URS

September 15, 2011

Certified Mail 7003 1680 0001 2065 8467

Mr. Stephen Nightingale, P.E.
Illinois Environmental Protection Agency
Bureau of Land
1021 North Grand Avenue East
Springfield, Illinois 62794

Subject: **ROST-4-PZ Delineation and Sampling Report**
Equilon Enterprises
Roxana, Illinois
1191150002 -- Madison County
ILD080012305
Log Nos. B-43R-CA-1; CA-3; CA-5; CA-6; CA-7; CA-8; CA-10; CA-11; and PS11-032

Dear Mr. Nightingale:

URS Corporation (URS), on behalf of Shell Oil Products US (SOPUS), is submitting the enclosed report in response to comments the agency provided in a letter to Shell dated June 16, 2011.

If you have any questions concerning this request, please contact Kevin Dyer, SOPUS Principal Program Manager at (618) 288-7237 or Kevin.dyer@shell.com or me at (314) 743-4108 or bob.billman@urs.com.

Sincerely,

Robert B. Billman
Senior Project Manager

Enclosures

cc: Kevin Dyer, SOPUS
Amy Boley, IEPA Springfield

1001 Highland Plaza Drive West, Suite 300
St. Louis, MO 63110
Phone: 314.429.0100
Fax: 314.429.0462

ILLINOIS EPA RCRA CORRECTIVE ACTION CERTIFICATION

This certification must accompany any document submitted to Illinois EPA in accordance with the corrective action requirements set forth in a facility's RCRA permit. The original and two copies of all documents submitted must be provided.

1.0 FACILITY IDENTIFICATION

Name: WRB Refining LP - Wood River Refinery

County: Madison

Street Address: 900 South Central Ave.

Site No. (IEPA): 1191150002

City: Roxana, IL 62084

Site No. (USEPA): ILD 080 012 305

2.0 OWNER INFORMATION

Name: Not Applicable

Mailing Address:

3.0 OPERATOR INFORMATION

Equilon Enterprises LLC d/b/a Shell Oil Products US

17 Junction Drive, PMB #399

Glen Carbon, IL 62034

Contact Name:

Kevin Dyer

Contact Title:

Principal Program Manager

Phone No.:

618-288-7237

4.0 TYPE OF SUBMISSION (check applicable item and provide requested information, as applicable)

☐ RFI Phase I Workplan/Report
☐ RFI Phase II Workplan/Report
☐ CMP Report; Phase
☒ Other (describe):
Delineation & Sampling Report

IEPA Permit Log No. B-43R

Date of Last IEPA Letter on Project 6/16/11

Log No. of Last IEPA Letter on Project B-43R-CA-1;CA-3;CA-5;CA-6;CA-7;CA-8;CA-10;CA-11;PS11-032

Date of Submittal 9/15/11

Does this submittal include groundwater information: ☒ Yes ☐ No

5.0 DESCRIPTION OF SUBMITTAL: (briefly describe what is being submitted and its purpose)

Report summarizing work to delineate the extent of petroleum hydrocarbons observed in piezometer ROST-4-PZ.

6.0 DOCUMENTS SUBMITTED (identify all documents in submittal, including cover letter; give dates of all documents)

Cover letter, RCRA Corrective Action Certification and ROST-4-PZ Delineation and Sampling Report (dated September 15, 2011).

7.0 CERTIFICATION STATEMENT - ***(This statement is part of the overall certification being provided by the owner/operator, professional and laboratory in Items 7.1, 7.2 and 7.3 below)***. The activities described in the subject submittals have been carried out in accordance with procedures approved by Illinois EPA. I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

IEPA RCRA Corrective Action Certification
For: Equilon Enterprises LLC d/b/a Shell Oil Products US
Date of Submission: 9/15/2011

7.1 **OWNER/OPERATOR CERTIFICATION** (Must be completed for all submittals. Certification and signature requirements are set forth in 35 IAC 702.126.) All submittals pertaining to the corrective action requirements set forth in a RCRA Permit must be signed by the person designated below (or by a duly authorized representative of that person):

1. For a Corporation, by a principal executive officer of at least the level of vice-president.
2. For a Partnership or Sole Proprietorship, by a general partner or the proprietor, respectively.
3. For a Governmental Entity, by either a principal executive officer or a ranking elected official.

A person is a duly authorized representative only if:

1. the authorization is made in writing by a person described above; and
2. the written authorization is provided with this submittal (a copy of a previously submitted authorization can be used).

Owner Signature: _____ _____ (Date)

Title: _____

Operator Signature: Kevin E Adgate 9/12/11 (Date)

Title: Principal Program Manager

7.2 **PROFESSIONAL CERTIFICATION** *(if necessary)* - Work carried out in this submittal or the regulations may also be subject to other laws governing professional services, such as the Illinois Professional Land Surveyor Act of 1989, the Professional Engineering Practice Act of 1989, the Professional Geologist Licensing Act, and the Structural Engineering Licensing Act of 1989. No one is relieved from compliance with these laws and the regulations adopted pursuant to these laws. All work that falls within the scope and definitions of these laws must be performed in compliance with them. The Illinois EPA may refer any discovered violation of these laws to the appropriate regulating authority.

Professional's Signature: Robert Billman 9/15/11

Professional's Name: Robert Billman

Professional's Address: URS Corp.
1001 Highlander Plaza Drive
St Louis Mo 63110

Professional's Phone No.: 314-743-4168

Date:

Professional's Seal:

LICENSED PROFESSIONAL GEOLOGIST
ROBERT B. BILLMAN
196-000646
ILLINOIS

7.3 **LABORATORY CERTIFICATION** *(if necessary)* - The sample collection, handling, preservation, preparation and analysis efforts for which this laboratory was responsible were carried out in accordance with procedures approved by Illinois EPA.

Name of Laboratory _____

Mailing Address of Laboratory

_____

_____

_____

_____
Signature of Laboratory Responsible Officer Date

_____
Name and Title of Laboratory Responsible Officer

REPORT

ROST-4-PZ – DELINEATION AND SAMPLING

Roxana, Illinois

Prepared for:

Shell Oil Products US
17 Junction Drive
PMB#399
Glen Carbon, Illinois 62034

September 2011

URS Corporation
1001 Highlands Plaza Drive West, Suite 300
St. Louis, MO 63110
(314) 429-0100
Project 21562593

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On behalf of Shell Oil Products US (SOPUS), URS Corporation (URS) is providing this report documenting delineation activities related to product detected in the vicinity of ROST-4-PZ. The detection of product in ROST-4-PZ that was reported to the Illinois Environmental Protection Agency (IEPA) in a letter dated February 7, 2011, and a general 'path forward', was discussed among representatives of IEPA, SOPUS and URS on March 3, 2011. Additional information and a proposed scope of work were provided in a letter to the Agency dated March 14, 2011. IEPA subsequently provided draft comments via a March 25, 2011 email (also included in a June 16, 2011 letter from IEPA), prior to delineation activities.

SOPUS has been conducting a subsurface investigation in the Village of Roxana in the area generally bounded by Illinois Route 111 and the west property boundary (a/k/a west fenceline) of the WRB Refining, LP Wood River Refinery (WRR) (**Figure 1**), known as the Investigation Area. Delineation activities presented herein, including soil sampling, monitoring well installation, and groundwater sampling were performed in the Spring of 2011 within the Investigation Area, in the vicinity of piezometer ROST-4-PZ along Chaffer Street, between 2nd and 4th Streets (Delineation Area).

Located at the intersection of 3rd Street and Chaffer Street, ROST-4-PZ was a ¾ inch diameter piezometer, screened from a depth of approximately 38 to 48 feet below ground surface (bgs). Measured with an oil-water interface probe, light, non-aqueous phase liquid (LNAPL, a/k/a "free product") was first observed in piezometer ROST-4-PZ on January 31, 2011 (0.04 feet) when gauged as part of the 1st quarter 2011 groundwater sampling event.

Since January 31, ROST-4-PZ has been gauged weekly in conjunction with monitoring of site wells to confirm groundwater gradient control, and LNAPL measurements have ranged from 0.04 feet to 0.00 feet. LNAPL was last observed in piezometer ROST-4-PZ on March 21, 2011.

Piezometer ROST-4-PZ was replaced with a 2-inch monitoring well on March 30, 2011. In an effort to determine the presence and/or extent of LNAPL in the vicinity of ROST-4-PZ, and to monitor the horizontal and vertical extent of contamination, seven additional monitoring wells (ROST-4-PZ-A, ROST-4-PZ-B, ROST-4-PZ-C, ROST-4-PZ-D, ROST-4-PZ-E, ROST-4-PZ-F and ROST-4-PZ-G) were installed north (A, B), west (C, D), and south (E, F, G) of ROST-4-PZ. Locations of the new groundwater monitoring wells are shown on **Figure 2**.

Details related to soil sampling and monitoring well installation, development activities and sampling procedures are discussed in **Section 2** of this report. The results of soil and groundwater sampling are discussed in **Section 3** of this report, and the conclusions are presented in **Section 4**.

2.1 SOIL BORINGS AND SOIL SAMPLE COLLECTION

Borehole Clearance

Prior to the start of work, monitoring well locations were marked in the field (e.g., with spray paint, stakes). A utility locate was arranged using Illinois' Joint Utility Locating Information for Excavators (JULIE) service. While JULIE provided identification of public utility lines, Blood Hound, Inc. was contracted to identify private utility lines. In addition, the Roxana Public Works Department reviewed the locations and provided relevant information concerning their utilities in the area.

Vacuum excavation ("air-knifing") was used to clear borehole locations with respect to underground utility lines or other obstructions. The specific target depths of the air-knife holes were determined based upon a review of the subsurface utilities in the area with input from Roxana, as appropriate, and were typically 10 feet below ground surface (bgs). Grab soil samples were collected via hand auger throughout the depth of the air-knifed hole to document lithology. Cleared locations were backfilled with clean sand and covered with a metal plate until drilling activities commenced.

Soil Borings

A soil boring was advanced at each monitoring well location to log lithology and collect representative soil samples. Borings for soil sample collection were advanced through the cleared air-knife locations using direct push technology (Geoprobe®). Continuous soil samples were collected with an acetate-lined stainless steel MacroCore® sampler (2-inch diameter by 4-foot length) hydraulically driven from the surface to the planned sampling depths. Subsurface stratigraphy was logged in accordance with applicable ASTM standards, Unified Soil Classification System (USCS) protocols and URS procedures. Noted soil attributes included color, particle size, consistency, moisture content, structure, plasticity, odor and organic content (if visible). Soil samples from each boring were visually evaluated for evidence of impact and screened in the field using a photoionization detector (PID) at 1-foot intervals. At the completion of each soil boring, monitoring wells were installed within the boreholes, following reaming with 4.25-inch inside diameter (ID) hollow stem augers.

Vacuum excavation and drilling services were provided Roberts Environmental Drilling, Inc. (REDI) of Millstadt, Illinois. Soil boring logs are included in **Appendix A**.

Soil Samples

Subsurface conditions consist primarily of a sand unit with occasional, intermittent silt and clay layers overlain by silty sand and fill/clay. Cross sections, both North-South and West-East are included as **Figure 3** and **4**, respectively.

Multiple soil samples were collected from each soil boring and submitted for laboratory analysis. A shallow sample was collected toward the top of the sand unit, and a deep sample was collected at the top of the expected monitoring well screen interval. In addition, a sample was collected between the shallow and deep samples from the 1-foot interval exhibiting the highest PID readings. Two "middle" samples were collected from the soil boring for monitoring well ROST-4-PZ(E). Quality assurance/quality control (QA/QC) samples consisting of equipment blanks (EB), duplicates (DUP), and matrix spike/matrix spike duplicate (MS/MSD) samples were collected and submitted to the laboratory. Trip blanks were included with each shipment of samples planned for volatile organic compound (VOC) analysis.

A completed sample label was attached to each sample. The labels included the project name and number, sample number identification, initials of sampler, sampling location, required analysis, date and time of sample collection, and preservative used, if applicable.

The sample identification system for soil involved the following nomenclature **"ROST-4-PZ(#) D-D" QAC** where:

- **ROST-4-PZ** – Initial piezometer serving as starting point for delineation
- **(#)** – Indicates delineation monitoring well (i.e. A through G)
- **D-D** – Sample Interval Depth (below ground surface)

When applicable, "**QAC**" denoted a QA/QC sample:

- **DUP** – analytical duplicate
- **MS** or **MSD** – Matrix Spike or Matrix Spike Duplicate
- **EB** – Equipment blank

Upon collection and labeling, sample containers were immediately placed inside an iced cooler, packed in such a way as to help prevent breakage and maintain inside temperature at or below approximately 4^{o}C. Field personnel recorded the project identification and number, sample description/location, required analysis, date and time of sample collection, type and matrix of sample, number of sample containers, preservative used (if applicable), analysis requested/comments, and sampler signature/date/time, with permanent ink on the chain-of-custody (COC). Prior to shipment, coolers were sealed between the lid and sides of the cooler

with a custody seal, and then shipped to Accutest in Marlborough, Massachusetts by means of an overnight delivery service.

2.2 MONITORING WELL INSTALLATION AND DEVELOPMENT

A total of eight monitoring wells were installed in the vicinity of piezometer ROST-4-PZ (including the piezometer replacement well) during LNAPL delineation activities in spring 2011 (**Figure 2**). Monitoring wells ROST-4-PZ(A through F) were installed during a first mobilization. Upon observation of LNAPL in monitoring well ROST-4-PZ(E), and subsequent discussions among URS and SOPUS, an additional well was installed further to the southwest (ROST-4-PZ(G)) to confirm the extent of LNAPL delineation.

Monitoring Well Installation

Upon completion of soil sample collection, monitoring wells were installed using 4.25-inch ID hollow stem augers. The eight monitoring wells were constructed using a 2-inch diameter Schedule 40 PVC casing, with 10-foot section of 0.010-inch slotted PVC well screen. The monitoring well screens were set at similar depths within the water column, such that a portion of the screen extended above the water table. The sand pack consisted of a combination of placed and/or native sand in the annular space, and extended to approximately 2 feet above the top of the monitoring well screen. A minimum 3-foot thick bentonite seal was placed above the sand pack. The borehole annulus was then grouted to the surface with cement-bentonite grout. Surface completions, including a locking expandable cap and flush-mount protector, were added. **Table 1** contains a summary of the monitoring well completion information, and well construction diagrams for the monitoring wells installed are provided in **Appendix B**.

Monitoring Well Development

Once the monitoring well installations were complete, the monitoring wells were developed in order to remove fines from the screen and sand pack. The monitoring wells were developed by surging and pumping throughout the screened zone with a high-flow submersible pump. With the potential for LNAPL within the delineation monitoring wells, Johnson Screen's *NuWell 220* dispersant polymer was added during the development process. Additional development information is included in the standard operating procedure (SOP) included as **Appendix C**. Five times the amount of any water introduced during drilling throughout the screened zone to about 15 feet above the screen was purged at the time of development. Five well volumes of water was also removed during well development, during which water quality parameters, including pH, temperature and conductivity, were measured and recorded on field sheets after each well volume was removed. Development continued until pH, temperature, and conductivity

had stabilized over two consecutive monitoring well volumes and the water was visually sediment-free. Monitoring well development sheets containing data pertinent to water quality parameters and volume of water purged are provided in **Appendix D**.

2.3 GROUNDWATER SAMPLING

After development of the newly installed monitoring wells, sufficient time was allowed for the new monitoring wells to equilibrate with the groundwater prior to gauging and sampling. Depth to groundwater measurements have been collected weekly in area monitoring wells since January 31, 2011 as part of a comprehensive gauging effort to evaluate groundwater flow direction in Roxana. **Table 2** presents information from the gauging events for the monitoring wells discussed in this report. Throughout the weekly gauging, light non-aqueous phase liquid (LNAPL) has only been observed in monitoring well (ROST-PZ-4(E)).

Low Flow Purging and Sampling

Low-flow purging and sampling procedures were followed during the sampling event. Prior to sampling, the initial water level was measured and recorded on the field sheets.

Monitoring wells ROST-4-PZ and ROST-4-PZ(A) through ROST-4-PZ(G) were purged and sampled using a stainless steel submersible bladder pump and bonded designated polyethylene tubing. A new bladder was used at each monitoring well. The submersible bladder pump with the proper length of designated polyethylene tubing was slowly lowered into the monitoring well to be sampled and set with the pump intake at the midpoint of monitoring well screen. The tubing from the pump was connected to a flow-through cell, which discharged into a 5-gallon plastic bucket. Pumping was performed at a low flow rate (≤ 500 mL/minute) so as to not create drawdown of the water level within the monitoring well. During groundwater purging, water quality parameters (pH, temperature, conductivity, turbidity, dissolved oxygen [DO] and oxidation reduction potential [ORP]) were measured and recorded on the field forms after every flow-through cell volume (**Appendix D**). Purging continued until a minimum of three flow-through cell volumes of water were removed and the water quality parameters stabilized. Once stabilization was achieved, groundwater flow was diverted from the flow-through cell, and samples were collected for laboratory analysis.

2.4 SAMPLE HANDLING AND LABORATORY TESTING

Soil and groundwater samples were collected in laboratory-supplied containers, labeled in the field and information was recorded on the chains of custody (COC) forms at the time of sampling. The COCs can be found with the analytical reports in **Appendix E**. After collection, the samples were placed on ice, packaged to prevent damage during shipment, and cooled to

4°C. The samples were then delivered, under the proper COC documentation, to the laboratory for analysis.

Soil Sample Handling & Laboratory Testing

A total of 29 soil samples (22 samples, 3 duplicates and 2 matrix spike/matrix spike duplicate pair, along with 5 aqueous trip blanks and 3 aqueous equipment blanks) were prepared by USEPA Methods 5035, and analyzed for volatile organic compounds (VOCs) by USEPA Method 8260B and semivolatile organic compounds (SVOCs) by USEPA Method 8270C. Samples were submitted to Accutest in Marlborough, MA for analysis, and reported as a Level 4 report, submitted as Accutest job numbers M98988, M99080, M99163, M99201 and M99605. A summary of the laboratory analytical data is presented in **Table 3**. A copy of the laboratory results is presented in **Appendix E**.

Groundwater Sample Handling & Laboratory Testing

A total of 12 groundwater samples (7 samples, 1 duplicate, 1 matrix spike/matrix spike duplicate pair, 1 trip blank and 1 equipment blank) were analyzed for VOCs by USEPA Method 8260B, SVOCs by USEPA Method 8270C, and PAHs by USEPA Method 8270LL. Samples were submitted to Accutest in Marlborough, MA for analysis, and reported as a Level 4 report, submitted as Accutest job number M99998. A summary of the laboratory analytical data is presented in **Table 4**. A copy of the laboratory results is presented in **Appendix E**.

2.5 HEALTH & SAFETY, DECONTAMINATION, AND IDW

The monitoring well installation and sampling activities were performed in general accordance with the investigation area Health and Safety Plan (HASP). The HASP meets OSHA Hazardous Waste Operations and Emergency Response (HAZWOPER) rules (29 CFR 1910.120 (b) (1)) as well as applicable SOPUS safety procedures. URS field personnel primarily wore Level D personal protective equipment (PPE).

A PID with a 10.6 electron volt (eV) probe and a combustible gas indicator (CGI) was used during field activities to monitor air quality of the work zone for health and safety purposes. Field instruments were calibrated prior to each day's use in accordance with the manufacturer's specifications. Health and safety related information was primarily recorded in the field logbooks. A daily safety meeting was held prior to beginning work at the start of work each day to discuss the day's planned activities and to address any potential health and safety concerns.

Field personnel and equipment underwent decontamination procedures to ensure the health and safety of those present, to maintain sample integrity, and to minimize cross contamination

between sampling locations. Drilling equipment was decontaminated prior to its use at subsequent sampling locations with a high pressure hot water wash at a temporary decontamination pad at the Roxana Public Works Yard.

Investigation Derived Waste (IDW), including soil cuttings, water generated during decontamination, PPE, and expendable materials were collected and disposed of properly. Expendable materials (e.g., disposable sampling equipment such as gloves and bailers) having a low probability of impact were collected in trash bags and disposed of as municipal waste. Soil cuttings were collected and placed directly in labeled and secured roll-offs for disposal. Roll-offs were staged at the Roxana Public Works yard. Decontamination fluids were collected and staged at the Village of Roxana Public Works yard in a 6,900-gallon double-wall polyethylene tank prior to disposal.

Based on analytical results, the soil cuttings and decontamination water have been classified as non-hazardous waste and was disposed of under existing profiles at Milam Landfill in East St. Louis, Illinois. Prior to landfilling, the water will be stabilized.

3.1 DATA QUALITY REVIEW AND DATA MANAGEMENT

Analytical data from monitoring well installation and sampling activities were independently reviewed and qualified by URS. A Level III validation was performed on the analytical data.

URS conducted an independent review of the analytical data following procedures outlined in the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review, 2008. Qualifiers were assigned to data when results from the review were outside control limits. These qualifiers are included in the data tables (**Tables 3** and **4**) and are manually transcribed on the laboratory result pages (included in **Appendix E**). Based on the above mentioned criteria, the results reported for the analyses performed were accepted for their intended use. Acceptable levels of accuracy and precision, based on MS/MSD, laboratory control sample (LCS), surrogate and field duplicate data, were achieved. Completeness, which is defined to be the percentage of analytical results that are judged to be valid, including estimated (J/UJ) data, was >95 percent.

Laboratory data reports along with data validation review sheets are included in with the analytical data reports in **Appendix E**.

URS personnel kept a bound field notebook and sampling forms while performing sampling and oversight activities on-site. The following documentation was completed and supplements the COC records:

- Personnel conducting site activities, arrival and departure times
- Location where the work was performed
- Date, time, weather conditions, equipment, observations, etc.
- Safety documentation

Equipment calibrations, repairs and adjustments were documented daily on a calibration log sheet. Air monitoring was performed various times during sampling, with results recorded on a daily air monitoring log sheet. Organic vapor headspace readings were included on boring logs and COC forms.

Field data and documentation collected as part of this scope of work became part of the project file and the database management system, both maintained by URS.

3.2 SOIL

Soil Sampling Results

The following VOCs were detected in soil boring samples at concentrations greater than laboratory reporting limits:

Acetone	sec-Butylbenzene
Benzene	Styrene
Carbon disulfide	tert-Butylbenzene
Ethylbenzene	Toluene
Hexachlorobutadiene	Trichloroethene
Isopropylbenzene	1,2,3-Trimethylbenzene
m,p-Xylene	1,2,4-Trimethylbenzene
n-Butylbenzene	1,3,5-Trimethylbenzene
n-Propylbenzene	Xylenes (total)
o-Xylene	

The following SVOCs were also detected in soil boring samples at concentrations greater than laboratory reporting limits:

Benzo(g,h,i)perylene	Di-n-butyl phthalate
Benzyl Alcohol	Fluoranthene
Bis(2-Ethylhexyl)phthalate	Isophorone
Butyl benzyl phthalate	Naphthalene
Diethyl phthalate	Pyrene

Analytical detections for soil samples collected during delineation of ROST-4-PZ were compared with the Tiered Approach for Corrective Action Objections (TACO) Class I criteria for Direct Contact, Ingestion (Industrial and Construction Worker), Inhalation (Industrial and Construction Worker) and soil to groundwater pathways, with the minimum criteria value presented in **Table 3**.

Though concentrations were low (e.g., low ppb range), each soil sample exhibited concentrations of one or more of the VOCs and SVOCs listed above, throughout the depth intervals.

The analytical results generally met the screening criteria, except for the following hydrocarbons in soil sample ROST-4-PZ(F) 21-22:

Benzene	1,2,4-Trimethylbenzene
Ethylbenzene	1,3,5-Trimethylbenzene
Naphthalene	m,p-Xylene
Toluene	o-Xylene
1,2,3-Trimethylbenzene	Xylenes (total)

3.3 GROUNDWATER

Groundwater Sampling Results

Several VOCs and SVOCs were detected above laboratory reporting limits in groundwater samples from the ROST-4-PZ wells. Analytical detections for groundwater samples collected during delineation of ROST-4-PZ were compared with the TACO Class I Groundwater Quality Standards (GQSs), as presented in **Table 4**. The following hydrocarbons were reported at concentrations above the Class 1 GQSs in groundwater samples:

Benzene	Benzo(a)anthracene
Chloroethane	2-Methylnaphthalene
Naphthalene	

The analytical results for benzene exceeded the groundwater screening criteria at monitoring wells ROST-4-PZ, ROST-4-PZ(A), ROST-4-PZ(C), ROST-4-PZ(D), ROST-4-PZ(F) and ROST-4-PZ(G). In addition, the following exceedances were noted: benzo(a)athracene (ROST-4-PZ(C)); chloroethane (ROST-4-PZ); 2-methylnaphthalene (ROST-4-PZ(D) and ROST-4-PZ(F)); and naphthalene (ROST-4-PZ(D)).

Monitoring well ROST-4-PZ(E) was not sampled due to the presence of LNAPL.

3.4 LNAPL

Following installation of the delineation monitoring wells, LNAPL was observed in ROST-4-PZ(E) (**Table 2**). As a result, oil-only absorbent socks were installed in delineation wells for passive LNAPL recovery.

In an effort order to determine the rate of LNAPL recharge, an LNAPL bail-down test was initiated on April 20, 2011 for ROST-4-PZ(E). The initial LNAPL thickness was 1.05 feet. After removing the LNAPL, measurements were collected and recorded every minute for the first ten minutes, every two minutes for the next 20 minutes, every five minutes for the next 30

minutes, every ten minutes for the next 30 minutes, every 30 minutes for the next 2 hours, every hour for the next 4 hours, one time a day for the next two days, and once at 5 days (**Table 5**). Bail-down test measurements stopped after the LNAPL was no longer observed in the well after three measurements. However, depth to groundwater measurements continued as part of the weekly program with other site wells. The testing indicated the LNAPL previously observed in the well was limited in volume.

3.5 DISCUSSION

Stratigraphy and depth to groundwater within the Delineation Area was consistent with subsurface conditions observed during previous activities within the overall Investigation Area (refer to **Figures 3** and **4**). The hydrocarbon concentrations in soil samples were relatively low, with the exception of that observed in the sample from ROST-4-PZ(F) at a depth of 21 to 22 feet. This depth coincides with a finer grained (silt and clay) interval which is also present to the east inside the refinery (i.e., near P-60). LNAPL was last observed in the ROST-4-PZ delineation monitoring wells on May 2, 2011 (**Table 2**). This appears to indicate the LNAPL in the village is relatively limited in volume and extent, when it exists at all.

As per the comments and recommendations made by IEPA in their letter dated June 16, 2011, URS has conducted this LNAPL delineation in the Village of Roxana on behalf of SOPUS. The following conclusions are based on the data and information collected as part of this program.

- Based on soil observations during delineation and shallow monitoring well installation, the previously identified shallow silt and clay layer, and, where present, shallow groundwater, is not continuous across the Delineation Area. The lithology observed during these recent drilling activities serves to reinforce that depicted on cross sections included in the *Dissolved Phase Groundwater Investigation and P-60 Free Phase Product Delineation Report* dated February 2010.
- The soil analytical information indicates hydrocarbon impact is localized to the area around ROST-4-PZ(F), and is further localized to the silt and clay which occurs at a depth of approximately 20 to 26 feet bgs. The planned soil vapor extraction (SVE) system to be located inside the WRR should address the source of these hydrocarbons.
- LNAPL was observed in wells ROST-4-PZ (but not after the replacement well was installed) and ROST-4-PZ-E but appears to be, at best, only intermittently present.
- The groundwater analytical data confirm the presence of dissolved phase hydrocarbons extending a short distance into the village (i.e., west of the refinery). These data are consistent with those observed during the groundwater profiling conducted in 2009, and with more recent data from the Interim Groundwater Monitoring Program.

  Groundwater pumping from the WRR has a significant impact on the flow of groundwater and LNAPL that may be present in the Delineation Area. Groundwater pumping by the WRR is part of their refinery water production process, as well as a Part B permit requirement. Since the Village of Roxana has enacted a groundwater ordinance acceptable to IEPA that prohibits the installation and use of private potable water supply wells, potential exposure to impacted groundwater is further minimized.

SOPUS proposes the following actions based on the data collected and presented in this report:

- Reduce the frequency of groundwater gauging activities from weekly to quarterly;
- Continue to monitor absorbent socks for LNAPL, during gauging events (and replace as warranted);
- Conduct additional bail-down and/or transmissivity tests if LNAPL is measured at any particular well, at a thickness which justifies these tests.

- Include ROST-4-PZ(C) to the Interim Groundwater Monitoring Program to supplement the current program (as modified based on SOPUS' responses to IEPA's June 16, 2011 letter). This provides a data point further west than most of the wells along the west fenceline, and should provide additional delineation near the western edge of the dissolved phase plume.

Illinois Environmental Protection Agency (IEPA), 2011; (IEPA 2011); *Letter providing approval with comments for free product delineation and potential product removal activities*. Issued to Shell Oil Products US (SOPUS), dated June 16, 2011.

Shell Oil Products US (SOPUS), 2009 (SOPUS, 2009a); *Subsurface Investigation – Route 111/Rand Avenue Vicinity Investigation – Roxana, Illinois*; Prepared by URS Corporation (URS); dated January 21, 2009.

Shell Oil Products US (SOPUS), 2010; (SOPUS, 2010a); *Dissolved Phase Groundwater Investigation and P-60 Free Phase Product Delineation Report - Roxana, Illinois*; Prepared by URS Corporation (URS); dated February 2010.

Shell Oil Products US (SOPUS), 2010; (SOPUS, 2010b); *Addendum to February 2010 Report - Supplemental Investigation Activities - Roxana, Illinois*; Prepared by URS Corporation (URS); dated September 20, 2010.

URS Corporation (URS), 2011; *Route 111/Rand Avenue Vicinity Investigation Health and Safety Plan – Roxana, Illinois*; dated August 2011.

US Environmental Protection Agency (USEPA), 2008; *Contract Laboratory Program National Functional Guidelines for Organic Methods Data Review*

Table 1
Monitoring Well Completion Summary

Monitoring Well Identification	Date Installed	Northing	Easting	Surface Completion	Casing Diameter (in)	Ground Surface Elevation (ft MSL)	Top of Casing Elevation (ft MSL)	Depth Below Ground Surface (ft)	Total Well Depth (ft btoc)	Bottom of Well Elevation (ft MSL)	Screen Length (ft)	Installed Screened Interval (ft btoc)		Screened Interval Elevation (ft MSL)	
ROST-4-PZ DELINEATION															
ROST-4-PZ	3/30/2011	793596.87	2322230.37	FM	2	442.76	442.13	0.63	45.81	396.95	10	35.56	45.56	407.20	397.20
ROST-4-PZ(A)	4/5/2011	793696.80	2322239.89	FM	2	442.81	442.11	0.70	45.72	397.09	10	35.47	45.47	407.34	397.34
ROST-4-PZ(B)	4/6/2011	793647.01	2322241.07	FM	2	442.72	442.38	0.34	45.64	397.08	10	35.39	45.39	407.33	397.33
ROST-4-PZ(C)	4/8/2011	793600.60	2322118.61	FM	2	443.30	443.00	0.30	45.50	397.80	10	35.25	45.25	408.05	398.05
ROST-4-PZ(D)	4/7/2011	793597.03	2322180.17	FM	2	443.31	442.98	0.33	45.55	397.76	10	35.30	45.30	408.01	398.01
ROST-4-PZ(E)	4/1/2011	793545.64	2322242.87	FM	2	442.50	441.96	0.54	45.54	396.96	10	35.29	45.29	407.21	397.21
ROST-4-PZ(F)	4/4/2011	793495.81	2322244.34	FM	2	442.36	442.12	0.24	45.02	397.34	10	34.77	44.77	407.59	397.59
ROST-4-PZ(G)	4/22/2011	793441.03	2322140.41	FM	2	442.41	442.13	0.28	44.81	397.60	10	34.56	44.56	407.85	397.85

See last page for notes

Table 2
Groundwater Gauging Results

Monitoring Well ID	Date	Top of Casing (MSL Elev)	Depth to LNAPL (feet btoc)	Depth to Water (feet btoc)	Water-LNAPL Interface (MSL Elev.)	LNAPL Elevation (MSL Elev)	LNAPL Thickness (feet)	Corrected Water Elevation (MSL Elev.)	Top of Well Screen (MSL Elev.)	Notes
ROST-4-PZ	1/31/2011	442.27	37.08	37.12	405.15	405.19	**0.04**	405.18	404.27	
	2/7/2011	442.27	37.22	37.23	405.04	405.05	**0.01**	405.05	404.27	
	2/14/2011	442.27	37.53	37.55	404.72	404.74	**0.02**	404.73	404.27	
	2/21/2011	442.27	37.36	37.37	404.90	404.91	**0.01**	404.91	404.27	
	2/28/2011	442.27	NE	37.87	NA	NA	NA	404.40	404.27	
	3/7/2011	442.27	37.77	37.78	404.49	404.50	**0.01**	404.50	404.27	
	3/14/2011	442.27	NE	37.86	NA	NA	NA	404.41	404.27	
	3/21/2011	442.27	37.92	37.94	404.33	404.35	**0.02**	404.34	404.27	
	3/28/2011	442.27	NE	38.11	NA	NA	NA	404.16	404.27	
	4/4/2011	442.27	NE	37.67	NA	NA	NA	404.60	407.20	Well installed 3/30/11 to replace piezometer
	4/8/2011	442.13	NE	37.39	NA	NA	NA	404.74	407.20	
	4/11/2011	442.13	NE	37.71	NA	NA	NA	404.42	407.20	
	4/13/2011	442.13	NE	37.70	NA	NA	NA	404.43	407.20	Well developed
	4/18/2011	442.13	NE	37.71	NA	NA	NA	404.42	407.20	
	4/25/2011	442.13	NE	37.69	NA	NA	NA	404.44	408.20	
	5/2/2011	442.13	NE	37.78	NA	NA	NA	404.35	407.20	
	5/9/2011	442.13	NE	37.56	NA	NA	NA	404.57	407.20	
	5/16/2011	442.13	NE	37.45	NA	NA	NA	404.68	407.20	
	5/23/2011	442.13	NE	37.31	NA	NA	NA	404.82	407.20	
	5/31/2011	442.13	NE	37.13	NA	NA	NA	405.00	407.20	
	6/6/2011	442.13	NE	36.82	NA	NA	NA	405.31	407.20	
	6/14/2011	442.13	NE	36.65	NA	NA	NA	405.48	407.20	
	6/20/2011	442.13	NE	36.41	NA	NA	NA	405.72	407.20	
	6/27/2011	442.13	NE	36.03	NA	NA	NA	406.10	407.20	
	7/5/2011	442.13	NE	35.85	NA	NA	NA	406.28	407.20	
	7/12/2011	442.13	NE	35.60	NA	NA	NA	406.53	407.20	
	7/18/2011	442.13	NE	35.40	NA	NA	NA	406.73	407.20	
	7/25/2011	442.13	NE	35.25	NA	NA	NA	406.88	407.20	
	8/1/2011	442.13	NE	34.90	NA	NA	NA	407.23	407.20	
	8/8/2011	442.13	NE	34.61	NA	NA	NA	407.52	407.20	
	8/15/2011	442.13	NE	34.43	NA	NA	NA	407.70	407.20	
	8/22/2011	442.13	NE	34.25	NA	NA	NA	407.88	407.20	
	8/29/2011	442.13	NE	34.19	NA	NA	NA	407.94	407.20	
	9/6/2011	442.13	NE	34.37	NA	NA	NA	407.76	407.20	
	9/12/2011	442.13	NE	34.29	NA	NA	NA	407.84	407.20	

See last page for notes

Table 2
Groundwater Gauging Results

Monitoring Well ID	Date	Top of Casing (MSL Elev)	Depth to LNAPL (feet btoc)	Depth to Water (feet btoc)	Water-LNAPL Interface (MSL Elev.)	LNAPL Elevation (MSL Elev)	LNAPL Thickness (feet)	Corrected Water Elevation (MSL Elev.)	Top of Well Screen (MSL Elev.)	Notes
ROST-4-PZ(A)	4/8/2011	442.11	NE	37.43	NA	NA	NA	404.68	407.34	Well installed 4/5/11
	4/11/2011	442.11	NE	37.31	NA	NA	NA	404.80	407.34	
	4/12/2011	442.11	NE	37.42	NA	NA	NA	404.69	407.34	Well developed
	4/18/2011	442.11	NE	37.23	NA	NA	NA	404.88	407.34	
	4/25/2011	442.11	NE	37.18	NA	NA	NA	404.93	408.34	
	5/2/2011	442.11	NE	37.25	NA	NA	NA	404.86	407.34	
	5/9/2011	442.11	NE	36.97	NA	NA	NA	405.14	407.34	
	5/16/2011	442.11	NE	36.73	NA	NA	NA	405.38	407.34	
	5/23/2011	442.11	NE	36.58	NA	NA	NA	405.53	407.34	
	5/31/2011	442.11	NE	36.35	NA	NA	NA	405.76	407.34	
	6/6/2011	442.11	NE	36.11	NA	NA	NA	406.00	407.34	
	6/14/2011	442.11	NE	35.97	NA	NA	NA	406.14	407.34	
	6/20/2011	442.11	NE	35.73	NA	NA	NA	406.38	407.34	
	6/27/2011	442.11	NE	35.40	NA	NA	NA	406.71	407.34	
	7/5/2011	442.11	NE	35.21	NA	NA	NA	406.90	407.34	
	7/12/2011	442.11	NE	35.03	NA	NA	NA	407.08	407.34	
	7/18/2011	442.11	NE	34.85	NA	NA	NA	407.26	407.34	
	7/25/2011	442.11	NE	34.69	NA	NA	NA	407.42	407.34	
	8/1/2011	442.11	NE	34.39	NA	NA	NA	407.72	407.34	
	8/8/2011	442.11	NE	34.12	NA	NA	NA	407.99	407.34	
	8/15/2011	442.11	NE	33.98	NA	NA	NA	408.13	407.34	
	8/22/2011	442.11	NE	33.46	NA	NA	NA	408.65	407.34	
	8/29/2011	442.11	NE	37.70	NA	NA	NA	404.41	407.34	
	9/6/2011	442.11	NE	37.59	NA	NA	NA	404.52	407.34	
	9/12/2011	442.11	NE	33.73	NA	NA	NA	408.38	407.34	

See last page for notes

Table 2
Groundwater Gauging Results

Monitoring Well ID	Date	Top of Casing (MSL Elev)	Depth to LNAPL (feet btoc)	Depth to Water (feet btoc)	Water-LNAPL Interface (MSL Elev.)	LNAPL Elevation (MSL Elev)	LNAPL Thickness (feet)	Corrected Water Elevation (MSL Elev.)	Top of Well Screen (MSL Elev.)	Notes
ROST-4-PZ(B)	4/8/2011	442.38	NE	37.90	NA	NA	NA	404.48	407.33	Well installed 4/6/11
	4/11/2011	442.38	NE	37.82	NA	NA	NA	404.56	407.33	
	4/13/2011	442.38	NE	37.85	NA	NA	NA	404.53	407.33	Well developed
	4/18/2011	442.38	NE	37.82	NA	NA	NA	404.56	407.33	
	4/25/2011	442.38	NE	37.80	NA	NA	NA	404.58	407.33	
	5/2/2011	442.38	NE	37.81	NA	NA	NA	404.57	407.33	
	5/9/2011	442.38	NE	37.61	NA	NA	NA	404.77	407.33	
	5/16/2011	442.38	NE	37.50	NA	NA	NA	404.88	407.33	
	5/23/2011	442.38	NE	37.37	NA	NA	NA	405.01	407.33	
	5/31/2011	442.38	NE	37.16	NA	NA	NA	405.22	407.33	
	6/6/2011	442.38	NE	36.89	NA	NA	NA	405.49	407.33	
	6/14/2011	442.38	NE	36.70	NA	NA	NA	405.68	407.33	
	6/20/2011	442.38	NE	36.45	NA	NA	NA	405.93	407.33	
	6/27/2011	442.38	NE	36.09	NA	NA	NA	406.29	407.33	
	7/5/2011	442.38	NE	35.93	NA	NA	NA	406.45	407.33	
	7/12/2011	442.38	NE	35.70	NA	NA	NA	406.68	407.33	
	7/18/2011	442.38	NE	35.51	NA	NA	NA	406.87	407.33	
	7/25/2011	442.38	NE	35.33	NA	NA	NA	407.05	407.33	
	8/1/2011	442.38	NE	34.98	NA	NA	NA	407.40	407.33	
	8/8/2011	442.38	NE	34.72	NA	NA	NA	407.66	407.33	
	8/15/2011	442.38	NE	34.53	NA	NA	NA	407.85	407.33	
	8/22/2011	442.38	NE	33.45	NA	NA	NA	408.93	407.33	
	8/29/2011	442.38	NE	36.29	NA	NA	NA	406.09	407.33	
	9/6/2011	442.38	NE	33.44	NA	NA	NA	408.94	407.33	
	9/12/2011	442.38	NE	34.39	NA	NA	NA	407.99	407.33	

