9 | Benzo[k]fluoranthene | 751 | | 34 | 13 |
| 205-99-2 | Benzo[b]fluoranthene | 679 | | 34 | 14 |
| 50-32-8 | Benzo[a]pyrene | 699 | | 34 | 16 |
| 56-55-3 | Benzo[a]anthracene | 672 | | 34 | 11 |
| 218-01-9 | Chrysene | 685 | | 34 | 9.5 |
| 53-70-3 | Dibenz(a,h)anthracene | 650 | | 34 | 21 |
| 193-39-5 | Indeno[1,2,3-cd]pyrene | 665 | | 34 | 15 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 (Surr) | 75 | | 30-130 |
| 1718-51-0 | Terphenyl-d14 (Surr) | 99 | | 30-149 |
| 321-60-8 | 2-Fluorobiphenyl | 67 | | 31-130 |

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Mobile
Job No.: 700-60476-1
SDG No.:
Client Sample ID:
Lab Sample ID: LCSD 700-104489/3-A
Matrix: Solid
Lab File ID: B081516.D
Analysis Method: 8270D LL
Date Collected:
Extract. Method: 3550C
Date Extracted: 08/14/2011 19:30
Sample wt/vol: 30.0(g)
Date Analyzed: 08/15/2011 21:53
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 5
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 104565
Units: ug/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 207-08-9 | Benzo[k]fluoranthene | 747 | | 34 | 13 |
| 205-99-2 | Benzo[b]fluoranthene | 653 | | 34 | 14 |
| 50-32-8 | Benzo[a]pyrene | 667 | | 34 | 16 |
| 56-55-3 | Benzo[a]anthracene | 645 | | 34 | 11 |
| 218-01-9 | Chrysene | 707 | | 34 | 9.5 |
| 53-70-3 | Dibenz(a,h)anthracene | 614 | | 34 | 21 |
| 193-39-5 | Indeno[1,2,3-cd]pyrene | 615 | | 34 | 15 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 (Surr) | 73 | | 30-130 |
| 1718-51-0 | Terphenyl-d14 (Surr) | 96 | | 30-149 |
| 321-60-8 | 2-Fluorobiphenyl | 64 | | 31-130 |

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Mobile | Job No.: 700-60476-1

SDG No.:

Client Sample ID: 0811-POSTEXL-RAWP8-L MS | Lab Sample ID: 700-60476-1 MS

Matrix: Solid | Lab File ID: B081524.D

Analysis Method: 8270D LL | Date Collected: 08/12/2011 14:20

Extract. Method: 3550C | Date Extracted: 08/14/2011 19:30

Sample wt/vol: 30.0(g) | Date Analyzed: 08/16/2011 02:08

Con. Extract Vol.: 1.0(mL) | Dilution Factor: 5

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 25.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 104565 | Units: ug/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 207-08-9 | Benzo[k]fluoranthene | 3190 | | 45 | 18 |
| 205-99-2 | Benzo[b]fluoranthene | 5650 | | 45 | 19 |
| 50-32-8 | Benzo[a]pyrene | 5300 | | 45 | 22 |
| 56-55-3 | Benzo[a]anthracene | 2720 | | 45 | 14 |
| 218-01-9 | Chrysene | 3090 | | 45 | 13 |
| 53-70-3 | Dibenz(a,h)anthracene | 2610 | | 45 | 28 |
| 193-39-5 | Indeno[1,2,3-cd]pyrene | 4260 | | 45 | 20 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 (Surr) | 77 | | 30-130 |
| 1718-51-0 | Terphenyl-d14 (Surr) | 115 | | 30-149 |
| 321-60-8 | 2-Fluorobiphenyl | 74 | | 31-130 |

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Mobile | Job No.: 700-60476-1

SDG No.:

Client Sample ID: 0811-POSTEXL-RAWP8-L MSD | Lab Sample ID: 700-60476-1 MSD

Matrix: Solid | Lab File ID: B081525.D

Analysis Method: 8270D LL | Date Collected: 08/12/2011 14:20

Extract. Method: 3550C | Date Extracted: 08/14/2011 19:30

Sample wt/vol: 30.0(g) | Date Analyzed: 08/16/2011 02:40

Con. Extract Vol.: 1.0(mL) | Dilution Factor: 5

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 25.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 104565 | Units: ug/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 207-08-9 | Benzo[k]fluoranthene | 1720 | | 45 | 18 |
| 205-99-2 | Benzo[b]fluoranthene | 2980 | | 45 | 19 |
| 50-32-8 | Benzo[a]pyrene | 2960 | | 45 | 22 |
| 56-55-3 | Benzo[a]anthracene | 1570 | | 45 | 14 |
| 218-01-9 | Chrysene | 1780 | | 45 | 13 |
| 53-70-3 | Dibenz(a,h)anthracene | 1390 | | 45 | 28 |
| 193-39-5 | Indeno[1,2,3-cd]pyrene | 2420 | | 45 | 20 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 (Surr) | 53 | | 30-130 |
| 1718-51-0 | Terphenyl-d14 (Surr) | 68 | | 30-149 |
| 321-60-8 | 2-Fluorobiphenyl | 45 | | 31-130 |

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Mobile Job No.: 700-60476-1

SDG No.:

Instrument ID: SMB Start Date: 08/15/2011 14:30

Analysis Batch Number: 104565 End Date: 08/16/2011 02:40

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| DFTPP 700-104565/1 | | 08/15/2011 14:30 | 1 | B081502.D | ZB-5MS 0.25(mm) |
| IC 700-104565/2 | | 08/15/2011 15:23 | 1 | B081504.D | ZB-5MS 0.25(mm) |
| IC 700-104565/3 | | 08/15/2011 15:56 | 1 | B081505.D | ZB-5MS 0.25(mm) |
| IC 700-104565/4 | | 08/15/2011 16:29 | 1 | B081506.D | ZB-5MS 0.25(mm) |
| IC 700-104565/5 | | 08/15/2011 17:02 | 1 | B081507.D | ZB-5MS 0.25(mm) |
| IC 700-104565/6 | | 08/15/2011 17:35 | 1 | B081508.D | ZB-5MS 0.25(mm) |
| IC 700-104565/7 | | 08/15/2011 18:08 | 1 | B081509.D | ZB-5MS 0.25(mm) |
| ICIS 700-104565/8 | | 08/15/2011 18:41 | 1 | B081510.D | ZB-5MS 0.25(mm) |
| IC 700-104565/9 | | 08/15/2011 19:13 | 1 | B081511.D | ZB-5MS 0.25(mm) |
| IC 700-104565/10 | | 08/15/2011 19:45 | 1 | B081512.D | ZB-5MS 0.25(mm) |
| IC 700-104565/11 | | 08/15/2011 20:17 | 1 | B081513.D | ZB-5MS 0.25(mm) |
| ICV 700-104565/12 | | 08/15/2011 20:49 | 1 | B081514.D | ZB-5MS 0.25(mm) |
| LCS 700-104489/2-A | | 08/15/2011 21:21 | 5 | B081515.D | ZB-5MS 0.25(mm) |
| LCSD 700-104489/3-A | | 08/15/2011 21:53 | 5 | B081516.D | ZB-5MS 0.25(mm) |
| MB 700-104489/1-A | | 08/15/2011 22:25 | 1 | B081517.D | ZB-5MS 0.25(mm) |
| ZZZZZ | | 08/15/2011 22:57 | 1 | | ZB-5MS 0.25(mm) |
| ZZZZZ | | 08/15/2011 23:29 | 5 | | ZB-5MS 0.25(mm) |
| ZZZZZ | | 08/16/2011 00:01 | 5 | | ZB-5MS 0.25(mm) |
| ZZZZZ | | 08/16/2011 00:33 | 1 | | ZB-5MS 0.25(mm) |
| 700-60476-1 | 0811-POSTEXL-RAWP8-L | 08/16/2011 01:36 | 2 | B081523.D | ZB-5MS 0.25(mm) |
| 700-60476-1 MS | 0811-POSTEXL-RAWP8-L MS | 08/16/2011 02:08 | 5 | B081524.D | ZB-5MS 0.25(mm) |
| 700-60476-1 MSD | 0811-POSTEXL-RAWP8-L MSD | 08/16/2011 02:40 | 5 | B081525.D | ZB-5MS 0.25(mm) |

# GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Mobile  Job No.: 700-60476-1

SDG No.:

Batch Number: 104489  Batch Start Date: 08/14/11 19:30  Batch Analyst: Var, Tevich

Batch Method: 3550C  Batch End Date: 08/15/11 08:00

| Lab Sample ID | Client Sample ID | Method Chain | Basis | InitialAmount | FinalAmount | smbasespk 00036 | swsurrogat 00052 | | |
|---|---|---|---|---|---|---|---|---|---|
| MB 700-104489/1 | | 3550C, 8270D LL | | 30.0 g | 1.0 mL | | 1 mL | | |
| LCS 700-104489/2 | | 3550C, 8270D LL | | 30.0 g | 1.0 mL | 1 mL | 1 mL | | |
| LCSD 700-104489/3 | | 3550C, 8270D LL | | 30.0 g | 1.0 mL | 1 mL | 1 mL | | |
| 700-60476-A-1 | 0811-POSTEXL-RAW P8-L | 3550C, 8270D LL | T | 30.0 g | 1.0 mL | | 1 mL | | |
| 700-60476-A-1 MS | 0811-POSTEXL-RAW P8-L | 3550C, 8270D LL | T | 30.0 g | 1.0 mL | 2 mL | 1 mL | | |
| 700-60476-A-1 MSD | 0811-POSTEXL-RAW P8-L | 3550C, 8270D LL | T | 30.0 g | 1.0 mL | 1 mL | 1 mL | | |

| Batch Notes | |
|---|---|
| Balance ID | FX-2000i |
| Batch Comment | Acetone NEXTC1-4-3 |
| Blank Soil Lot Number | NEXTC1-8-8 08/10/11 |
| Concentration End Time | 0800 |
| Concentration Start Time | 0700 |
| Person's name who did the concentration | ST |
| Na2SO4 Lot Number | NEXTC1-8-8 08/10/11 |
| Prep Solvent Lot # | NEXTC1-9-9 |
| Prep Solvent Name | Methylene Chloride |
| Prep Solvent Volume Used | 300 mL |
| Vendor of Reagent used | JT Baker |
| Water Bath ID | TV 1,5,6,7 |
| Water Bath Temperature | 40 Degrees C |

| Basis | Basis Description |
|---|---|
| T | Total/NA |

# GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: TestAmerica Mobile Job Number: 700-60476-1

SDG No.:

Project: Walter Coke RAWP

| Client Sample ID | Lab Sample ID |
| --- | --- |
| 0811-POSTEXL-RAWP8-L | 700-60476-1 |

Comments:

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Mobile Job Number: 700-60476-1

SDG Number:

Matrix: Solid Instrument ID: BALANCE1

Method: Moisture RL Date: 01/01/2005 14:21

| Analyte | Wavelength/ Mass | RL (%) | |
|---|---|---|---|
| Percent Moisture | | 0.1 | |
| Percent Solids | | 0.1 | |

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Mobile Job No.: 700-60476-1

SDG No.:

Instrument ID: BALANCE1 Method: Moisture

Start Date: 08/15/2011 10:52 End Date: 08/15/2011 10:52

| Lab Sample ID | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | % Sol | Moist | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 10:52 | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 10:52 | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 10:52 | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 10:52 | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 10:52 | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 10:52 | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 10:52 | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 10:52 | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 10:52 | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 10:52 | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 10:52 | | | | | | | | | | | | | | | | | | | | |
| 700-60476-1 | 1 | T | 10:52 | X | X | | | | | | | | | | | | | | | | | | |
| 700-60476-1 DU | 1 | T | 10:52 | X | X | | | | | | | | | | | | | | | | | | |

Prep Types
T = Total/NA

# GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Mobile  Job No.: 700-60476-1

SDG No.:

Batch Number: 104515  Batch Start Date: 08/15/11 10:52  Batch Analyst: Nguyen, Tiffany K