See last page for notes

Table 2
Groundwater Gauging Results

Monitoring Well ID	Date	Top of Casing (MSL Elev)	Depth to LNAPL (feet btoc)	Depth to Water (feet btoc)	Water-LNAPL Interface (MSL Elev.)	LNAPL Elevation (MSL Elev)	LNAPL Thickness (feet)	Corrected Water Elevation (MSL Elev.)	Top of Well Screen (MSL Elev.)	Notes
ROST-4-PZ(C)	4/8/2011	442.66	NE	37.97	NA	NA	NA	404.69	407.71	Well installed 4/8/11
	4/11/2011	442.66	NE	38.51	NA	NA	NA	404.15	407.71	
	4/13/2011	442.66	NE	38.51	NA	NA	NA	404.15	407.71	Well developed
	4/18/2011	442.66	NE	38.51	NA	NA	NA	404.15	407.71	
	4/25/2011	442.66	NE	38.52	NA	NA	NA	404.14	407.71	
	5/2/2011	442.66	NE	38.51	NA	NA	NA	404.15	407.71	
	5/9/2011	442.66	NE	38.30	NA	NA	NA	404.36	407.71	
	5/16/2011	442.66	NE	38.19	NA	NA	NA	404.47	407.71	
	5/23/2011	442.66	NE	38.06	NA	NA	NA	404.60	407.71	
	5/31/2011	442.66	NE	37.87	NA	NA	NA	404.79	407.71	
	6/6/2011	442.66	NE	37.60	NA	NA	NA	405.06	407.71	
	6/14/2011	442.66	NE	37.41	NA	NA	NA	405.25	407.71	
	6/20/2011	442.66	NE	37.15	NA	NA	NA	405.51	407.71	
	6/27/2011	442.66	NE	36.81	NA	NA	NA	405.85	407.71	
	7/5/2011	442.66	NE	36.62	NA	NA	NA	406.04	407.71	
	7/12/2011	442.66	NE	36.35	NA	NA	NA	406.31	407.71	
	7/18/2011	442.66	NE	36.17	NA	NA	NA	406.49	407.71	
	7/25/2011	442.66	NE	36.01	NA	NA	NA	406.65	407.71	
	8/1/2011	442.66	NE	34.63	NA	NA	NA	408.03	407.71	
	8/8/2011	442.66	NE	35.32	NA	NA	NA	407.34	407.71	
	8/15/2011	442.66	NE	35.19	NA	NA	NA	407.47	407.71	
	8/22/2011	442.66	NE	35.06	NA	NA	NA	407.60	407.71	
	8/29/2011	442.66	NE	35.00	NA	NA	NA	407.66	407.71	
	9/6/2011	442.66	NE	34.16	NA	NA	NA	408.50	407.71	
	9/12/2011	442.66	NE	35.11	NA	NA	NA	407.55	407.71	

See last page for notes

Table 2
Groundwater Gauging Results

Monitoring Well ID	Date	Top of Casing (MSL Elev)	Depth to LNAPL (feet btoc)	Depth to Water (feet btoc)	Water-LNAPL Interface (MSL Elev.)	LNAPL Elevation (MSL Elev)	LNAPL Thickness (feet)	Corrected Water Elevation (MSL Elev.)	Top of Well Screen (MSL Elev.)	Notes
ROST-4-PZ(D)	4/8/2011	442.98	NE	37.40	NA	NA	NA	405.58	408.01	Well installed 4/7/11
	4/11/2011	442.98	NE	38.45	NA	NA	NA	404.53	408.01	
	4/12/2011	442.98	NE	38.54	NA	NA	NA	404.44	408.01	Well developed
	4/18/2011	442.98	NE	38.51	NA	NA	NA	404.47	408.01	
	4/25/2011	442.98	NE	38.41	NA	NA	NA	404.57	408.01	
	5/2/2011	442.98	NE	38.49	NA	NA	NA	404.49	408.01	
	5/9/2011	442.98	NE	38.26	NA	NA	NA	404.72	408.01	
	5/16/2011	442.98	NE	38.15	NA	NA	NA	404.83	408.01	
	5/23/2011	442.98	NE	38.02	NA	NA	NA	404.96	408.01	
	5/31/2011	442.98	NE	37.85	NA	NA	NA	405.13	408.01	
	6/6/2011	442.98	NE	37.56	NA	NA	NA	405.42	408.01	
	6/14/2011	442.98	NE	37.38	NA	NA	NA	405.60	408.01	
	6/20/2011	442.98	NE	37.14	NA	NA	NA	405.84	408.01	
	6/27/2011	442.98	NE	36.79	NA	NA	NA	406.19	408.01	
	7/5/2011	442.98	NE	36.58	NA	NA	NA	406.40	408.01	
	7/12/2011	442.98	NE	36.34	NA	NA	NA	406.64	408.01	
	7/18/2011	442.98	NE	36.15	NA	NA	NA	406.83	408.01	
	7/25/2011	442.98	NE	36.00	NA	NA	NA	406.98	408.01	
	8/1/2011	442.98	NE	35.65	NA	NA	NA	407.33	408.01	
	8/8/2011	442.98	NE	35.34	NA	NA	NA	407.64	408.01	
	8/15/2011	442.98	NE	35.17	NA	NA	NA	407.81	408.01	
	8/22/2011	442.98	NE	35.00	NA	NA	NA	407.98	408.01	
	8/29/2011	442.98	NE	34.91	NA	NA	NA	408.07	408.01	
	9/6/2011	442.98	NE	35.12	NA	NA	NA	407.86	408.01	
	9/12/2011	442.98	NE	35.04	NA	NA	NA	407.94	408.01	

See last page for notes

Table 2
Groundwater Gauging Results

Monitoring Well ID	Date	Top of Casing (MSL Elev)	Depth to LNAPL (feet btoc)	Depth to Water (feet btoc)	Water-LNAPL Interface (MSL Elev.)	LNAPL Elevation (MSL Elev)	LNAPL Thickness (feet)	Corrected Water Elevation (MSL Elev.)	Top of Well Screen (MSL Elev.)	Notes
ROST-4-PZ(E)	4/8/2011	441.96	37.45	38.35	403.61	404.51	**0.90**	404.28	407.21	Well installed 4/1/11 (not developed due to LNAPL)
	4/11/2011	441.96	37.46	38.37	403.59	404.50	**0.91**	404.26	407.21	
	4/18/2011	441.96	37.46	38.37	403.59	404.50	**0.91**	404.26	407.21	
	4/25/2011	441.96	NE	37.63	NA	NA	NA	404.33	407.21	
	5/2/2011	441.96	37.70	37.85	404.11	404.26	**0.15**	404.22	407.21	
	5/9/2011	441.96	NE	37.43	NA	NA	NA	404.53	407.21	
	5/16/2011	441.96	NE	37.38	NA	NA	NA	404.58	407.21	
	5/23/2011	441.96	NE	37.25	NA	NA	NA	404.71	407.21	
	5/31/2011	441.96	NE	37.07	NA	NA	NA	404.89	407.21	
	6/6/2011	441.96	NE	36.79	NA	NA	NA	405.17	407.21	
	6/7/2011	441.96	NE	36.72	NA	NA	NA	405.24	407.21	Well Developed
	6/14/2011	441.96	NE	36.65	NA	NA	NA	405.31	407.21	
	6/20/2011	441.96	NE	36.37	NA	NA	NA	405.59	407.21	
	6/27/2011	441.96	NE	36.00	NA	NA	NA	405.96	407.21	
	7/5/2011	441.96	NE	35.81	NA	NA	NA	406.15	407.21	
	7/12/2011	441.96	NE	35.55	NA	NA	NA	406.41	407.21	
	7/18/2011	441.96	NE	35.37	NA	NA	NA	406.59	407.21	
	7/25/2011	441.96	NE	35.17	NA	NA	NA	406.79	407.21	
	8/1/2011	441.96	NE	34.81	NA	NA	NA	407.15	407.21	
	8/8/2011	441.96	NE	34.69	NA	NA	NA	407.27	407.21	
	8/15/2011	441.96	NE	34.36	NA	NA	NA	407.60	407.21	
	8/22/2011	441.96	NE	34.19	NA	NA	NA	407.77	407.21	
	8/29/2011	441.96	NE	34.13	NA	NA	NA	407.83	407.21	
	9/6/2011	441.96	NE	34.36	NA	NA	NA	407.60	407.21	
	9/12/2011	441.96	NE	34.32	NA	NA	NA	407.64	407.21	

See last page for notes

Table 2
Groundwater Gauging Results

Monitoring Well ID	Date	Top of Casing (MSL Elev)	Depth to LNAPL (feet btoc)	Depth to Water (feet btoc)	Water-LNAPL Interface (MSL Elev.)	LNAPL Elevation (MSL Elev)	LNAPL Thickness (feet)	Corrected Water Elevation (MSL Elev.)	Top of Well Screen (MSL Elev.)	Notes
ROST-4-PZ(F)	4/8/2011	442.12	NE	37.80	NA	NA	NA	404.32	407.59	Well installed 4/4/11
	4/11/2011	442.12	NE	37.86	NA	NA	NA	404.26	407.59	
	4/15/2011	442.12	NE	37.68	NA	NA	NA	404.44	407.59	Well developed
	4/18/2011	442.12	NE	37.87	NA	NA	NA	404.25	407.59	
	4/25/2011	442.12	NE	37.87	NA	NA	NA	404.25	407.59	
	5/2/2011	442.12	NE	37.90	NA	NA	NA	404.22	407.59	
	5/9/2011	442.12	NE	37.66	NA	NA	NA	404.46	407.59	
	5/16/2011	442.12	NE	37.57	NA	NA	NA	404.55	407.59	
	5/23/2011	442.12	NE	37.47	NA	NA	NA	404.65	407.59	
	5/31/2011	442.12	NE	37.27	NA	NA	NA	404.85	407.59	
	6/6/2011	442.12	NE	37.02	NA	NA	NA	405.10	407.59	
	6/14/2011	442.12	NE	36.85	NA	NA	NA	405.27	407.59	
	6/20/2011	442.12	NE	36.56	NA	NA	NA	405.56	407.59	
	6/27/2011	442.12	NE	36.20	NA	NA	NA	405.92	407.59	
	7/5/2011	442.12	NE	35.99	NA	NA	NA	406.13	407.59	
	7/12/2011	442.12	NE	35.72	NA	NA	NA	406.40	407.59	
	7/18/2011	442.12	NE	35.53	NA	NA	NA	406.59	407.59	
	7/25/2011	442.12	NE	35.33	NA	NA	NA	406.79	407.59	
	8/1/2011	442.12	NE	35.00	NA	NA	NA	407.12	407.59	
	8/8/2011	442.12	NE	34.51	NA	NA	NA	407.61	407.59	
	8/15/2011	442.12	NE	34.52	NA	NA	NA	407.60	407.59	
	8/22/2011	442.12	NE	34.35	NA	NA	NA	407.77	407.59	
	8/29/2011	442.12	NE	34.34	NA	NA	NA	407.78	407.59	
	9/6/2011	442.12	NE	34.58	NA	NA	NA	407.54	407.59	
	9/12/2011	442.12	NE	34.52	NA	NA	NA	407.60	407.59	

Table 2
Groundwater Gauging Results

Monitoring Well ID	Date	Top of Casing (MSL Elev)	Depth to LNAPL (feet btoc)	Depth to Water (feet btoc)	Water-LNAPL Interface (MSL Elev.)	LNAPL Elevation (MSL Elev)	LNAPL Thickness (feet)	Corrected Water Elevation (MSL Elev.)	Top of Well Screen (MSL Elev.)	Notes
ROST-4-PZ(G)	4/27/2011	442.13	NE	38.08	NA	NA	NA	404.05	407.85	Well installed 4/22/11
	4/25/2011	442.13	NM	NM	NA	NA	NA	NA	407.85	
	5/2/2011	442.13	NE	38.26	NA	NA	NA	403.87	407.85	
	5/9/2011	442.13	NE	37.87	NA	NA	NA	404.26	407.85	Well developed
	5/16/2011	442.13	NE	37.69	NA	NA	NA	404.44	407.85	
	5/23/2011	442.13	NE	37.51	NA	NA	NA	404.62	407.85	
	5/31/2011	442.13	NE	37.30	NA	NA	NA	404.83	407.85	
	6/6/2011	442.13	NE	36.95	NA	NA	NA	405.18	407.85	
	6/14/2011	442.13	NE	36.75	NA	NA	NA	405.38	407.85	
	6/20/2011	442.13	NE	36.46	NA	NA	NA	405.67	407.85	
	6/27/2011	442.13	NE	35.52	NA	NA	NA	406.61	407.85	
	7/5/2011	442.13	NE	35.76	NA	NA	NA	406.37	407.85	
	7/12/2011	442.13	NE	35.55	NA	NA	NA	406.58	407.85	
	7/18/2011	442.13	NE	35.47	NA	NA	NA	406.66	407.85	
	7/25/2011	442.13	NE	34.98	NA	NA	NA	407.15	407.85	
	8/1/2011	442.13	NE	34.52	NA	NA	NA	407.61	407.85	
	8/8/2011	442.13	NE	34.49	NA	NA	NA	407.64	407.85	
	8/15/2011	442.13	NE	34.51	NA	NA	NA	407.62	407.85	
	8/22/2011	442.13	NE	34.29	NA	NA	NA	407.84	407.85	
	8/29/2011	442.13	NE	34.38	NA	NA	NA	407.75	407.85	
	9/6/2011	442.13	NE	34.61	NA	NA	NA	407.52	407.85	
	9/12/2011	442.13	NE	34.46	NA	NA	NA	407.67	407.85	

NOTES:
btoc = Below top of casing
NA = Not Applicable
NE = Not Encountered
NM = Not Measured

See last page for notes

Table 3
Summary of Soil Analytical Data

Chemical	Group	Units	Minimum Class I Criteria	ROST-4-PZ(A)		
			Sample Depth (feet bgs):	11.5-12.5	27-28	36-37
1,1,1,2-Tetrachloroethane	VOCs	mg/kg	**3.4**	< 0.0063	< 0.0063	< 0.0079
1,1,1-Trichloroethane (Methyl chloroform)	VOCs	mg/kg	**2**	< 0.0025	< 0.0025	< 0.0032
1,1,2,2-Tetrachloroethane	VOCs	mg/kg	**3.3**	< 0.0025	< 0.0025	< 0.0032
1,1,2-Trichloroethane	VOCs	mg/kg	**0.02**	< 0.0025	< 0.0025	< 0.0032
1,1-Dichloroethane	VOCs	mg/kg	**23**	< 0.0025	< 0.0025	< 0.0032
1,1-Dichloroethene	VOCs	mg/kg	**0.06**	< 0.0025	< 0.0025	< 0.0032
1,1-Dichloropropene	VOCs	mg/kg		< 0.0063	< 0.0063	< 0.0079
1,2,3-Trichlorobenzene	VOCs	mg/kg		< 0.0063	< 0.0063	< 0.0079
1,2,3-Trichloropropane	VOCs	mg/kg	**0.0001**	< 0.0063	< 0.0063	< 0.0079
1,2,4-Trichlorobenzene	VOCs	mg/kg	**5**	< 0.0063	< 0.0063	< 0.0079
1,2,4-Trimethylbenzene	VOCs	mg/kg	**0.87**	< 0.0063	< 0.0063	**0.0014 J**
1,2-Dibromo-3-chloropropane (DBCP)	VOCs	mg/kg	**0.002**	< 0.0063	< 0.0063	< 0.0079
1,2-Dibromoethane	VOCs	mg/kg	**0.0004**	< 0.0025	< 0.0025	< 0.0032
1,2-Dichlorobenzene	VOCs	mg/kg	**17**	< 0.0025	< 0.0025	< 0.0032
1,2-Dichloroethane	VOCs	mg/kg	**0.02**	< 0.0025	< 0.0025	< 0.0032
1,2-Dichloropropane	VOCs	mg/kg	**0.03**	< 0.0025	< 0.0025	< 0.0032
1,3,5-Trimethylbenzene	VOCs	mg/kg	**4.6**	< 0.0063	< 0.0063	**0.0025 J**
1,3-Dichlorobenzene	VOCs	mg/kg	**600**	< 0.0025	< 0.0025	< 0.0032
1,3-Dichloropropane	VOCs	mg/kg	**0.83**	< 0.0063	< 0.0063	< 0.0079
1,4-Dichlorobenzene	VOCs	mg/kg	**2**	< 0.0025	< 0.0025	< 0.0032
1,4-Dioxane	VOCs	mg/kg				
2,2-Dichloropropane	VOCs	mg/kg		< 0.0063	< 0.0063	< 0.0079
2-Butanone	VOCs	mg/kg	**17**	< 0.0063	< 0.0063	< 0.0079
2-Chloroethyl vinyl ether	VOCs	mg/kg		< 0.71	< 0.74	< 0.67
2-Chlorotoluene	VOCs	mg/kg	**1400**	< 0.0063	< 0.0063	< 0.0079
2-Hexanone (Methyl N-Butyl Ketone)	VOCs	mg/kg		< 0.0063	< 0.0063	< 0.0079
4-Chlorotoluene	VOCs	mg/kg		< 0.0063	< 0.0063	< 0.0079
4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	VOCs	mg/kg	**340**	< 0.0063	< 0.0063	< 0.0079
Acetone	VOCs	mg/kg	**25**	**0.0602**	< 0.0231	< 0.0079
Acrolein	VOCs	mg/kg		< 0.031	< 0.032	< 0.039
Acrylonitrile	VOCs	mg/kg		< 0.0063	< 0.0063	< 0.0079
Benzene	VOCs	mg/kg	**0.03**	**0.0019**	**0.0015**	**0.0034**
Bromobenzene	VOCs	mg/kg	**2.2**	< 0.0063	< 0.0063	< 0.0079
Bromochloromethane	VOCs	mg/kg		< 0.0063	< 0.0063	< 0.0079
Bromodichloromethane	VOCs	mg/kg	**0.6**	< 0.0025	< 0.0025	< 0.0032
Bromoform	VOCs	mg/kg	**0.8**	< 0.0025	< 0.0025	< 0.0032
Bromomethane	VOCs	mg/kg	**0.2**	< 0.0025	< 0.0025	< 0.0032
Carbon disulfide	VOCs	mg/kg	**9**	< 0.0063	< 0.0063	< 0.0079
Carbon tetrachloride	VOCs	mg/kg	**0.07**	< 0.0025	< 0.0025	< 0.0032
Chlorobenzene	VOCs	mg/kg	**1**	< 0.0025	< 0.0025	< 0.0032
Chlorodibromomethane	VOCs	mg/kg	**0.4**	< 0.0025	< 0.0025	< 0.0032
Chloroethane	VOCs	mg/kg	**95**	< 0.0063	< 0.0063	< 0.0079
Chloroform	VOCs	mg/kg	**0.54**	< 0.0025	< 0.0025	< 0.0032
Chloromethane	VOCs	mg/kg	**1.1**	< 0.0063	< 0.0063	< 0.0079
cis-1,2-Dichloroethene	VOCs	mg/kg	**0.4**	< 0.0025	< 0.0025	< 0.0032
cis-1,3-Dichloropropene	VOCs	mg/kg	**0.004**	< 0.0025	< 0.0025	< 0.0032
Cymene (p-Isopropyltoluene)	VOCs	mg/kg		< 0.0063	< 0.0063	< 0.0079
Dibromomethane	VOCs	mg/kg	**0.34**	< 0.0063	< 0.0063	< 0.0079
Dichlorodifluoromethane	VOCs	mg/kg	**20**	< 0.0025	< 0.0025	< 0.0032
Dichloromethane (Methylene chloride)	VOCs	mg/kg	**0.02**	< 0.0025	< 0.0025	< 0.0032
Ethyl methacrylate	VOCs	mg/kg		< 0.0063	< 0.0063	< 0.0079
Ethylbenzene	VOCs	mg/kg	**13**	**0.007**	**0.0036**	**0.0088**
Hexachlorobutadiene	VOCs	mg/kg	**2.2**	< 0.0063	< 0.0063	< 0.0079
Isopropylbenzene (Cumene)	VOCs	mg/kg	**51**	< 0.0063	< 0.0063	< 0.0079
m,p-Xylene	VOCs	mg/kg	**6.4**	**0.00096 J**	**0.0012 J**	**0.0025 J**
Methyl tert-Butyl Ether (MTBE)	VOCs	mg/kg	**0.32**	< 0.0025	< 0.0025	< 0.0032
Naphthalene	VOCs	mg/kg	**1.8**			
n-Butylbenzene	VOCs	mg/kg	**240**	< 0.0063	< 0.0063	< 0.0079
n-Propylbenzene	VOCs	mg/kg	**240**	< 0.0063	< 0.0063	< 0.0079
o-Xylenes	VOCs	mg/kg	**6.5**	< 0.0025	< 0.0025	< 0.0032
sec-Butylbenzene	VOCs	mg/kg	**220**	< 0.0063	< 0.0063	< 0.0079
Styrene	VOCs	mg/kg	**4**	< 0.0063	< 0.0063	< 0.0079
tert-Butylbenzene	VOCs	mg/kg	**390**	< 0.0063	< 0.0063	< 0.0079
Tetrachloroethene	VOCs	mg/kg	**0.06**	< 0.0025	< 0.0025	< 0.0032
Toluene	VOCs	mg/kg	**12**	**0.007**	**0.0043 J**	**0.009**
trans-1,2-Dichloroethene	VOCs	mg/kg	**0.7**	< 0.0025	< 0.0025	< 0.0032
trans-1,3-Dichloropropene	VOCs	mg/kg		< 0.0025	< 0.0025	< 0.0032
Trichloroethene	VOCs	mg/kg	**0.06**	< 0.0025	< 0.0025	< 0.0032
Trichlorofluoromethane	VOCs	mg/kg	**34**	< 0.0025	< 0.0025	< 0.0032
Vinyl acetate	VOCs	mg/kg	**10**	< 0.0063	< 0.0063	< 0.0079
Vinyl chloride	VOCs	mg/kg	**0.01**	< 0.0025	< 0.0025	< 0.0032
Xylenes (total)	VOCs	mg/kg	**5.6**	**0.00096 J**	**0.0012 J**	**0.0025 J**

Table 3
Summary of Soil Analytical Data

Chemical	Group	Units	Minimum Class I Criteria	ROST-4-PZ(A)		
			Sample Depth (feet bgs):	11.5-12.5	27-28	36-37
1,2-Diphenylhydrazine	SVOCs	mg/kg				
1-Methylnaphthalene	SVOCs	mg/kg				
2,4,5-Trichlorophenol	SVOCs	mg/kg	**270**	< 0.5	< 0.52	< 0.61
2,4,6-Trichlorophenol	SVOCs	mg/kg	**0.2**	< 0.5	< 0.52	< 0.61
2,4-Dichlorophenol	SVOCs	mg/kg	**1**	< 0.5	< 0.52	< 0.61
2,4-Dimethylphenol	SVOCs	mg/kg	**9**	< 0.5	< 0.52	< 0.61
2,4-Dinitrophenol	SVOCs	mg/kg	**0.2**	< 1	< 1	< 1.2
2,4-Dinitrotoluene	SVOCs	mg/kg	**0.0008**	< 0.5	< 0.52	< 0.61
2,6-Dinitrotoluene	SVOCs	mg/kg	**0.0007**	< 0.5	< 0.52	< 0.61
2-Chloronaphthalene	SVOCs	mg/kg		< 0.25	< 0.26	< 0.3
2-Chlorophenol	SVOCs	mg/kg	**4**	< 0.25	< 0.26	< 0.3
2-Methylnaphthalene	SVOCs	mg/kg		< 0.25	< 0.26	< 0.3
2-Methylphenol (o-Cresol)	SVOCs	mg/kg	**15**	< 0.5	< 0.52	< 0.61
2-Nitroaniline	SVOCs	mg/kg		< 0.5	< 0.52	< 0.61
2-Nitrophenol	SVOCs	mg/kg		< 0.5	< 0.52	< 0.61
3 & 4-Methylphenol (m & p-Cresol)	SVOCs	mg/kg		< 0.5	< 0.52	< 0.61
3,3'-Dichlorobenzidine	SVOCs	mg/kg	**0.007**	< 0.25	< 0.26	< 0.3
3-Nitroaniline	SVOCs	mg/kg		< 0.5	< 0.52	< 0.61
4,6-Dinitro-2-methylphenol (4,6-dinitro-o-cresol)	SVOCs	mg/kg		< 0.5	< 0.52	< 0.61
4-Bromophenyl phenyl ether	SVOCs	mg/kg		< 0.25	< 0.26	< 0.3
4-Chloro-3-methylphenol (p-Chloro-m-cresol)	SVOCs	mg/kg		< 0.5	< 0.52	< 0.61
4-Chlorophenyl phenyl ether	SVOCs	mg/kg		< 0.25	< 0.26	< 0.3
4-Nitrophenol	SVOCs	mg/kg		< 1	< 1	< 1.2
4-Nitrophenylamine	SVOCs	mg/kg		< 0.5	< 0.52	< 0.61
Acenaphthene	SVOCs	mg/kg	**570**	< 0.25	< 0.26	< 0.3
Acenaphthylene	SVOCs	mg/kg		< 0.25	< 0.26	< 0.3
Aniline	SVOCs	mg/kg		< 0.5	< 0.52	< 0.61
Anthracene	SVOCs	mg/kg	**12000**	< 0.25	< 0.26	< 0.3
Benzo(a)anthracene	SVOCs	mg/kg	**2**	< 0.25	< 0.26	< 0.3
Benzo(a)pyrene	SVOCs	mg/kg	**0.8**	< 0.25	< 0.26	< 0.3
Benzo(b)fluoranthene	SVOCs	mg/kg	**5**	< 0.25	< 0.26	< 0.3
Benzo(g,h,i)perylene	SVOCs	mg/kg		**0.0205 J**	< 0.26	< 0.3
Benzo(k)fluoranthene	SVOCs	mg/kg	**49**	< 0.25	< 0.26	< 0.3
Benzoic Acid	SVOCs	mg/kg		**0.651**	< 0.52	< 0.61
Benzyl alcohol	SVOCs	mg/kg				
bis(2-Chloroethoxy)methane	SVOCs	mg/kg		< 0.25	< 0.26	< 0.3
bis(2-Chloroethyl)ether	SVOCs	mg/kg	**0.0004**	< 0.25	< 0.26	< 0.3
Bis(2-chloroisopropyl)ether	SVOCs	mg/kg		< 0.25	< 0.26	< 0.3
bis(2-Ethylhexyl)phthalate	SVOCs	mg/kg	**410**	**0.0723 J**	**0.26**	< 0.3
Butyl benzyl phthalate	SVOCs	mg/kg	**930**	**0.0143 J**	< 0.26	< 0.3
Chrysene (1,2-Benzphenanthracene)	SVOCs	mg/kg	**160**	< 0.25	< 0.26	< 0.3
Dibenzo(a,h)anthracene	SVOCs	mg/kg	**0.8**	< 0.25	< 0.26	< 0.3
Dibenzofuran	SVOCs	mg/kg		< 0.25	< 0.26	< 0.3
Diethyl phthalate	SVOCs	mg/kg	**470**	< 0.25	< 0.26	< 0.3
Dimethyl phthalate	SVOCs	mg/kg		< 0.25	< 0.26	< 0.3
Di-n-butyl phthalate	SVOCs	mg/kg	**2300**	< 0.25	**0.234 J**	< 0.3
Di-n-octyl phthalate	SVOCs	mg/kg	**4100**	< 0.25	< 0.26	< 0.3
Fluoranthene	SVOCs	mg/kg	**560**	**0.0108 J**	< 0.26	< 0.3
Fluorene	SVOCs	mg/kg	**560**	< 0.25	< 0.26	< 0.3
Hexachlorobenzene	SVOCs	mg/kg	**1.8**	< 0.25	< 0.26	< 0.3
Hexachlorocyclopentadiene	SVOCs	mg/kg	**1.1**	< 0.5	< 0.52	< 0.61
Hexachloroethane	SVOCs	mg/kg	**0.5**	< 0.25	< 0.26	< 0.3
Indeno(1,2,3-cd)pyrene	SVOCs	mg/kg	**8**	< 0.25	< 0.26	< 0.3
Isophorone (3,5,5-trimethyl-2-cyclohexene-1-one)	SVOCs	mg/kg	**8**	**0.0505 J**	< 0.26	< 0.3
Naphthalene	SVOCs	mg/kg	**1.8**	< 0.25	< 0.26	< 0.3
Nitrobenzene	SVOCs	mg/kg	**0.1**	< 0.25	< 0.26	< 0.3
N-Nitrosodimethylamine	SVOCs	mg/kg				
N-Nitrosodi-n-propylamine	SVOCs	mg/kg	**0.00005**	< 0.25	< 0.26	< 0.3
N-Nitrosodiphenylamine	SVOCs	mg/kg	**1**	< 0.25	< 0.26	< 0.3
p-Chloroaniline	SVOCs	mg/kg	**0.7**	< 0.5	< 0.52	< 0.61
Pentachlorophenol	SVOCs	mg/kg	**0.03**	< 0.5	< 0.52	< 0.61
Phenanthrene	SVOCs	mg/kg		< 0.25	< 0.26	< 0.3
Phenol	SVOCs	mg/kg	**100**	< 0.25	< 0.26	< 0.3
Pyrene	SVOCs	mg/kg	**4200**	**0.0511 J**	< 0.26	< 0.3
Pyridine	SVOCs	mg/kg		< 0.5	< 0.52	< 0.61

See last page for notes

Table 3
Summary of Soil Analytical Data

Chemical	Group	Units	Minimum Class I Criteria	ROST-4-PZ(B)		
			Sample Depth (feet bgs):	10-11	28-29	36-37
1,1,1,2-Tetrachloroethane	VOCs	mg/kg	**3.4**	< 0.0068	< 0.0061	< 0.0057
1,1,1-Trichloroethane (Methyl chloroform)	VOCs	mg/kg	**2**	< 0.0027	< 0.0024	< 0.0023
1,1,2,2-Tetrachloroethane	VOCs	mg/kg	**3.3**	< 0.0027	< 0.0024	< 0.0023
1,1,2-Trichloroethane	VOCs	mg/kg	**0.02**	< 0.0027	< 0.0024	< 0.0023
1,1-Dichloroethane	VOCs	mg/kg	**23**	< 0.0027	< 0.0024	< 0.0023
1,1-Dichloroethene	VOCs	mg/kg	**0.06**	< 0.0027	< 0.0024	< 0.0023
1,1-Dichloropropene	VOCs	mg/kg		< 0.0068	< 0.0061	< 0.0057
1,2,3-Trichlorobenzene	VOCs	mg/kg		< 0.0068 UJ	< 0.0061 UJ	< 0.0057 UJ
1,2,3-Trichloropropane	VOCs	mg/kg	**0.0001**	< 0.0068	< 0.0061	< 0.0057
1,2,4-Trichlorobenzene	VOCs	mg/kg	**5**	< 0.0068	< 0.0061	< 0.0057
1,2,4-Trimethylbenzene	VOCs	mg/kg	**0.87**	< 0.0068	< 0.0061	< 0.0057
1,2-Dibromo-3-chloropropane (DBCP)	VOCs	mg/kg	**0.002**	< 0.0068	< 0.0061	< 0.0057
1,2-Dibromoethane	VOCs	mg/kg	**0.0004**	< 0.0027	< 0.0024	< 0.0023
1,2-Dichlorobenzene	VOCs	mg/kg	**17**	< 0.0027	< 0.0024	< 0.0023
1,2-Dichloroethane	VOCs	mg/kg	**0.02**	< 0.0027	< 0.0024	< 0.0023
1,2-Dichloropropane	VOCs	mg/kg	**0.03**	< 0.0027	< 0.0024	< 0.0023
1,3,5-Trimethylbenzene	VOCs	mg/kg	**4.6**	< 0.0068	< 0.0061	< 0.0057
1,3-Dichlorobenzene	VOCs	mg/kg	**600**	< 0.0027	< 0.0024	< 0.0023
1,3-Dichloropropane	VOCs	mg/kg	**0.83**	< 0.0068	< 0.0061	< 0.0057
1,4-Dichlorobenzene	VOCs	mg/kg	**2**	< 0.0027	< 0.0024	< 0.0023
1,4-Dioxane	VOCs	mg/kg				
2,2-Dichloropropane	VOCs	mg/kg		< 0.0068 UJ	< 0.0061 UJ	< 0.0057 UJ
2-Butanone	VOCs	mg/kg	**17**	< 0.0068	< 0.0061	< 0.0065
2-Chloroethyl vinyl ether	VOCs	mg/kg		< 0.0068	< 0.0061	< 0.0057
2-Chlorotoluene	VOCs	mg/kg	**1400**	< 0.0068	< 0.0061	< 0.0057
2-Hexanone (Methyl N-Butyl Ketone)	VOCs	mg/kg		< 0.0068	< 0.0061	< 0.0057
4-Chlorotoluene	VOCs	mg/kg		< 0.0068	< 0.0061	< 0.0057
4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	VOCs	mg/kg	**340**	< 0.0068	< 0.0061	< 0.0057
Acetone	VOCs	mg/kg	**25**	< 0.0497	< 0.0247	< 0.1
Acrolein	VOCs	mg/kg		< 0.034	< 0.03	< 0.029
Acrylonitrile	VOCs	mg/kg		< 0.0068	< 0.0061	< 0.0057
Benzene	VOCs	mg/kg	**0.03**	**0.0019**	**0.0012**	**0.0022**
Bromobenzene	VOCs	mg/kg	**2.2**	< 0.0068	< 0.0061	< 0.0057
Bromochloromethane	VOCs	mg/kg		< 0.0068	< 0.0061	< 0.0057
Bromodichloromethane	VOCs	mg/kg	**0.6**	< 0.0027	< 0.0024	< 0.0023
Bromoform	VOCs	mg/kg	**0.8**	< 0.0027	< 0.0024	< 0.0023
Bromomethane	VOCs	mg/kg	**0.2**	< 0.0027	< 0.0024	< 0.0023
Carbon disulfide	VOCs	mg/kg	**9**	< 0.0068	< 0.0061	< 0.0057
Carbon tetrachloride	VOCs	mg/kg	**0.07**	< 0.0027	< 0.0024	< 0.0023
Chlorobenzene	VOCs	mg/kg	**1**	< 0.0027	< 0.0024	< 0.0023
Chlorodibromomethane	VOCs	mg/kg	**0.4**	< 0.0027	< 0.0024	< 0.0023
Chloroethane	VOCs	mg/kg	**95**	< 0.0068	< 0.0061	< 0.0057
Chloroform	VOCs	mg/kg	**0.54**	< 0.0027	< 0.0024	< 0.0023
Chloromethane	VOCs	mg/kg	**1.1**	< 0.0068	< 0.0061	< 0.0057
cis-1,2-Dichloroethene	VOCs	mg/kg	**0.4**	< 0.0027	< 0.0024	< 0.0023
cis-1,3-Dichloropropene	VOCs	mg/kg	**0.004**	< 0.0027	< 0.0024	< 0.0023
Cymene (p-Isopropyltoluene)	VOCs	mg/kg		< 0.0068	< 0.0061	< 0.0057
Dibromomethane	VOCs	mg/kg	**0.34**	< 0.0068	< 0.0061	< 0.0057
Dichlorodifluoromethane	VOCs	mg/kg	**20**	< 0.0027	< 0.0024	< 0.0023
Dichloromethane (Methylene chloride)	VOCs	mg/kg	**0.02**	< 0.0027	< 0.0024	< 0.0023
Ethyl methacrylate	VOCs	mg/kg		< 0.0068	< 0.0061	< 0.0057
Ethylbenzene	VOCs	mg/kg	**13**	**0.0079**	**0.0035**	**0.0059**
Hexachlorobutadiene	VOCs	mg/kg	**2.2**	< 0.0068	< 0.0061	< 0.0057
Isopropylbenzene (Cumene)	VOCs	mg/kg	**51**	< 0.0068	< 0.0061	< 0.0057
m,p-Xylene	VOCs	mg/kg	**6.4**	**0.0014 J**	**0.0012 J**	**0.0018 J**
Methyl tert-Butyl Ether (MTBE)	VOCs	mg/kg	**0.32**	< 0.0027	< 0.0024	< 0.0023
Naphthalene	VOCs	mg/kg	**1.8**			
n-Butylbenzene	VOCs	mg/kg	**240**	< 0.0068	< 0.0061	< 0.0057
n-Propylbenzene	VOCs	mg/kg	**240**	< 0.0068	< 0.0061	< 0.0057
o-Xylenes	VOCs	mg/kg	**6.5**	< 0.0027	< 0.0024	< 0.0023
sec-Butylbenzene	VOCs	mg/kg	**220**	< 0.0068	< 0.0061	< 0.0057
Styrene	VOCs	mg/kg	**4**	< 0.0068	< 0.0061	< 0.0057
tert-Butylbenzene	VOCs	mg/kg	**390**	< 0.0068	< 0.0061	< 0.0057
Tetrachloroethene	VOCs	mg/kg	**0.06**	< 0.0027	< 0.0024	< 0.0023
Toluene	VOCs	mg/kg	**12**	**0.0074**	**0.0036 J**	**0.006**
trans-1,2-Dichloroethene	VOCs	mg/kg	**0.7**	< 0.0027	< 0.0024	< 0.0023
trans-1,3-Dichloropropene	VOCs	mg/kg		< 0.0027	< 0.0024	< 0.0023
Trichloroethene	VOCs	mg/kg	**0.06**	< 0.0027	< 0.0024	< 0.0023
Trichlorofluoromethane	VOCs	mg/kg	**34**	< 0.0027	< 0.0024	< 0.0023
Vinyl acetate	VOCs	mg/kg	**10**	< 0.0068	< 0.0061	< 0.0057
Vinyl chloride	VOCs	mg/kg	**0.01**	< 0.0027 UJ	< 0.0024 UJ	< 0.0023 UJ
Xylenes (total)	VOCs	mg/kg	**5.6**	**0.0014 J**	**0.0012 J**	**0.0018 J**

See last page for notes

Table 3
Summary of Soil Analytical Data

Chemical	Group	Units	Minimum Class I Criteria	ROST-4-PZ(B)		
			Sample Depth (feet bgs):	10-11	28-29	36-37
1,2-Diphenylhydrazine	SVOCs	mg/kg				
1-Methylnaphthalene	SVOCs	mg/kg				
2,4,5-Trichlorophenol	SVOCs	mg/kg	**270**	< 0.54	< 0.52	< 0.52
2,4,6-Trichlorophenol	SVOCs	mg/kg	**0.2**	< 0.54	< 0.52	< 0.52
2,4-Dichlorophenol	SVOCs	mg/kg	**1**	< 0.54	< 0.52	< 0.52
2,4-Dimethylphenol	SVOCs	mg/kg	**9**	< 0.54	< 0.52	< 0.52
2,4-Dinitrophenol	SVOCs	mg/kg	**0.2**	< 1.1	< 1	< 1
2,4-Dinitrotoluene	SVOCs	mg/kg	**0.0008**	< 0.54	< 0.52	< 0.52
2,6-Dinitrotoluene	SVOCs	mg/kg	**0.0007**	< 0.54	< 0.52	< 0.52
2-Chloronaphthalene	SVOCs	mg/kg		< 0.27	< 0.26	< 0.26
2-Chlorophenol	SVOCs	mg/kg	**4**	< 0.27	< 0.26	< 0.26
2-Methylnaphthalene	SVOCs	mg/kg		< 0.27	< 0.26	< 0.26
2-Methylphenol (o-Cresol)	SVOCs	mg/kg	**15**	< 0.54	< 0.52	< 0.52
2-Nitroaniline	SVOCs	mg/kg		< 0.54	< 0.52	< 0.52
2-Nitrophenol	SVOCs	mg/kg		< 0.54	< 0.52	< 0.52
3 & 4-Methylphenol (m & p-Cresol)	SVOCs	mg/kg		< 0.54	< 0.52	< 0.52
3,3'-Dichlorobenzidine	SVOCs	mg/kg	**0.007**	< 0.27	< 0.26	< 0.26
3-Nitroaniline	SVOCs	mg/kg		< 0.54	< 0.52	< 0.52
4,6-Dinitro-2-methylphenol (4,6-dinitro-o-cresol)	SVOCs	mg/kg		< 0.54	< 0.52	< 0.52
4-Bromophenyl phenyl ether	SVOCs	mg/kg		< 0.27	< 0.26	< 0.26
4-Chloro-3-methylphenol (p-Chloro-m-cresol)	SVOCs	mg/kg		< 0.54	< 0.52	< 0.52
4-Chlorophenyl phenyl ether	SVOCs	mg/kg		< 0.27	< 0.26	< 0.26
4-Nitrophenol	SVOCs	mg/kg		< 1.1	< 1	< 1
4-Nitrophenylamine	SVOCs	mg/kg		< 0.54	< 0.52	< 0.52
Acenaphthene	SVOCs	mg/kg	**570**	< 0.27	< 0.26	< 0.26
Acenaphthylene	SVOCs	mg/kg		< 0.27	< 0.26	< 0.26
Aniline	SVOCs	mg/kg		< 0.54	< 0.52	< 0.52
Anthracene	SVOCs	mg/kg	**12000**	< 0.27	< 0.26	< 0.26
Benzo(a)anthracene	SVOCs	mg/kg	**2**	< 0.27	< 0.26	< 0.26
Benzo(a)pyrene	SVOCs	mg/kg	**0.8**	< 0.27	< 0.26	< 0.26
Benzo(b)fluoranthene	SVOCs	mg/kg	**5**	< 0.27	< 0.26	< 0.26
Benzo(g,h,i)perylene	SVOCs	mg/kg		< 0.27	< 0.26	< 0.26
Benzo(k)fluoranthene	SVOCs	mg/kg	**49**	< 0.27	< 0.26	< 0.26
Benzoic Acid	SVOCs	mg/kg		< 0.54	< 0.52	< 0.52
Benzyl alcohol	SVOCs	mg/kg				
bis(2-Chloroethoxy)methane	SVOCs	mg/kg		< 0.27	< 0.26	< 0.26
bis(2-Chloroethyl)ether	SVOCs	mg/kg	**0.0004**	< 0.27	< 0.26	< 0.26
Bis(2-chloroisopropyl)ether	SVOCs	mg/kg		< 0.27	< 0.26	< 0.26
bis(2-Ethylhexyl)phthalate	SVOCs	mg/kg	**410**	< 0.311	< 0.302	< 0.306
Butyl benzyl phthalate	SVOCs	mg/kg	**930**	**0.039 J**	**0.0276 J**	< 0.26
Chrysene (1,2-Benzphenanthracene)	SVOCs	mg/kg	**160**	< 0.27	< 0.26	< 0.26
Dibenzo(a,h)anthracene	SVOCs	mg/kg	**0.8**	< 0.27	< 0.26	< 0.26
Dibenzofuran	SVOCs	mg/kg		< 0.27	< 0.26	< 0.26
Diethyl phthalate	SVOCs	mg/kg	**470**	**0.0387 J**	**0.035 J**	**0.0283 J**
Dimethyl phthalate	SVOCs	mg/kg		< 0.27	< 0.26	< 0.26
Di-n-butyl phthalate	SVOCs	mg/kg	**2300**	**0.255 J**	**0.243 J**	**0.243 J**
Di-n-octyl phthalate	SVOCs	mg/kg	**4100**	< 0.27	< 0.26	< 0.26
Fluoranthene	SVOCs	mg/kg	**560**	< 0.27	< 0.26	< 0.26
Fluorene	SVOCs	mg/kg	**560**	< 0.27	< 0.26	< 0.26
Hexachlorobenzene	SVOCs	mg/kg	**1.8**	< 0.27	< 0.26	< 0.26
Hexachlorocyclopentadiene	SVOCs	mg/kg	**1.1**	< 0.54	< 0.52	< 0.52
Hexachloroethane	SVOCs	mg/kg	**0.5**	< 0.27	< 0.26	< 0.26
Indeno(1,2,3-cd)pyrene	SVOCs	mg/kg	**8**	< 0.27	< 0.26	< 0.26
Isophorone (3,5,5-trimethyl-2-cyclohexene-1-one)	SVOCs	mg/kg	**8**	**0.0331 J**	< 0.26	< 0.26
Naphthalene	SVOCs	mg/kg	**1.8**	< 0.27	< 0.26	< 0.26
Nitrobenzene	SVOCs	mg/kg	**0.1**	< 0.27	< 0.26	< 0.26
N-Nitrosodimethylamine	SVOCs	mg/kg				
N-Nitrosodi-n-propylamine	SVOCs	mg/kg	**0.00005**	< 0.27	< 0.26	< 0.26
N-Nitrosodiphenylamine	SVOCs	mg/kg	**1**	< 0.27	< 0.26	< 0.26
p-Chloroaniline	SVOCs	mg/kg	**0.7**	< 0.54	< 0.52	< 0.52
Pentachlorophenol	SVOCs	mg/kg	**0.03**	< 0.54	< 0.52	< 0.52
Phenanthrene	SVOCs	mg/kg		< 0.27	< 0.26	< 0.26
Phenol	SVOCs	mg/kg	**100**	< 0.27	< 0.26	< 0.26
Pyrene	SVOCs	mg/kg	**4200**	< 0.27	< 0.26	< 0.26
Pyridine	SVOCs	mg/kg		< 0.54	< 0.52	< 0.52

See last page for notes

Table 3
Summary of Soil Analytical Data

Chemical	Group	Units	Minimum Class I Criteria	ROST-4-PZ(C)			
			Sample Depth (feet bgs):	11-12	25-26	36-37	36-37 (DUP)
1,1,1,2-Tetrachloroethane	VOCs	mg/kg	**3.4**	< 0.0064	< 0.0061	< 0.0063	< 0.0056
1,1,1-Trichloroethane (Methyl chloroform)	VOCs	mg/kg	**2**	< 0.0026	< 0.0024	< 0.0025	< 0.0023
1,1,2,2-Tetrachloroethane	VOCs	mg/kg	**3.3**	< 0.0026	< 0.0024	< 0.0025	< 0.0023
1,1,2-Trichloroethane	VOCs	mg/kg	**0.02**	< 0.0026	< 0.0024	< 0.0025	< 0.0023
1,1-Dichloroethane	VOCs	mg/kg	**23**	< 0.0026	< 0.0024	< 0.0025	< 0.0023
1,1-Dichloroethene	VOCs	mg/kg	**0.06**	< 0.0026	< 0.0024	< 0.0025	< 0.0023
1,1-Dichloropropene	VOCs	mg/kg		< 0.0064	< 0.0061	< 0.0063	< 0.0056
1,2,3-Trichlorobenzene	VOCs	mg/kg		< 0.0064 UJ	< 0.0061 UJ	< 0.0063 UJ	< 0.0056 UJ
1,2,3-Trichloropropane	VOCs	mg/kg	**0.0001**	< 0.0064	< 0.0061	< 0.0063	< 0.0056
1,2,4-Trichlorobenzene	VOCs	mg/kg	**5**	< 0.0064 UJ	< 0.0061	< 0.0063	< 0.0056
1,2,4-Trimethylbenzene	VOCs	mg/kg	**0.87**	**0.0033 J**	< 0.0061	< 0.0063	< 0.0056
1,2-Dibromo-3-chloropropane (DBCP)	VOCs	mg/kg	**0.002**	< 0.0064	< 0.0061	< 0.0063	< 0.0056
1,2-Dibromoethane	VOCs	mg/kg	**0.0004**	< 0.0026	< 0.0024	< 0.0025	< 0.0023
1,2-Dichlorobenzene	VOCs	mg/kg	**17**	**0.0035**	< 0.0024	< 0.0025	< 0.0023
1,2-Dichloroethane	VOCs	mg/kg	**0.02**	< 0.0026	< 0.0024	< 0.0025	< 0.0023
1,2-Dichloropropane	VOCs	mg/kg	**0.03**	< 0.0026	< 0.0024	< 0.0025	< 0.0023
1,3,5-Trimethylbenzene	VOCs	mg/kg	**4.6**	**0.0026 J**	< 0.0061	< 0.0063	< 0.0056
1,3-Dichlorobenzene	VOCs	mg/kg	**600**	< 0.0026	< 0.0024	< 0.0025	< 0.0023
1,3-Dichloropropane	VOCs	mg/kg	**0.83**	< 0.0064	< 0.0061	< 0.0063	< 0.0056
1,4-Dichlorobenzene	VOCs	mg/kg	**2**	**0.003**	< 0.0024	< 0.0025	< 0.0023
1,4-Dioxane	VOCs	mg/kg					
2,2-Dichloropropane	VOCs	mg/kg		< 0.0064 UJ	< 0.0061 UJ	< 0.0063 UJ	< 0.0056 UJ
2-Butanone	VOCs	mg/kg	**17**	< 0.0064	< 0.0061	< 0.0063	< 0.0056
2-Chloroethyl vinyl ether	VOCs	mg/kg		< 0.0064	< 0.0061	< 0.0063	< 0.0056
2-Chlorotoluene	VOCs	mg/kg	**1400**	< 0.0064	< 0.0061	< 0.0063	< 0.0056
2-Hexanone (Methyl N-Butyl Ketone)	VOCs	mg/kg		< 0.0064	< 0.0061	< 0.0063	< 0.0056
4-Chlorotoluene	VOCs	mg/kg		< 0.0064	< 0.0061	< 0.0063	< 0.0056
4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	VOCs	mg/kg	**340**	< 0.0064	< 0.0061	< 0.0063	< 0.0056
Acetone	VOCs	mg/kg	**25**	< 0.0064	< 0.0061	< 0.0289	< 0.0314
Acrolein	VOCs	mg/kg		< 0.032	< 0.03	< 0.031	< 0.028
Acrylonitrile	VOCs	mg/kg		< 0.0064	< 0.0061	< 0.0063	< 0.0056
Benzene	VOCs	mg/kg	**0.03**	**0.0022**	**0.0026**	**0.001**	**0.0011**
Bromobenzene	VOCs	mg/kg	**2.2**	**0.0019 J**	< 0.0061	< 0.0063	< 0.0056
Bromochloromethane	VOCs	mg/kg		< 0.0064	< 0.0061	< 0.0063	< 0.0056
Bromodichloromethane	VOCs	mg/kg	**0.6**	< 0.0026	< 0.0024	< 0.0025	< 0.0023
Bromoform	VOCs	mg/kg	**0.8**	< 0.0026	< 0.0024	< 0.0025	< 0.0023
Bromomethane	VOCs	mg/kg	**0.2**	< 0.0026	< 0.0024	< 0.0025	< 0.0023
Carbon disulfide	VOCs	mg/kg	**9**	< 0.0064	< 0.0061	< 0.0063	< 0.0056
Carbon tetrachloride	VOCs	mg/kg	**0.07**	< 0.0026	< 0.0024	< 0.0025	< 0.0023
Chlorobenzene	VOCs	mg/kg	**1**	< 0.0026	< 0.0024	< 0.0025	< 0.0023
Chlorodibromomethane	VOCs	mg/kg	**0.4**	< 0.0026	< 0.0024	< 0.0025	< 0.0023
Chloroethane	VOCs	mg/kg	**95**	< 0.0064	< 0.0061	< 0.0063	< 0.0056
Chloroform	VOCs	mg/kg	**0.54**	< 0.0026	< 0.0024	< 0.0025	< 0.0023
Chloromethane	VOCs	mg/kg	**1.1**	< 0.0064	< 0.0061	< 0.0063	< 0.0056
cis-1,2-Dichloroethene	VOCs	mg/kg	**0.4**	< 0.0026	< 0.0024	< 0.0025	< 0.0023
cis-1,3-Dichloropropene	VOCs	mg/kg	**0.004**	< 0.0026	< 0.0024	< 0.0025	< 0.0023
Cymene (p-Isopropyltoluene)	VOCs	mg/kg		**0.0039 J**	< 0.0061	< 0.0063	< 0.0056
Dibromomethane	VOCs	mg/kg	**0.34**	< 0.0064	< 0.0061	< 0.0063	< 0.0056
Dichlorodifluoromethane	VOCs	mg/kg	**20**	< 0.0026	< 0.0024	< 0.0025	< 0.0023
Dichloromethane (Methylene chloride)	VOCs	mg/kg	**0.02**	< 0.0026	< 0.0024	< 0.0025	< 0.0023
Ethyl methacrylate	VOCs	mg/kg		< 0.0064	< 0.0061	< 0.0063	< 0.0056
Ethylbenzene	VOCs	mg/kg	**13**	**0.0057**	**0.0089**	**0.003**	**0.0034**
Hexachlorobutadiene	VOCs	mg/kg	**2.2**	**0.0036 J**	< 0.0061	< 0.0063	< 0.0056
Isopropylbenzene (Cumene)	VOCs	mg/kg	**51**	**0.0022 J**	< 0.0061	< 0.0063	< 0.0056
m,p-Xylene	VOCs	mg/kg	**6.4**	**0.0027**	**0.002 J**	**0.00099 J**	**0.001 J**
Methyl tert-Butyl Ether (MTBE)	VOCs	mg/kg	**0.32**	< 0.0026	< 0.0024	< 0.0025	< 0.0023
Naphthalene	VOCs	mg/kg	**1.8**				
n-Butylbenzene	VOCs	mg/kg	**240**	**0.0023 J**	< 0.0061	< 0.0063	< 0.0056
n-Propylbenzene	VOCs	mg/kg	**240**	**0.0032 J**	< 0.0061	< 0.0063	< 0.0056
o-Xylenes	VOCs	mg/kg	**6.5**	**0.0013 J**	**0.00065 J**	< 0.0025	< 0.0023
sec-Butylbenzene	VOCs	mg/kg	**220**	**0.0035 J**	< 0.0061	< 0.0063	< 0.0056
Styrene	VOCs	mg/kg	**4**	**0.0016 J**	< 0.0061	< 0.0063	< 0.0056
tert-Butylbenzene	VOCs	mg/kg	**390**	**0.0029 J**	< 0.0061	< 0.0063	< 0.0056
Tetrachloroethene	VOCs	mg/kg	**0.06**	< 0.0026	< 0.0024	< 0.0025	< 0.0023
Toluene	VOCs	mg/kg	**12**	**0.0062 J**	**0.0084**	**0.0032 J**	**0.0034 J**
trans-1,2-Dichloroethene	VOCs	mg/kg	**0.7**	< 0.0026	< 0.0024	< 0.0025	< 0.0023
trans-1,3-Dichloropropene	VOCs	mg/kg		< 0.0026	< 0.0024	< 0.0025	< 0.0023
Trichloroethene	VOCs	mg/kg	**0.06**	**0.00081 J**	< 0.0024	< 0.0025	< 0.0023
Trichlorofluoromethane	VOCs	mg/kg	**34**	< 0.0026	< 0.0024	< 0.0025	< 0.0023
Vinyl acetate	VOCs	mg/kg	**10**	< 0.0064	< 0.0061	< 0.0063	< 0.0056
Vinyl chloride	VOCs	mg/kg	**0.01**	< 0.0026	< 0.0024	< 0.0025	< 0.0023
Xylenes (total)	VOCs	mg/kg	**5.6**	**0.0041**	**0.0026**	**0.00099 J**	**0.001 J**

Table 3
Summary of Soil Analytical Data

Chemical	Group	Units	Minimum Class I Criteria	ROST-4-PZ(C)			
	Sample Depth (feet bgs):			11-12	25-26	36-37	36-37 (DUP)
1,2-Diphenylhydrazine	SVOCs	mg/kg					
1-Methylnaphthalene	SVOCs	mg/kg					
2,4,5-Trichlorophenol	SVOCs	mg/kg	**270**	< 0.54	< 0.54	< 0.51	< 0.5
2,4,6-Trichlorophenol	SVOCs	mg/kg	**0.2**	< 0.54	< 0.54	< 0.51	< 0.5
2,4-Dichlorophenol	SVOCs	mg/kg	**1**	< 0.54	< 0.54	< 0.51	< 0.5
2,4-Dimethylphenol	SVOCs	mg/kg	**9**	< 0.54	< 0.54	< 0.51	< 0.5
2,4-Dinitrophenol	SVOCs	mg/kg	**0.2**	< 1.1	< 1.1	< 1	< 1
2,4-Dinitrotoluene	SVOCs	mg/kg	**0.0008**	< 0.54	< 0.54	< 0.51	< 0.5
2,6-Dinitrotoluene	SVOCs	mg/kg	**0.0007**	< 0.54	< 0.54	< 0.51	< 0.5
2-Chloronaphthalene	SVOCs	mg/kg		< 0.27	< 0.27	< 0.26	< 0.25
2-Chlorophenol	SVOCs	mg/kg	**4**	< 0.27	< 0.27	< 0.26	< 0.25
2-Methylnaphthalene	SVOCs	mg/kg		< 0.27	< 0.27	< 0.26	< 0.25
2-Methylphenol (o-Cresol)	SVOCs	mg/kg	**15**	< 0.54	< 0.54	< 0.51	< 0.5
2-Nitroaniline	SVOCs	mg/kg		< 0.54	< 0.54	< 0.51	< 0.5
2-Nitrophenol	SVOCs	mg/kg		< 0.54	< 0.54	< 0.51	< 0.5
3 & 4-Methylphenol (m & p-Cresol)	SVOCs	mg/kg		< 0.54	< 0.54	< 0.51	< 0.5
3,3'-Dichlorobenzidine	SVOCs	mg/kg	**0.007**	< 0.27	< 0.27	< 0.26	< 0.25
3-Nitroaniline	SVOCs	mg/kg		< 0.54	< 0.54	< 0.51	< 0.5
4,6-Dinitro-2-methylphenol (4,6-dinitro-o-cresol)	SVOCs	mg/kg		< 0.54	< 0.54	< 0.51	< 0.5
4-Bromophenyl phenyl ether	SVOCs	mg/kg		< 0.27	< 0.27	< 0.26	< 0.25
4-Chloro-3-methylphenol (p-Chloro-m-cresol)	SVOCs	mg/kg		< 0.54	< 0.54	< 0.51	< 0.5
4-Chlorophenyl phenyl ether	SVOCs	mg/kg		< 0.27	< 0.27	< 0.26	< 0.25
4-Nitrophenol	SVOCs	mg/kg		< 1.1	< 1.1	< 1	< 1
4-Nitrophenylamine	SVOCs	mg/kg		< 0.54	< 0.54	< 0.51	< 0.5
Acenaphthene	SVOCs	mg/kg	**570**	< 0.27	< 0.27	< 0.26	< 0.25
Acenaphthylene	SVOCs	mg/kg		< 0.27	< 0.27	< 0.26	< 0.25
Aniline	SVOCs	mg/kg		< 0.54	< 0.54	< 0.51	< 0.5
Anthracene	SVOCs	mg/kg	**12000**	< 0.27	< 0.27	< 0.26	< 0.25
Benzo(a)anthracene	SVOCs	mg/kg	**2**	< 0.27	< 0.27	< 0.26	< 0.25
Benzo(a)pyrene	SVOCs	mg/kg	**0.8**	< 0.27	< 0.27	< 0.26	< 0.25
Benzo(b)fluoranthene	SVOCs	mg/kg	**5**	< 0.27	< 0.27	< 0.26	< 0.25
Benzo(g,h,i)perylene	SVOCs	mg/kg		< 0.27	< 0.27	< 0.26	< 0.25
Benzo(k)fluoranthene	SVOCs	mg/kg	**49**	< 0.27	< 0.27	< 0.26	< 0.25
Benzoic Acid	SVOCs	mg/kg		< 0.54	< 0.54	< 0.51	< 0.5
Benzyl alcohol	SVOCs	mg/kg					
bis(2-Chloroethoxy)methane	SVOCs	mg/kg		< 0.27	< 0.27	< 0.26	< 0.25
bis(2-Chloroethyl)ether	SVOCs	mg/kg	**0.0004**	< 0.27	< 0.27	< 0.26	< 0.25
Bis(2-chloroisopropyl)ether	SVOCs	mg/kg		< 0.27	< 0.27	< 0.26	< 0.25
bis(2-Ethylhexyl)phthalate	SVOCs	mg/kg	**410**	< 0.034	< 0.0198	< 0.26	< 0.0199
Butyl benzyl phthalate	SVOCs	mg/kg	**930**	< 0.27	< 0.27	< 0.26	< 0.25
Chrysene (1,2-Benzphenanthracene)	SVOCs	mg/kg	**160**	< 0.27	< 0.27	< 0.26	< 0.25
Dibenzo(a,h)anthracene	SVOCs	mg/kg	**0.8**	< 0.27	< 0.27	< 0.26	< 0.25
Dibenzofuran	SVOCs	mg/kg		< 0.27	< 0.27	< 0.26	< 0.25
Diethyl phthalate	SVOCs	mg/kg	**470**	**0.0499 J**	< 0.27	**0.0382 J**	< 0.25
Dimethyl phthalate	SVOCs	mg/kg		< 0.27	< 0.27	< 0.26	< 0.25
Di-n-butyl phthalate	SVOCs	mg/kg	**2300**	< 0.27	< 0.27	< 0.26	< 0.25
Di-n-octyl phthalate	SVOCs	mg/kg	**4100**	< 0.27	< 0.27	< 0.26	< 0.25
Fluoranthene	SVOCs	mg/kg	**560**	< 0.27	< 0.27	< 0.26	< 0.25
Fluorene	SVOCs	mg/kg	**560**	< 0.27	< 0.27	< 0.26	< 0.25
Hexachlorobenzene	SVOCs	mg/kg	**1.8**	< 0.27	< 0.27	< 0.26	< 0.25
Hexachlorocyclopentadiene	SVOCs	mg/kg	**1.1**	< 0.54 UJ	< 0.54	< 0.51	< 0.5
Hexachloroethane	SVOCs	mg/kg	**0.5**	< 0.27	< 0.27	< 0.26	< 0.25
Indeno(1,2,3-cd)pyrene	SVOCs	mg/kg	**8**	< 0.27	< 0.27	< 0.26	< 0.25
Isophorone (3,5,5-trimethyl-2-cyclohexene-1-one)	SVOCs	mg/kg	**8**	< 0.27	< 0.27	< 0.26	< 0.25
Naphthalene	SVOCs	mg/kg	**1.8**	< 0.27	< 0.27	< 0.26	< 0.25
Nitrobenzene	SVOCs	mg/kg	**0.1**	< 0.27	< 0.27	< 0.26	< 0.25
N-Nitrosodimethylamine	SVOCs	mg/kg					
N-Nitrosodi-n-propylamine	SVOCs	mg/kg	**0.00005**	< 0.27	< 0.27	< 0.26	< 0.25
N-Nitrosodiphenylamine	SVOCs	mg/kg	**1**	< 0.27	< 0.27	< 0.26	< 0.25
p-Chloroaniline	SVOCs	mg/kg	**0.7**	< 0.54	< 0.54	< 0.51	< 0.5
Pentachlorophenol	SVOCs	mg/kg	**0.03**	< 0.54	< 0.54	< 0.51	< 0.5
Phenanthrene	SVOCs	mg/kg		< 0.27	< 0.27	< 0.26	< 0.25
Phenol	SVOCs	mg/kg	**100**	< 0.27	< 0.27	< 0.26	< 0.25
Pyrene	SVOCs	mg/kg	**4200**	< 0.27	< 0.27	< 0.26	< 0.25
Pyridine	SVOCs	mg/kg		< 0.54	< 0.54	< 0.51	< 0.5

Table 3
Summary of Soil Analytical Data

Chemical	Group	Units	Minimum Class I Criteria	ROST-4-PZ(D)			
			Sample Depth (feet bgs):	10-11	28-29	36-37	36-37 (DUP)
1,1,1,2-Tetrachloroethane	VOCs	mg/kg	**3.4**	< 0.007	< 0.0068	< 0.0064	< 0.0077
1,1,1-Trichloroethane (Methyl chloroform)	VOCs	mg/kg	**2**	< 0.0028	< 0.0027	< 0.0025	< 0.0031
1,1,2,2-Tetrachloroethane	VOCs	mg/kg	**3.3**	< 0.0028	< 0.0027	< 0.0025	< 0.0031
1,1,2-Trichloroethane	VOCs	mg/kg	**0.02**	< 0.0028	< 0.0027	< 0.0025	< 0.0031
1,1-Dichloroethane	VOCs	mg/kg	**23**	< 0.0028	< 0.0027	< 0.0025	< 0.0031
1,1-Dichloroethene	VOCs	mg/kg	**0.06**	< 0.0028	< 0.0027	< 0.0025	< 0.0031
1,1-Dichloropropene	VOCs	mg/kg		< 0.007	< 0.0068	< 0.0064	< 0.0077
1,2,3-Trichlorobenzene	VOCs	mg/kg		< 0.007	< 0.0068 UJ	< 0.0064	< 0.0077
1,2,3-Trichloropropane	VOCs	mg/kg	**0.0001**	< 0.007	< 0.0068	< 0.0064	< 0.0077
1,2,4-Trichlorobenzene	VOCs	mg/kg	**5**	< 0.007	< 0.0068	< 0.0064	< 0.0077
1,2,4-Trimethylbenzene	VOCs	mg/kg	**0.87**	< 0.007	< 0.0068	< 0.0064	< 0.0077
1,2-Dibromo-3-chloropropane (DBCP)	VOCs	mg/kg	**0.002**	< 0.007	< 0.0068	< 0.0064	< 0.0077
1,2-Dibromoethane	VOCs	mg/kg	**0.0004**	< 0.0028	< 0.0027	< 0.0025	< 0.0031
1,2-Dichlorobenzene	VOCs	mg/kg	**17**	< 0.0028	< 0.0027	< 0.0025	< 0.0031
1,2-Dichloroethane	VOCs	mg/kg	**0.02**	< 0.0028	< 0.0027	< 0.0025	< 0.0031
1,2-Dichloropropane	VOCs	mg/kg	**0.03**	< 0.0028	< 0.0027	< 0.0025	< 0.0031
1,3,5-Trimethylbenzene	VOCs	mg/kg	**4.6**	< 0.007	< 0.0068	< 0.0064	< 0.0077
1,3-Dichlorobenzene	VOCs	mg/kg	**600**	< 0.0028	< 0.0027	< 0.0025	< 0.0031
1,3-Dichloropropane	VOCs	mg/kg	**0.83**	< 0.007	< 0.0068	< 0.0064	< 0.0077
1,4-Dichlorobenzene	VOCs	mg/kg	**2**	< 0.0028	< 0.0027	< 0.0025	< 0.0031
1,4-Dioxane	VOCs	mg/kg					
2,2-Dichloropropane	VOCs	mg/kg		< 0.007 UJ	< 0.0068 UJ	< 0.0064 UJ	< 0.0077 UJ
2-Butanone	VOCs	mg/kg	**17**	< 0.007	< 0.0066	< 0.0064	< 0.0077
2-Chloroethyl vinyl ether	VOCs	mg/kg		< 0.007	< 0.0068	< 0.0064	< 0.0077
2-Chlorotoluene	VOCs	mg/kg	**1400**	< 0.007	< 0.0068	< 0.0064	< 0.0077
2-Hexanone (Methyl N-Butyl Ketone)	VOCs	mg/kg		< 0.007	< 0.0068	< 0.0064	< 0.0077
4-Chlorotoluene	VOCs	mg/kg		< 0.007	< 0.0068	< 0.0064	< 0.0077
4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	VOCs	mg/kg	**340**	< 0.007	< 0.0068	< 0.0064	< 0.0077
Acetone	VOCs	mg/kg	**25**	< 0.007	< 0.108	< 0.0064	**0.0602**
Acrolein	VOCs	mg/kg		< 0.035	< 0.034	< 0.032	< 0.038
Acrylonitrile	VOCs	mg/kg		< 0.007	< 0.0068	< 0.0064	< 0.0077
Benzene	VOCs	mg/kg	**0.03**	**0.0029**	**0.0028**	< 0.00064	**0.0013**
Bromobenzene	VOCs	mg/kg	**2.2**	< 0.007	< 0.0068	< 0.0064	< 0.0077
Bromochloromethane	VOCs	mg/kg		< 0.007	< 0.0068	< 0.0064	< 0.0077
Bromodichloromethane	VOCs	mg/kg	**0.6**	< 0.0028	< 0.0027	< 0.0025	< 0.0031
Bromoform	VOCs	mg/kg	**0.8**	< 0.0028	< 0.0027	< 0.0025	< 0.0031
Bromomethane	VOCs	mg/kg	**0.2**	< 0.0028	< 0.0027	< 0.0025	< 0.0031
Carbon disulfide	VOCs	mg/kg	**9**	< 0.007	< 0.0068	< 0.0064	< 0.0077
Carbon tetrachloride	VOCs	mg/kg	**0.07**	< 0.0028	< 0.0027	< 0.0025	< 0.0031
Chlorobenzene	VOCs	mg/kg	**1**	< 0.0028	< 0.0027	< 0.0025	< 0.0031
Chlorodibromomethane	VOCs	mg/kg	**0.4**	< 0.0028	< 0.0027	< 0.0025	< 0.0031
Chloroethane	VOCs	mg/kg	**95**	< 0.007	< 0.0068	< 0.0064	< 0.0077
Chloroform	VOCs	mg/kg	**0.54**	< 0.0028	< 0.0027	< 0.0025	< 0.0031
Chloromethane	VOCs	mg/kg	**1.1**	< 0.007	< 0.0068	< 0.0064	< 0.0077
cis-1,2-Dichloroethene	VOCs	mg/kg	**0.4**	< 0.0028	< 0.0027	< 0.0025	< 0.0031
cis-1,3-Dichloropropene	VOCs	mg/kg	**0.004**	< 0.0028	< 0.0027	< 0.0025	< 0.0031
Cymene (p-Isopropyltoluene)	VOCs	mg/kg		< 0.007	< 0.0068	< 0.0064	< 0.0077
Dibromomethane	VOCs	mg/kg	**0.34**	< 0.007	< 0.0068	< 0.0064	< 0.0077
Dichlorodifluoromethane	VOCs	mg/kg	**20**	< 0.0028	< 0.0027	< 0.0025	< 0.0031
Dichloromethane (Methylene chloride)	VOCs	mg/kg	**0.02**	< 0.0028	< 0.0027	< 0.008	< 0.0031
Ethyl methacrylate	VOCs	mg/kg		< 0.007	< 0.0068	< 0.0064	< 0.0077
Ethylbenzene	VOCs	mg/kg	**13**	**0.0121**	**0.0116**	< 0.0025	**0.0036**
Hexachlorobutadiene	VOCs	mg/kg	**2.2**	< 0.007	< 0.0068	< 0.0064	< 0.0077
Isopropylbenzene (Cumene)	VOCs	mg/kg	**51**	< 0.007	< 0.0068	< 0.0064	< 0.0077
m,p-Xylene	VOCs	mg/kg	**6.4**	**0.002 J**	**0.0023 J**	< 0.0025	**0.0012 J**
Methyl tert-Butyl Ether (MTBE)	VOCs	mg/kg	**0.32**	< 0.0028	< 0.0027	< 0.0025	< 0.0031
Naphthalene	VOCs	mg/kg	**1.8**				
n-Butylbenzene	VOCs	mg/kg	**240**	< 0.007	< 0.0068	< 0.0064	< 0.0077
n-Propylbenzene	VOCs	mg/kg	**240**	< 0.007	< 0.0068	< 0.0064	< 0.0077
o-Xylenes	VOCs	mg/kg	**6.5**	**0.0009 J**	**0.00087 J**	< 0.0025	< 0.0031
sec-Butylbenzene	VOCs	mg/kg	**220**	< 0.007	< 0.0068	< 0.0064	< 0.0077
Styrene	VOCs	mg/kg	**4**	< 0.007	< 0.0068	< 0.0064	< 0.0077
tert-Butylbenzene	VOCs	mg/kg	**390**	< 0.007	< 0.0068	< 0.0064	< 0.0077
Tetrachloroethene	VOCs	mg/kg	**0.06**	< 0.0028	< 0.0027	< 0.0025	< 0.0031
Toluene	VOCs	mg/kg	**12**	**0.0112**	**0.0101**	< 0.0064	**0.0038 J**
trans-1,2-Dichloroethene	VOCs	mg/kg	**0.7**	< 0.0028	< 0.0027	< 0.0025	< 0.0031
trans-1,3-Dichloropropene	VOCs	mg/kg		< 0.0028	< 0.0027	< 0.0025	< 0.0031
Trichloroethene	VOCs	mg/kg	**0.06**	< 0.0028	< 0.0027	< 0.0025	< 0.0031
Trichlorofluoromethane	VOCs	mg/kg	**34**	< 0.0028	< 0.0027	< 0.0025	< 0.0031
Vinyl acetate	VOCs	mg/kg	**10**	< 0.007	< 0.0068	< 0.0064	< 0.0077
Vinyl chloride	VOCs	mg/kg	**0.01**	< 0.0028	< 0.0027 UJ	< 0.0025	< 0.0031
Xylenes (total)	VOCs	mg/kg	**5.6**	**0.0029**	**0.0031**	< 0.0025	**0.0012 J**

Table 3
Summary of Soil Analytical Data

Chemical	Group	Units	Minimum Class I Criteria	ROST-4-PZ(D)			
			Sample Depth (feet bgs):	10-11	28-29	36-37	36-37 (DUP)
1,2-Diphenylhydrazine	SVOCs	mg/kg					
1-Methylnaphthalene	SVOCs	mg/kg					
2,4,5-Trichlorophenol	SVOCs	mg/kg	**270**	< 0.51	< 0.52	< 0.5	< 0.5
2,4,6-Trichlorophenol	SVOCs	mg/kg	**0.2**	< 0.51	< 0.52	< 0.5	< 0.5
2,4-Dichlorophenol	SVOCs	mg/kg	**1**	< 0.51	< 0.52	< 0.5	< 0.5
2,4-Dimethylphenol	SVOCs	mg/kg	**9**	< 0.51	< 0.52	< 0.5	< 0.5
2,4-Dinitrophenol	SVOCs	mg/kg	**0.2**	< 1	< 1	< 1	< 1
2,4-Dinitrotoluene	SVOCs	mg/kg	**0.0008**	< 0.51	< 0.52	< 0.5	< 0.5
2,6-Dinitrotoluene	SVOCs	mg/kg	**0.0007**	< 0.51	< 0.52	< 0.5	< 0.5
2-Chloronaphthalene	SVOCs	mg/kg		< 0.25	< 0.26	< 0.25	< 0.25
2-Chlorophenol	SVOCs	mg/kg	**4**	< 0.25	< 0.26	< 0.25	< 0.25
2-Methylnaphthalene	SVOCs	mg/kg		< 0.25	< 0.26	< 0.25	< 0.25
2-Methylphenol (o-Cresol)	SVOCs	mg/kg	**15**	< 0.51	< 0.52	< 0.5	< 0.5
2-Nitroaniline	SVOCs	mg/kg		< 0.51	< 0.52	< 0.5	< 0.5
2-Nitrophenol	SVOCs	mg/kg		< 0.51	< 0.52	< 0.5	< 0.5
3 & 4-Methylphenol (m & p-Cresol)	SVOCs	mg/kg		< 0.51	< 0.52	< 0.5	< 0.5
3,3'-Dichlorobenzidine	SVOCs	mg/kg	**0.007**	< 0.25	< 0.26	< 0.25	< 0.25
3-Nitroaniline	SVOCs	mg/kg		< 0.51	< 0.52	< 0.5	< 0.5
4,6-Dinitro-2-methylphenol (4,6-dinitro-o-cresol)	SVOCs	mg/kg		< 0.51	< 0.52	< 0.5	< 0.5
4-Bromophenyl phenyl ether	SVOCs	mg/kg		< 0.25	< 0.26	< 0.25	< 0.25
4-Chloro-3-methylphenol (p-Chloro-m-cresol)	SVOCs	mg/kg		< 0.51	< 0.52	< 0.5	< 0.5
4-Chlorophenyl phenyl ether	SVOCs	mg/kg		< 0.25	< 0.26	< 0.25	< 0.25
4-Nitrophenol	SVOCs	mg/kg		< 1	< 1	< 1	< 1
4-Nitrophenylamine	SVOCs	mg/kg		< 0.51	< 0.52	< 0.5	< 0.5
Acenaphthene	SVOCs	mg/kg	**570**	< 0.25	< 0.26	< 0.25	< 0.25
Acenaphthylene	SVOCs	mg/kg		< 0.25	< 0.26	< 0.25	< 0.25
Aniline	SVOCs	mg/kg		< 0.51	< 0.52	< 0.5	< 0.5
Anthracene	SVOCs	mg/kg	**12000**	< 0.25	< 0.26	< 0.25	< 0.25
Benzo(a)anthracene	SVOCs	mg/kg	**2**	< 0.25	< 0.26	< 0.25	< 0.25
Benzo(a)pyrene	SVOCs	mg/kg	**0.8**	< 0.25	< 0.26	< 0.25	< 0.25
Benzo(b)fluoranthene	SVOCs	mg/kg	**5**	< 0.25	< 0.26	< 0.25	< 0.25
Benzo(g,h,i)perylene	SVOCs	mg/kg		< 0.25	< 0.26	< 0.25	< 0.25
Benzo(k)fluoranthene	SVOCs	mg/kg	**49**	< 0.25	< 0.26	< 0.25	< 0.25
Benzoic Acid	SVOCs	mg/kg		< 0.51	< 0.52	< 0.5	< 0.5
Benzyl alcohol	SVOCs	mg/kg					
bis(2-Chloroethoxy)methane	SVOCs	mg/kg		< 0.25	< 0.26	< 0.25	< 0.25
bis(2-Chloroethyl)ether	SVOCs	mg/kg	**0.0004**	< 0.25	< 0.26	< 0.25	< 0.25
Bis(2-chloroisopropyl)ether	SVOCs	mg/kg		< 0.25	< 0.26	< 0.25	< 0.25
bis(2-Ethylhexyl)phthalate	SVOCs	mg/kg	**410**	< 0.262	< 0.267	< 0.254	< 0.258
Butyl benzyl phthalate	SVOCs	mg/kg	**930**	< 0.25	< 0.26	< 0.25	< 0.25
Chrysene (1,2-Benzphenanthracene)	SVOCs	mg/kg	**160**	< 0.25	< 0.26	< 0.25	< 0.25
Dibenzo(a,h)anthracene	SVOCs	mg/kg	**0.8**	< 0.25	< 0.26	< 0.25	< 0.25
Dibenzofuran	SVOCs	mg/kg		< 0.25	< 0.26	< 0.25	< 0.25
Diethyl phthalate	SVOCs	mg/kg	**470**	< 0.25	< 0.26	< 0.25	< 0.25
Dimethyl phthalate	SVOCs	mg/kg		< 0.25	< 0.26	< 0.25	< 0.25
Di-n-butyl phthalate	SVOCs	mg/kg	**2300**	**0.229 J**	< 0.26	**0.228 J**	**0.228 J**
Di-n-octyl phthalate	SVOCs	mg/kg	**4100**	< 0.25	< 0.26	< 0.25	< 0.25
Fluoranthene	SVOCs	mg/kg	**560**	< 0.25	< 0.26	< 0.25	< 0.25
Fluorene	SVOCs	mg/kg	**560**	< 0.25	< 0.26	< 0.25	< 0.25
Hexachlorobenzene	SVOCs	mg/kg	**1.8**	< 0.25	< 0.26	< 0.25	< 0.25
Hexachlorocyclopentadiene	SVOCs	mg/kg	**1.1**	< 0.51	< 0.52	< 0.5	< 0.5
Hexachloroethane	SVOCs	mg/kg	**0.5**	< 0.25	< 0.26	< 0.25	< 0.25
Indeno(1,2,3-cd)pyrene	SVOCs	mg/kg	**8**	< 0.25	< 0.26	< 0.25	< 0.25
Isophorone (3,5,5-trimethyl-2-cyclohexene-1-one)	SVOCs	mg/kg	**8**	< 0.25	< 0.26	< 0.25	< 0.25
Naphthalene	SVOCs	mg/kg	**1.8**	< 0.25	< 0.26	< 0.25	< 0.25
Nitrobenzene	SVOCs	mg/kg	**0.1**	< 0.25	< 0.26	< 0.25	< 0.25
N-Nitrosodimethylamine	SVOCs	mg/kg					
N-Nitrosodi-n-propylamine	SVOCs	mg/kg	**0.00005**	< 0.25	< 0.26	< 0.25	< 0.25
N-Nitrosodiphenylamine	SVOCs	mg/kg	**1**	< 0.25	< 0.26	< 0.25	< 0.25
p-Chloroaniline	SVOCs	mg/kg	**0.7**	< 0.51	< 0.52	< 0.5	< 0.5
Pentachlorophenol	SVOCs	mg/kg	**0.03**	< 0.51	< 0.52	< 0.5	< 0.5
Phenanthrene	SVOCs	mg/kg		< 0.25	< 0.26	< 0.25	< 0.25
Phenol	SVOCs	mg/kg	**100**	< 0.25	< 0.26	< 0.25	< 0.25
Pyrene	SVOCs	mg/kg	**4200**	< 0.25	< 0.26	< 0.25	< 0.25
Pyridine	SVOCs	mg/kg		< 0.51	< 0.52	< 0.5	< 0.5