Batch Method: Moisture  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | DishWeight | SampleMassWet | SampleMassDry | | | |
|---|---|---|---|---|---|---|---|---|---|
| 700-60476-B-1 | 0811-POSTEXL-RAW P8-L | Moisture | T | 001.2754 g | 011.2879 g | 008.7130 g | | | |
| 700-60476-B-1 DU | 0811-POSTEXL-RAW P8-L | Moisture | T | 001.2747 g | 011.2876 g | 008.7572 g | | | |

| Batch Notes | |
|---|---|
| Balance ID | GR300 No Unit |
| Date samples were placed in the oven | 08/15/2011 |
| Oven Temp when samples are put in oven | 105 C Degrees C |
| Time samples were place in the oven | 1145 |
| Date samples were removed from oven | 08/15/2011 |
| Oven Temp when samples removed from oven | 105 C Degrees C |
| Time Samples were removed from oven | 1830 |
| Oven ID | 04 |
| ID number of the thermometer | GE0246A |

| Basis | Basis Description |
|---|---|
| T | Total/NA |

# Shipping and Receiving Documents

Serial Number

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

# Mobile

TAL-8240 (1007)

## ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD


X TA Mobile
900 Lakeside Drive
Mobile, AL 36693
www.testamericainc.com
Phone: (251) 666-6633
Fax: (251) 666-6696

Alternate Laboratory Name/Location:
Phone:
Fax:


| | | | |
|---|---|---|---|
| PROJECT REFERENCE: Walter Coke-RAWP | PROJECT NO. | PROJECT LOCATION (STATE) | PAGE 1 OF 1 |
| (LAB) PROJECT MANAGER | P. O. NUMBER | CONTRACT NO. | STANDARD REPORT DELIVERY ○ |
| CLIENT (SITE) PM | CLIENT PHONE | CLIENT FAX | DATE DUE |
| CLIENT NAME: Kaye Walker | CLIENT EMAIL: KayeWalker@CH2M.com | | EXPEDITED REPORT DELIVERY (SURCHARGE) 24HR X |
| CLIENT ADDRESS | | | DATE DUE 8/15 |
| COMPANY CONTRACTING THIS WORK (if applicable): CH2MHILL | SAMPLER'S SIGNATURE: J. Adrian | | NUMBER OF COOLERS SUBMITTED PER SHIPMENT: 1 |

| SAMPLE DATE | SAMPLE TIME | SAMPLE IDENTIFICATION | COMPOSITE (C) OR GRAB (G) INDICATE | AQUEOUS (WATER) | SOLID OR SEMISOLID | AIR | NONAQUEOUS LIQUID (OIL, SOLVENT...) | TCL 8270D-SVOC (4°C) | 8270D LL PAH (4°C) | 8151A-Best/PCB/Herb (4°C) | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 8/12/11 | 1420 | 0811-POSTEXC-RAWP8-L | C | | S | | | 2 | 2 | 2 | |

RESERVATIVE

NUMBER OF CONTAINERS SUBMITTED

| RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RELINQUISHED BY: (SIGNATURE) | DATE | TIME |
|---|---|---|---|---|---|---|---|---|
| EMPTY CONTAINERS | | | J. Adrian | 8/12/11 | 1700 | | | |
| **RECEIVED BY: (SIGNATURE)** | **DATE** | **TIME** | **RECEIVED BY: (SIGNATURE)** | **DATE** | **TIME** | **RECEIVED BY: (SIGNATURE)** | **DATE** | **TIME** |
| EMPTY CONTAINERS | | | | | | | | |

LABORATORY USE ONLY

| RECEIVED FOR LABORATORY BY: (SIGNATURE) | DATE | TIME | CUSTODY INTACT | CUSTODY SEAL NO. | LOG NO. | LABORATORY REMARKS: |
|---|---|---|---|---|---|---|
| Jittan | 8/13/11 | 9:00 | YES ○ NO ○ | | 700-60476 | 2.0°C (5592) |

Original - Return to Laboratory with Sample(s)

# Login Sample Receipt Checklist

Client: CH2M Hill, Inc.

Job Number: 700-60476-1

**Login Number: 60476**
**List Number: 1**
**Creator: Hughes, Nicky C**

**List Source: TestAmerica Mobile**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity either was not measured or, if measured, is at or below background | True | |
| The cooler's custody seal, if present, is intact. | N/A | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | 2.0 C (5592) |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the sample IDs on the containers and the COC. | True | |
| Samples are received within Holding Time. | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter. | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | True | |