Table 3
Summary of Soil Analytical Data

Chemical	Group	Units	Minimum Class I Criteria	ROST-4-PZ(E)			
			Sample Depth (feet bgs):	10.5-11.5	17-18	27-28	36-37
1,1,1,2-Tetrachloroethane	VOCs	mg/kg	**3.4**	< 0.59	< 1.1	< 0.64	< 0.58
1,1,1-Trichloroethane (Methyl chloroform)	VOCs	mg/kg	**2**	< 0.24	< 0.45	< 0.26	< 0.23
1,1,2,2-Tetrachloroethane	VOCs	mg/kg	**3.3**	< 0.24	< 0.45	< 0.26	< 0.23
1,1,2-Trichloroethane	VOCs	mg/kg	**0.02**	< 0.24	< 0.45	< 0.26	< 0.23
1,1-Dichloroethane	VOCs	mg/kg	**23**	< 0.24	< 0.45	< 0.26	< 0.23
1,1-Dichloroethene	VOCs	mg/kg	**0.06**	< 0.24	< 0.45	< 0.26	< 0.23
1,1-Dichloropropene	VOCs	mg/kg		< 0.59	< 1.1	< 0.64	< 0.58
1,2,3-Trichlorobenzene	VOCs	mg/kg		< 0.59	< 1.1	< 0.64	< 0.58
1,2,3-Trichloropropane	VOCs	mg/kg	**0.0001**	< 0.59	< 1.1	< 0.64	< 0.58
1,2,4-Trichlorobenzene	VOCs	mg/kg	**5**	< 0.59	< 1.1	< 0.64	< 0.58
1,2,4-Trimethylbenzene	VOCs	mg/kg	**0.87**	< 0.59	< 1.1	< 0.64	< 0.58
1,2-Dibromo-3-chloropropane (DBCP)	VOCs	mg/kg	**0.002**	< 0.59	< 1.1	< 0.64	< 0.58
1,2-Dibromoethane	VOCs	mg/kg	**0.0004**	< 0.24	< 0.45	< 0.26	< 0.23
1,2-Dichlorobenzene	VOCs	mg/kg	**17**	< 0.24	< 0.45	< 0.26	< 0.23
1,2-Dichloroethane	VOCs	mg/kg	**0.02**	< 0.24	< 0.45	< 0.26	< 0.23
1,2-Dichloropropane	VOCs	mg/kg	**0.03**	< 0.24	< 0.45	< 0.26	< 0.23
1,3,5-Trimethylbenzene	VOCs	mg/kg	**4.6**	< 0.59	< 1.1	< 0.64	< 0.58
1,3-Dichlorobenzene	VOCs	mg/kg	**600**	< 0.24	< 0.45	< 0.26	< 0.23
1,3-Dichloropropane	VOCs	mg/kg	**0.83**	< 0.59	< 1.1	< 0.64	< 0.58
1,4-Dichlorobenzene	VOCs	mg/kg	**2**	< 0.24	< 0.45	< 0.26	< 0.23
1,4-Dioxane	VOCs	mg/kg					
2,2-Dichloropropane	VOCs	mg/kg		< 0.59	< 1.1	< 0.64	< 0.58
2-Butanone	VOCs	mg/kg	**17**	< 0.59	< 1.1	< 0.64	< 0.58
2-Chloroethyl vinyl ether	VOCs	mg/kg		< 0.59	< 1.1	< 0.64	< 0.58
2-Chlorotoluene	VOCs	mg/kg	**1400**	< 0.59	< 1.1	< 0.64	< 0.58
2-Hexanone (Methyl N-Butyl Ketone)	VOCs	mg/kg		< 0.59	< 1.1	< 0.64	< 0.58
4-Chlorotoluene	VOCs	mg/kg		< 0.59	< 1.1	< 0.64	< 0.58
4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	VOCs	mg/kg	**340**	< 0.59	< 1.1	< 0.64	< 0.58
Acetone	VOCs	mg/kg	**25**	< 0.59	< 1.1	< 0.64	< 0.58
Acrolein	VOCs	mg/kg		< 3	< 5.7	< 3.2	< 2.9
Acrylonitrile	VOCs	mg/kg		< 0.59	< 1.1	< 0.64	< 0.58
Benzene	VOCs	mg/kg	**0.03**	**0.025 J**	< 0.11	**0.0333 J**	< 0.058
Bromobenzene	VOCs	mg/kg	**2.2**	< 0.59	< 1.1	< 0.64	< 0.58
Bromochloromethane	VOCs	mg/kg		< 0.59	< 1.1	< 0.64	< 0.58
Bromodichloromethane	VOCs	mg/kg	**0.6**	< 0.24	< 0.45	< 0.26	< 0.23
Bromoform	VOCs	mg/kg	**0.8**	< 0.24	< 0.45	< 0.26	< 0.23
Bromomethane	VOCs	mg/kg	**0.2**	< 0.24	< 0.45	< 0.26	< 0.23
Carbon disulfide	VOCs	mg/kg	**9**	< 0.59	< 1.1	< 0.64	< 0.58
Carbon tetrachloride	VOCs	mg/kg	**0.07**	< 0.24	< 0.45	< 0.26	< 0.23
Chlorobenzene	VOCs	mg/kg	**1**	< 0.24	< 0.45	< 0.26	< 0.23
Chlorodibromomethane	VOCs	mg/kg	**0.4**	< 0.24	< 0.45	< 0.26	< 0.23
Chloroethane	VOCs	mg/kg	**95**	< 0.59	< 1.1	< 0.64	< 0.58
Chloroform	VOCs	mg/kg	**0.54**	< 0.24	< 0.45	< 0.26	< 0.23
Chloromethane	VOCs	mg/kg	**1.1**	< 0.59	< 1.1	< 0.64	< 0.58
cis-1,2-Dichloroethene	VOCs	mg/kg	**0.4**	< 0.24	< 0.45	< 0.26	< 0.23
cis-1,3-Dichloropropene	VOCs	mg/kg	**0.004**	< 0.24	< 0.45	< 0.26	< 0.23
Cymene (p-Isopropyltoluene)	VOCs	mg/kg		< 0.59	< 1.1	< 0.64	< 0.58
Dibromomethane	VOCs	mg/kg	**0.34**	< 0.59	< 1.1	< 0.64	< 0.58
Dichlorodifluoromethane	VOCs	mg/kg	**20**	< 0.24	< 0.45	< 0.26	< 0.23
Dichloromethane (Methylene chloride)	VOCs	mg/kg	**0.02**	< 0.3	< 0.45	< 0.472	< 0.36
Ethyl methacrylate	VOCs	mg/kg		< 0.59	< 1.1	< 0.64	< 0.58
Ethylbenzene	VOCs	mg/kg	**13**	< 0.24	< 0.45	< 0.26	< 0.23
Hexachlorobutadiene	VOCs	mg/kg	**2.2**	< 0.59	< 1.1	< 0.64	< 0.58
Isopropylbenzene (Cumene)	VOCs	mg/kg	**51**	< 0.59	< 1.1	< 0.64	< 0.58
m,p-Xylene	VOCs	mg/kg	**6.4**	< 0.24	< 0.45	< 0.26	< 0.23
Methyl tert-Butyl Ether (MTBE)	VOCs	mg/kg	**0.32**	< 0.24	< 0.45	< 0.26	< 0.23
Naphthalene	VOCs	mg/kg	**1.8**				
n-Butylbenzene	VOCs	mg/kg	**240**	< 0.59	< 1.1	< 0.64	< 0.58
n-Propylbenzene	VOCs	mg/kg	**240**	< 0.59	< 1.1	< 0.64	< 0.58
o-Xylenes	VOCs	mg/kg	**6.5**	< 0.24	< 0.45	< 0.26	< 0.23
sec-Butylbenzene	VOCs	mg/kg	**220**	< 0.59	< 1.1	< 0.64	< 0.58
Styrene	VOCs	mg/kg	**4**	< 0.59	< 1.1	< 0.64	< 0.58
tert-Butylbenzene	VOCs	mg/kg	**390**	< 0.59	< 1.1	< 0.64	< 0.58
Tetrachloroethene	VOCs	mg/kg	**0.06**	< 0.24	< 0.45	< 0.26	< 0.23
Toluene	VOCs	mg/kg	**12**	**0.0237 J**	< 1.1	**0.0336 J**	< 0.58
trans-1,2-Dichloroethene	VOCs	mg/kg	**0.7**	< 0.24	< 0.45	< 0.26	< 0.23
trans-1,3-Dichloropropene	VOCs	mg/kg		< 0.24	< 0.45	< 0.26	< 0.23
Trichloroethene	VOCs	mg/kg	**0.06**	< 0.24	< 0.45	< 0.26	< 0.23
Trichlorofluoromethane	VOCs	mg/kg	**34**	< 0.24	< 0.45	< 0.26	< 0.23
Vinyl acetate	VOCs	mg/kg	**10**	< 0.59	< 1.1	< 0.64	< 0.58
Vinyl chloride	VOCs	mg/kg	**0.01**	< 0.24	< 0.45	< 0.26	< 0.23
Xylenes (total)	VOCs	mg/kg	**5.6**	< 0.24	< 0.45	< 0.26	< 0.23

See last page for notes

Table 3
Summary of Soil Analytical Data

Chemical	Group	Units	Minimum Class I Criteria	ROST-4-PZ(E)			
	Sample Depth (feet bgs):			10.5-11.5	17-18	27-28	36-37
1,2-Diphenylhydrazine	SVOCs	mg/kg					
1-Methylnaphthalene	SVOCs	mg/kg					
2,4,5-Trichlorophenol	SVOCs	mg/kg	**270**	< 0.55	< 0.52	< 0.53	< 0.51
2,4,6-Trichlorophenol	SVOCs	mg/kg	**0.2**	< 0.55	< 0.52	< 0.53	< 0.51
2,4-Dichlorophenol	SVOCs	mg/kg	**1**	< 0.55	< 0.52	< 0.53	< 0.51
2,4-Dimethylphenol	SVOCs	mg/kg	**9**	< 0.55	< 0.52	< 0.53	< 0.51
2,4-Dinitrophenol	SVOCs	mg/kg	**0.2**	< 1.1	< 1	< 1.1	< 1
2,4-Dinitrotoluene	SVOCs	mg/kg	**0.0008**	< 0.55	< 0.52	< 0.53	< 0.51
2,6-Dinitrotoluene	SVOCs	mg/kg	**0.0007**	< 0.55	< 0.52	< 0.53	< 0.51
2-Chloronaphthalene	SVOCs	mg/kg		< 0.28	< 0.26	< 0.26	< 0.26
2-Chlorophenol	SVOCs	mg/kg	**4**	< 0.28	< 0.26	< 0.26	< 0.26
2-Methylnaphthalene	SVOCs	mg/kg		< 0.28	< 0.26	< 0.26	< 0.26
2-Methylphenol (o-Cresol)	SVOCs	mg/kg	**15**	< 0.55	< 0.52	< 0.53	< 0.51
2-Nitroaniline	SVOCs	mg/kg		< 0.55	< 0.52	< 0.53	< 0.51
2-Nitrophenol	SVOCs	mg/kg		< 0.55	< 0.52	< 0.53	< 0.51
3 & 4-Methylphenol (m & p-Cresol)	SVOCs	mg/kg		< 0.55	< 0.52	< 0.53	< 0.51
3,3'-Dichlorobenzidine	SVOCs	mg/kg	**0.007**	< 0.28	< 0.26	< 0.26	< 0.26
3-Nitroaniline	SVOCs	mg/kg		< 0.55	< 0.52	< 0.53	< 0.51
4,6-Dinitro-2-methylphenol (4,6-dinitro-o-cresol)	SVOCs	mg/kg		< 0.55	< 0.52	< 0.53	< 0.51
4-Bromophenyl phenyl ether	SVOCs	mg/kg		< 0.28	< 0.26	< 0.26	< 0.26
4-Chloro-3-methylphenol (p-Chloro-m-cresol)	SVOCs	mg/kg		< 0.55	< 0.52	< 0.53	< 0.51
4-Chlorophenyl phenyl ether	SVOCs	mg/kg		< 0.28	< 0.26	< 0.26	< 0.26
4-Nitrophenol	SVOCs	mg/kg		< 1.1	< 1	< 1.1	< 1
4-Nitrophenylamine	SVOCs	mg/kg		< 0.55	< 0.52	< 0.53	< 0.51
Acenaphthene	SVOCs	mg/kg	**570**	< 0.28	< 0.26	< 0.26	< 0.26
Acenaphthylene	SVOCs	mg/kg		< 0.28	< 0.26	< 0.26	< 0.26
Aniline	SVOCs	mg/kg		< 0.55	< 0.52	< 0.53	< 0.51
Anthracene	SVOCs	mg/kg	**12000**	< 0.28	< 0.26	< 0.26	< 0.26
Benzo(a)anthracene	SVOCs	mg/kg	**2**	< 0.28	< 0.26	< 0.26	< 0.26
Benzo(a)pyrene	SVOCs	mg/kg	**0.8**	< 0.28	< 0.26	< 0.26	< 0.26
Benzo(b)fluoranthene	SVOCs	mg/kg	**5**	< 0.28	< 0.26	< 0.26	< 0.26
Benzo(g,h,i)perylene	SVOCs	mg/kg		< 0.28	< 0.26	< 0.26	< 0.26
Benzo(k)fluoranthene	SVOCs	mg/kg	**49**	< 0.28	< 0.26	< 0.26	< 0.26
Benzoic Acid	SVOCs	mg/kg		< 0.55	< 0.52	< 0.53	< 0.51
Benzyl alcohol	SVOCs	mg/kg					
bis(2-Chloroethoxy)methane	SVOCs	mg/kg		< 0.28	< 0.26	< 0.26	< 0.26
bis(2-Chloroethyl)ether	SVOCs	mg/kg	**0.0004**	< 0.28	< 0.26	< 0.26	< 0.26
Bis(2-chloroisopropyl)ether	SVOCs	mg/kg		< 0.28	< 0.26	< 0.26	< 0.26
bis(2-Ethylhexyl)phthalate	SVOCs	mg/kg	**410**	< 0.28	< 0.26	< 0.26	< 0.26
Butyl benzyl phthalate	SVOCs	mg/kg	**930**	< 0.28	< 0.26	< 0.26	< 0.26
Chrysene (1,2-Benzphenanthracene)	SVOCs	mg/kg	**160**	< 0.28	< 0.26	< 0.26	< 0.26
Dibenzo(a,h)anthracene	SVOCs	mg/kg	**0.8**	< 0.28	< 0.26	< 0.26	< 0.26
Dibenzofuran	SVOCs	mg/kg		< 0.28	< 0.26	< 0.26	< 0.26
Diethyl phthalate	SVOCs	mg/kg	**470**	< 0.28	< 0.26	< 0.26	< 0.26
Dimethyl phthalate	SVOCs	mg/kg		< 0.28	< 0.26	< 0.26	< 0.26
Di-n-butyl phthalate	SVOCs	mg/kg	**2300**	< 0.28	< 0.26	< 0.26	< 0.26
Di-n-octyl phthalate	SVOCs	mg/kg	**4100**	< 0.28	< 0.26	< 0.26	< 0.26
Fluoranthene	SVOCs	mg/kg	**560**	< 0.28	< 0.26	< 0.26	< 0.26
Fluorene	SVOCs	mg/kg	**560**	< 0.28	< 0.26	< 0.26	< 0.26
Hexachlorobenzene	SVOCs	mg/kg	**1.8**	< 0.28	< 0.26	< 0.26	< 0.26
Hexachlorocyclopentadiene	SVOCs	mg/kg	**1.1**	< 0.55	< 0.52	< 0.53	< 0.51
Hexachloroethane	SVOCs	mg/kg	**0.5**	< 0.28	< 0.26	< 0.26	< 0.26
Indeno(1,2,3-cd)pyrene	SVOCs	mg/kg	**8**	< 0.28	< 0.26	< 0.26	< 0.26
Isophorone (3,5,5-trimethyl-2-cyclohexene-1-one)	SVOCs	mg/kg	**8**	< 0.28	< 0.26	< 0.26	< 0.26
Naphthalene	SVOCs	mg/kg	**1.8**	< 0.28	< 0.26	< 0.26	< 0.26
Nitrobenzene	SVOCs	mg/kg	**0.1**	< 0.28	< 0.26	< 0.26	< 0.26
N-Nitrosodimethylamine	SVOCs	mg/kg					
N-Nitrosodi-n-propylamine	SVOCs	mg/kg	**0.00005**	< 0.28	< 0.26	< 0.26	< 0.26
N-Nitrosodiphenylamine	SVOCs	mg/kg	**1**	< 0.28	< 0.26	< 0.26	< 0.26
p-Chloroaniline	SVOCs	mg/kg	**0.7**	< 0.55	< 0.52	< 0.53	< 0.51
Pentachlorophenol	SVOCs	mg/kg	**0.03**	< 0.55	< 0.52	< 0.53	< 0.51
Phenanthrene	SVOCs	mg/kg		< 0.28	< 0.26	< 0.26	< 0.26
Phenol	SVOCs	mg/kg	**100**	< 0.28	< 0.26	< 0.26	< 0.26
Pyrene	SVOCs	mg/kg	**4200**	< 0.28	< 0.26	< 0.26	< 0.26
Pyridine	SVOCs	mg/kg		< 0.55	< 0.52	< 0.53	< 0.51

See last page for notes

Table 3
Summary of Soil Analytical Data

Chemical	Group	Units	Minimum Class I Criteria	ROST-4-PZ(F)		
			Sample Depth (feet bgs):	11-12	21-22	36.5-37.5
1,1,1,2-Tetrachloroethane	VOCs	mg/kg	**3.4**	< 0.0067	< 15	< 0.0059
1,1,1-Trichloroethane (Methyl chloroform)	VOCs	mg/kg	**2**	< 0.0027	< 6.1	< 0.0024
1,1,2,2-Tetrachloroethane	VOCs	mg/kg	**3.3**	< 0.0027	< 6.1	< 0.0024
1,1,2-Trichloroethane	VOCs	mg/kg	**0.02**	< 0.0027	< 6.1	< 0.0024
1,1-Dichloroethane	VOCs	mg/kg	**23**	< 0.0027	< 6.1	< 0.0024
1,1-Dichloroethene	VOCs	mg/kg	**0.06**	< 0.0027	< 6.1	< 0.0024
1,1-Dichloropropene	VOCs	mg/kg		< 0.0067	< 15	< 0.0059
1,2,3-Trichlorobenzene	VOCs	mg/kg		< 0.0067	< 15	< 0.0059
1,2,3-Trichloropropane	VOCs	mg/kg	**0.0001**	< 0.0067	< 15	< 0.0059
1,2,4-Trichlorobenzene	VOCs	mg/kg	**5**	< 0.0067	< 15	< 0.0059
1,2,4-Trimethylbenzene	VOCs	mg/kg	**0.87**	< 0.0067	**172**	< 0.0059
1,2-Dibromo-3-chloropropane (DBCP)	VOCs	mg/kg	**0.002**	< 0.0067	< 15	< 0.0059
1,2-Dibromoethane	VOCs	mg/kg	**0.0004**	< 0.0027	< 6.1	< 0.0024
1,2-Dichlorobenzene	VOCs	mg/kg	**17**	< 0.0027	< 6.1	< 0.0024
1,2-Dichloroethane	VOCs	mg/kg	**0.02**	< 0.0027	< 6.1	< 0.0024
1,2-Dichloropropane	VOCs	mg/kg	**0.03**	< 0.0027	< 6.1	< 0.0024
1,3,5-Trimethylbenzene	VOCs	mg/kg	**4.6**	< 0.0067	**46.2**	< 0.0059
1,3-Dichlorobenzene	VOCs	mg/kg	**600**	< 0.0027	< 6.1	< 0.0024
1,3-Dichloropropane	VOCs	mg/kg	**0.83**	< 0.0067	< 15	< 0.0059
1,4-Dichlorobenzene	VOCs	mg/kg	**2**	< 0.0027	< 6.1	< 0.0024
1,4-Dioxane	VOCs	mg/kg				
2,2-Dichloropropane	VOCs	mg/kg		< 0.0067	< 15	< 0.0059
2-Butanone	VOCs	mg/kg	**17**	< 0.0067	< 15	< 0.0059
2-Chloroethyl vinyl ether	VOCs	mg/kg		< 0.51	< 15	< 0.54
2-Chlorotoluene	VOCs	mg/kg	**1400**	< 0.0067	< 15	< 0.0059
2-Hexanone (Methyl N-Butyl Ketone)	VOCs	mg/kg		< 0.0067	< 15	< 0.0059
4-Chlorotoluene	VOCs	mg/kg		< 0.0067	< 15	< 0.0059
4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	VOCs	mg/kg	**340**	< 0.0067	< 15	< 0.0059
Acetone	VOCs	mg/kg	**25**	< 0.0067	< 15	< 0.0187
Acrolein	VOCs	mg/kg		< 0.034	< 76	< 0.029
Acrylonitrile	VOCs	mg/kg		< 0.0067	< 15	< 0.0059
Benzene	VOCs	mg/kg	**0.03**	**0.00088**	**8.11**	**0.0014**
Bromobenzene	VOCs	mg/kg	**2.2**	< 0.0067	< 15	< 0.0059
Bromochloromethane	VOCs	mg/kg		< 0.0067	< 15	< 0.0059
Bromodichloromethane	VOCs	mg/kg	**0.6**	< 0.0027	< 6.1	< 0.0024
Bromoform	VOCs	mg/kg	**0.8**	< 0.0027	< 6.1	< 0.0024
Bromomethane	VOCs	mg/kg	**0.2**	< 0.0027	< 6.1	< 0.0024
Carbon disulfide	VOCs	mg/kg	**9**	< 0.0067	< 15	< 0.0059
Carbon tetrachloride	VOCs	mg/kg	**0.07**	< 0.0027	< 6.1	< 0.0024
Chlorobenzene	VOCs	mg/kg	**1**	< 0.0027	< 6.1	< 0.0024
Chlorodibromomethane	VOCs	mg/kg	**0.4**	< 0.0027	< 6.1	< 0.0024
Chloroethane	VOCs	mg/kg	**95**	< 0.0067	< 15	< 0.0059
Chloroform	VOCs	mg/kg	**0.54**	< 0.0027	< 6.1	< 0.0024
Chloromethane	VOCs	mg/kg	**1.1**	< 0.0067	< 15	< 0.0059
cis-1,2-Dichloroethene	VOCs	mg/kg	**0.4**	< 0.0027	< 6.1	< 0.0024
cis-1,3-Dichloropropene	VOCs	mg/kg	**0.004**	< 0.0027	< 6.1	< 0.0024
Cymene (p-Isopropyltoluene)	VOCs	mg/kg		< 0.0067	**8.48 J**	< 0.0059
Dibromomethane	VOCs	mg/kg	**0.34**	< 0.0067	< 15	< 0.0059
Dichlorodifluoromethane	VOCs	mg/kg	**20**	< 0.0027	< 6.1 UJ	< 0.0024
Dichloromethane (Methylene chloride)	VOCs	mg/kg	**0.02**	< 0.0027	< 3	< 0.0024
Ethyl methacrylate	VOCs	mg/kg		< 0.0067	< 15	< 0.0059
Ethylbenzene	VOCs	mg/kg	**13**	**0.0023 J**	**233**	**0.0023 J**
Hexachlorobutadiene	VOCs	mg/kg	**2.2**	< 0.0067	< 15	< 0.0059
Isopropylbenzene (Cumene)	VOCs	mg/kg	**51**	< 0.0067	**24.1**	< 0.0059
m,p-Xylene	VOCs	mg/kg	**6.4**	< 0.0027	**512**	**0.0009 J**
Methyl tert-Butyl Ether (MTBE)	VOCs	mg/kg	**0.32**	< 0.0027	< 6.1	< 0.0024
Naphthalene	VOCs	mg/kg	**1.8**			
n-Butylbenzene	VOCs	mg/kg	**240**	< 0.0067	**16.6**	< 0.0059
n-Propylbenzene	VOCs	mg/kg	**240**	< 0.0067	**45.2**	< 0.0059
o-Xylenes	VOCs	mg/kg	**6.5**	< 0.0027	**183**	< 0.0024
sec-Butylbenzene	VOCs	mg/kg	**220**	< 0.0067	**8.16 J**	< 0.0059
Styrene	VOCs	mg/kg	**4**	< 0.0067	< 15	< 0.0059
tert-Butylbenzene	VOCs	mg/kg	**390**	< 0.0067	< 15	< 0.0059
Tetrachloroethene	VOCs	mg/kg	**0.06**	< 0.0027	< 6.1	< 0.0024
Toluene	VOCs	mg/kg	**12**	**0.0027 J**	**225**	**0.0026 J**
trans-1,2-Dichloroethene	VOCs	mg/kg	**0.7**	< 0.0027	< 6.1	< 0.0024
trans-1,3-Dichloropropene	VOCs	mg/kg		< 0.0027	< 6.1	< 0.0024
Trichloroethene	VOCs	mg/kg	**0.06**	< 0.0027	< 6.1	< 0.0024
Trichlorofluoromethane	VOCs	mg/kg	**34**	< 0.0027	< 6.1	< 0.0024
Vinyl acetate	VOCs	mg/kg	**10**	< 0.0067	< 15	< 0.0059
Vinyl chloride	VOCs	mg/kg	**0.01**	< 0.0027	< 6.1	< 0.0024
Xylenes (total)	VOCs	mg/kg	**5.6**	< 0.0027	**695**	**0.0009 J**

Table 3
Summary of Soil Analytical Data

Chemical	Group	Units	Minimum Class I Criteria	ROST-4-PZ(F)		
	Sample Depth (feet bgs):			11-12	21-22	36.5-37.5
1,2-Diphenylhydrazine	SVOCs	mg/kg				
1-Methylnaphthalene	SVOCs	mg/kg				
2,4,5-Trichlorophenol	SVOCs	mg/kg	**270**	< 0.51	< 0.58	< 0.51
2,4,6-Trichlorophenol	SVOCs	mg/kg	**0.2**	< 0.51	< 0.58	< 0.51
2,4-Dichlorophenol	SVOCs	mg/kg	**1**	< 0.51	< 0.58	< 0.51
2,4-Dimethylphenol	SVOCs	mg/kg	**9**	< 0.51	< 0.58	< 0.51
2,4-Dinitrophenol	SVOCs	mg/kg	**0.2**	< 1	< 1.2	< 1
2,4-Dinitrotoluene	SVOCs	mg/kg	**0.0008**	< 0.51	< 0.58	< 0.51
2,6-Dinitrotoluene	SVOCs	mg/kg	**0.0007**	< 0.51	< 0.58	< 0.51
2-Chloronaphthalene	SVOCs	mg/kg		< 0.25	< 0.29	< 0.26
2-Chlorophenol	SVOCs	mg/kg	**4**	< 0.25	< 0.29	< 0.26
2-Methylnaphthalene	SVOCs	mg/kg		< 0.25	**62.2**	< 0.26
2-Methylphenol (o-Cresol)	SVOCs	mg/kg	**15**	< 0.51	< 0.58	< 0.51
2-Nitroaniline	SVOCs	mg/kg		< 0.51	< 0.58	< 0.51
2-Nitrophenol	SVOCs	mg/kg		< 0.51	< 0.58	< 0.51
3 & 4-Methylphenol (m & p-Cresol)	SVOCs	mg/kg		< 0.51	< 0.58	< 0.51
3,3'-Dichlorobenzidine	SVOCs	mg/kg	**0.007**	< 0.25	< 0.29	< 0.26
3-Nitroaniline	SVOCs	mg/kg		< 0.51	< 0.58	< 0.51
4,6-Dinitro-2-methylphenol (4,6-dinitro-o-cresol)	SVOCs	mg/kg		< 0.51	< 0.58	< 0.51
4-Bromophenyl phenyl ether	SVOCs	mg/kg		< 0.25	< 0.29	< 0.26
4-Chloro-3-methylphenol (p-Chloro-m-cresol)	SVOCs	mg/kg		< 0.51	< 0.58	< 0.51
4-Chlorophenyl phenyl ether	SVOCs	mg/kg		< 0.25	< 0.29	< 0.26
4-Nitrophenol	SVOCs	mg/kg		< 1	< 1.2	< 1
4-Nitrophenylamine	SVOCs	mg/kg		< 0.51	< 0.58	< 0.51
Acenaphthene	SVOCs	mg/kg	**570**	< 0.25	< 0.29	< 0.26
Acenaphthylene	SVOCs	mg/kg		< 0.25	< 0.29	< 0.26
Aniline	SVOCs	mg/kg		< 0.51	< 0.58	< 0.51
Anthracene	SVOCs	mg/kg	**12000**	< 0.25	**1.76**	< 0.26
Benzo(a)anthracene	SVOCs	mg/kg	**2**	< 0.25	**0.161 J**	< 0.26
Benzo(a)pyrene	SVOCs	mg/kg	**0.8**	< 0.25	< 0.29	< 0.26
Benzo(b)fluoranthene	SVOCs	mg/kg	**5**	< 0.25	< 0.29	< 0.26
Benzo(g,h,i)perylene	SVOCs	mg/kg		< 0.25	< 0.29	< 0.26
Benzo(k)fluoranthene	SVOCs	mg/kg	**49**	< 0.25	< 0.29	< 0.26
Benzoic Acid	SVOCs	mg/kg		< 0.51	< 0.58	< 0.51
Benzyl alcohol	SVOCs	mg/kg				
bis(2-Chloroethoxy)methane	SVOCs	mg/kg		< 0.25	< 0.29	< 0.26
bis(2-Chloroethyl)ether	SVOCs	mg/kg	**0.0004**	< 0.25	< 0.29	< 0.26
Bis(2-chloroisopropyl)ether	SVOCs	mg/kg		< 0.25	< 0.29	< 0.26
bis(2-Ethylhexyl)phthalate	SVOCs	mg/kg	**410**	< 0.25	< 0.29	< 0.26
Butyl benzyl phthalate	SVOCs	mg/kg	**930**	< 0.25	< 0.29	< 0.26
Chrysene (1,2-Benzphenanthracene)	SVOCs	mg/kg	**160**	< 0.25	**0.371**	< 0.26
Dibenzo(a,h)anthracene	SVOCs	mg/kg	**0.8**	< 0.25	< 0.29	< 0.26
Dibenzofuran	SVOCs	mg/kg		< 0.25	< 0.29	< 0.26
Diethyl phthalate	SVOCs	mg/kg	**470**	< 0.25	< 0.29	< 0.26
Dimethyl phthalate	SVOCs	mg/kg		< 0.25	< 0.29	< 0.26
Di-n-butyl phthalate	SVOCs	mg/kg	**2300**	< 0.25	< 0.29	< 0.26
Di-n-octyl phthalate	SVOCs	mg/kg	**4100**	< 0.25	< 0.29	< 0.26
Fluoranthene	SVOCs	mg/kg	**560**	< 0.25	< 0.29	< 0.26
Fluorene	SVOCs	mg/kg	**560**	< 0.25	< 0.29	< 0.26
Hexachlorobenzene	SVOCs	mg/kg	**1.8**	< 0.25	< 0.29	< 0.26
Hexachlorocyclopentadiene	SVOCs	mg/kg	**1.1**	< 0.51	< 0.58	< 0.51
Hexachloroethane	SVOCs	mg/kg	**0.5**	< 0.25	< 0.29	< 0.26
Indeno(1,2,3-cd)pyrene	SVOCs	mg/kg	**8**	< 0.25	< 0.29	< 0.26
Isophorone (3,5,5-trimethyl-2-cyclohexene-1-one)	SVOCs	mg/kg	**8**	< 0.25	< 0.29	< 0.26
Naphthalene	SVOCs	mg/kg	**1.8**	< 0.25	**31.4**	< 0.26
Nitrobenzene	SVOCs	mg/kg	**0.1**	< 0.25	< 0.29	< 0.26
N-Nitrosodimethylamine	SVOCs	mg/kg				
N-Nitrosodi-n-propylamine	SVOCs	mg/kg	**0.00005**	< 0.25	< 0.29	< 0.26
N-Nitrosodiphenylamine	SVOCs	mg/kg	**1**	< 0.25	< 0.29	< 0.26
p-Chloroaniline	SVOCs	mg/kg	**0.7**	< 0.51	< 0.58	< 0.51
Pentachlorophenol	SVOCs	mg/kg	**0.03**	< 0.51	< 0.58	< 0.51
Phenanthrene	SVOCs	mg/kg		< 0.25	**11.4**	< 0.26
Phenol	SVOCs	mg/kg	**100**	< 0.25	< 0.29	< 0.26
Pyrene	SVOCs	mg/kg	**4200**	< 0.25	**0.801**	< 0.26
Pyridine	SVOCs	mg/kg		< 0.51	< 0.58	< 0.51

Table 3
Summary of Soil Analytical Data

Chemical	Group	Units	Minimum Class I Criteria	ROST-4-PZ(G)			
			Sample Depth (feet bgs):	12-14	26-28	34-36	34-36 (DUP)
1,1,1,2-Tetrachloroethane	VOCs	mg/kg	**3.4**	< 0.0059	< 0.0053	< 0.0054	< 0.006
1,1,1-Trichloroethane (Methyl chloroform)	VOCs	mg/kg	**2**	< 0.0024	< 0.0021	< 0.0022	< 0.0024
1,1,2,2-Tetrachloroethane	VOCs	mg/kg	**3.3**	< 0.0024	< 0.0021	< 0.0022	< 0.0024
1,1,2-Trichloroethane	VOCs	mg/kg	**0.02**	< 0.0024	< 0.0021	< 0.0022	< 0.0024
1,1-Dichloroethane	VOCs	mg/kg	**23**	< 0.0024	< 0.0021	< 0.0022	< 0.0024
1,1-Dichloroethene	VOCs	mg/kg	**0.06**	< 0.0024	< 0.0021	< 0.0022	< 0.0024
1,1-Dichloropropene	VOCs	mg/kg		< 0.0059	< 0.0053	< 0.0054	< 0.006
1,2,3-Trichlorobenzene	VOCs	mg/kg		< 0.0059	< 0.0053	< 0.0054	< 0.006
1,2,3-Trichloropropane	VOCs	mg/kg	**0.0001**	< 0.0059	< 0.0053	< 0.0054	< 0.006
1,2,4-Trichlorobenzene	VOCs	mg/kg	**5**	< 0.0059	< 0.0053	< 0.0054	< 0.006
1,2,4-Trimethylbenzene	VOCs	mg/kg	**0.87**	< 0.0059	< 0.0053	< 0.0054	< 0.006
1,2-Dibromo-3-chloropropane (DBCP)	VOCs	mg/kg	**0.002**	< 0.0059	< 0.0053	< 0.0054	< 0.006
1,2-Dibromoethane	VOCs	mg/kg	**0.0004**	< 0.0024	< 0.0021	< 0.0022	< 0.0024
1,2-Dichlorobenzene	VOCs	mg/kg	**17**	< 0.0024	< 0.0021	< 0.0022	< 0.0024
1,2-Dichloroethane	VOCs	mg/kg	**0.02**	< 0.0024	< 0.0021	< 0.0022	< 0.0024
1,2-Dichloropropane	VOCs	mg/kg	**0.03**	< 0.0024	< 0.0021	< 0.0022	< 0.0024
1,3,5-Trimethylbenzene	VOCs	mg/kg	**4.6**	< 0.0059	< 0.0053	< 0.0054	< 0.006
1,3-Dichlorobenzene	VOCs	mg/kg	**600**	< 0.0024	< 0.0021	< 0.0022	< 0.0024
1,3-Dichloropropane	VOCs	mg/kg	**0.83**	< 0.0059	< 0.0053	< 0.0054	< 0.006
1,4-Dichlorobenzene	VOCs	mg/kg	**2**	< 0.0024	< 0.0021	< 0.0022	< 0.0024
1,4-Dioxane	VOCs	mg/kg		< 0.029	< 0.026	< 0.027	< 0.03
2,2-Dichloropropane	VOCs	mg/kg		< 0.0059	< 0.0053	< 0.0054	< 0.006
2-Butanone	VOCs	mg/kg	**17**	< 0.0059	< 0.0053	< 0.0054	< 0.006
2-Chloroethyl vinyl ether	VOCs	mg/kg		< 0.0059	< 0.0053	< 0.0054	< 0.006
2-Chlorotoluene	VOCs	mg/kg	**1400**	< 0.0059	< 0.0053	< 0.0054	< 0.006
2-Hexanone (Methyl N-Butyl Ketone)	VOCs	mg/kg		< 0.0059	< 0.0053	< 0.0054	< 0.006
4-Chlorotoluene	VOCs	mg/kg		< 0.0059	< 0.0053	< 0.0054	< 0.006
4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	VOCs	mg/kg	**340**	< 0.0059	< 0.0053	< 0.0054	< 0.006
Acetone	VOCs	mg/kg	**25**	< 0.0059	< 0.0053	< 0.0054	< 0.006
Acrolein	VOCs	mg/kg		< 0.029	< 0.026	< 0.027	< 0.03
Acrylonitrile	VOCs	mg/kg		< 0.0059	< 0.0053	< 0.0054	< 0.006
Benzene	VOCs	mg/kg	**0.03**	< 0.00059	**0.0015**	**0.0024**	**0.0019**
Bromobenzene	VOCs	mg/kg	**2.2**	< 0.0059	< 0.0053	< 0.0054	< 0.006
Bromochloromethane	VOCs	mg/kg		< 0.0059	< 0.0053	< 0.0054	< 0.006
Bromodichloromethane	VOCs	mg/kg	**0.6**	< 0.0024	< 0.0021	< 0.0022	< 0.0024
Bromoform	VOCs	mg/kg	**0.8**	< 0.0024	< 0.0021	< 0.0022	< 0.0024
Bromomethane	VOCs	mg/kg	**0.2**	< 0.0024	< 0.0021	< 0.0022	< 0.0024
Carbon disulfide	VOCs	mg/kg	**9**	< 0.0059	**0.0199**	< 0.0054	< 0.006
Carbon tetrachloride	VOCs	mg/kg	**0.07**	< 0.0024	< 0.0021	< 0.0022	< 0.0024
Chlorobenzene	VOCs	mg/kg	**1**	< 0.0024	< 0.0021	< 0.0022	< 0.0024
Chlorodibromomethane	VOCs	mg/kg	**0.4**	< 0.0024	< 0.0021	< 0.0022	< 0.0024
Chloroethane	VOCs	mg/kg	**95**	< 0.0059	< 0.0053	< 0.0054	< 0.006
Chloroform	VOCs	mg/kg	**0.54**	< 0.0024	< 0.0021	< 0.0022	< 0.0024
Chloromethane	VOCs	mg/kg	**1.1**	< 0.0059	< 0.0053	< 0.0054	< 0.006
cis-1,2-Dichloroethene	VOCs	mg/kg	**0.4**	< 0.0024	< 0.0021	< 0.0022	< 0.0024
cis-1,3-Dichloropropene	VOCs	mg/kg	**0.004**	< 0.0024	< 0.0021	< 0.0022	< 0.0024
Cymene (p-Isopropyltoluene)	VOCs	mg/kg		< 0.0059	< 0.0053	< 0.0054	< 0.006
Dibromomethane	VOCs	mg/kg	**0.34**	< 0.0059	< 0.0053	< 0.0054	< 0.006
Dichlorodifluoromethane	VOCs	mg/kg	**20**	< 0.0024	< 0.0021	< 0.0022	< 0.0024
Dichloromethane (Methylene chloride)	VOCs	mg/kg	**0.02**	< 0.0024	< 0.0021	< 0.0022	< 0.0024
Ethyl methacrylate	VOCs	mg/kg		< 0.0059	< 0.0053	< 0.0054	< 0.006
Ethylbenzene	VOCs	mg/kg	**13**	< 0.0024	**0.005**	**0.0039**	**0.0054**
Hexachlorobutadiene	VOCs	mg/kg	**2.2**	< 0.0059	< 0.0053	< 0.0054	< 0.006
Isopropylbenzene (Cumene)	VOCs	mg/kg	**51**	< 0.0059	< 0.0053	< 0.0054	< 0.006
m,p-Xylene	VOCs	mg/kg	**6.4**	< 0.0024	**0.0013 J**	**0.0021 J**	**0.0016 J**
Methyl tert-Butyl Ether (MTBE)	VOCs	mg/kg	**0.32**	< 0.0024	< 0.0021	< 0.0022	< 0.0024
Naphthalene	VOCs	mg/kg	**1.8**	< 0.0059	< 0.0053	< 0.0054	< 0.006
n-Butylbenzene	VOCs	mg/kg	**240**	< 0.0059	< 0.0053	< 0.0054	< 0.006
n-Propylbenzene	VOCs	mg/kg	**240**	< 0.0059	< 0.0053	< 0.0054	< 0.006
o-Xylenes	VOCs	mg/kg	**6.5**	< 0.0024	**0.00054 J**	**0.00064 J**	**0.00069 J**
sec-Butylbenzene	VOCs	mg/kg	**220**	< 0.0059	< 0.0053	< 0.0054	< 0.006
Styrene	VOCs	mg/kg	**4**	< 0.0059	< 0.0053	< 0.0054	< 0.006
tert-Butylbenzene	VOCs	mg/kg	**390**	< 0.0059	< 0.0053	< 0.0054	< 0.006
Tetrachloroethene	VOCs	mg/kg	**0.06**	< 0.0024	< 0.0021	< 0.0022	< 0.0024
Toluene	VOCs	mg/kg	**12**	< 0.0059	**0.0051 J**	**0.0046 J**	**0.0057 J**
trans-1,2-Dichloroethene	VOCs	mg/kg	**0.7**	< 0.0024	< 0.0021	< 0.0022	< 0.0024
trans-1,3-Dichloropropene	VOCs	mg/kg		< 0.0024	< 0.0021	< 0.0022	< 0.0024
Trichloroethene	VOCs	mg/kg	**0.06**	< 0.0024	< 0.0021	< 0.0022	< 0.0024
Trichlorofluoromethane	VOCs	mg/kg	**34**	< 0.0024	< 0.0021	< 0.0022	< 0.0024
Vinyl acetate	VOCs	mg/kg	**10**	< 0.0059	< 0.0053	< 0.0054	< 0.006
Vinyl chloride	VOCs	mg/kg	**0.01**	< 0.0024	< 0.0021	< 0.0022	< 0.0024
Xylenes (total)	VOCs	mg/kg	**5.6**	< 0.0024	**0.0019 J**	**0.0028**	**0.0023 J**

Table 3
Summary of Soil Analytical Data

Chemical	Group	Units	Minimum Class I Criteria	ROST-4-PZ(G)			
			Sample Depth (feet bgs):	12-14	26-28	34-36	34-36 (DUP)
1,2-Diphenylhydrazine	SVOCs	mg/kg		< 0.27	< 0.28	< 0.27	< 0.29
1-Methylnaphthalene	SVOCs	mg/kg		< 0.27	< 0.28	< 0.27	< 0.29
2,4,5-Trichlorophenol	SVOCs	mg/kg	**270**	< 0.53	< 0.56	< 0.53	< 0.58
2,4,6-Trichlorophenol	SVOCs	mg/kg	**0.2**	< 0.53	< 0.56	< 0.53	< 0.58
2,4-Dichlorophenol	SVOCs	mg/kg	**1**	< 0.53	< 0.56	< 0.53	< 0.58
2,4-Dimethylphenol	SVOCs	mg/kg	**9**	< 0.53	< 0.56	< 0.53	< 0.58
2,4-Dinitrophenol	SVOCs	mg/kg	**0.2**	< 1.1	< 1.1	< 1.1	< 1.2
2,4-Dinitrotoluene	SVOCs	mg/kg	**0.0008**	< 0.53	< 0.56	< 0.53	< 0.58
2,6-Dinitrotoluene	SVOCs	mg/kg	**0.0007**	< 0.53	< 0.56	< 0.53	< 0.58
2-Chloronaphthalene	SVOCs	mg/kg		< 0.27	< 0.28	< 0.27	< 0.29
2-Chlorophenol	SVOCs	mg/kg	**4**	< 0.27	< 0.28	< 0.27	< 0.29
2-Methylnaphthalene	SVOCs	mg/kg		< 0.27	< 0.28	< 0.27	< 0.29
2-Methylphenol (o-Cresol)	SVOCs	mg/kg	**15**	< 0.53	< 0.56	< 0.53	< 0.58
2-Nitroaniline	SVOCs	mg/kg		< 0.53	< 0.56	< 0.53	< 0.58
2-Nitrophenol	SVOCs	mg/kg		< 0.53	< 0.56	< 0.53	< 0.58
3 & 4-Methylphenol (m & p-Cresol)	SVOCs	mg/kg		< 0.53	< 0.56	< 0.53	< 0.58
3,3'-Dichlorobenzidine	SVOCs	mg/kg	**0.007**	< 0.27	< 0.28	< 0.27	< 0.29
3-Nitroaniline	SVOCs	mg/kg		< 0.53	< 0.56	< 0.53	< 0.58
4,6-Dinitro-2-methylphenol (4,6-dinitro-o-cresol)	SVOCs	mg/kg		< 0.53	< 0.56	< 0.53	< 0.58
4-Bromophenyl phenyl ether	SVOCs	mg/kg		< 0.27	< 0.28	< 0.27	< 0.29
4-Chloro-3-methylphenol (p-Chloro-m-cresol)	SVOCs	mg/kg		< 0.53	< 0.56	< 0.53	< 0.58
4-Chlorophenyl phenyl ether	SVOCs	mg/kg		< 0.27	< 0.28	< 0.27	< 0.29
4-Nitrophenol	SVOCs	mg/kg		< 1.1	< 1.1	< 1.1	< 1.2
4-Nitrophenylamine	SVOCs	mg/kg		< 0.53	< 0.56	< 0.53	< 0.58
Acenaphthene	SVOCs	mg/kg	**570**	< 0.27	< 0.28	< 0.27	< 0.29
Acenaphthylene	SVOCs	mg/kg		< 0.27	< 0.28	< 0.27	< 0.29
Aniline	SVOCs	mg/kg		< 0.53	< 0.56	< 0.53	< 0.58
Anthracene	SVOCs	mg/kg	**12000**	< 0.27	< 0.28	< 0.27	< 0.29
Benzo(a)anthracene	SVOCs	mg/kg	**2**	< 0.27	< 0.28	< 0.27	< 0.29
Benzo(a)pyrene	SVOCs	mg/kg	**0.8**	< 0.27	< 0.28	< 0.27	< 0.29
Benzo(b)fluoranthene	SVOCs	mg/kg	**5**	< 0.27	< 0.28	< 0.27	< 0.29
Benzo(g,h,i)perylene	SVOCs	mg/kg		< 0.27	< 0.28	< 0.27	< 0.29
Benzo(k)fluoranthene	SVOCs	mg/kg	**49**	< 0.27	< 0.28	< 0.27	< 0.29
Benzoic Acid	SVOCs	mg/kg		< 0.53	< 0.56	< 0.53	< 0.58
Benzyl alcohol	SVOCs	mg/kg		< 0.53	< 0.56	< 0.53	< 0.58
bis(2-Chloroethoxy)methane	SVOCs	mg/kg		< 0.27	< 0.28	< 0.27	< 0.29
bis(2-Chloroethyl)ether	SVOCs	mg/kg	**0.0004**	< 0.27	< 0.28	< 0.27	< 0.29
Bis(2-chloroisopropyl)ether	SVOCs	mg/kg		< 0.27	< 0.28	< 0.27	< 0.29
bis(2-Ethylhexyl)phthalate	SVOCs	mg/kg	**410**	**0.0291 J**	< 0.28	**0.0234 J**	**0.0237 J**
Butyl benzyl phthalate	SVOCs	mg/kg	**930**	< 0.27	< 0.28	< 0.27	< 0.29
Chrysene (1,2-Benzphenanthracene)	SVOCs	mg/kg	**160**	< 0.27	< 0.28	< 0.27	< 0.29
Dibenzo(a,h)anthracene	SVOCs	mg/kg	**0.8**	< 0.27	< 0.28	< 0.27	< 0.29
Dibenzofuran	SVOCs	mg/kg		< 0.27	< 0.28	< 0.27	< 0.29
Diethyl phthalate	SVOCs	mg/kg	**470**	< 0.27	< 0.28	< 0.27	< 0.29
Dimethyl phthalate	SVOCs	mg/kg		< 0.27	< 0.28	< 0.27	< 0.29
Di-n-butyl phthalate	SVOCs	mg/kg	**2300**	< 0.27	< 0.28	< 0.27	< 0.29
Di-n-octyl phthalate	SVOCs	mg/kg	**4100**	< 0.27	< 0.28	< 0.27	< 0.29
Fluoranthene	SVOCs	mg/kg	**560**	< 0.27	< 0.28	< 0.27	< 0.29
Fluorene	SVOCs	mg/kg	**560**	< 0.27	< 0.28	< 0.27	< 0.29
Hexachlorobenzene	SVOCs	mg/kg	**1.8**	< 0.27	< 0.28	< 0.27	< 0.29
Hexachlorocyclopentadiene	SVOCs	mg/kg	**1.1**	< 0.53 UJ	< 0.56 UJ	< 0.53 UJ	< 0.58 UJ
Hexachloroethane	SVOCs	mg/kg	**0.5**	< 0.27	< 0.28	< 0.27	< 0.29
Indeno(1,2,3-cd)pyrene	SVOCs	mg/kg	**8**	< 0.27	< 0.28	< 0.27	< 0.29
Isophorone (3,5,5-trimethyl-2-cyclohexene-1-one)	SVOCs	mg/kg	**8**	< 0.27	< 0.28	< 0.27	< 0.29
Naphthalene	SVOCs	mg/kg	**1.8**				
Nitrobenzene	SVOCs	mg/kg	**0.1**	< 0.27	< 0.28	< 0.27	< 0.29
N-Nitrosodimethylamine	SVOCs	mg/kg		< 0.27	< 0.28	< 0.27	< 0.29
N-Nitrosodi-n-propylamine	SVOCs	mg/kg	**0.00005**	< 0.27	< 0.28	< 0.27	< 0.29
N-Nitrosodiphenylamine	SVOCs	mg/kg	**1**	< 0.27	< 0.28	< 0.27	< 0.29
p-Chloroaniline	SVOCs	mg/kg	**0.7**	< 0.53	< 0.56	< 0.53	< 0.58
Pentachlorophenol	SVOCs	mg/kg	**0.03**	< 0.53	< 0.56	< 0.53	< 0.58
Phenanthrene	SVOCs	mg/kg		< 0.27	< 0.28	< 0.27	< 0.29
Phenol	SVOCs	mg/kg	**100**	< 0.27	< 0.28	< 0.27	< 0.29
Pyrene	SVOCs	mg/kg	**4200**	< 0.27	< 0.28	< 0.27	< 0.29
Pyridine	SVOCs	mg/kg		< 0.53	< 0.56	< 0.53	< 0.58

Notes:
mg/kg = milligrams per kilogram (ppm)
bgs = below ground surface
BOLD indicates concentration greater than reporting limit
Highlighting indicates concentration is greater than the Construction Inhalation criteria
Highlighting indicates concentration is greater than the Class I Soil to Groundwater criteria
< = Result is non-detect, less than the reporting limit (indicated as U on lab data)
J = Estimated value
UJ = Estimated non-detect value

See last page for notes

Table 4
Summary of Groundwater Analytical Data

Chemical	Group	Units	Class I Criteria (GQS)	ROST-4-PZ	ROST-4-PZ(A)	ROST-4-PZ(B)	ROST-4-PZ(B)-DUP	ROST-4-PZ(C)	ROST-4-PZ(D)	ROST-4-PZ(F)	ROST-4-PZ(G)
		Sample Date:		5/5/2011	5/4/2011	5/4/2011	5/3/2011	5/3/2011	5/3/2011	5/5/2011	5/5/2011
1,1,1,2-Tetrachloroethane	VOCs	mg/L	**0.21**	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
1,1,1-Trichloroethane (Methyl chloroform)	VOCs	mg/L	**0.2**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,2,2-Tetrachloroethane	VOCs	mg/L	**0.42**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,2-Trichloroethane	VOCs	mg/L	**0.005**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1-Dichloroethane	VOCs	mg/L	**0.7**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1-Dichloroethene	VOCs	mg/L	**0.007**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1-Dichloropropene	VOCs	mg/L		< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
1,2,3-Trichlorobenzene	VOCs	mg/L		< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
1,2,3-Trichloropropane	VOCs	mg/L	**0.001**	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
1,2,4-Trichlorobenzene	VOCs	mg/L	**0.07**	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
1,2,4-Trimethylbenzene	VOCs	mg/L		**0.0197**	< 0.005	< 0.005	< 0.005	**0.115**	**0.188**	**0.0948**	**0.017**
1,2-Dibromo-3-chloropropane (DBCP)	VOCs	mg/L	**0.0002**	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
1,2-Dibromoethane	VOCs	mg/L	**0.00005**	< 0.000017	< 0.000017	< 0.000017	< 0.000016	< 0.000018	< 0.000016	< 0.000016	< 0.000016
1,2-Dichlorobenzene	VOCs	mg/L	**0.6**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dichloroethane	VOCs	mg/L	**0.005**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dichloropropane	VOCs	mg/L	**0.005**	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
1,3,5-Trimethylbenzene	VOCs	mg/L	**0.35**	**0.0125**	< 0.005	< 0.005	< 0.005	**0.024**	**0.0398**	**0.024**	**0.0227**
1,3-Dichlorobenzene	VOCs	mg/L	**0.014**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,3-Dichloropropane	VOCs	mg/L	**0.14**	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
1,4-Dichlorobenzene	VOCs	mg/L	**0.075**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,4-Dioxane	VOCs	mg/L		< 0.025	< 0.025	< 0.025 UJ	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
2,2-Dichloropropane	VOCs	mg/L		< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
2-Butanone	VOCs	mg/L		< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
2-Chloroethyl vinyl ether	VOCs	mg/L	**0**	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
2-Chlorotoluene	VOCs	mg/L	**0.14**	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
2-Hexanone (Methyl N-Butyl Ketone)	VOCs	mg/L		< 0.005 UJ	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005 UJ
4-Chlorotoluene	VOCs	mg/L		< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	VOCs	mg/L	**2**	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Acetone	VOCs	mg/L	**6.3**	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Acrolein	VOCs	mg/L		< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
Acrylonitrile	VOCs	mg/L		< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Benzene	VOCs	mg/L	**0.005**	**0.0065**	**0.199**	**0.0044**	**0.0036**	**0.211**	**0.0329**	**0.127**	**0.141**
Bromobenzene	VOCs	mg/L	**0.14**	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Bromochloromethane	VOCs	mg/L		< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Bromodichloromethane	VOCs	mg/L	**0.0002**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Bromoform	VOCs	mg/L	**0.001**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Bromomethane	VOCs	mg/L	**0.0098**	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Carbon disulfide	VOCs	mg/L	**0.7**	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Carbon tetrachloride	VOCs	mg/L	**0.005**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chlorobenzene	VOCs	mg/L	**0.1**	< 0.001	< 0.001	**0.0011**	**0.0011**	< 0.001	< 0.001	< 0.001	< 0.001
Chlorodibromomethane	VOCs	mg/L	**0.14**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chloroethane	VOCs	mg/L	**0.0039**	**0.0079**	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Chloroform	VOCs	mg/L	**0.0002**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chloromethane	VOCs	mg/L	**0.19**	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
cis-1,2-Dichloroethene	VOCs	mg/L	**0.07**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
cis-1,3-Dichloropropene	VOCs	mg/L	**0.001**	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Cymene (p-Isopropyltoluene)	VOCs	mg/L		< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Dibromomethane	VOCs	mg/L	**0.07**	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005

Table 4
Summary of Groundwater Analytical Data

Chemical	Group	Units	Class I Criteria (GQS)	ROST-4-PZ	ROST-4-PZ(A)	ROST-4-PZ(B)	ROST-4-PZ(B)-DUP	ROST-4-PZ(C)	ROST-4-PZ(D)	ROST-4-PZ(F)	ROST-4-PZ(G)
		Sample Date:		5/5/2011	5/4/2011	5/4/2011	5/3/2011	5/3/2011	5/3/2011	5/5/2011	5/5/2011
Dichlorodifluoromethane	VOCs	mg/L		< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Dichloromethane (Methylene chloride)	VOCs	mg/L	**0.005**	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Ethyl methacrylate	VOCs	mg/L		< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Ethylbenzene	VOCs	mg/L	**0.7**	**0.0028**	**0.0053**	< 0.001	< 0.001	**0.32**	**0.414**	**0.256**	**0.0253**
Hexachlorobutadiene	VOCs	mg/L	**0.007**	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Isopropylbenzene (Cumene)	VOCs	mg/L	**0.66**	< 0.005	< 0.005	< 0.005	< 0.005	**0.0118**	**0.0203**	**0.0145**	**0.0099**
m,p-Xylene	VOCs	mg/L		**0.0133**	**0.0283**	**0.006 J**	**0.0084 J**	**0.669**	**0.876**	**0.528**	**0.0509**
Methyl tert-Butyl Ether (MTBE)	VOCs	mg/L	**0.07**	< 0.001	**0.0109**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Naphthalene	VOCs	mg/L	**0.14**	**0.0124 J**				**0.117 J**		**0.0553 J**	**0.0196 J**
n-Butylbenzene	VOCs	mg/L	**0.061**	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
n-Propylbenzene	VOCs	mg/L	**0.061**	**0.008**	< 0.005	< 0.005	< 0.005	**0.0183**	**0.0345**	**0.0174**	**0.0069**
o-Xylenes	VOCs	mg/L		**0.0047**	**0.0327**	**0.0065**	**0.0072**	**0.306**	**0.394**	**0.108**	**0.0045**
sec-Butylbenzene	VOCs	mg/L	**0.061**	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Styrene	VOCs	mg/L	**0.1**	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
tert-Butylbenzene	VOCs	mg/L	**0.061**	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Tetrachloroethene	VOCs	mg/L	**0.005**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Toluene	VOCs	mg/L	**1**	**0.0026**	**0.0255**	**0.002**	**0.0017**	**0.11**	**0.165**	**0.0253**	**0.0044**
trans-1,2-Dichloroethene	VOCs	mg/L	**0.1**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
trans-1,3-Dichloropropene	VOCs	mg/L		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Trichloroethene	VOCs	mg/L	**0.005**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Trichlorofluoromethane	VOCs	mg/L		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Vinyl acetate	VOCs	mg/L	**7**	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Vinyl chloride	VOCs	mg/L	**0.002**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Xylenes (total)	VOCs	mg/L	**10**	**0.018**	**0.061**	**0.0125**	**0.0157**	**0.975**	**1.27**	**0.636**	**0.0554**
1,2-Diphenylhydrazine	SVOCs	mg/L	**0**	< 0.0048	< 0.0048	< 0.005	< 0.0051	< 0.005	< 0.0048	< 0.0048	< 0.0048
1-Methylnaphthalene	SVOCs	mg/L		**0.0155 J**				**0.0181 J**	**0.0637 J**	**0.024 J**	
2,4,5-Trichlorophenol	SVOCs	mg/L	**0.7**	< 0.0095	< 0.0095	< 0.01	< 0.01	< 0.01	< 0.0095	< 0.0095	< 0.0095
2,4,6-Trichlorophenol	SVOCs	mg/L	**0.01**	< 0.0095	< 0.0095	< 0.01	< 0.01	< 0.01	< 0.0095	< 0.0095	< 0.0095
2,4-Dichlorophenol	SVOCs	mg/L	**0.021**	< 0.0095	< 0.0095	< 0.01	< 0.01	< 0.01	< 0.0095	< 0.0095	< 0.0095
2,4-Dimethylphenol	SVOCs	mg/L	**0.14**	< 0.0095	< 0.0095	< 0.01	< 0.01	< 0.01	< 0.0095	< 0.0095	< 0.0095
2,4-Dinitrophenol	SVOCs	mg/L	**0.014**	< 0.019	< 0.019	< 0.02	< 0.02	< 0.02	< 0.019	< 0.019	< 0.019
2,4-Dinitrotoluene	SVOCs	mg/L	**0.00002**	< 0.0095	< 0.0095	< 0.01	< 0.01	< 0.01	< 0.0095	< 0.0095	< 0.0095
2,6-Dinitrotoluene	SVOCs	mg/L	**0.00031**	< 0.0095	< 0.0095	< 0.01	< 0.01	< 0.01	< 0.0095	< 0.0095	< 0.0095
2-Chloronaphthalene	SVOCs	mg/L	**0.56**	< 0.0048	< 0.0048	< 0.005	< 0.0051	< 0.005	< 0.0048	< 0.0048	< 0.0048
2-Chlorophenol	SVOCs	mg/L	**0.035**	< 0.0048	< 0.0048	< 0.005	< 0.0051	< 0.005	< 0.0048	< 0.0048	< 0.0048
2-Methylnaphthalene	SVOCs	mg/L	**0.028**	**0.0139 J**	< 0.00019	**0.0011 J**	**0.0012 J**	**0.0223 J**	**0.0967 J**	**0.0336 J**	**0.0066 J**
2-Methylphenol (o-Cresol)	SVOCs	mg/L	**0.35**	< 0.0095	< 0.0095	< 0.01	< 0.01	< 0.01	< 0.0095	< 0.0095	< 0.0095
2-Nitroaniline	SVOCs	mg/L	**0.021**	< 0.0095	< 0.0095	< 0.01	< 0.01	< 0.01	< 0.0095	< 0.0095	< 0.0095
2-Nitrophenol	SVOCs	mg/L		< 0.0095	< 0.0095	< 0.01	< 0.01	< 0.01	< 0.0095	< 0.0095	< 0.0095
3 & 4-Methylphenol (m & p-Cresol)	SVOCs	mg/L	**0.01**	< 0.0095	< 0.0095	< 0.01	< 0.01	< 0.01	< 0.0095	< 0.0095	< 0.0095
3,3'-Dichlorobenzidine	SVOCs	mg/L	**0.02**	< 0.0048	< 0.0048	< 0.005	< 0.0051	< 0.005	< 0.0048	< 0.0048	< 0.0048
3-Nitroaniline	SVOCs	mg/L	**0.0021**	< 0.0095	< 0.0095	< 0.01	< 0.01	< 0.01	< 0.0095	< 0.0095	< 0.0095
4,6-Dinitro-2-methylphenol (4,6-dinitro-o-cresol)	SVOCs	mg/L	**0.0007**	< 0.0095	< 0.0095	< 0.01	< 0.01	< 0.01	< 0.0095	< 0.0095	< 0.0095
4-Bromophenyl phenyl ether	SVOCs	mg/L		< 0.0048	< 0.0048	< 0.005	< 0.0051	< 0.005	< 0.0048	< 0.0048	< 0.0048
4-Chloro-3-methylphenol (p-Chloro-m-cresol)	SVOCs	mg/L		< 0.0095	< 0.0095	< 0.01	< 0.01	< 0.01	< 0.0095	< 0.0095	< 0.0095
4-Chlorophenyl phenyl ether	SVOCs	mg/L		< 0.0048	< 0.0048	< 0.005	< 0.0051	< 0.005	< 0.0048	< 0.0048	< 0.0048
4-Nitrophenol	SVOCs	mg/L		< 0.019	< 0.019	< 0.02	< 0.02	< 0.02	< 0.019	< 0.019	< 0.019
4-Nitrophenylamine	SVOCs	mg/L	**0.021**	< 0.0095	< 0.0095	< 0.01	< 0.01	< 0.01	< 0.0095	< 0.0095	< 0.0095

Table 4
Summary of Groundwater Analytical Data

Chemical	Group	Units	Class I Criteria (GQS)	ROST-4-PZ	ROST-4-PZ(A)	ROST-4-PZ(B)	ROST-4-PZ(B)-DUP	ROST-4-PZ(C)	ROST-4-PZ(D)	ROST-4-PZ(F)	ROST-4-PZ(G)
		Sample Date:		5/5/2011	5/4/2011	5/4/2011	5/3/2011	5/3/2011	5/3/2011	5/5/2011	5/5/2011
Acenaphthene	SVOCs	mg/L	**0.42**	**0.0016 J**	< 0.000095	< 0.0001	< 0.0001	**0.0018 J**	**0.0023 J**	**0.00073 J**	**0.00012 J**
Acenaphthylene	SVOCs	mg/L	**0.21**	< 0.000095	< 0.000095	< 0.0001	< 0.0001	< 0.0001	< 0.000095	< 0.000095	< 0.000095
Aniline	SVOCs	mg/L	**0.023**	< 0.0095 UJ	< 0.0095 UJ	< 0.01 UJ	< 0.01 UJ	< 0.01 UJ	< 0.0095 UJ	< 0.01 UJ	< 0.0095 UJ
Anthracene	SVOCs	mg/L	**2.1**	**0.0004 J**	< 0.000095	< 0.0001	< 0.0001	**0.0003 J**	**0.00047 J**	**0.00017 J**	< 0.000095
Benzo(a)anthracene	SVOCs	mg/L	**0.00013**	**0.00011 J**	< 0.000048	**0.00012 J**	**0.00012 J**	**0.00013 J**	**0.00012 J**	**0.00011 J**	**0.00011 J**
Benzo(a)pyrene	SVOCs	mg/L	**0.0002**	< 0.000095	< 0.000095	< 0.0001	< 0.0001	< 0.0001	< 0.000095	< 0.000095	< 0.000095
Benzo(b)fluoranthene	SVOCs	mg/L	**0.00018**	< 0.000048	< 0.000048	< 0.00005	< 0.000051	< 0.00005	< 0.000048	< 0.000048	< 0.000048
Benzo(g,h,i)perylene	SVOCs	mg/L	**0.21**	< 0.000095	< 0.000095	< 0.0001	< 0.0001	< 0.0001	< 0.000095	< 0.000095	< 0.000095
Benzo(k)fluoranthene	SVOCs	mg/L	**0.00017**	< 0.000095	< 0.000095	< 0.0001	< 0.0001	< 0.0001	< 0.000095	< 0.000095	< 0.000095
Benzoic Acid	SVOCs	mg/L	**28**	< 0.0095	< 0.0095	< 0.01	< 0.01	< 0.01	< 0.0095	< 0.0095	< 0.0095
Benzyl alcohol	SVOCs	mg/L		< 0.0095	< 0.0095	< 0.01	< 0.01	< 0.01	< 0.0095	< 0.0095	< 0.0095
bis(2-Chloroethoxy)methane	SVOCs	mg/L		< 0.0048	< 0.0048	< 0.005	< 0.0051	< 0.005	< 0.0048	< 0.0048	< 0.0048
bis(2-Chloroethyl)ether	SVOCs	mg/L	**0.01**	< 0.0048	< 0.0048	< 0.005	< 0.0051	< 0.005	< 0.0048	< 0.0048	< 0.0048
Bis(2-chloroisopropyl)ether	SVOCs	mg/L	**0.28**	< 0.0048	< 0.0048	< 0.005	< 0.0051	< 0.005	< 0.0048	**0.0069**	< 0.0048
bis(2-Ethylhexyl)phthalate	SVOCs	mg/L	**0.006**	< 0.0024	< 0.0022	< 0.0023	< 0.0024	< 0.0029	< 0.0023	< 0.0022	< 0.0023
Butyl benzyl phthalate	SVOCs	mg/L	**1.4**	**0.006**	< 0.0048	**0.0063**	< 0.0051	< 0.005	< 0.0048	< 0.0048	< 0.0048
Chrysene (1,2-Benzphenanthracene)	SVOCs	mg/L	**0.0015**	< 0.000095	< 0.000095	< 0.0001	< 0.0001	< 0.0001	< 0.000095	< 0.000095	< 0.000095
Dibenzo(a,h)anthracene	SVOCs	mg/L	**0.0003**	< 0.000095	< 0.000095	< 0.0001	< 0.0001	< 0.0001	< 0.000095	< 0.000095	< 0.000095
Dibenzofuran	SVOCs	mg/L		< 0.0048	< 0.0048	< 0.005	< 0.0051	< 0.005	< 0.0048	< 0.0048	< 0.0048
Diethyl phthalate	SVOCs	mg/L	**5.6**	< 0.0048	< 0.0048	< 0.005	< 0.0051	< 0.005	< 0.0048	< 0.0048	< 0.0048
Dimethyl phthalate	SVOCs	mg/L		< 0.0048	< 0.0048	< 0.005	< 0.0051	< 0.005	< 0.0048	< 0.0048	< 0.0048
Di-n-butyl phthalate	SVOCs	mg/L	**0.7**	< 0.0048	< 0.0048	< 0.005	< 0.0051	< 0.005	< 0.0048	< 0.0048	< 0.0048
Di-n-octyl phthalate	SVOCs	mg/L	**0.14**	< 0.0048	< 0.0048	< 0.005	< 0.0051	< 0.005	< 0.0048	< 0.0048	< 0.0048
Fluoranthene	SVOCs	mg/L	**0.28**	< 0.000095	< 0.000095	< 0.0001	< 0.0001	< 0.0001	< 0.000095	< 0.000095	< 0.000095
Fluorene	SVOCs	mg/L	**0.28**	**0.0011 J**	< 0.000095	**0.00012 J**	**0.00011 J**	**0.0013 J**	**0.0019 J**	**0.00064 J**	**0.00012 J**
Hexachlorobenzene	SVOCs	mg/L	**0.00006**	< 0.0048	< 0.0048	< 0.005	< 0.0051	< 0.005	< 0.0048	< 0.0048	< 0.0048
Hexachlorocyclopentadiene	SVOCs	mg/L	**0.05**	< 0.0095	< 0.0095	< 0.01	< 0.01	< 0.01	< 0.0095	< 0.0095	< 0.0095
Hexachloroethane	SVOCs	mg/L	**0.007**	< 0.0048	< 0.0048	< 0.005	< 0.0051	< 0.005	< 0.0048	< 0.0048	< 0.0048
Indeno(1,2,3-cd)pyrene	SVOCs	mg/L	**0.00043**	< 0.000095	< 0.000095	< 0.0001	< 0.0001	< 0.0001	< 0.000095	< 0.000095	< 0.000095
Isophorone (3,5,5-trimethyl-2-cyclohexene-1-one)	SVOCs	mg/L	**1.4**	< 0.0048	< 0.0048	< 0.005	< 0.0051	< 0.005	< 0.0048	< 0.0048	< 0.0048
Naphthalene	SVOCs	mg/L	**0.14**		**0.00039 J**	**0.00056 J**	**0.00051 J**		**0.164 J**		
Nitrobenzene	SVOCs	mg/L	**0.0035**	< 0.0048	< 0.0048	< 0.005	< 0.0051	< 0.005	< 0.0048	< 0.0048	< 0.0048
N-Nitrosodimethylamine	SVOCs	mg/L		< 0.0048	< 0.0048	< 0.005	< 0.0051	< 0.005	< 0.0048	< 0.0048	< 0.0048
N-Nitrosodi-n-propylamine	SVOCs	mg/L	**0.0018**	< 0.0048	< 0.0048	< 0.005	< 0.0051	< 0.005	< 0.0048	< 0.0048	< 0.0048
N-Nitrosodiphenylamine	SVOCs	mg/L	**0.0032**	< 0.0048	< 0.0048	< 0.005	< 0.0051	< 0.005	< 0.0048	< 0.0048	< 0.0048
p-Chloroaniline	SVOCs	mg/L	**0.028**	< 0.0095 UJ	< 0.0095 UJ	< 0.01 UJ	< 0.01 UJ	< 0.01 UJ	< 0.0095 UJ	< 0.0095 UJ	< 0.0095 UJ
Pentachlorophenol	SVOCs	mg/L	**0.001**	< 0.0095	< 0.0095	< 0.01	< 0.01	< 0.01	< 0.0095	< 0.0095	< 0.0095
Phenanthrene	SVOCs	mg/L	**0.21**	**0.0011 J**	< 0.000048	**0.000069 J**	**0.000077 J**	**0.00017 J**	**0.0048 J**	**0.0014 J**	**0.000069 J**
Phenol	SVOCs	mg/L	**0.1**	< 0.0048	< 0.0048	< 0.005	< 0.0051	< 0.005	< 0.0048	< 0.0048	< 0.0048
Pyrene	SVOCs	mg/L	**0.21**	**0.00013**	< 0.000095	< 0.0001	< 0.0001	**0.00012**	**0.00012**	< 0.000095	< 0.000095
Pyridine	SVOCs	mg/L	**0.007**	< 0.0095 UJ	< 0.0095 UJ	< 0.01 UJ	< 0.01 UJ	< 0.01 UJ	< 0.0095 UJ	< 0.01 UJ	< 0.0095 UJ

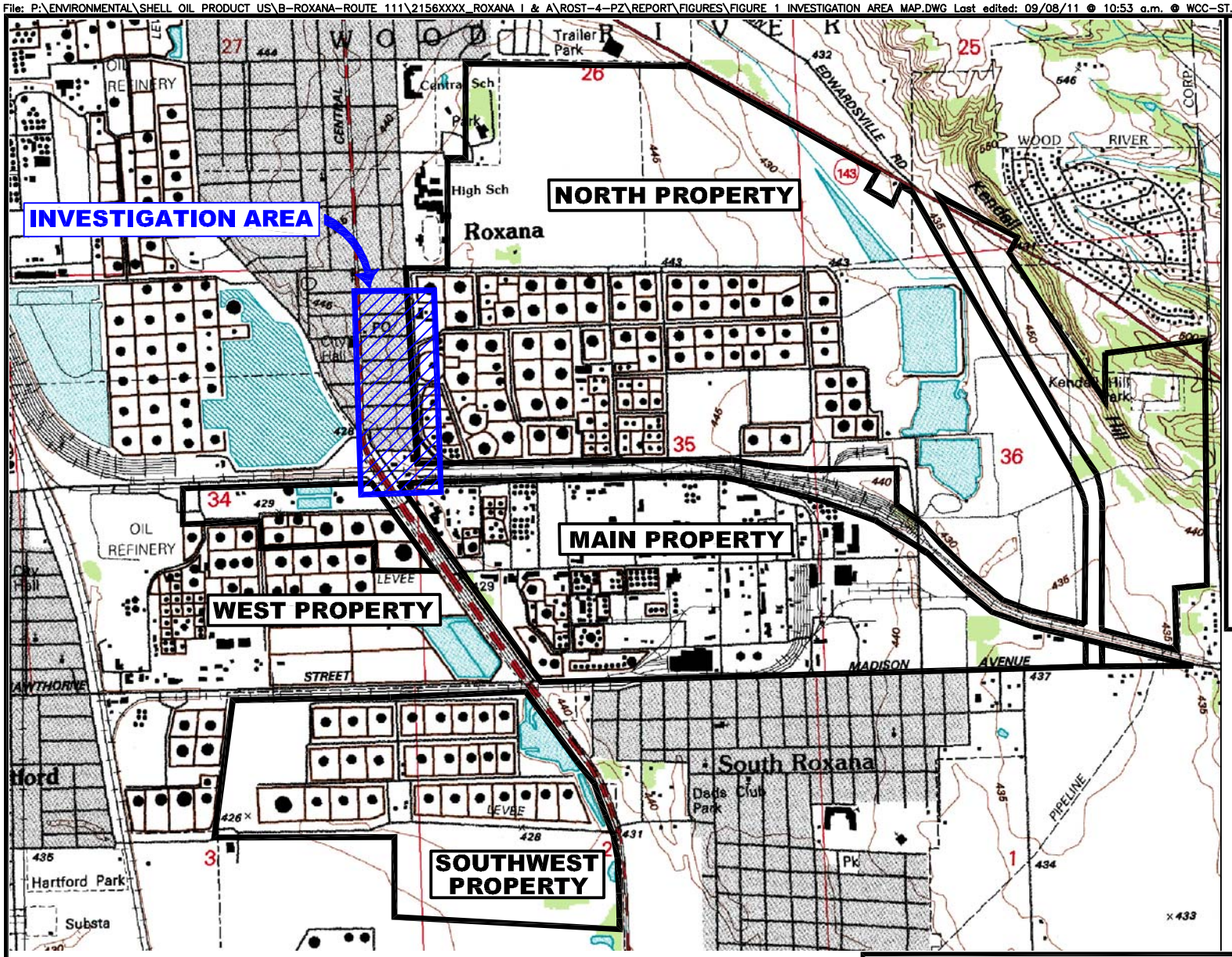
Notes:
mg/L = milligrams per liter
GQS = Groundwater Quality Standard
BOLD indicates concentration greater than reporting limit
Highlighting indicates concentration is greater than the Class I criteria
< = Result is non-detect, less than the reporting limit (indicated as U on lab data)
J = Estimated value
UJ = Estimated non-detect value

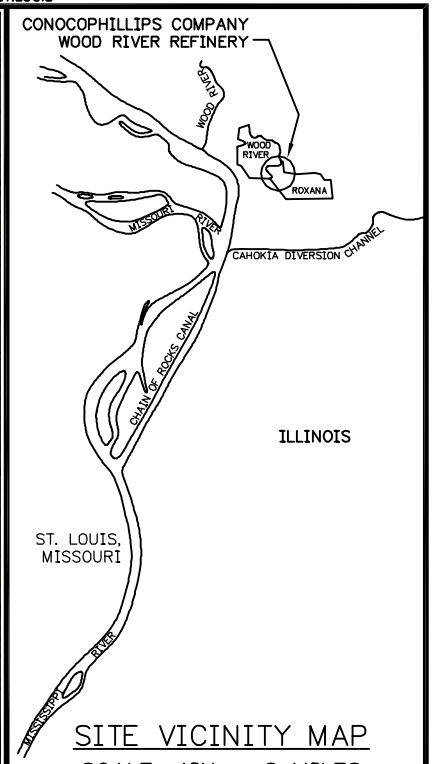
Table 5
ROST-4-PZ(E) Baildown Test Results

Date	Time	LNAPL Recovery Time	DTP (feet btoc)	DTW (feet btoc)	LNAPL Thickness (feet)
4/20/2011	1245	Initial	37.70	38.75	1.05
4/20/2011	1313	0 min	37.91	37.93	0.02
4/20/2011	1314	1 min	37.91	37.93	0.02
4/20/2011	1315	2 min	37.91	37.93	0.02
4/20/2011	1316	3 min	37.91	37.93	0.02
4/20/2011	1317	4 min	37.91	37.93	0.02
4/20/2011	1318	5 min	37.91	37.93	0.02
4/20/2011	1319	6 min	37.91	37.94	0.03
4/20/2011	1320	7 min	37.91	37.94	0.03
4/20/2011	1321	8 min	37.91	37.94	0.03
4/20/2011	1322	9 min	37.91	37.94	0.03
4/20/2011	1323	10 min	37.91	37.94	0.03
4/20/2011	1325	12 min	37.91	37.94	0.03
4/20/2011	1327	14 min	37.91	37.94	0.03
4/20/2011	1329	16 min	37.91	37.94	0.03
4/20/2011	1331	18 min	37.90	37.94	0.04
4/20/2011	1333	20 min	37.90	37.94	0.04
4/20/2011	1335	22 min	37.90	37.94	0.04
4/20/2011	1337	24 min	37.90	37.94	0.04
4/20/2011	1339	26 min	37.90	37.94	0.04
4/20/2011	1341	28 min	37.89	37.94	0.05
4/20/2011	1343	30 min	37.89	37.94	0.05
4/20/2011	1348	35 min	37.84	37.94	0.10
4/20/2011	1353	40 min	37.88	37.94	0.06
4/20/2011	1358	45 min	37.89	37.94	0.05
4/20/2011	1403	50 min	37.88	37.94	0.06
4/20/2011	1408	55 min	37.88	37.94	0.06
4/20/2011	1413	60 min (1 hr)	37.87	37.94	0.07
4/20/2011	1424	70 min	37.88	37.94	0.06
4/20/2011	1334	80 min	37.88	37.94	0.06
4/20/2011	1444	90 min	37.87	37.94	0.07
4/20/2011	1524	120 min (2 hr)	37.87	37.94	0.07
4/20/2011	1554	150 min	37.88	37.89	0.01
4/20/2011	1624	180 min (3 hr)	37.85	37.89	0.04
4/20/2011	1654	210 min	37.85	37.89	0.04
4/20/2011	1724	240 min (4 hr)	37.83	37.89	0.06
4/20/2011	1824	300 min (5 hr)	37.82	37.88	0.06
4/20/2011	1924	360 min (6 hr)	37.82	37.88	0.06
4/20/2011	2024	420 min (7 hr)	37.82	37.88	0.06
4/20/2011	2124	480 min (8 hr)	37.82	37.88	0.06
4/21/2011	1325	24 hr	NE	37.70	NE
4/22/2011	1313	48 hr	NE	37.50	NE
4/25/2011	1313	120 hr	NE	37.50	NE

Note:
btoc - below top of casing

File: P:\ENVIRONMENTAL\SHELL OIL PRODUCT US\B-ROXANA-ROUTE 111\2156XXXX_ROXANA I & A\ROST-4-PZ\REPORT\FIGURES\FIGURE 1 INVESTIGATION AREA MAP.DWG Last edited: 09/08/11 @ 10:53 a.m. @ WCC-ST.LOUIS





SITE VICINITY MAP
SCALE: 1IN = 8 MILES

LEGEND

- WOOD RIVER REFINERY PROPERTY BOUNDARY
- INVESTIGATION AREA

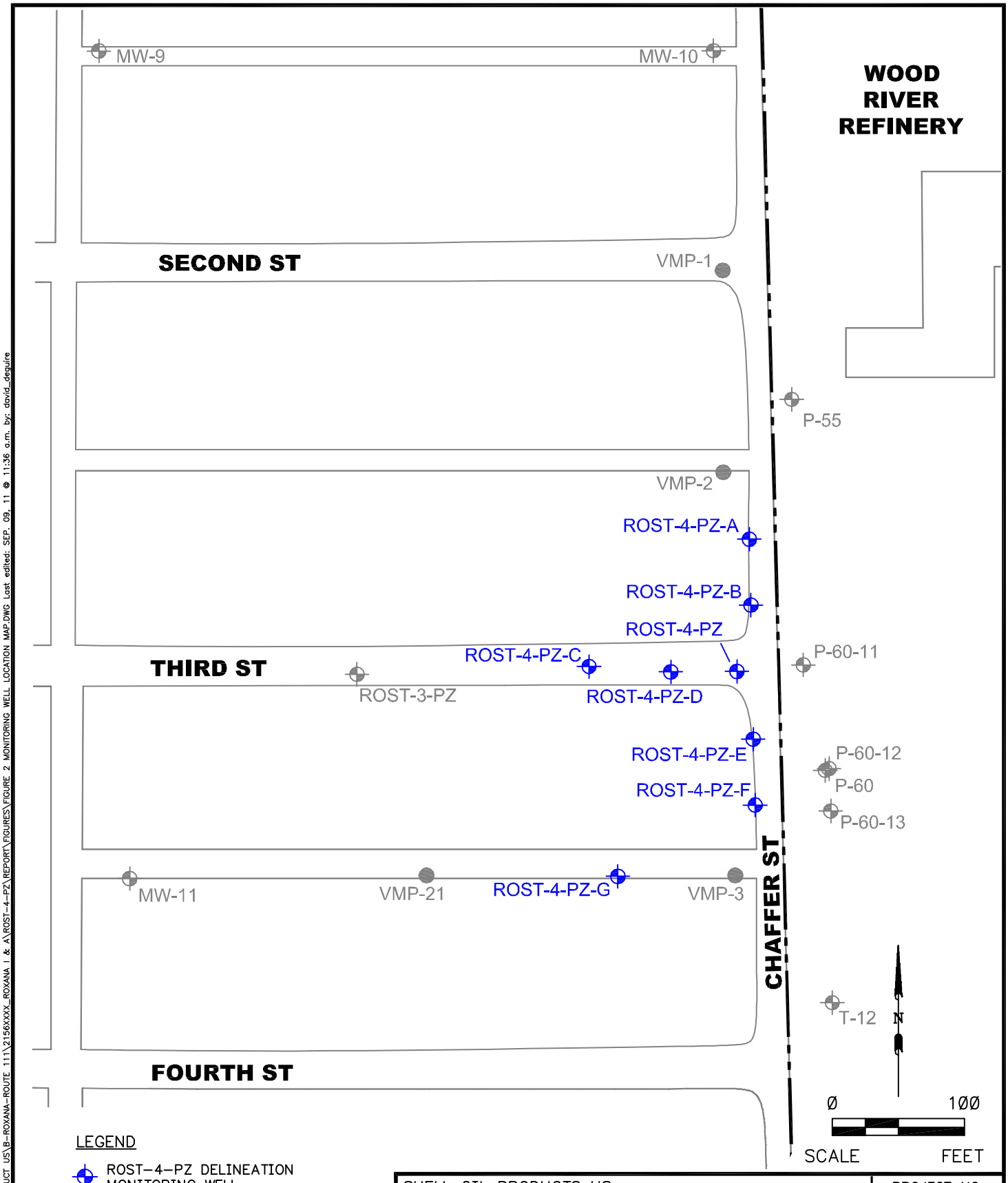
CONTOUR INTERVAL = 5 FT

Ø 2ØØØ
SCALE FEET

N

SOURCE:
MAP CREATED FROM ELECTRONIC USGS DIGITAL RASTER GRAPHIC 7.5 MINUTE TOPOGRAPHIC MAP OF WOOD RIVER, ILL-MO REVISED 1994.

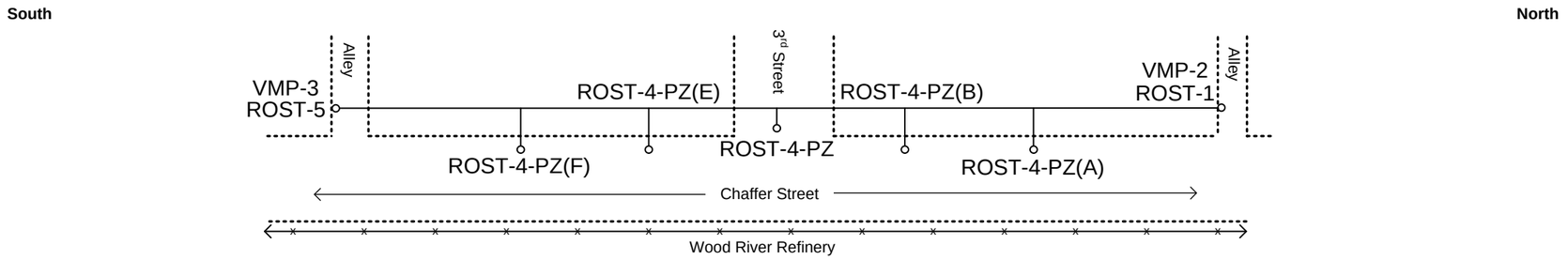
SHELL OIL PRODUCTS US ROXANA, ILLINOIS	PROJECT NO. 21562593
URS	
DRN. BY:djd September 2Ø11 DSGN. BY:djd CHKD. BY:rh	Investigation Area Map — FIG. NO. 1

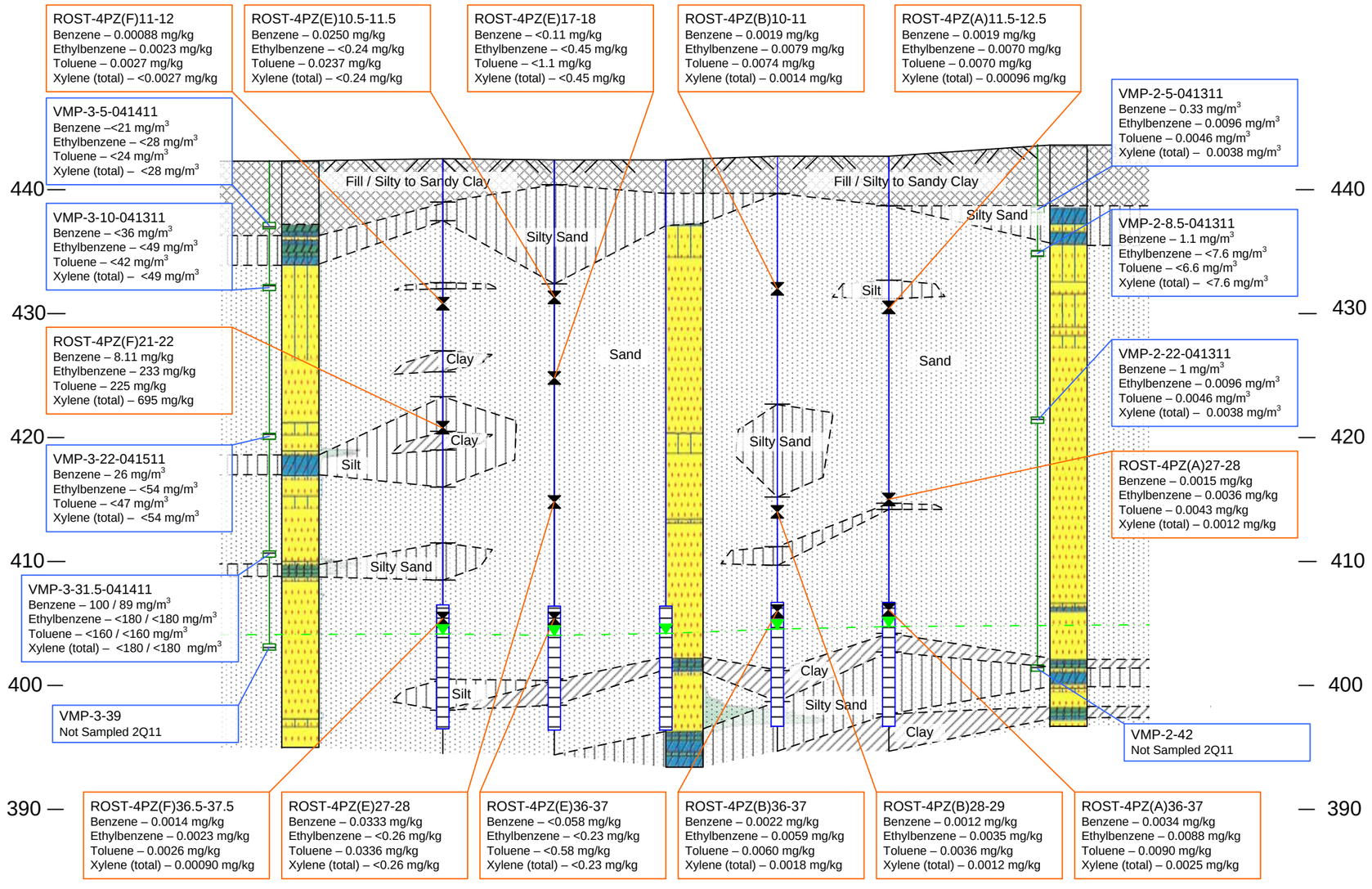


SHELL OIL PRODUCTS US ROXANA, ILLINOIS	PROJECT NO. 21562593
URS	
DRN. BY:djd September 2011 DSGN. BY:djd CHKD. BY:tja	Monitoring Well Location Map — FIG. NO. 2

File: P:\ENVIRONMENTAL\SHELL OIL PRODUCT US\B-ROXANA-ROUTE 111\21562XXX_ROXANA I & A\ROST-4-PZ\REPORT\FIGURES\FIGURE 2 MONITORING WELL LOCATION MAP.DWG Last edited: SEP. 09, 11 @ 11:36 a.m. by: david_deguire

PLAN VIEW (DEPICTING OFFSETS)





LEGEND:

Plan View

- Street Boundary
- WRR Fence
- Investigative Location

Cross Section

- Stratum Boundary Assumed
- SILTY CLAY / FILL projected between points
- SANDY SILT projected between points
- SILT projected between points
- SAND projected between points
- CLAY projected between points
- CPT interpreted SAND
- Groundwater Surface – estimated, 05/02/11
- Groundwater Elevation – gauged 05/02/11
- Soil Vapor Sampling Port
- Monitoring Well
- Soil Sampling Interval
- Soil Vapor Data
- Soil Data

Vertical Scale: (Feet) 0 10

Plan View and Horizontal Scale: (Feet) 0 50

SHELL OIL PRODUCTS US
ROXANA, ILLINOIS

PROJECT NO. 21562593

URS

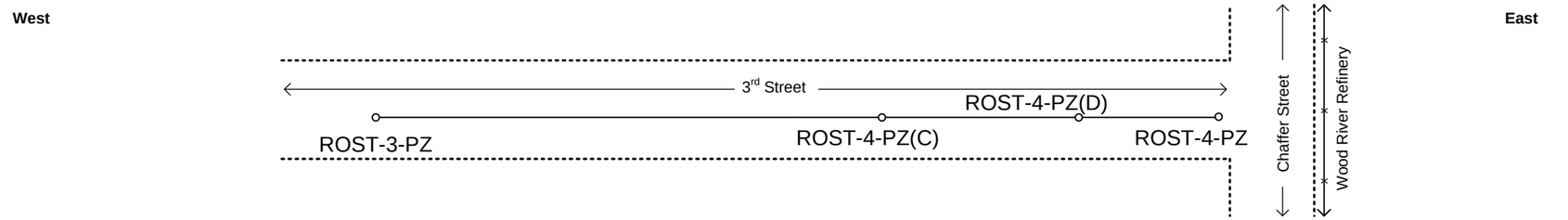
DRN. BY: mpm
DSGN. BY: mpm 05/5/2011
CHKD. BY:

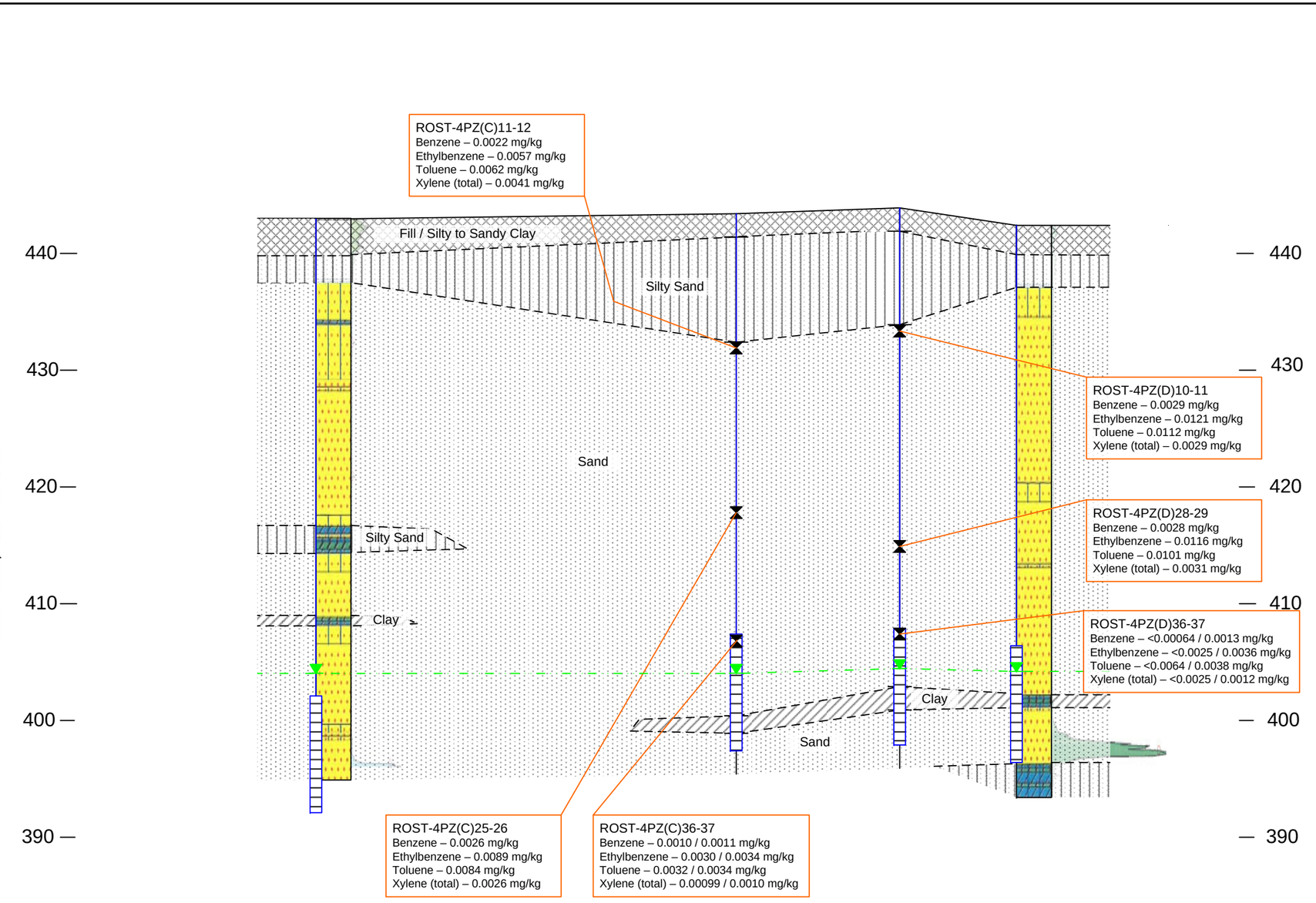
North-South Cross Section
ROST-4

3

P:\Environmental\Shell Oil Product US\B-Roxana-Route 111\21562XXXX_Roxana I & A\Drawings\ROST 4 Drawings\N-S Cross Section ROST 4.vsd Last edit: 9/7/2011 9:42:27 AM

PLAN VIEW (DEPICTING OFFSETS)





LEGEND:

Plan View

- Street Boundary
- WRR Fence
- Investigative Location

Cross Section

- Stratum Boundary Assumed
- SILTY CLAY / FILL projected between points
- SANDY SILT projected between points
- SILT projected between points
- SAND projected between points
- CLAY projected between points
- CPT interpreted CLAY
- CPT interpreted Sandy CLAY
- CPT interpreted SAND
- Groundwater Surface – estimated, 05/02/11
- Groundwater Elevation – gauged 05/02/11
- Soil Vapor Sampling Port
- Monitoring Well
- Soil Sampling Interval
- Soil Data

Vertical Scale: (Feet) 0 10

Plan View and Horizontal Scale: (Feet) 0 50

SHELL OIL PRODUCTS US
ROXANA, ILLINOIS

PROJECT NO. 21562593

URS

DRN. BY: mpm
DSGN. BY: mpm 05/5/2011
CHKD. BY:

West-East Cross Section
ROST-4

4

P:\Environmental\Shell Oil Product US\B-Roxana-Route 111\21562XXXX_Roxana I & A\Drawings\ROST 4 Drawings\W-E Cross Section ROST 4.vsd Last edit: 9/7/2011 9:48:38 AM

Soil Boring Logs

LOG OF BORING
ROST-4-PZ (A)

Starting Date: 3/29/11
Completion Date: 4/5/11
Casing Elevation: 442.11
Ground Elevation: 442.81

Quadrangle
Sec: N/A
T: N/A
R: N/A
UTM (or State Plane) Coord
N: (X):793696.80
E: (Y):2322239.89

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	USCS	DESCRIPTION	NOTES
					ASPHALT	Asphalt	Air knife completed to 10' bgs to clear utilities, lithology information gained via grab samples from hand augers periodically collected.
				0.2	FILL	Stiff, moist, brown, low plastic sandy clay FILL [FILL]	
				0.3			
				0.2		With silt	
				0.2	SP	Loose, dry, tan, fine grained SAND (SP)	
5				0.0		Trace silt	
				0.0		Silt grades out	
				0.2			
				0.2			
10				0.0	ML	Very dense, moist, brown SILT (ML)	
	24	18		4.0			
				4.0	SP	Loose, dry, tan, fine grained SAND (SP)	Sampled ROST-4-PZ (A)-11.5-12.5 at 0845 for VOCs and SVOCs
	48	32					
15				4.2			
				6.8		Trace clayey silty seams	
	48	35					
				7.2			
20				0.2			
	48	38					
				4.2		Becomes moist, gray	

Completion Depth: **48.0 Ft bgs**
Project No.: **21562593**
Project Name: **ROST-4-PZ Delineation**
Drilling Contractor: **Roberts Environmental Drilling Inc.**
Driller Name: **Pat Seymor**
Drilling Method: **Direct Push**
Drill Rig Type: **VTR 9700**
Logged by: **N. Satam**
County: **Madison**
Site ID No.: **1191150002**
Federal ID No.: **ILD 080012305**

Water Depth: 37.5 ft., After ATD hrs.
Water Depth: _____ ft., After _____ hrs.

▽ Water level at time of drilling
▼ Water level after drilling
ATD - At time of drilling
NE - None Encountered
NA - Not Applicable

Geoprobe
Air Knife/Hand Auger
Sampler
Air Rotary
Sonic
Splitspoon Sampler
Hollow Stem Auger-
Soil samples not collected

URS

USC based on field visual observations

URS (ENVIRON) LOG (EPA FORMAT) 21562593 (ROXANA ROST).GPJ URSSTLEV.GDT 5/19/11

LOG OF BORING
ROST-4-PZ (A)

Starting Date: 3/29/11
Completion Date: 4/5/11
Casing Elevation: 442.11
Ground Elevation: 442.81

Quadrangle
Sec: N/A
T: N/A
R: N/A
UTM (or State Plane) Coord
N: (X):793696.80
E: (Y):2322239.89

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	USCS	DESCRIPTION	NOTES
	48	34		15.8 23.5	SP	Same: Loose, moist, gray, fine grained SAND (SP)	Sampled ROST-4 PZ-(A)-27-28 at 0915 for VOCs and SVOCs
					ML	Medium dense, SILT (ML)	
30	48	35		1.2 1.4	SP	Loose, moist, gray, fine grained SAND (SP)	
	48	34		3.2 3.8			
35						Trace orange banding 2" silt seam Becomes dark brown	Sampled ROST-4 PZ(A)-36-37 at 1000 for VOCs and SVOCs
	48	35		3.0 12.5		1" black banding ▽ Becomes wet, medium grained	
					CL	Soft, low plastic, Silty CLAY (CL)	
40	48	46		4.0 4.2	SM	Dense to soft, wet, fine grained Silty SAND (SM), some clay Clay grades out	
45	48	48		0.0 2.0	CL	Soft, low plastic Silty CLAY (CL) Silt grades out	
						Bottom of boring at 48.0' bgs	

Completion Depth: **48.0 Ft bgs**
Project No.: **21562593**
Project Name: **ROST-4-PZ Delineation**
Drilling Contractor: **Roberts Environmental Drilling Inc.**
Driller Name: **Pat Seymor**
Drilling Method: **Direct Push**
Drill Rig Type: **VTR 9700**
Logged by: **N. Satam**
County: **Madison**
Site ID No.: **1191150002**
Federal ID No.: **ILD 080012305**

Water Depth: 37.5 ft., After ATD hrs.
Water Depth: _____ ft., After _____ hrs.
▽ Water level at time of drilling
▼ Water level after drilling
ATD - At time of drilling
NE - None Encountered
NA - Not Applicable

Geoprobe
Air Knife/Hand Auger
Sampler
Air Rotary
Sonic
Splitspoon Sampler
Hollow Stem Auger-
Soil samples not collected

URS

USC based on field visual observations

URS (ENVIRON) LOG (EPA FORMAT) 21562593 (ROXANA ROST).GPJ URSSTLEV.GDT 5/19/11

LOG OF BORING
ROST-4-PZ (B)

Starting Date: 3/29/11
Completion Date: 4/6/11
Casing Elevation: 442.38
Ground Elevation: 442.72

Quadrangle
Sec: N/A
T: N/A
R: N/A
UTM (or State Plane) Coord
N: (X):793647.01
E: (Y):2322241.07

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	USCS	DESCRIPTION	NOTES
					ASPHALT	Asphalt	Air knife completed to 10' bgs to clear utilities, lithology information gained via grab samples from hand augers periodically collected.
				0.2	FILL	Medium stiff, moist, brown, low plastic sandy clay FILL with silt [FILL]	
				0.2			
				0.2			
				0.3		Medium dense, dry, tan, fine grained SAND (SP)	
5				0.2			
				0.2			
				0.1			
10	24	24		0.5	SP	Becomes moist	Sampled ROST-4-PZ(B)-10-11 at 0930 for VOCs and SVOCs
				0.3			
				0.2			
	48	36					
15				0.3		Trace black banding	
				1.3			
	48	37				Becomes dry	
				1.2			
20						Dense, moist, gray Silty SAND (SM)	
				1.8	SM		
	48	34					
				1.5			

Completion Depth: **48.0 Ft bgs**
Project No.: **21562593**
Project Name: **ROST-4-PZ Delineation**
Drilling Contractor: **Roberts Environmental Drilling Inc.**
Driller Name: **Pat Seymor**
Drilling Method: **Direct Push**
Drill Rig Type: **VTR 9700**
Logged by: **N. Satam**
County: **Madison**
Site ID No.: **1191150002**
Federal ID No.: **ILD 080012305**

Water Depth: 37 ft., After ATD hrs.
Water Depth: _____ ft., After _____ hrs.
▽ Water level at time of drilling
▼ Water level after drilling
ATD - At time of drilling
NE - None Encountered
NA - Not Applicable

Geoprobe
Air Knife/Hand Auger Sampler
Air Rotary
Sonic
Splitspoon Sampler
Hollow Stem Auger-Soil samples not collected

URS

USC based on field visual observations

URS (ENVIRON) LOG (EPA FORMAT) 21562593 (ROXANA ROST).GPJ URSSTLEV.GDT 5/19/11

LOG OF BORING
ROST-4-PZ (B)

Starting Date: 3/29/11
Completion Date: 4/6/11
Casing Elevation: 442.38
Ground Elevation: 442.72

Quadrangle
Sec: N/A
T: N/A
R: N/A
UTM (or State Plane) Coord
N: (X):793647.01
E: (Y):2322241.07

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	USCS	DESCRIPTION	NOTES
	48	35		1.7 3.5	SM	Same: Dense, moist, gray Silty SAND (SM)	
30	48	34		4.5 1.6	SP	Medium dense, dry, tan, fine grained grained SAND (SP)	Sampled ROST-4-PZ(B)-28-29 at 1000 for VOCs and SVOCs
	48	36		2.3	SM	Dense, moist, gray, Silty SAND (SM)	
35				2.8	SP	Medium dense, dry, tan fine grained SAND (SP) Becomes moist, gray, very fine grained	
	48	34		3.5 5.5	SP	▽ Becomes wet 3" medium to coarse grained seam	Sampled ROST-4-PZ(B)-36-37 at 1030 for VOCs and SVOCs
40	48	48		15.5 6.5	CL	Soft, low plastic, Silty CLAY (CL)	
					ML	Dense SILT (ML)	
45	48	48		247 15.8	SM	Silty SAND (SM)	
						Bottom of boring at 48.0' bgs	

Completion Depth: **48.0 Ft bgs**
Project No.: **21562593**
Project Name: **ROST-4-PZ Delineation**
Drilling Contractor: **Roberts Environmental Drilling Inc.**
Driller Name: **Pat Seymor**
Drilling Method: **Direct Push**
Drill Rig Type: **VTR 9700**
Logged by: **N. Satam**
County: **Madison**
Site ID No.: **1191150002**
Federal ID No.: **ILD 080012305**

Water Depth: 37 ft., After ATD hrs.
Water Depth: _____ ft., After _____ hrs.
▽ Water level at time of drilling
▼ Water level after drilling
ATD - At time of drilling
NE - None Encountered
NA - Not Applicable

Geoprobe
Air Knife/Hand Auger Sampler
Air Rotary
Sonic
Splitspoon Sampler
Hollow Stem Auger-Soil samples not collected

URS

USC based on field visual observations

URS (ENVIRON) LOG (EPA FORMAT) 21562593 (ROXANA ROST).GPJ URSSTLEV.GDT 5/19/11

LOG OF BORING
ROST-4-PZ (C)

Starting Date: 3/28/11
Completion Date: 4/8/11
Casing Elevation: 443.00
Ground Elevation: 443.30

Quadrangle
Sec: N/A
T: N/A
R: N/A
UTM (or State Plane) Coord
N: (X):793600.60
E: (Y):2322118.61

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	USCS	DESCRIPTION	NOTES
					ASPHALT	Asphalt and Fill	Air knife completed to 10' bgs to clear utilities, lithology information gained via grab samples from hand augers periodically collected.
				0.0	FILL	Medium dense, moist, brown, clayey silt FILL [FILL]	
				0.0			
				0.1		Dense, dry, tan, fine grained, Silty SAND (SM)	
				0.0			
5				0.0			
				0.0	SM		
				0.0			
				0.0			
				0.0			
10				5.6			
	24	24		12.5		Dense, dry, tan, fine grained SAND (SP)	Sampled ROST-4-PZ (C)-11-12 at 0830 for VOCs and SVOCs
				9.2			
	48	38					
15				9.6			
				10.6			
	48	38			SP		
				5.5		Becomes gray	
20						2" soft, wet, tan, clay seam	
				12.5			
	48	24				Becomes dense, moist	
				12.8		1" black banding	

Completion Depth: **48.0 Ft bgs**
Project No.: **21562593**
Project Name: **ROST-4-PZ Delineation**
Drilling Contractor: **Roberts Environmental Drilling Inc.**
Driller Name: **Pat Seymor**
Drilling Method: **Direct Push**
Drill Rig Type: **VTR 9700**
Logged by: **N. Satam**
County: **Madison**
Site ID No.: **1191150002**
Federal ID No.: **ILD 080012305**

Water Depth: 37.5 ft., After ATD hrs.
Water Depth: _____ ft., After _____ hrs.

▽ Water level at time of drilling
▼ Water level after drilling
ATD - At time of drilling
NE - None Encountered
NA - Not Applicable

Geoprobe
Air Knife/Hand Auger Sampler
Air Rotary
Sonic
Splitspoon Sampler
Hollow Stem Auger-Soil samples not collected

URS

USC based on field visual observations

URS (ENVIRON) LOG (EPA FORMAT) 21562593 (ROXANA ROST).GPJ URSSTLEV.GDT 5/19/11

LOG OF BORING
ROST-4-PZ (C)

Starting Date: 3/28/11
Completion Date: 4/8/11
Casing Elevation: 443.00
Ground Elevation: 443.30

Quadrangle
Sec: N/A
T: N/A
R: N/A
UTM (or State Plane) Coord
N: (X):793600.60
E: (Y):2322118.61

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
	48	38		20.4 32				Same: Dense, moist, gray, fine grained SAND (SP) 8" soft, wet, tan, clay seam	Sampled ROST-4-PZ (C)-25-26 at 0930 for VOCs and SVOCs
30	48	40		34 50					
35	48	40		5.4 35			SP		
	48	36		9.7 45				Becomes loose, tan ▽ Becomes medium dense, wet 1" black banding	Sampled ROST-4-PZ(C)-36-37 at 1000 for VOCs and SVOCs
40	48	48		23 132				2" dark gray banding	
							CL	Soft, wet, gray, low plastic, Silty CLAY (CL)	Hydrocarbon odor
45	48	48		350 1065			SP	Medium dense, wet, tan, fine grained SAND (SP)	
								Bottom of boring at 48.0' bgs	

Completion Depth: **48.0 Ft bgs**
Project No.: **21562593**
Project Name: **ROST-4-PZ Delineation**
Drilling Contractor: **Roberts Environmental Drilling Inc.**
Driller Name: **Pat Seymor**
Drilling Method: **Direct Push**
Drill Rig Type: **VTR 9700**
Logged by: **N. Satam**
County: **Madison**
Site ID No.: **1191150002**
Federal ID No.: **ILD 080012305**

Water Depth: 37.5 ft., After ATD hrs.
Water Depth: _____ ft., After _____ hrs.
▽ Water level at time of drilling
▼ Water level after drilling
ATD - At time of drilling
NE - None Encountered
NA - Not Applicable

Geoprobe
Air Knife/Hand Auger
Sampler
Air Rotary
Sonic
Splitspoon Sampler
Hollow Stem Auger-
Soil samples not collected

URS

USC based on field visual observations

URS (ENVIRON) LOG (EPA FORMAT) 21562593 (ROXANA ROST).GPJ URSSTLEV.GDT 5/19/11

LOG OF BORING
ROST-4-PZ (D)

Starting Date: 3/28/11
Completion Date: 4/7/11
Casing Elevation: 442.98
Ground Elevation: 443.31

Quadrangle
Sec: N/A
T: N/A
R: N/A
UTM (or State Plane) Coord
N: (X):793597.03
E: (Y):2322180.17

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	USCS	DESCRIPTION	NOTES
					ASPHALT	Asphalt and fill	Air knife completed to 10' bgs to clear utilities, lithology information gained via grab samples from hand augers periodically collected.
				0.0	FILL	Medium dense, moist, brown clayey silt FILL [FILL]	
				0.1		Dense, dry, brown, fine grained Silty SAND (SM)	
				0.0			
				0.0			
5				0.0			
				0.0	SM		
				0.0			
10	48	36		4.9		Dense to medium dense, dry, tan, fine grained SAND (SP)	Sampled ROST-4-PZ (D)-10-11 at 0900 for VOCs and VOCs
				3.2		Becomes very fine grained	
	48	37					
15				3.0			
				12.5		Becomes fine grained	
	48	36			SP		
				6.0			
20							
				9.5			
	48	36				4" Soft, wet, low plastic Clay seam Becomes moist, gray, very fine grained	
				6.2		Becomes tan, fine grained Becomes gray, very fine grained	
						Becomes very dense	

Completion Depth: **48.0 Ft bgs**
Project No.: **21562593**
Project Name: **ROST-4-PZ Delineation**
Drilling Contractor: **Roberts Environmental Drilling Inc.**
Driller Name: **Pat Seymor**
Drilling Method: **Direct Push**
Drill Rig Type: **VTR 9700**
Logged by: **N. Satam**
County: **Madison**
Site ID No.: **1191150002**
Federal ID No.: **ILD 080012305**

Water Depth: 37.75 ft., After ATD hrs.
Water Depth: _____ ft., After _____ hrs.
▽ Water level at time of drilling
▼ Water level after drilling
ATD - At time of drilling
NE - None Encountered
NA - Not Applicable

Geoprobe
Air Knife/Hand Auger Sampler
Air Rotary
Sonic
Splitspoon Sampler
Hollow Stem Auger-Soil samples not collected

URS

USC based on field visual observations

URS (ENVIRON) LOG (EPA FORMAT) 21562593 (ROXANA ROST).GPJ URSSTLEV.GDT 5/19/11

LOG OF BORING
ROST-4-PZ (D)

Starting Date: 3/28/11
Completion Date: 4/7/11
Casing Elevation: 442.98
Ground Elevation: 443.31

Quadrangle
Sec: N/A
T: N/A
R: N/A
UTM (or State Plane) Coord
N: (X):793597.03
E: (Y):2322180.17

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
	48	46		12.0 10.7				Same: Very dense, moist, gray, very fine grained SAND (SP)	
30	48	44		12.7 5.2					Sampled ROST-4-PZ (D)-28-29 at 1000 for VOCs and SVOCs
35	48	36		2.7 7.0			SP	3" soft, wet, tan low plastic clay seam Becomes medium dense, tan, fine grained	
	48	36		12.0 7.4				1" soft, wet low plastic Clay seam ▽ Becomes wet, trace black banding Becomes medium to fine grained	Sampled ROST-4-PZ (D)-36-37 and duplicate sample at 1030 for VOCs and SVOCs
40	48	48		14.0 0.0			CL	Soft, wet, gray-brown, low plastic, Silty CLAY (CL)	
45	48	46		520 540			SP	Medium dense, wet, brown, fine grained SAND (SP)	Hydrocarbon odor
								Bottom of boring at 48.0' bgs	

Completion Depth: **48.0 Ft bgs**
Project No.: **21562593**
Project Name: **ROST-4-PZ Delineation**
Drilling Contractor: **Roberts Environmental Drilling Inc.**
Driller Name: **Pat Seymor**
Drilling Method: **Direct Push**
Drill Rig Type: **VTR 9700**
Logged by: **N. Satam**
County: **Madison**
Site ID No.: **1191150002**
Federal ID No.: **ILD 080012305**

Water Depth: 37.75 ft., After ATD hrs.
Water Depth: _____ ft., After _____ hrs.
▽ Water level at time of drilling
▼ Water level after drilling
ATD - At time of drilling
NE - None Encountered
NA - Not Applicable

Geoprobe
Air Knife/Hand Auger Sampler
Air Rotary
Sonic
Splitspoon Sampler
Hollow Stem Auger-Soil samples not collected

URS

USC based on field visual observations

URS (ENVIRON) LOG (EPA FORMAT) 21562593 (ROXANA ROST).GPJ URSSTLEV.GDT 5/19/11

LOG OF BORING
ROST-4-PZ (E)

Starting Date: 3/28/11
Completion Date: 4/11/11
Casing Elevation: 441.96
Ground Elevation: 442.50

Quadrangle
Sec: N/A
T: N/A
R: N/A
UTM (or State Plane) Coord
N: (X):793545.64
E: (Y):2322242.87

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	USCS	DESCRIPTION	NOTES
					ASPHALT	Asphalt and Fill	Air knife completed to 10' bgs to clear utilities, lithology information gained via grab samples from hand augers periodically collected.
					FILL	Medium dense, moist, brown, clayey silt FILL [FILL]	
					SM	Medium dense, moist, brown, Silty SAND (SM)	
5							
10	24	20		1.4	SP	Medium dense, moist, tan, fine grained SAND (SP)	Sampled ROST-4-PZ (E)-10.5-11.5 at 0930 for VOCs and SVOCs
	48	38		0.6 0.8 1.0			
15							
	48	36		125 242		4" wet clay seam 1" wet clay seam	Sampled ROST-4-PZ (E)-17-18 at 1000 for VOCs and SVOCs
20	48	42		68 62 4.3		Becomes gray	

Completion Depth: **48.0 Ft bgs**
Project No.: **21562593**
Project Name: **ROST-4-PZ Delineation**
Drilling Contractor: **Roberts Environmental Drilling Inc.**
Driller Name: **Pat Seymor**
Drilling Method: **Direct Push**
Drill Rig Type: **VTR 9700**
Logged by: **N. Satam**
County: **Madison**
Site ID No.: **1191150002**
Federal ID No.: **ILD 080012305**

Water Depth: 38 ft., After ATD hrs.
Water Depth: _____ ft., After _____ hrs.
▽ Water level at time of drilling
▼ Water level after drilling
ATD - At time of drilling
NE - None Encountered
NA - Not Applicable

Geoprobe
Air Knife/Hand Auger Sampler
Air Rotary
Sonic
Splitspoon Sampler
Hollow Stem Auger-Soil samples not collected

URS

USC based on field visual observations

URS (ENVIRON) LOG (EPA FORMAT) 21562593 (ROXANA ROST).GPJ URSSTLEV.GDT 5/19/11

LOG OF BORING
ROST-4-PZ (E)

Starting Date: 3/28/11
Completion Date: 4/11/11
Casing Elevation: 441.96
Ground Elevation: 442.50

Quadrangle
Sec: N/A
T: N/A
R: N/A
UTM (or State Plane) Coord
N: (X):793545.64
E: (Y):2322242.87

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
	48	44		8 12				Same: Medium dense, moist, gray, fine grained SAND (SP)	
								1" Clay seam	Sampled ROST-4-PZ (E)-27-28 at 1030 for VOCs and SVOCs
30	48	36		14 12					
	48	36		6.8			SP		
35				8.2					
	48	32		7.5				▽	Sampled ROST-4-PZ (E)-37-38 at 1100 for VOCs and SVOCs
				40				Becomes wet Becomes fine to medium grained	
40	48	48		43					
				615			CL	Soft, wet, gray, low plastic CLAY (CL)	Hydrocarbon odor
								Medium dense, wet, gray, fine grained SAND (SP)	
45	48	48		750 716			SP		
								Bottom of boring at 48.0' bgs	

Completion Depth: **48.0 Ft bgs**
Project No.: **21562593**
Project Name: **ROST-4-PZ Delineation**
Drilling Contractor: **Roberts Environmental Drilling Inc.**
Driller Name: **Pat Seymor**
Drilling Method: **Direct Push**
Drill Rig Type: **VTR 9700**
Logged by: **N. Satam**
County: **Madison**
Site ID No.: **1191150002**
Federal ID No.: **ILD 080012305**

Water Depth: 38 ft., After ATD hrs.
Water Depth: _____ ft., After _____ hrs.
▽ Water level at time of drilling
▼ Water level after drilling
ATD - At time of drilling
NE - None Encountered
NA - Not Applicable

Geoprobe
Air Knife/Hand Auger Sampler
Air Rotary
Sonic
Splitspoon Sampler
Hollow Stem Auger-Soil samples not collected

URS

USC based on field visual observations

URS (ENVIRON) LOG (EPA FORMAT) 21562593 (ROXANA ROST).GPJ URSSTLEV.GDT 5/19/11

LOG OF BORING
ROST-4-PZ (F)

Starting Date: 3/29/11
Completion Date: 4/4/11
Casing Elevation: 442.12
Ground Elevation: 442.36

Quadrangle
Sec: N/A
T: N/A
R: N/A
UTM (or State Plane) Coord
N: (X):793495.81
E: (Y):2322244.34

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
							ASPHALT	Asphalt	Air knife completed to 10' bgs to clear utilities, lithology information gained via grab samples from hand augers periodically collected.
				0.0			FILL	Stiff, dry, brown-gray [FILL]	
				0.2				Medium stiff, moist, brown sandy clay FILL [FILL]	
				0.2					
				0.2			SM	Medium dense, moist to dry, brown fine grained Silty SAND (SM)	
5				2.4					
				1.3			SP	Medium dense, moist to dry, gray brown, fine grained SAND (SP)	
				44.8					
				35.1					
10							ML	Medium dense, moist, tan SILT (ML)	
	24	22		1.2			SP	Medium dense, moist, gray, fine grained SAND (SP)	Sampled ROST-4-PZ (F)-11-12 at 0945 for VOCs and SVOCs
				2.2					
	48	37							
15				0.8					
				5.2			CL	Wet, low plastic Silty CLAY (CL)	
	48	40		345			SP	Medium dense, moist, tan, fine grained SAND (SP)	
				310					
20							ML	Very dense, moist, gray SILT (ML)	Sampled ROST-4-PZ (F)-21-22 at 1045 for VOCs and SVOCs
	48	46		950					
				1350			CL	Soft, wet, gray, low plastic Silty CLAY (CL)	
				52			ML	Very dense, moist, gray SILT (ML)	

Completion Depth: **48.0 Ft bgs**
Project No.: **21562593**
Project Name: **ROST-4-PZ Delineation**
Drilling Contractor: **Roberts Environmental Drilling Inc.**
Driller Name: **Pat Seymor**
Drilling Method: **Direct Push**
Drill Rig Type: **VTR 9700**
Logged by: **N. Satam**
County: **Madison**
Site ID No.: **1191150002**
Federal ID No.: **ILD 080012305**

Water Depth: 37.5 ft., After ATD hrs.
Water Depth: _____ ft., After _____ hrs.
▽ Water level at time of drilling
▼ Water level after drilling
ATD - At time of drilling
NE - None Encountered
NA - Not Applicable

Geoprobe
Air Knife/Hand Auger Sampler
Air Rotary
Sonic
Splitspoon Sampler
Hollow Stem Auger-Soil samples not collected

URS

USC based on field visual observations

URS (ENVIRON) LOG (EPA FORMAT) 21562593 (ROXANA ROST).GPJ URSSTLEV.GDT 5/19/11

LOG OF BORING
ROST-4-PZ (F)

Starting Date: 3/29/11
Completion Date: 4/4/11
Casing Elevation: 442.12
Ground Elevation: 442.36

Quadrangle
Sec: N/A
T: N/A
R: N/A
UTM (or State Plane) Coord
N: (X):793495.81
E: (Y):2322244.34

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
	48	44		10.5			ML	Same: Very dense, moist, gray SILT (ML) Becomes dry, tan	
				20			SP	Very dense, moist, fine grained SAND (SP)	
30	48	40		15			SP	Becomes medium dense	
				539			ML	Very dense, wet, gray SILT (ML)	
	48	36		35			ML		
35				85			SP	Medium dense, moist, tan, fine grained SAND (SP)	
	48	44		72			SP	Rusty banding Becomes wet Black banding	Sampled ROST-4-PZ (F)-36.5-37.5 at 1145 for VOCs and SVOCs
40				35			SP	Becomes medium grained, trace coarse grained	
	48	48		650			ML	Wet, gray, Clayey SILT (ML)	
				42			ML	2" silty sand seam 3" silty clay seam	
45	48	48		890			SP	Dense, wet, brown, fine grained SAND (SP)	
				150			SP		
								Bottom of boring at 48.0' bgs	

Completion Depth: **48.0 Ft bgs**
Project No.: **21562593**
Project Name: **ROST-4-PZ Delineation**
Drilling Contractor: **Roberts Environmental Drilling Inc.**
Driller Name: **Pat Seymor**
Drilling Method: **Direct Push**
Drill Rig Type: **VTR 9700**
Logged by: **N. Satam**
County: **Madison**
Site ID No.: **1191150002**
Federal ID No.: **ILD 080012305**

Water Depth: 37.5 ft., After ATD hrs.
Water Depth: _____ ft., After _____ hrs.
▽ Water level at time of drilling
▼ Water level after drilling
ATD - At time of drilling
NE - None Encountered
NA - Not Applicable

Geoprobe
Air Knife/Hand Auger Sampler
Air Rotary
Sonic
Splitspoon Sampler
Hollow Stem Auger-Soil samples not collected

URS

USC based on field visual observations

URS (ENVIRON) LOG (EPA FORMAT) 21562593 (ROXANA ROST).GPJ URSSTLEV.GDT 5/19/11

LOG OF BORING
ROST-4-PZ (G)

Starting Date: 4/21/11
Completion Date: 4/22/11
Casing Elevation: 442.13
Ground Elevation: 442.41

Quadrangle
Sec: N/A
T: N/A
R: N/A
UTM (or State Plane) Coord
N: (X):793441.03
E: (Y):2322140.41

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
				2.5				Grass cover	Air knife completed to 10' bgs to clear utilities, lithology information gained via grab samples from hand augers periodically collected.
				3.6				Soft, moist to wet, dark brown, low plastic, silty clay FILL [FILL]	
				3.6			FILL		
				3.0					
5				2.1					
				3.4					
				1.8				Medium dense, moist, brown, fine grained Clayey SAND (SC)	
				2.1			SC		
				2.3					
10	24	10		3.7				Medium dense, moist, brown, fine grained SAND (SP)	
				6.3					
	48	32							
15				9.5			SP		
				2.5					
	48	32							
				2.9					
20				5.8					
	48	38					CL	Medium stiff, moist, brown, low plastic, Silty CLAY (CL)	
				9.6				Medium dense, gray, fine grained SAND (SP)	
							SP		

Completion Depth: **45.0 Ft bgs**
Project No.: **21562593**
Project Name: **ROST-4-PZ Delineation**
Drilling Contractor: **Roberts Environmental Drilling Inc.**
Driller Name: **Pat Seymor**
Drilling Method: **Direct Push**
Drill Rig Type: **VTR 9700**
Logged by: **M. Miller**
County: **Madison**
Site ID No.: **1191150002**
Federal ID No.: **ILD 080012305**

Water Depth: 38 ft., After ATD hrs.
Water Depth: _____ ft., After _____ hrs.
▽ Water level at time of drilling
▼ Water level after drilling
ATD - At time of drilling
NE - None Encountered
NA - Not Applicable

Geoprobe
Air Knife/Hand Auger
Sampler
Air Rotary
Sonic
Splitspoon Sampler
Hollow Stem Auger-
Soil samples not collected

URS

USC based on field visual observations

URS (ENVIRON) LOG (EPA FORMAT) 21562593 (ROXANA ROST).GPJ URSSTLEV.GDT 5/19/11

LOG OF BORING
ROST-4-PZ (G)

Starting Date: 4/21/11
Completion Date: 4/22/11
Casing Elevation: 442.13
Ground Elevation: 442.41

Quadrangle
Sec: N/A
T: N/A
R: N/A
UTM (or State Plane) Coord
N: (X):793441.03
E: (Y):2322140.41

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES
	48	38		18.8 25.0				Same: Medium dense, gray, fine grained SAND (SP) Black staining 3" silty clay seam	
30	48	32		8.0 3.6			SP		
35	48	38		20.7 17.6					
	48	42		10.7 40.5			SM	Medium dark, gray, moist to wet, fine grained, Silty SAND (SM) ▽	
40	48	42		91.3 95.7			SP	Medium dense, wet, brown, fine to medium grained SAND (SP)	
45								Bottom of boring at 45.0' bgs	

Completion Depth: **45.0 Ft bgs**
Project No.: **21562593**
Project Name: **ROST-4-PZ Delineation**
Drilling Contractor: **Roberts Environmental Drilling Inc.**
Driller Name: **Pat Seymor**
Drilling Method: **Direct Push**
Drill Rig Type: **VTR 9700**
Logged by: **M. Miller**
County: **Madison**
Site ID No.: **1191150002**
Federal ID No.: **ILD 080012305**

Water Depth: 38 ft., After ATD hrs.
Water Depth: _____ ft., After _____ hrs.
▽ Water level at time of drilling
▼ Water level after drilling
ATD - At time of drilling
NE - None Encountered
NA - Not Applicable

Geoprobe
Air Knife/Hand Auger Sampler
Air Rotary
Sonic
Splitspoon Sampler
Hollow Stem Auger-Soil samples not collected

URS

USC based on field visual observations

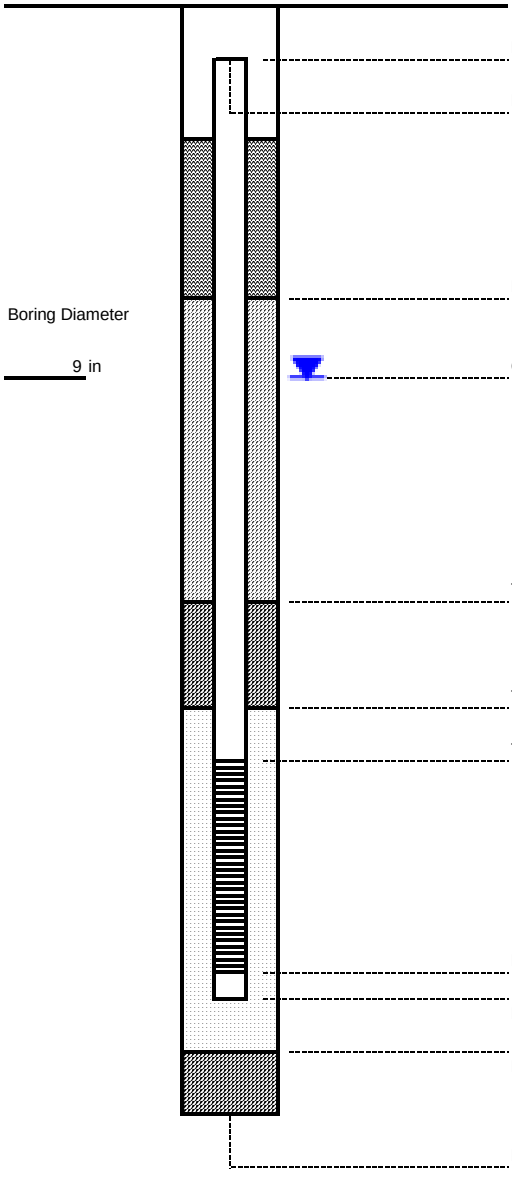
URS (ENVIRON) LOG (EPA FORMAT) 21562593 (ROXANA ROST).GPJ URSSTLEV.GDT 5/19/11

Monitoring Well Construction Diagrams

Monitoring Well Installation Details
Flush Mount Monitoring Well Construction Diagram

URS Corporation

Project:	ROST-4-PZ Delineation			Well ID:	ROST-4-PZ
Project Location:	Roxana, Illinois	Date Started:	3/30/2011		
Well Location:	Near East 3rd St and Chaffer Ave	Date Completed:	3/30/2011	Boring ID:	ROST-4
Drilling Contractor:	Roberts Environmental Drilling, Inc.	Time Seal Set:	1405	Northing:	793596.87
Driller:	Pat Seymour	Type of Rig:	VTR 9700	Easting:	2322230.37
Consulting Firm:	URS Corporation	Drilling Method:	Hollow Stem Auger	Elevation Datum:	442.76
Geologist:	Neeta Satam	Completion Zone:			



	Depths (ft bgs)	Elevations (ft)
Ground Elevation:		442.76
Depth of Riser Below Ground:	0.63	
Elevation of Top of Riser Pipe:	0.63	442.13
ID/Type of Surface Casing:	8-inch flush-mount manhole vault	
Type of Surface Seal:	Concrete	
Bottom of Surface Seal:	1.50	441.26
Boring Diameter: 9 in		
Groundwater (after completion):	38.33	404.43
Type of Riser Pipe:	Schedule 40 PVC	
Riser Diameter:	2 in	
Type of Backfill:	Cement-Bnetonite Grout	
Top of Seal:	30.00	412.76
Type of Seal:	Granular Bentonite Chips	
Top of Filter Pack	33.00	409.76
Top of Screen	35.56	407.20
Type of Filter Pack:	ANSI/NSF Quartz Sand	
Type of Screen:	Schedule 40 PVC	
Screen Diameter	2 in	
Screen Slot Size:	0.010 in	
Bottom of Screen:	45.56	397.20
Bottom of Blank Casing:	45.81	396.95
Backfill/Seal Below Well:	45.25	397.51
Type of Backfill/Seal Below Well:	Native (cave-in) and placed sand	
Bottom of Boring:	45.25	397.51

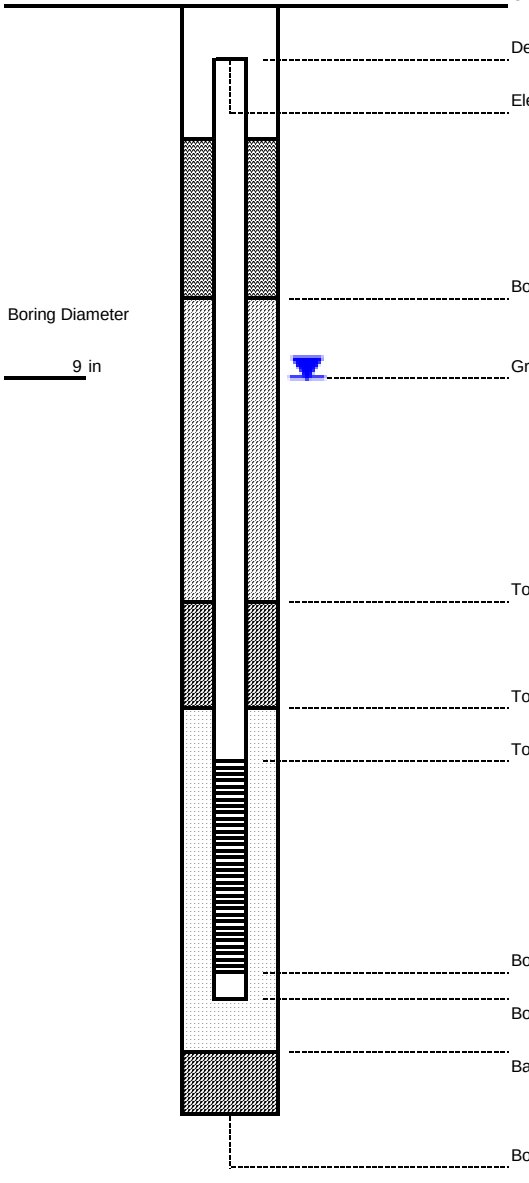
DIAGRAM IS NOT TO SCALE

BORING LOG FOR THIS WELL IS THE CPT LOG GENERATED DURING PREVIOUS INVESTIGATION ACTIVITIES

Monitoring Well Installation Details
Flush Mount Monitoring Well Construction Diagram

URS Corporation

Project:	ROST-4-PZ Delineation			Well ID:	ROST-4-PZ(A)
Project Location:	Roxana, Illinois	Date Started:	4/5/2011		
Well Location:	Near East 3rd St and Chaffer Ave	Date Completed:	4/5/2011	Boring ID:	ROST-4-PZ(A)
Drilling Contractor:	Roberts Environmental Drilling, Inc.	Time Seal Set:	1330	Northing:	793696.80
Driller:	Pat Seymour	Type of Rig:	VTR 9700	Easting:	2322239.89
Consulting Firm:	URS Corporation	Drilling Method:	Hollow Stem Auger	Elevation Datum:	442.81
Geologist:	Neeta Satam	Completion Zone:			



Boring Diameter

9 in

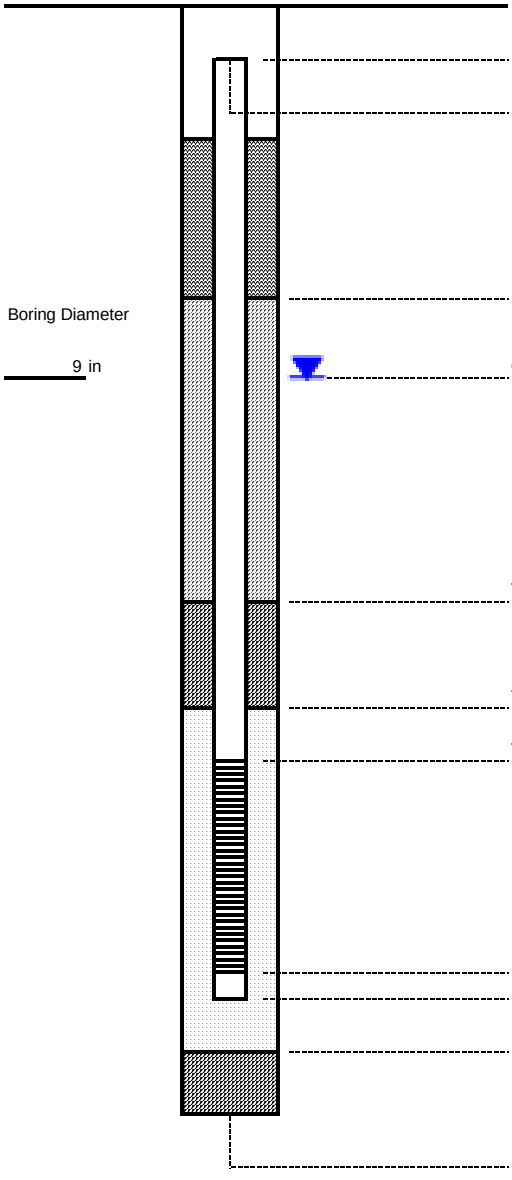
	Depths (ft bgs)	Elevations (ft)
Ground Elevation:		442.81
Depth of Riser Below Ground:	0.70	
Elevation of Top of Riser Pipe:	0.70	442.11
ID/Type of Surface Casing:	8-inch flush-mount manhole vault	
Type of Surface Seal:	Concrete	
Bottom of Surface Seal:	1.50	441.31
Groundwater (after completion):	38.12	404.69
Type of Riser Pipe:	Schedule 40 PVC	
Riser Diameter:	2 in	
Type of Backfill:	Cement-Bnetonite Grout	
Top of Seal:	30.00	412.81
Type of Seal:	Granular Bentonite Chips	
Top of Filter Pack	33.00	409.81
Top of Screen	35.47	407.34
Type of Filter Pack:	ANSI/NSF Quartz Sand	
Type of Screen:	Schedule 40 PVC	
Screen Diameter	2 in	
Screen Slot Size:	0.010 in	
Bottom of Screen:	45.47	397.34
Bottom of Blank Casing:	45.72	397.09
Backfill/Seal Below Well:	46.00	396.81
Type of Backfill/Seal Below Well:	Native (cave-in) and placed sand	
Bottom of Boring:	46.00	396.81

DIAGRAM IS NOT TO SCALE

Monitoring Well Installation Details
Flush Mount Monitoring Well Construction Diagram

URS Corporation

Project:	ROST-4-PZ Delineation			Well ID:	ROST-4-PZ(B)
Project Location:	Roxana, Illinois	Date Started:	4/6/2011		
Well Location:	Near East 3rd St and Chaffer Ave	Date Completed:	4/6/2011	Boring ID:	ROST-4-PZ(B)
Drilling Contractor:	Roberts Environmental Drilling, Inc.	Time Seal Set:	1425	Northing:	793647.01
Driller:	Pat Seymour	Type of Rig:	VTR 9700	Easting:	2322241.07
Consulting Firm:	URS Corporation	Drilling Method:	Hollow Stem Auger	Elevation Datum:	442.72
Geologist:	Neeta Satam	Completion Zone:			



Boring Diameter

9 in

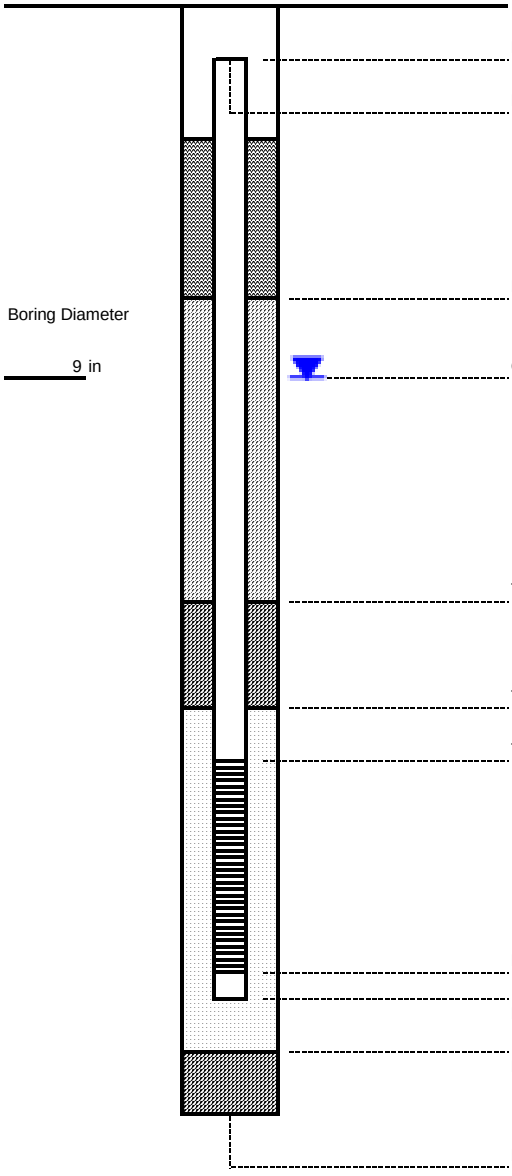
	Depths (ft bgs)	Elevations (ft)
Ground Elevation:		442.72
Depth of Riser Below Ground:	0.34	
Elevation of Top of Riser Pipe:	0.34	442.38
ID/Type of Surface Casing:	8-inch flush-mount manhole vault	
Type of Surface Seal:	Concrete	
Bottom of Surface Seal:	1.50	441.22
Groundwater (after completion):	38.19	404.53
Type of Riser Pipe:	Schedule 40 PVC	
Riser Diameter:	2 in	
Type of Backfill:	Cement-Bnetonite Grout	
Top of Seal:	30.00	412.72
Type of Seal:	Granular Bentonite Chips	
Top of Filter Pack	33.00	409.72
Top of Screen	35.39	407.33
Type of Filter Pack:	ANSI/NSF Quartz Sand	
Type of Screen:	Schedule 40 PVC	
Screen Diameter	2 in	
Screen Slot Size:	0.010 in	
Bottom of Screen:	45.39	397.33
Bottom of Blank Casing:	45.64	397.08
Backfill/Seal Below Well:	46.00	396.72
Type of Backfill/Seal Below Well:	Native (cave-in) and placed sand	
Bottom of Boring:	46.00	396.72

DIAGRAM IS NOT TO SCALE

Monitoring Well Installation Details
Flush Mount Monitoring Well Construction Diagram

URS Corporation

Project:	ROST-4-PZ Delineation			Well ID:	ROST-4-PZ(C)
Project Location:	Roxana, Illinois	Date Started:	4/8/2011		
Well Location:	Near East 3rd St and Chaffer Ave	Date Completed:	4/8/2011	Boring ID:	ROST-4-PZ(C)
Drilling Contractor:	Roberts Environmental Drilling, Inc.	Time Seal Set:	1145	Northing:	793600.60
Driller:	Pat Seymour	Type of Rig:	VTR 9700	Easting:	2322118.61
Consulting Firm:	URS Corporation	Drilling Method:	Hollow Stem Auger	Elevation Datum:	443.30
Geologist:	Neeta Satam	Completion Zone:			



Boring Diameter

9 in

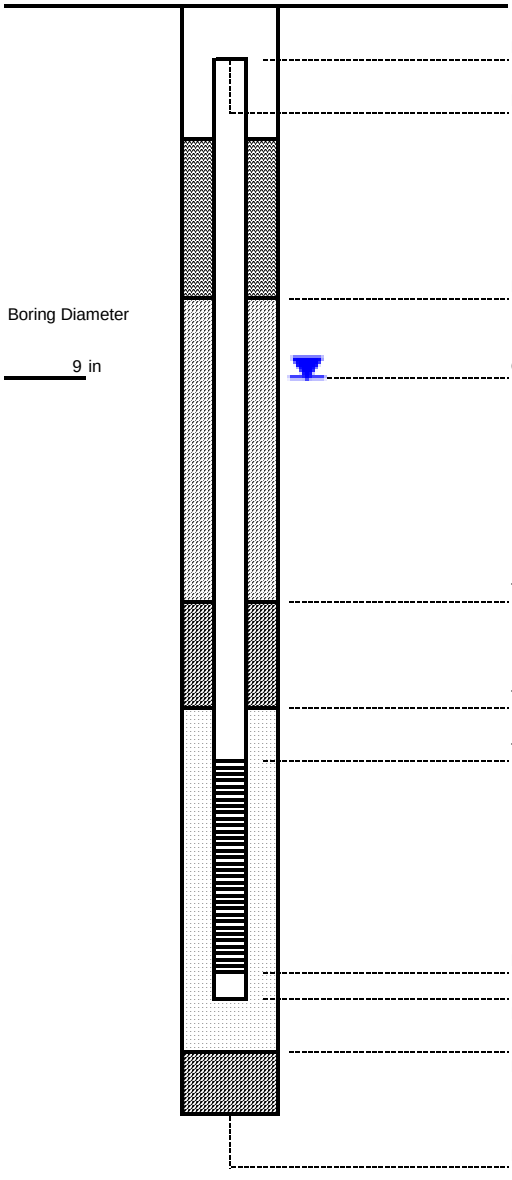
	Depths (ft bgs)	Elevations (ft)
Ground Elevation:		443.30
Depth of Riser Below Ground:	0.30	
Elevation of Top of Riser Pipe:	0.30	443.00
ID/Type of Surface Casing:	8-inch flush-mount manhole vault	
Type of Surface Seal:	Concrete	
Bottom of Surface Seal:	1.50	441.80
Groundwater (after completion):	38.81	404.15
Type of Riser Pipe:	Schedule 40 PVC	
Riser Diameter:	2 in	
Type of Backfill:	Cement-Bnetonite Grout	
Top of Seal:	30.00	413.30
Type of Seal:	Granular Bentonite Chips	
Top of Filter Pack	33.00	410.30
Top of Screen	35.25	408.05
Type of Filter Pack:	ANSI/NSF Quartz Sand	
Type of Screen:	Schedule 40 PVC	
Screen Diameter	2 in	
Screen Slot Size:	0.010 in	
Bottom of Screen:	45.25	398.05
Bottom of Blank Casing:	45.50	397.80
Backfill/Seal Below Well:	46.00	397.30
Type of Backfill/Seal Below Well:	Native (cave-in) and placed sand	
Bottom of Boring:	46.00	397.30

DIAGRAM IS NOT TO SCALE

Monitoring Well Installation Details
Flush Mount Monitoring Well Construction Diagram

URS Corporation

Project:	ROST-4-PZ Delineation			Well ID:	ROST-4-PZ(D)
Project Location:	Roxana, Illinois	Date Started:	4/7/2011		
Well Location:	Near East 3rd St and Chaffer Ave	Date Completed:	4/7/2011	Boring ID:	ROST-4-PZ(D)
Drilling Contractor:	Roberts Environmental Drilling, Inc.	Time Seal Set:	1355	Northing:	793597.03
Driller:	Pat Seymour	Type of Rig:	VTR 9700	Easting:	2322180.17
Consulting Firm:	URS Corporation	Drilling Method:	Hollow Stem Auger	Elevation Datum:	443.31
Geologist:	Neeta Satam	Completion Zone:			



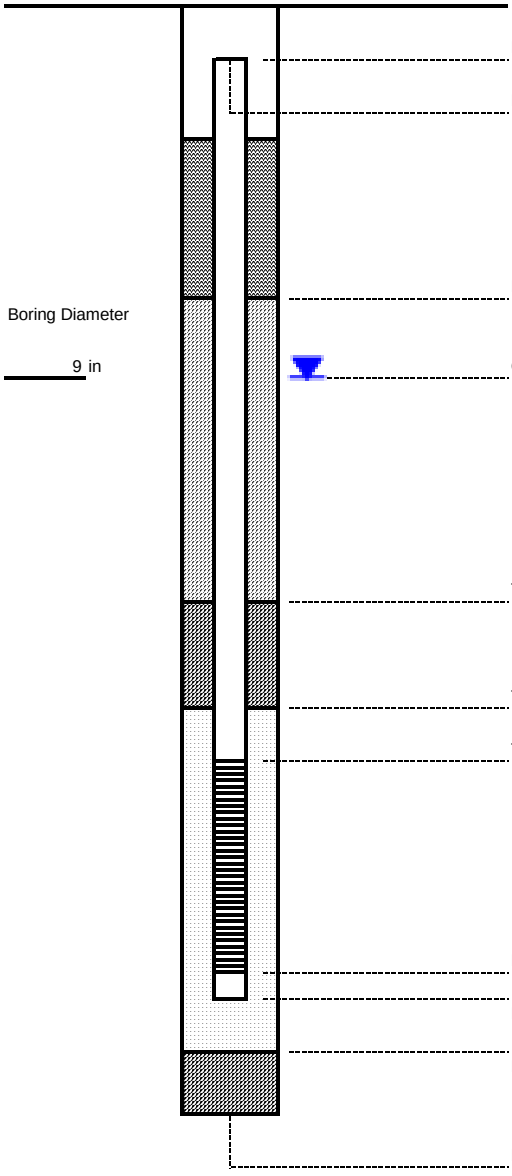
	Depths (ft bgs)	Elevations (ft)
Ground Elevation:		443.31
Depth of Riser Below Ground:	0.33	
Elevation of Top of Riser Pipe:	0.33	442.98
ID/Type of Surface Casing:	8-inch flush-mount manhole vault	
Type of Surface Seal:	Concrete	
Bottom of Surface Seal:	1.50	441.81
Groundwater (after completion):	38.87	404.44
Type of Riser Pipe:	Schedule 40 PVC	
Riser Diameter:	2 in	
Type of Backfill:	Cement-Bnetonite Grout	
Top of Seal:	30.00	413.31
Type of Seal:	Granular Bentonite Chips	
Top of Filter Pack	33.00	410.31
Top of Screen	35.30	408.01
Type of Filter Pack:	ANSI/NSF Quartz Sand	
Type of Screen:	Schedule 40 PVC	
Screen Diameter	2 in	
Screen Slot Size:	0.010 in	
Bottom of Screen:	45.30	398.01
Bottom of Blank Casing:	45.55	397.76
Backfill/Seal Below Well:	46.00	397.31
Type of Backfill/Seal Below Well:	Native (cave-in) and placed sand	
Bottom of Boring:	46.00	397.31

DIAGRAM IS NOT TO SCALE

Monitoring Well Installation Details
Flush Mount Monitoring Well Construction Diagram

URS Corporation

Project:	ROST-4-PZ Delineation			Well ID:	ROST-4-PZ(E)
Project Location:	Roxana, Illinois	Date Started:	4/1/2011		
Well Location:	Near East 3rd St and Chaffer Ave	Date Completed:	4/1/2011	Boring ID:	ROST-4-PZ(E)
Drilling Contractor:	Roberts Environmental Drilling, Inc.	Time Seal Set:	1415	Northing:	793545.64
Driller:	Pat Seymour	Type of Rig:	VTR 9700	Easting:	2322242.87
Consulting Firm:	URS Corporation	Drilling Method:	Hollow Stem Auger	Elevation Datum:	442.50
Geologist:	Neeta Satam	Completion Zone:			



	Depths (ft bgs)	Elevations (ft)
Ground Elevation:		442.50
Depth of Riser Below Ground:	0.54	
Elevation of Top of Riser Pipe:	0.54	441.96
ID/Type of Surface Casing:	8-inch flush-mount manhole vault	
Type of Surface Seal:	Concrete	
Bottom of Surface Seal:	1.50	441.00
Boring Diameter: 9 in		
Groundwater (after completion):	38.89	403.61
Type of Riser Pipe:	Schedule 40 PVC	
Riser Diameter:	2 in	
Type of Backfill:	Cement-Bnetonite Grout	
Top of Seal:	30.00	412.50
Type of Seal:	Granular Bentonite Chips	
Top of Filter Pack	33.00	409.50
Top of Screen	35.29	407.21
Type of Filter Pack:	ANSI/NSF Quartz Sand	
Type of Screen:	Schedule 40 PVC	
Screen Diameter	2 in	
Screen Slot Size:	0.010 in	
Bottom of Screen:	45.29	397.21
Bottom of Blank Casing:	45.54	396.96
Backfill/Seal Below Well:	46.00	396.50
Type of Backfill/Seal Below Well:	Native (cave-in) and placed sand	
Bottom of Boring:	46.00	396.50

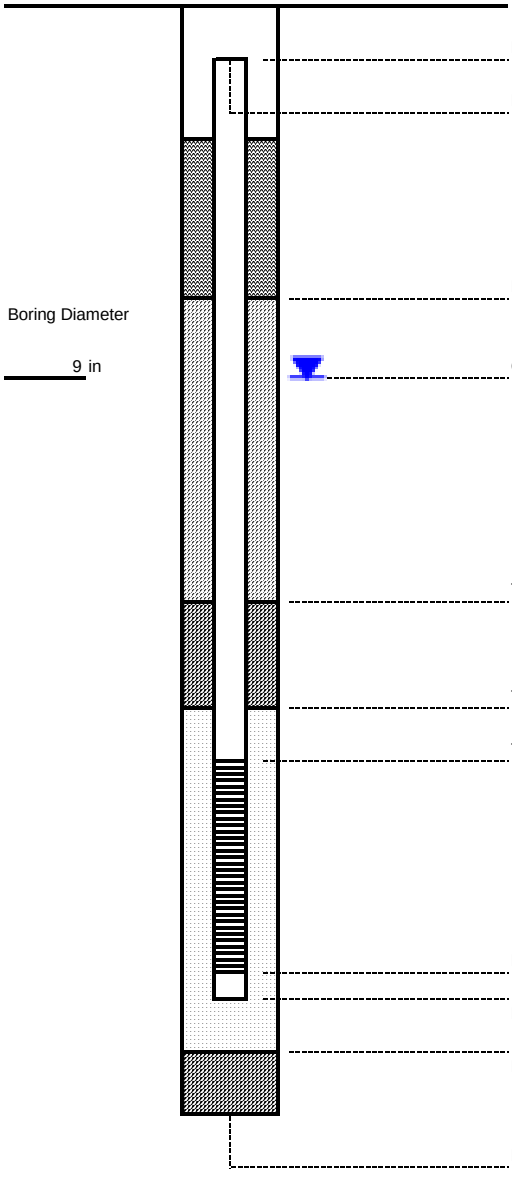
DIAGRAM IS NOT TO SCALE

THIS WELL NOT DEVELOPED DUE TO THE PRESENCE OF PRODUCT

Monitoring Well Installation Details
Flush Mount Monitoring Well Construction Diagram

URS Corporation

Project:	ROST-4-PZ Delineation			Well ID:	ROST-4-PZ(F)
Project Location:	Roxana, Illinois	Date Started:	4/4/2011		
Well Location:	Near East 3rd St and Chaffer Ave	Date Completed:	4/4/2011	Boring ID:	ROST-4-PZ(F)
Drilling Contractor:	Roberts Environmental Drilling, Inc.	Time Seal Set:	1455	Northing:	793495.81
Driller:	Pat Seymour	Type of Rig:	VTR 9700	Easting:	2322244.34
Consulting Firm:	URS Corporation	Drilling Method:	Hollow Stem Auger	Elevation Datum:	442.36
Geologist:	Neeta Satam	Completion Zone:			



Boring Diameter

9 in

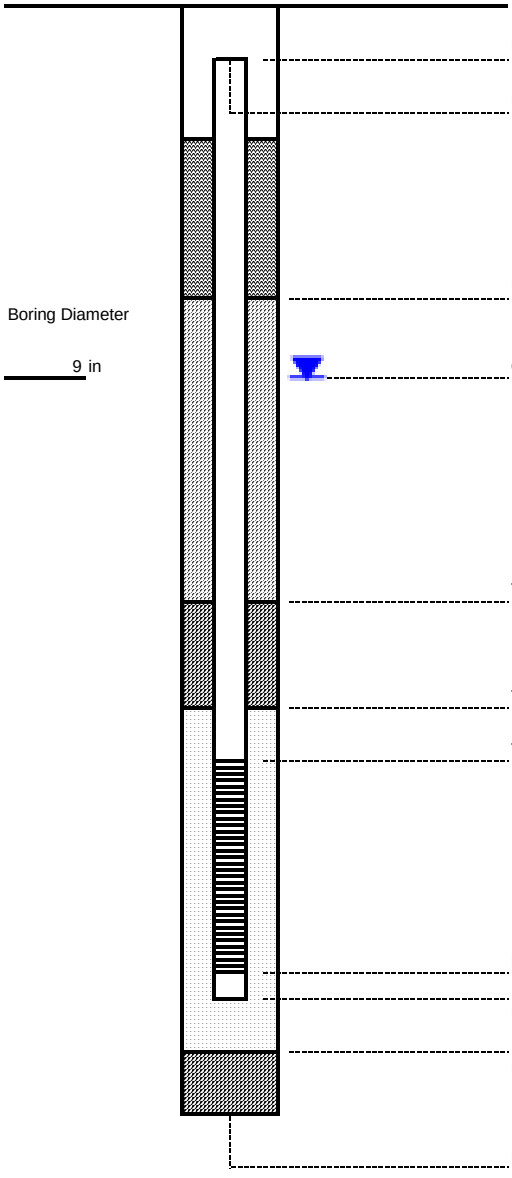
	Depths (ft bgs)	Elevations (ft)
Ground Elevation:		442.36
Depth of Riser Below Ground:	0.24	
Elevation of Top of Riser Pipe:	0.24	442.12
ID/Type of Surface Casing:	8-inch flush-mount manhole vault	
Type of Surface Seal:	Concrete	
Bottom of Surface Seal:	1.50	440.86
Groundwater (after completion):	37.92	404.44
Type of Riser Pipe:	Schedule 40 PVC	
Riser Diameter:	2 in	
Type of Backfill:	Cement-Bnetonite Grout	
Top of Seal:	30.00	412.36
Type of Seal:	Granular Bentonite Chips	
Top of Filter Pack	32.77	409.59
Top of Screen	34.77	407.59
Type of Filter Pack:	ANSI/NSF Quartz Sand	
Type of Screen:	Schedule 40 PVC	
Screen Diameter	2 in	
Screen Slot Size:	0.010 in	
Bottom of Screen:	44.77	397.59
Bottom of Blank Casing:	45.02	397.34
Backfill/Seal Below Well:	46.00	396.36
Type of Backfill/Seal Below Well:	Native (cave-in) and placed sand	
Bottom of Boring:	46.00	396.36

DIAGRAM IS NOT TO SCALE

Monitoring Well Installation Details
Flush Mount Monitoring Well Construction Diagram

URS Corporation

Project:	ROST-4-PZ Delineation			Well ID:	ROST-4-PZ(G)
Project Location:	Roxana, Illinois	Date Started:	4/22/2011		
Well Location:	Near East 3rd St and Chaffer Ave	Date Completed:	4/22/2011	Boring ID:	ROST-4-PZ(G)
Drilling Contractor:	Roberts Environmental Drilling, Inc.	Time Seal Set:	1515	Northing:	793441.03
Driller:	Pat Seymour	Type of Rig:	VTR 9700	Easting:	2322140.41
Consulting Firm:	URS Corporation	Drilling Method:	Hollow Stem Auger	Elevation Datum:	442.41
Geologist:	Mike Miller	Completion Zone:			



Boring Diameter

9 in

	Depths (ft bgs)	Elevations (ft)
Ground Elevation:		442.41
Depth of Riser Below Ground:	0.28	
Elevation of Top of Riser Pipe:	0.28	442.13
ID/Type of Surface Casing:	8-inch flush-mount manhole vault	
Type of Surface Seal:	Concrete	
Bottom of Surface Seal:	1.50	440.91
Groundwater (after completion):	38.36	404.05
Type of Riser Pipe:	Schedule 40 PVC	
Riser Diameter:	2 in	
Type of Backfill:	Cement-Bnetonite Grout	
Top of Seal:	30.00	412.41
Type of Seal:	Granular Bentonite Chips	
Top of Filter Pack	32.56	409.85
Top of Screen	34.56	407.85
Type of Filter Pack:	ANSI/NSF Quartz Sand	
Type of Screen:	Schedule 40 PVC	
Screen Diameter	2 in	
Screen Slot Size:	0.010 in	
Bottom of Screen:	44.56	397.85
Bottom of Blank Casing:	44.81	397.6
Backfill/Seal Below Well:	45.00	397.41
Type of Backfill/Seal Below Well:	Native (cave-in) and placed sand	
Bottom of Boring:	45.00	397.41

DIAGRAM IS NOT TO SCALE

Monitoring Well Development SOP

Well Development for wells with NAPL

The objective of groundwater monitoring well development is to clear the well of accumulated sediments, so that representative groundwater samples may be collected, typically when 10% or more of the well screen has been occluded by sediment. Accumulated sediments need to be re-suspended in the water column in order to be removed. The recommended method for sediment re-suspension includes using a surge block. Once the sediment is re-suspended, the water and sediment can then be removed from the well using a submersible pump, an air bladder pump, or a bailer. Development will be considered complete when the fine-grained materials have been removed.

The preferred method for development will be surging and removing water with a submersible pump. The following procedures will be used when developing an existing well.

1. Place a clean, plastic drop cloth on the ground around the well to be developed.
2. Unlock the protective well cover and remove the well cap.
3. Check the well for NAPL using an interface probe, as outlined in the water level measurement section below.
4. Measure the depth to groundwater and/or NAPL to the nearest hundredth of a foot.
5. Measure the total depth of the well to the nearest hundredth of a foot. Note whether the bottom of the well feels hard or soft.
6. Determine static height of water column. Add ***NuWell 220*** dispersant polymer into the well in accordance with the attached dosage guide:
    - 2" monitoring well – add 0.12 ounces per foot of water within the well

    (Example: 20' deep 2" well, depth to water 7'; 13' of water X 0.12 oz. = 1.56 oz.)
    - 4" monitoring well – add 0.46 oz. / foot
7. Attach a decontaminated surge block to the appropriate lengths of pole section and push the surge block to the bottom of the well.
8. Pull and push the surge block/bailer up and down within 2-foot intervals, from the bottom up, to agitate the water to suspend any sediment in the well. Vigorously agitate for approximately 1/2 hr per 20 ft of intake.
9. Once sufficient re-suspension has occurred, pull the surge block out of the well.

10. Attach an appropriate length of polyethylene tubing to a submersible pump, and lower the pump to near the bottom of the well, out of sediment that may be remaining in the bottom of the well.
11. Place the discharge end of the tubing such that purged water will be collected in a poly-tank, 55-gallon drum, or other appropriate vessel.
12. Turn on the pump and adjust the flow rate to pump at a sufficiently high rate to allow the sediments to be removed without causing the pump to clog.
13. Continue pumping until relatively sediment-free water is obtained.
14. Remove the pump and allow the well to recover for half an hour. Re-measure the total well depth. If the measured depth indicates 10% or more occlusion, repeat steps 8 through 14. If the measured depth indicates less than 10% well screen occlusion, disconnect the tubing from the pump and place into the appropriate waste container. Dismantle the surge block and pole connectors for decontamination. Pick up and appropriately dispose of plastic sheeting and other disposables into the appropriate waste container.
15. Properly decontaminate the pump, wiring, and any other equipment.

Note in the field log book the approximate number of gallons of water removed during development of each well.

Discharge the water removed during development and/or decontamination procedures into an appropriate vessel for proper disposal.

NuWell® 220
DISPERSANT POLYMER

Description

- NuWell 220 dispersant polymer uses liquid - dispersant chemistry specifically designed to remove mud and clay from the well environment more efficiently than other products.
- Successfully develops new wells without using phosphate.
- Eliminates food source for bacteria (100% water soluble, readily flushed from well).
- Rehabilitates old wells plugged with clays, silts and fines.
- NSF approved for potable water well use.

Application

In new well systems use, NuWell 220 dispersant polymer as you would phosphates for drilling mud breakdown and well development. For optimal removal of bentonite drilling fluids, separately pre-treat the well with 1,500 ppm chlorine to break down the polyacrylamide polymers that are included in most commercial bentonite products. Determine borehole volume, and apply NuWell 220 dispersant polymer at the rate of 1 gal per 500 gal of water. Vigorously agitate by mechanical means for several hours (approximately 1/2 hr per 20 ft of intake). If left in the well overnight, agitate before pump-out.

In older well systems use, NuWell 220 dispersant polymer to remove fine sands, mud and clays that have filled in the gravel pack and borehole. Use at a rate of 1 gal per 300 gal of water. (See dosage table, page 9.). Vigorously agitate by mechanical means, let the solution stand in the well overnight, and repeat the agitation the next day, before pump-out.

Physical Properties, Shipping & Handling

Appearance	Clear, amber liquid
pH (as shipped)	7.0
Density	10.5 lb/gal
Freeze point	78.8ºF (26ºC)
Solubility	100%

- Not regulated as a hazardous material under 49CFR 172.101, RECRA, SARA and CERCLA; however, in storage or use, avoid contact with strong acids or alkaline-based products.
- 1 gallon and 5 gallon containers can be shipped by UPS ground delivery.
- Additional physical and handling data are available on the product MSDS.
- NuWell 220 dispersant polymer is available in 1-, 5-, 30- and 55-gal containers

DOSAGE GUIDE
NuWell® 220 CLAY DISPERSANT

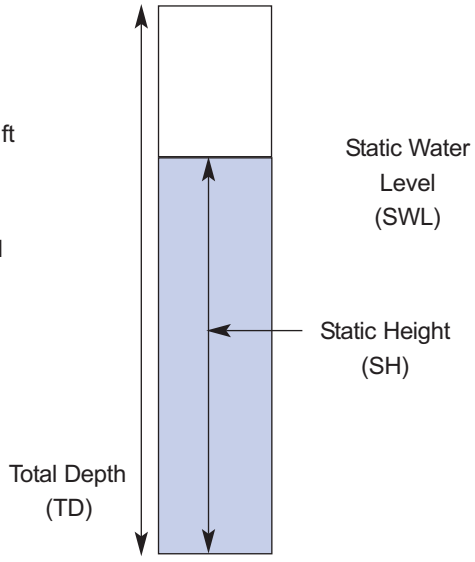
Nominal Well Size		gal /ft		L / m	
In	mm	New Well	Old Well	New Well	Old Well
2	51	0.0005	0.0009	0.0068	0.0111
3	76	0.0012	0.0020	0.0152	0.0251
4	102	0.0022	0.0036	0.0270	0.0446
5	127	0.0034	0.0056	0.0422	0.0697
6	152	0.0049	0.0081	0.0608	0.1003
8	203	0.007	0.011	0.081	0.134
10	254	0.010	0.017	0.127	0.209
12	305	0.015	0.024	0.182	0.301
14	356	0.020	0.033	0.248	0.410
16	406	0.026	0.043	0.324	0.535
18	457	0.033	0.055	0.410	0.677
20	508	0.04	0.07	0.51	0.84
22	559	0.05	0.08	0.61	1.01
24	610	0.06	0.10	0.73	1.20
26	660	0.07	0.11	0.86	1.41
30	762	0.09	0.15	1.14	1.88
34	864	0.12	0.19	1.46	2.42
36	914	0.13	0.22	1.64	2.71

Note: Allowance for additional surface volume should be treated with an additional 1-gal NuWell 220 / 500 gal of surface system volume (2 l/m³ of surface volume).

STEP 1: Find dosage factor (old or new well).
STEP 2: Multiply static height by dosage factor.
STEP 3: Mix, and apply to well or circulating system.

Example: Old 12 in well, total depth = 600 ft, SWL = 50 ft

STEP 1:Dosage factor = 0.024 ga/ft
STEP 2:550 ft x 0.024 gal/ft = 13 gal
STEP 3:13 gal of NuWell 220 dispersant polymer needed



JOHNSON SCREENS

A Weatherford Company

Material Safety Data Sheet

SECTION 1 - CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Name: NW-220
Part Number: **Chemical Family:** Aqueous solution of polyelectrolytes

Manufacturer's Name: Johnson Screens /A Weatherford Company
Address: P.O. Box 64118 – St. Paul, MN 55164
Product/Technical Information Phone Number: 651-636-3900
Medical/Handling Emergency Phone Number: CHEMTREC 1-800-424-9300
Transportation Emergency Phone Number: CHEMTREC 1-800-424-9300

Issue Date: 12/09/97
Revision Date/Revision Number: 11/29/2009 /06

SECTION 2 – COMPOSITION INFORMATION

****

No constituents of the formulae are listed or considered hazardous under 29CFR 1910.1200

All components are listed under TSCA

SECTION 3 - HAZARDS IDENTIFICATION

****

Appearance & Odor: Clear amber liquid
Emergency Overview: In general, product is non-hazardous to a persons health
Fire & Explosion Hazards: Should not be stored with oxidizing agents
Primary Route(s) of Exposure: Skin, eyes, and ingestion
Inhalation – Acute Effects: Does not apply
Skin Contact – Acute Effects: Does not usually cause skin irritation
Eye Contact – Acute Effects: May cause eye irritation
Ingestion – Acute Effects: May cause nausea and vomiting

SECTION 4 - FIRST AID MEASURES

****

Inhalation First Aid: Remove affected person from area to fresh air and provide oxygen if breathing is difficult. Give artificial respiration ONLY if breathing has stopped and give CPR ONLY if there is no breathing and no pulse. Obtain medical attention.

Skin Contact First Aid: Immediately remove clothing from affected area and wash skin for 15 minutes with flowing water and soap. Clothing should be discarded or washed before reuse. Obtain medical assistance if irritation develops.

Eye Contact First Aid: Immediately irrigate eyes with flowing water continuously for 15 minutes while holding eyes open. Contacts should be removed before or during flushing. Obtain medical attention immediately.

Ingestion First Aid: If victim is alert and not convulsing, rinse mouth with water and give plenty of water to drink. If spontaneous vomiting occurs, have affected person lean forward with head down to avoid breathing in of vomitus. Rinse mouth again and give more water to drink. Obtain medical attention.

Medical Conditions Aggravated: None known

Note to Physician: Product is not known to interfere with any organ functions

SECTION 5 - FIRE FIGHTING MEASURES

****

Flash Point/Method: None
Auto Ignition Temperature: Unknown
Upper/Lower Explosion Limits: None
Extinguishing Media: That which is appropriate for surrounding fire

Fire Fighting Procedures: Wear self-contained breathing apparatus. Carbon monoxide and/or carbon dioxide may be released in a fire.

Fire & Explosion Hazards: None

Hazardous Products of Decomposition and/or Combustion: Carbon monoxide, carbon dioxide

NFPA Ratings:

HEALTH	FLAMMABILITY	REACTIVITY	OTHER
1	0	0	None

SECTION 6 – ACCIDENTAL RELEASE MEASURES

****

Keep spectators away. Product is a neutral material not considered hazardous. Contain spill with inert material (eg. sand, earth, absorbable material). Transfer diking material to suitable container for recovery or disposal. Material may be diluted and rinsed down a sanitary sewer system to a municipal wastewater plant. No expected overload of plant facility or upset of pH is expected in quantities less than 1,000 gallons.

All disposal methods must be in compliance with all Federal, State, Local, and Provincial laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator.

SECTION 7 – HANDLING AND STORAGE

****

Handling: The product is not considered dangerous and requires no special handling

Storage: Avoid contact with strong acids or alkaline-based products

General Comments: None

SECTION 8 – PERSONAL PROTECTION/EXPOSURE CONTROL

****

Respiratory Protection: Protection meeting OSHA 1910.134 and ANSI Z88.2 requirements should be followed whenever workplace conditions warrant a respirator's use.

Skin Protection: Wear neoprene gloves or approved chemical protective gloves for use in acid material

Eye Protection: Wear chemical splash goggles (ANSI Z781) or approved equivalent

Ventilation Protection: No special equipment

Other Protection: Safety showers, with quick opening valves which stay open, and eye wash fountains, or other means of washing the eyes with a gentle flow of cool to tepid tap water should be readily available in all areas where this material is handled or stored. Water should be supplied through insulated and heat-traced lines to prevent freeze-ups in cold weather.

Exposure Limits:

OSHA	ACGIH	NIOSH	SUPPLIER
None	None	None	None

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

****

Appearance & Odor: Clear amber liquid

Vapor Pressure: Vapor is water
Vapor Density: 1.0 (Vapor is water)
Boiling Point: 243^{o}F.
Melting Point: N/A
Specific Gravity: 1.27
Solubilty in Water: Complete
Volatile Percentage: 34%
pH: 7.0
Flash Point/method: None
Auto Ignition Temperature: Unknown
Upper/Lower Explosion Limits: None
Other:

SECTION 10 - STABILITY AND REACTIVITY

****

Stability: Stable
Incompatibilities: Oxidizing agents such as nitric acid, cyanide, sulfides

Polymerization: No
Decomposition: Carbon monoxide, carbon dioxide
Conditions to Avoid: Contact with oxidizing agents

SECTION 11 - TOXICOLOGICAL INFORMATION

****

Inhalation – Acute: N/D
Inhalation – Chronic: N/D
Skin Contact – Acute: Dermal LD_{50} Rabbits > 3000 mg/kg
Skin Contact – Chronic: Skin irritation rabbits (Draize score 1.6/8)
Eye Contact – Acute: Minimal Rabbits (Draize score 2.7/110)
Ingestion – Acute: Oral LD_{50} (Rats) 15,000 mg/kg
Ingestion – Chronic: N/D
Carcinogenicity/Mutagenicity: None /Ames Test was negative
Reproductive Effects: None known
Neurotoxicity: None
Other Effects: No observable affects in long term feeding studies
Target Organs: None

SECTION 12 – ECOLOGICAL INFORMATION

****

Fish toxicity is extremely limited: Bluegill, LC_{50} 96H: > 5000 ppm. Rainbow Trout LC_{50} 96H: > 5000 ppm. Invertebrate Toxicity: Daphnia Magna, IC_{50} 48H: > 2000 ppm and Brown Shrimp, LC_{50} 96H: > 20,000 ppm.

SECTION 13 – DISPOSAL CONSIDERATIONS

****

Product is biodegradable, no discharge limitations are required.

Material that cannot be used or chemically reprocessed and empty containers should be disposed of in accordance with all applicable regulations. Product containers should be thoroughly emptied before disposal. Generators of waste material are required to evaluate all waste for compliance with RCRA and any local disposal procedures and regulations. NOTE: State and local regulations may be more stringent than federal regulations.

SECTION 14 – TRANSPORTATION INFORMATION

DOT Shipping Description: Not regulated as a hazardous material by the U.S. Department of Transportation (DOT) 49CFR 172.101 Hazardous Materials Table

U.S. Custom Harmonization #: 3402.90

Canadian TDG:
Hazard Class: Non-Hazardous
Label Requirements: None Required
Reportable Quantity: None

SECTION 15 – REGULATORY INFORMATION

NSF certified for use in well development and rehabilitation

RCRA Status: Not a hazardous waste under RCRA 40CFR 261. No reportable quantities.

SARA/TITLE III – CERCLA List: This product does not contain a "CERCLA" listed hazardous substance for emergency release notification under Sec. 304 (40CFR 302).

SARA/TITLE III – Toxic Chemicals List: This product does not contain a toxic chemical for routine annual (Toxic Chemical Release Reporting" under Sec. 313 (40CFR 372).

TSCA Inventory Status: Chemical components listed on TSCA Inventory.

California Proposition 65: This product does not contain any chemicals currently on the California list of known carcinogens and reproductive toxins.

Canadian WHMIS Classification: This product does not contain any hazardous materials under CPR and this MSDS discloses all information elements required by the CPR.

SECTION 16 – OTHER INFORMATION

Disclaimer: The information contained herein is based on data considered accurate. However, no warranty is expressed or implied regarding the accuracy of this data or the results to be obtained from the user thereof. It is the buyer's responsibility to ensure that its activities comply with federal, state, provincial and local laws.

Created by: Ida Goldstein

Monitoring Well Development and Groundwater Sampling Forms

GROUNDWATER DEVELOPMENT/SAMPLING DATA SHEET

PROJECT NAME: Roxana Rost-4-Pz Delineation PROJECT NUMBER: 256 2593
DATE: 4/13/14
WEATHER: ~60° F. sunny
FIELD PERSONNEL: N. Salam / Mike Fennemann
MONITORING WELL ID: ROST-4PZ

INITIAL DATA

Well Diameter: 2 in.
Total Depth of Well: 44.93 ft btoc
Depth to Water: 37.70 ft btoc
Height of Water Column: 7.23 ft
(0.163 gallons/ft for 2 inch well, 1.468 gallons/ft for 6-inch well)

Gallons/Lin.Ft: 0.163
Vol. Of Water Column: 1.17 gallons
Min. Purge Volume: 5.8 gallons (5 volumes)
~~Depth to Top of Screen:~~ 34.93 ft btoc

Water Added during Drilling: — gallons
Water to be Removed: — gallons (5x added)
Ambient PID/FID Reading: 0 ppm
Wellbore PID/FID Reading: 0.0 ppm

PURGE DATA

Purge Method: Submersible

Stable: ± 0.2 ± 1°C ± 10%

Purge Volume (gals)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (µmhos/cm)	Turbidity (NTUs)	DO (mg/l)	ORP (mv)
20	1440	38.25	Cloudy	hydrocarbon	6.77	19.26	1219	340	2.76	-92
21	1442	↓	↓	↓	6.76	19.23	1210	193	3.36	-94
22	1446				6.77	18.96	1210	67	2.14	-96
23	1448				6.72	18.60	1216	8	1.58	-89
24	1450			↓	6.75	18.87	1212	34	3.60	-87

Start Time: ~~1440~~ 1400 Purge Stop Time: 1450 Elapsed Time: 50 Total Volume Purged: 24 gallo
Average Purge Rate (gallons/min): 0.5 Well Volumes Purged: 2.9 Water Quality Meter ID: Toll9500 Calibrated on: 4/13/14

SAMPLING DATA

Sampling Method:

Sample Date: N/A Sample Time: N/A Analysis: N/A

COMMENTS:

DTB = 44.93 ft btoc prior to development Soft
DTB = 45.18 ft btoc after development Hard

GROUNDWATER DEVELOPMENT/SAMPLING DATA SHEET

PROJECT NAME: Roxana ROST-4-PZ Delineation PROJECT NUMBER: 21562593
DATE: 4/12/11 4/12/11
WEATHER:
FIELD PERSONNEL: N. Salem /
MONITORING WELL ID: ROST-4PZ (A)

INITIAL DATA

Well Diameter: 2 in.
Total Depth of Well: 44.35 ft btoc
Depth to Water: 37.42 ft btoc
Height of Water Column: 6.93 ft
(0.163 gallons/ft for 2 inch well, 1.468 gallons/ft for 6-inch well)

Gallons/Ln.Ft: 0.163
Vol. Of Water Column: 1.129 gallons
Min. Purge Volume: 5.6 gallons (5 volumes)
~~Depth to Top of Screen~~: 34.42 ft btoc

Water Added during Drilling: none gallons
Water to be Removed: — gallons (5x added)
~~Ambient PID/FID Reading~~: 7.0 0.0 ppm
Wellbore PID/FID Reading: 0 7.0 ppm

PURGE DATA

Purge Method: Submersible pump Stable: ±0.2 ±1°C ±10%

Purge Volume (gals)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (µmhos/cm)	Turbidity (NTUs)	DO (mg/l)	ORP (mv)
5 55	1520	37.92	Cloudy	hydrocarbon	6.93	18.70	859	-18.9	1.98	-100
5 56	1521	37.92	↓	↓	6.99	13.49	858	-35	2.96	-95
5 57	1522	37.92			6.95	17.74	857	-19	3.05	-97
5 58	1523	37.92			6.98	17.53	852	-35	4.07	-95
5/49 59	1524	37.92			6.97	12.47	855	-24	2.04	-100

Start Time: 1410 Purge Stop Time: 1520 Elapsed Time: 60 Total Volume Purged: 60 gallo
Average Purge Rate (gallons/min): 60 Well Volumes Purged: 60 Water Quality Meter ID: Horiba U-22 Calibrated on: 4/12/11

SAMPLING DATA

Sampling Method:

Sample Date: N/A Sample Time: N/A Analysis: N/A

COMMENTS:

DTB = 44.35 ft btoc prior to development (Sept)
DTB = 45.02 ft btoc after development (Feb)

Turbidity sensor not properly functioning. Water visually sediment free at end of development.

GROUNDWATER DEVELOPMENT/SAMPLING DATA SHEET

PROJECT NAME: Roxana ROST-4-PZ Delineation PROJECT NUMBER: 21562590
DATE: 4/13/11
WEATHER: ~60° F, Sunny
FIELD PERSONNEL: M. Eweisman, N. Salem
MONITORING WELL ID: ROST - AP2(B)

INITIAL DATA

Well Diameter: 2 In.
Total Depth of Well: 45.15 ft btoc
Depth to Water: 37.85 ft btoc
Height of Water Column: 7.3 ft
(0.163 gallons/ft for 2 inch well, 1.468 gallons/ft for 6-inch well)

Gallons/Lin.Ft: ______
Vol. Of Water Column: 1.189 gallons
Min. Purge Volume: 5.9 gallons (5 volumes)
Depth to Top of Screen: 35.15 ft btoc

Water Added during Drilling: — gallons
Water to be Removed: — gallons (5x added)
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 0.1 ppm

PURGE DATA
Purge Method: Submersible

Stable: ±0.2 ±1°C ±10%

Purge Volume (gals)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (μmhos/cm)	Turbidity (NTUs)	DO (mg/l)	ORP (mv)
60	1110	37.85	Cloudy	hydrocarbon	6.78	22.46	976	4.5	0.12	-97
61	1112	37.85	↓	↓	6.80	21.94	961	2.1	-0.01	-97
62	1114	37.85			6.83	21.48	956	9.0	-0.05	-97
63	1116	37.85			6.83	21.30	946	12.0	-0.29	-95
64	1118	37.85			6.85	21.25	943	10.0	-0.62	-94

Start Time: 0900
Average Purge Rate (gallons/min): 0.5 gal/min
Purge Stop Time: 1120
Well Volumes Purged: 60
Elapsed Time: 1:20 min
Water Quality Meter ID: Troll 9500
Total Volume Purged: 64 gallons
Calibrated on: 4/13/11

SAMPLING DATA
Sampling Method.

Sample Date: N/A
Sample Time: N/A
Analysis: N/A

COMMENTS:
DTB = 45.15 ft btoc prior to development (soft bottom)
DTB = 45.30 ft btoc after development (hard)

GROUNDWATER DEVELOPMENT/SAMPLING DATA SHEET

PROJECT NAME: Roxana ROST-4-PZ Delineation PROJECT NUMBER: 21562593
DATE: 4/13/11
WEATHER: ~60° F. Sunny
FIELD PERSONNEL: N. Saloom
MONITORING WELL ID: ROST-4PZ (C)

INITIAL DATA

Well Diameter: 2 in.
Total Depth of Well: 45.0 ft btoc
Depth to Water: 38.51 ft btoc
Height of Water Column: 6.49 ft
(0.163 gallons/ft for 2 inch well, 1.468 gallons/ft for 6-inch well)

Gallons/Lin.Ft: —
Vol. Of Water Column: 1.05 gallons
Min. Purge Volume: 5.28 gallons (5 volumes)
Depth to Top of Screen: 35 ft btoc

Water Added during Drilling: — gallons
Water to be Removed: — gallons (5x added)
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 0.5 ppm

PURGE DATA
Purge Method: Submersible Pump Stable: ±0.2 ±1°C ±10%

Purge Volume (gals)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (µmhos/cm)	Turbidity (NTUs)	DO (mg/l)	ORP (mv)
16.24	1618	38.60	cloudy	hydrocarbon	6.88	18.23	1152	-39	0.95	-102
1626	1620	38.60	↓	↓	6.83	18.10	1165	-44	1.74	-99
1628	1622	38.60			6.96	18.01	1163	-41	3.50	-101
1630	1624	38.60	↓		6.91	18.06	1167	-28	3.43	-97

Start Time: 1345 /1600 Purge Stop Time: 1450 /1630 Elapsed Time: 60 min Total Volume Purged: gallo
Average Purge Rate (gallons/min): 1 gallon Well Volumes Purged: 60 Water Quality Meter ID: Troll 9500 Calibrated on: 4/13/11

SAMPLING DATA
Sampling Method:

Sample Date: N/A Sample Time: N/A Analysis: N/A

COMMENTS:
DTB = 45.0 ft btoc prior to development (soft)
DTB = 45.20 ft btoc after development (hard)

Stopped purge @ 1450 - Empty tank
Rinse and Start purge @ 1600

Turbidity sensor not functioning properly. Water visually sediment free at end of development.

GROUNDWATER DEVELOPMENT/SAMPLING DATA SHEET

PROJECT NAME: Roxana ROST-4-P2 Delineation PROJECT NUMBER: 21562593
DATE: 4/12/11
WEATHER: ~60° F, Sunn
FIELD PERSONNEL: Mike Emeismann / N. Salam
MONITORING WELL ID: ROST-4P2(D)

INITIAL DATA

Well Diameter: 2 in.
Total Depth of Well: 45.15 ft btoc
Depth to Water: 38.54 ft btoc
Height of Water Column: 6.61 ft
(0.163 gallons/ft for 2 inch well, 1.468 gallons/ft for 6-inch well)

Gallons/Lin.Ft: 1.07 0.163
Vol. Of Water Column: 1.07 gallons
Min. Purge Volume: 5.38 gallons (5 volumes)
~~Depth to Top of Screen~~: 35.15 ft btoc

Water Added during Drilling: -- gallons
Water to be Removed: ~~5~~ gallons (5x added)
Ambient PID/FID Reading: 0 ppm
Wellbore PID/FID Reading: 1.1 ppm

PURGE DATA
Purge Method: Submersible Pump Stable: ±0.2 ±1°C ±10%

Purge Volume (gals)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (µmhos/cm)	Turbidity (NTUs)	DO (mg/l)	ORP (mv)
50	1200	40.07	clear	hydrocarbon	6.86	16.99	1445	43	0.03	-108
51	1201	40.05	clear	hydrocarbon	6.85	16.98	1400	46	1.33	-104
52	1202	40.05	clear	hydrocarbon	6.84	16.80	1398	38	3.87	-90
53	1203	40.05	clear	"	6.90	16.82	1390	45	4.01	-83
54	1204	40.05	clear	"	6.84	16.92	1380	43	3.92	-85

Start Time: 1120 1115
Average Purge Rate (gallons/min): 1
Purge Stop Time: 1210
Well Volumes Purged: 55
Elapsed Time: 50 55
Water Quality Meter ID: Troll 9500
Total Volume Purged: 55 gallo
Calibrated on: 4/12/11

SAMPLING DATA
Sampling Method:

Sample Date: N/A Sample Time: N/A Analysis: N/A

COMMENTS:
DTB = 45.15 ft btoc prior to development (Sept)
DTB = 45.22 ft btoc after development (Sand)

Turbidity sensor not functioning properly. Water visually sediment free at end of development.

GROUNDWATER DEVELOPMENT/SAMPLING DATA SHEET

PROJECT NAME: Roxanna ROST-4-PZ Delineation PROJECT NUMBER: 215625.93
DATE: 4-15-11
WEATHER: Cloudy
FIELD PERSONNEL: B. Excell, M. Ewersmann
MONITORING WELL ID: ROST-4-PZ (F)

INITIAL DATA

Well Diameter: 2 in.
Total Depth of Well: 44.26 ft btoc
Depth to Water: 37.68 ft btoc
Height of Water Column: 6.58 ft
(0.163 gallons/ft for 2 inch well, 1.468 gallons/ft for 6-inch well)

Gallons/Lin.Ft: .163
Vol. Of Water Column: 1.07 gallons
Min. Purge Volume: 5.4 gallons (5 volumes)
Depth to Top of Screen: 35 ft btoc

Water Added during Drilling: NA gallons
Water to be Removed: NA gallons (5x added)
Ambient PID/FID Reading: 0.1 ppm
Wellbore PID/FID Reading: 17.2 ppm

PURGE DATA

Purge Method: Sub Pump / Surging Stable: ±0.2 ±1°C ±10%

Purge Volume (gals)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (µmhos/cm)	Turbidity (NTUs)	DO (mg/l)	ORP (mv)
40	1103	37.97	Clear	Strong HC	6.80	17.11	1290	-42.6	1.36	-76
41	1105	"	"	"	6.84	17.00	1303	-44.5	1.93	-82
42	1107	"	"	"	6.91	17.01	1285	-46.5	1.96	-90
43	1109	"	"	"	6.87	16.95	1286	-47.3	1.95	-86
44	1111	"	"	"	6.92	16.97	1277	-47.9	1.82	-91

Start Time: 0435 / 1005 Purge Stop Time: 0446 / 1111 Elapsed Time: 77 min Total Volume Purged: 44 gallons
Average Purge Rate (gallons/min): 1.0 / 0.5 Well Volumes Purged: 41 Water Quality Meter ID: Troll 9500 Calibrated on: 4-15-11

SAMPLING DATA

Sampling Method:

Sample Date: N/A Sample Time: N/A Analysis: N/A

COMMENTS:

DTB = 44.26 ft btoc prior to development
DTB = 44.78 ft btoc after development

Turbidity sensor not functioning properly. Water visually sediment free at end of development.

GROUNDWATER DEVELOPMENT/SAMPLING DATA SHEET

PROJECT NAME: Roxana Rost-4-PZ Delineation PROJECT NUMBER: 215625 93.00011
DATE: 4/27/11
WEATHER: Cloudy 65°-60°
FIELD PERSONNEL: T. Andrews
MONITORING WELL ID: ROST-4-PZ(6)

INITIAL DATA

Well Diameter: 2" in.
Total Depth of Well: 44.53 ft btoc
Depth to Water: 38.08 ft btoc
Height of Water Column: 6.45 ft
(0.163 gallons/ft for 2 inch well, 1.468 gallons/ft for 6-inch well)

Gallons/Lin.Ft: .163
Vol. Of Water Column: 1.05 gallons
Min. Purge Volume: 5.3 gallons (5 volumes)
Depth to Top of Screen: 39.53 ft btoc

Water Added during Drilling: N/A gallons
Water to be Removed: N/A gallons (5x added)
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 1640.0 ppm

PURGE DATA
Purge Method: Submersible Stable: ±0.2 ±1°C ±10%

Purge Volume (gals)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (µmhos/cm)	Turbidity (NTUs)	DO (mg/l)	ORP (mv)
42	10:45	38.60	clear	strong HC	6.97	16.67	988.6	16.2	52.50	-34
43	10:48	38.60	"	"	6.93	16.41	983.1	-20.8	52.50	-61
44	10:51	38.60	"	"	6.93	16.40	981.5	-45.1	52.57	-65
45	10:54	38.60	"	"	6.93	16.38	982.4	-50.1	52.50	-67
46	10:57	38.60	"	"	6.92	16.41	982.5	-51.1	52.50	-67

Start Time: 9:25 Purge Stop Time: 10:57 Elapsed Time: 93 min. Total Volume Purged: 46.5 gallo
Average Purge Rate (gallons/min): 0.5 Well Volumes Purged: 44.3 Water Quality Meter ID: Troll 9500 Calibrated on: 4/27/11

SAMPLING DATA
Sampling Method:

Sample Date: N/A Sample Time: N/A Analysis: N/A

COMMENTS:
DTB = 44.53 ft btoc prior to development
DTB = 44.53 ft btoc after development

Turbidity sensor not functioning properly. Water visually sediment free at end of development.

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana Ongoing GW PROJECT NUMBER: 21562593.00011 FIELD PERSONNEL: N. Satam / S. Voss

DATE: 5/5/11 WEATHER: ~60°F, Sunny

MONITORING WELL ID: ROST-4-PZ SAMPLE ID: ROST4PZ-050511

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 45.18 ft
Depth to Water (btoc): 37.58 ft
Depth to LNAPL/DNAPL (btoc): ft
Depth to Top of Screen (btoc): 34.93 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 7.6 ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Length is ≥4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = — ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are ≥ 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = 41.38 ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell): ml
Minimum Purge Volume = (3 x Flow Cell Volume): ml
Ambient PID/FID Reading: 0 ppm
Wellbore PID/FID Reading: 144 ppm

PURGE DATA

Pump Type: SS Bladder Pump

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)
8000	0930	37.60	cloudy	hydrocarbon	7.06	16.92	1.03	205	1.87	-113
1600	0935	37.60			7.02	16.87	1.03	109	0.4	-120
2400	0940	37.60			7.01	16.88	1.03	74.1	0.0	-125
3200	0945	37.60			7.02	16.95	1.03	49.0	0.0	-127
4000	0950	37.60			7.02	16.97	1.03	43.5	0.0	-128
4800	0955	37.60			7.03	13.20	1.03	24.9	6.0	-130
5600	1000	37.60			7.03	17.16	1.03	18.0	0.0	-132
6400	1005	37.60	clear		7.02	17.16	1.03	15.0	0.0	-133
7200	1010	37.60			7.03	17.28	1.03	12.9	0.0	-134
8000	1015	37.60			7.02	17.20	1.02	11.5	0.0	-134
8800	1020	37.60			7.03	17.20	1.02	11.8	0.0	-135

Start Time: 0920 Elapsed Time (min): Water Quality Meter ID: ~~TROLL 9500~~ Horiba U22

Stop Time: 1020 Average Purge Rate (mL/min): 175 mL/min Date Calibrated: 5/5/11

SAMPLING DATA

Sample Date: 5/5/11 Sample Time: 1025 Lab Analysis: VOC, SVOC

Sample Method: Bladder Pump / Low Flow Sample Flow Rate (mL/min): 175 QA/QCSamples: ROST4P2-050511-EB

VOA Vials, No Headspace ☑ Initials: NS

COMMENTS:

Total Purge Volume: 8000 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana Ongoing GW PROJECT NUMBER: 21562593.00011 FIELD PERSONNEL: N. Salem

DATE: 5/4/11 WEATHER: ~60°F, Sunny

MONITORING WELL ID: ROST-4-PZ(A) SAMPLE ID: ~~ROST-4-PZA~~ 0 ROST-4P2-A-050411

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 45.02 ft
Depth to Water (btoc): 37.25 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 34.77 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 7.77 ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Length is ≥4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = — ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are ≥ 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = 41.14 ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell): 800 mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2400 ml
Ambient PID/FID Reading: 0 ppi
Wellbore PID/FID Reading: 0 pp

PURGE DATA

Pump Type: SS Bladder Pump

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)
800	1015	~~37.43~~ 37.43	Cloudy	Hydrocarbon	7.22	16.72	0.9	373	4.36	-92
1600	1019	37.34			7.08	16.32	0.9	146	3.05	-86
2400	1028	37.34			6.98	16.46	0.9	73	1.4	-92
3200	1033	37.34			7.06	16.53	0.9	49	0.74	-98
4000	1100	37.34			7.09	16.48	0.9	47.3	0.27	-106
4800	1107	37.34			7.10	16.50	0.9	41.0	0.0	-111
5600	1114	37.34	↓	↓	7.10	16.57	0.9	38.7	0.0	-111
6400	1121	37.34			7.10	16.43	0.9	43.1	0.0	-113
7200	1128	37.34			7.09	16.48	0.9	37.1	0.0	-113
8000	1135	37.34	↓	↓	7.10	16.55	0.9	40.28	0.0	-115

Start Time: 1015 Elapsed Time (min): 85 Water Quality Meter ID: ~~TROLL 9500~~ Horiba U22

Stop Time: 1135 Average Purge Rate (mL/min): 150 mL/min Date Calibrated: 5/4/11

SAMPLING DATA

Sample Date: 5/4/11 Sample Time: 1135 Lab Analysis: VOC, SVOC

Sample Method: Bladder Pump / Low Flow Sample Flow Rate (mL/min): 150mL/min QA/QC Samples: —

VOA Vials, No Headspace ☒ Initials: NS

COMMENTS:

Initial flow rate ~200 mL/min caused drawdown
Adjusted flow rate to 150 mL/min
Air line disconnected. Had to pull the pump out and reconnect the air line.

Total Purge Volume: 8000 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana Ongoing GW PROJECT NUMBER: 21562593.00011 FIELD PERSONNEL: N. Saturn, S. Voss

DATE: 5/4/11 WEATHER: N60°F, Sunny

MONITORING WELL ID: ROST-4PZ(B) SAMPLE ID: ROST-4P2-B-050411

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 45.30 ft
Depth to Water (btoc): 37.77 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 35.05 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 7.53 ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Length is ≥4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = — ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are ≥ 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = 41.54 ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell): 800 mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2400 ml
Ambient PID/FID Reading: 0.0 ppi
Wellbore PID/FID Reading: 1.9 pp

PURGE DATA

Pump Type: SS Bladder Pump

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)
800	1335	37.85	Cloudy	hydrocarbon	7.02	18.05	0.9	42.2	1.88	-132
1600	1342	37.85			6.44	17.85	0.9	38.4	0.0	-102
2400	1349	37.85			6.50	17.64	0.9	82.0	0.0	-104
3200	1356	37.85			6.46	17.63	0.9	88.0	0.0	-104
4000	1403	37.85			6.56	17.66	0.9	90.3	0.0	-109
4800	1409	37.85			6.70	17.64	0.9	67.0	0.0	-118
5600	1417	37.85			6.85	17.70	0.9	67.2	0.0	-126
6400	1424	37.85			6.93	17.69	0.9	66.3	0.0	-128
7200	1431	37.85			7.04	17.83	0.9	65.5	0.0	-131
8000	1438	37.85	↓	↓	7.03	17.69	0.9	65.2	0.0	-133

Start Time: 1330 Elapsed Time (min): ~~440~~ 80 min Water Quality Meter ID: ~~TROLL 9500~~ Horiba U22

Stop Time: 1440 Average Purge Rate (mL/min): 150 mL/min Date Calibrated: 5/4/11

SAMPLING DATA

Sample Date: 41 Sample Time: 1440 Lab Analysis: VOC, SVOC

Sample Method: Bladder Pump / Low Flow Sample Flow Rate (mL/min): 150 mL/m QA/QCSamples: ROST-4P2-B 050411 DUP

VOA Vials, No Headspace ☒ Initials: NP

COMMENTS:

Total Purge Volume: ~~8800~~ 8000 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana Ongoing GW | PROJECT NUMBER: 21562593.00011 | FIELD PERSONNEL: N. Satam, S. Voss

DATE: 5/3/11 | WEATHER: N60°F, Sunny

MONITORING WELL ID: ROST-4-PZ(C) | SAMPLE ID: ROST-4PZ(C)

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 45.20 ft
Depth to Water (btoc): 38.45 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 34.95 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 6.75 ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Length is ≥4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = — ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are ≥ 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = 41.83 ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell): 800 ml
Minimum Purge Volume = (3 x Flow Cell Volume): 2400 ml
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 25.0 ppm

PURGE DATA

Pump Type: SS Bladder Pump

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)
800 mL/min	12:56	38.48	clear	hydrocarbon	3.93	19.59	0.012	2.5	10.98	170
1600	13:00	38.48			3.91	18.80	0.012	4.8	11.16	171
2400	13:04	↓			3.90	17.61	0.012	3.4	11.18	172
3200	13:08	38.48			3.90	17.21	0.012	2.8	11.40	173
4000	13:12	↓			3.89	17.03	0.012	2.6	11.11	173
4800	13:16	↓			3.90	16.91	0.011	3.2	11.06	172
5200	13:20	38.48	↓	↓	3.90	16.87	0.011	3.0	11.02	172

Start Time: 1250 | Elapsed Time (min): 30 mins | Water Quality Meter ID: ~~TROLL 9500~~ Horiba U22

Stop Time: 1330 | Average Purge Rate (mL/min): 200 mL/min | Date Calibrated: 5/3/11

SAMPLING DATA

Sample Date: 5/3/11 | Sample Time: 1320 | Lab Analysis: VOC, SVOC

Sample Method: Bladder Pump / Low Flow | Sample Flow Rate (mL/min): 200 mL/min | QA/QCSamples: —

VOA Vials, No Headspace ☒ Initials: NS

COMMENTS:

Total Purge Volume: 5200 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana Ongoing GW | PROJECT NUMBER: 21562593.00011 | FIELD PERSONNEL: S. VOSS, N - SATAM

DATE: 5/3/11 | WEATHER: N60°F, Sunny

MONITORING WELL ID: ROST-4-PZ(D) | SAMPLE ID: ROST4PZ-D-05031

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 45.22 ft
Depth to Water (btoc): 38.40 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 34.97 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 6.82 ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Length is ≥4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = — ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are ≥4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = 35 41.82 ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell): 800 mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2400 ml
Ambient PID/FID Reading: 0.0 ppi
Wellbore PID/FID Reading: 89 pp

PURGE DATA

Pump Type: SS Bladder Pump

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)
800	1446	38.45	clear	~~clear~~ hydrocarbon	6.73	18.03	0.92	15.1	1.65	-109
1600	1450	38.45			6.84	17.56	0.90	0.0	0.0	-115
2400	1454	38.45			6.85	17.84	0.90	0.0	0.0	-120
2800	1500				6.80	17.81	0.90	0.0	0.0	-119
3200	1504				6.79	12.81	0.90	0.0	0.0	-119
3600	1508	38.45			6.79	17.49	0.90	0.0	0.0	-123

Start Time: 1440 | Elapsed Time (min): 30 min | Water Quality Meter ID: ~~TROLL 9500~~ Horiba U22

Stop Time: 1510 | Average Purge Rate (mL/min): 200mL/min | Date Calibrated: 5/3/11

SAMPLING DATA

Sample Date: 5/3/11 | Sample Time: 1510 | Lab Analysis: VOC, SVOC

Sample Method: Bladder Pump / Low Flow | Sample Flow Rate (mL/min): 200 mL/min | QA/QCSamples: —

VOA Vials, No Headspace ☒ Initials: N

COMMENTS:

Total Purge Volume: mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana Ongoing GW PROJECT NUMBER: 21562593.00011 FIELD PERSONNEL: _____

DATE: _____ WEATHER: _____

MONITORING WELL ID: ROST-4-PZ(E) SAMPLE ID: _____

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 45.00 ft
Depth to Water (btoc): _____ ft
Depth to LNAPL/DNAPL (btoc): _____ ft
Depth to Top of Screen (btoc): 34.75 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): _____ ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Length is ≥4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = _____ ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are ≥ 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = _____ ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = _____ ft btoc

Volume of Flow Through Cell): _____ ml
Minimum Purge Volume = (3 x Flow Cell Volume): _____ ml
Ambient PID/FID Reading: _____ ppi
Wellbore PID/FID Reading: _____ pp

PURGE DATA

Pump Type: SS Bladder Pump

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)

PRODUCT PRESENT
NOT SAMPLED

Start Time: _____ Elapsed Time (min): _____ Water Quality Meter ID: ~~TROLL 9500~~ Horiba U 22

Stop Time: _____ Average Purge Rate (mL/min): _____ Date Calibrated: _____

SAMPLING DATA

Sample Date: _____ Sample Time: _____ Lab Analysis: VOC, SVOC

Sample Method: Bladder Pump / Low Flow Sample Flow Rate (mL/min): _____ QA/QCSamples: _____

VOA Vials, No Headspace ☐ Initials: _____

COMMENTS:

_____

_____

Total Purge Volume: _____ mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana Ongoing GW PROJECT NUMBER: 21562593.00011 FIELD PERSONNEL: N. Satam

DATE: 5/5/11 WEATHER: ~60°F, Sc overcast

MONITORING WELL ID: ROST-4-PZ(F) SAMPLE ID: ~~ROST-4PZ(F)~~ ROST-4PZ-F-050511

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 44.78 ft
Depth to Water (btoc): 37.70 ft
Depth to LNAPL/DNAPL (btoc): ft
Depth to Top of Screen (btoc): 34.53 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 7.08 ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Length is ≥4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = — ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are ≥ 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = 41.24 ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell): mL
Minimum Purge Volume = (3 x Flow Cell Volume): mL
Ambient PID/FID Reading: 0 ppm
Wellbore PID/FID Reading: 189 ppm

PURGE DATA

Pump Type: SS Bladder Pump

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)
800	1245	37.70	Cloudy	hydrocarbon	7.1	17.69	1.06	124	0.0	-119
1600	1250	37.70			7.07	17.56	1.06	141	0.0	-121
2400	1255	37.70			7.08	17.52	1.05	99	0.0	-123
3200	1300	37.70			7.09	17.46	1.05	71.6	0.0	-124
4000	1305	37.70			7.11	17.55	1.05	46	0.0	-121
4800	1310	37.70			7.12	17.42	1.06	37.5	0.0	-126
5600	1315	37.70			7.12	17.47	1.06	29.0	0.0	-127
6400	1320	37.70			7.13	17.57	1.05	20.7	0.0	-127
7200	1325	37.70			7.13	17.58	1.06	18.9	0.0	-127
8000	1330	37.70			7.13	17.75	1.06	16.1	0.0	-128
8800	1335	37.70	Clearing		7.13	17.68	1.06	17.3	0.0	-128
~~9600~~	1340									

Start Time: 1245 Elapsed Time (min): 60 min Water Quality Meter ID: TROLL 9500 Horiba U22

Stop Time: 1340 Average Purge Rate (mL/min): 200 mL/min Date Calibrated: 5/5/11

SAMPLING DATA

Sample Date: 5/5/11 Sample Time: 1340 Lab Analysis: VOC, SVOC

Sample Method: Bladder Pump / Low Flow Sample Flow Rate (mL/min): 200 mL/min QA/QCSamples: ROST 4PZ-G-050511 MS
ROST 4PZ-G-050511 MSD

VOA Vials, No Headspace ☐ Initials: NS

COMMENTS:

Total Purge Volume: 8800 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana Ongoing GW PROJECT NUMBER: 21562593.00011 FIELD PERSONNEL: N. SATAM / S. VOSS

DATE: 5/5/11 WEATHER: 460's, overcast

MONITORING WELL ID: ROST-4-PZ(G) SAMPLE ID: ROST 4P2-G

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 44.53 ft
Depth to Water (btoc): 37.91 ft
Depth to LNAPL/DNAPL (btoc): ft
Depth to Top of Screen (btoc): 34.28 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 7 ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Length is ≥4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = 4 ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are ≥ 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = 41.03 ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = - ft btoc

Volume of Flow Through Cell): 800 ml
Minimum Purge Volume = (3 x Flow Cell Volume): 2400 ml
Ambient PID/FID Reading: 0 ppm
Wellbore PID/FID Reading: 18.39 ppm

PURGE DATA

Pump Type: SS Bladder Pump

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)
800	1510	37.91	Cloudy	hydrocarbon	6.67	17.00	0.9	786	0.0	-58
1600	1515	37.91			6.57	16.83	0.9	671	0.0	-62
2400	1520	37.91			6.64	16.83	0.9	429	0.0	-65
3200	1525	37.91			6.60	16.73	0.9	340	0.0	-68
4000	1530	37.91			6.75	16.70	0.9	237	0.0	-74
4800	1535	37.91			6.93	16.59	0.9	177	0.0	-84
5600	1540	37.91			7.09	16.54	0.9	120	0.0	-94
6400	1545	37.91			7.90	16.50	0.9	100	0.0	-98
7200	1600	37.91			7.21	16.49	0.9	87	0.0	-99
8000	1605	37.91			7.18	16.46	0.9	77	0.0	-99
8800	1610	37.91			7.12	16.41	0.9	62.5	0.0	-100
9600	1615	37.91			7.13	16.44	0.9	55.1	0.0	-101
10400	1620	37.91			7.20	16.42	0.9	44.6	0.0	-103
11200	1625	37.91			7.20	16.37	0.9	39.0	0.0	-108
11800	1630	37.91	↓	↓	7.21	16.35	0.9	34.0	0.0	-104

Start Time: 1505 Elapsed Time (min): 90 Water Quality Meter ID: ~~TROLL 9500~~ Hydrolab U22

Stop Time: 1630 Average Purge Rate (mL/min): 200 ml/m Date Calibrated: 5/5/11

SAMPLING DATA

Sample Date: 5/5/11 Sample Time: 1630 Lab Analysis: VOC, SVOC

Sample Method: Bladder Pump / Low Flow Sample Flow Rate (mL/min): 200 ml/m QA/QC Samples: N/A

VOA Vials, No Headspace ☒ Initials: N S

COMMENTS:

Total Purge Volume: 11800 mL

Data Review and Laboratory Analytical Reports

Roxana ROST 4-PZ

Laboratory SDG: M98988

Data Reviewer: Tony Sedlacek

Peer Reviewer: Jeff Aust

Date Reviewed: 6/8/2011

Guidance: USEPA National Functional Guidelines for Superfund Organic Methods Data Review 2008

Sample Identification	Sample Identification
TB 040111	ROST-4PZ(E)10.5-11.5
ROST-4PZ(E)17-18	ROST-4PZ(E)27-28
ROST-4PZ(E)36-37	

1.0 Data Package Completeness

Were all items delivered as specified in the QAPP and COC as appropriate?

No, the COC requested TPH-DRO,TPH-ORO and TPH-GRO analyses for all samples except the trip blank but samples were analyzed for SVOCs. A pre-populated COC with TPH analyses was used for this SDG, and the TPH was not crossed out and replaced with SVOC analysis. URS contacted the laboratory and indicated that the samples required SVOC analysis instead of TPH analyses. Samples were analyzed for SVOCs. No qualification of data was required.

2.0 Laboratory Case Narrative \ Cooler Receipt Form

Were problems noted in the laboratory case narrative or cooler receipt form?

Yes, the laboratory case narrative indicated VOC LCS/LCSD recoveries and RPDs were outside evaluation criteria. Although not indicated in the laboratory case narrative, analytes were detected in the trip blank and method blank. These issues are addressed further in the appropriate sections below.

No problems were indicated in the cooler receipt form.

3.0 Holding Times

Were samples extracted/analyzed within applicable limits?

Yes

4.0 Blank Contamination

Were any analytes detected in the Method Blanks, Field Blanks or Trip Blanks?

Yes

Blank ID	Parameter	Analyte	Concentration/Amount
MSE2213-MB	VOCs	Methylene chloride	110 µg/kg
TB 040111	VOCs	Methylene chloride	3.4 µg/L

Qualifications due to blank contamination are included in the table below. Analytical data that were reported non-detect or at concentrations greater than five times (5X) the associated blank concentration (10X for common laboratory contaminants) did not require qualification.

Sample ID	Parameter	Analyte	New Reporting Limit (RL)	Qualification
ROST-4PZ(E)10.5-11.5	VOCs	Methylene chloride	0.300	**U**
ROST-4PZ(E)27-28	VOCs	Methylene chloride	0.472	**U**
ROST-4PZ(E)36-37	VOCs	Methylene chloride	0.360	**U**

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

No

LCS/ LCSD ID	Parameter	Analyte	LCS/LCSD Recovery	RPD	LCS/LCSD/ RPD Criteria
MSG4232-BS	VOCs	Acrolein	**1580**	N/A	70-130
MSG4232-BS	VOCs	2-Chloroethyl vinyl ether	**27**	N/A	70-130
MSK1709-BS/BSD	VOCs	Acetone	**157**/**151**	4	70-130/25
MSK1709-BS/BSD	VOCs	Acrolein	**1576**/**1584**	1	70-130/25
MSK1709-BS/BSD	VOCs	2-Hexanone	**178**/**179**	1	70-130/25
MSK1709-BS/BSD	VOCs	Isoproplybenzene	**149**/**142**	5	70-130/25
MSK1709-BS/BSD	VOCs	4-Methyl-2-pentanone	**136**/**132**	3	70-130/25
MSK1709-BS/BSD	VOCs	n-Propylbenzene	**131**/124	5	70-130/25
MSK1709-BS/BSD	VOCs	Vinyl Acetate	**145**/**132**	9	70-130/25
MSE2213-BS/BSD	VOCs	Acetone	**213**/**220**	4	70-130/25
MSE2213-BS/BSD	VOCs	Acrolein	**1448**/**1448**	0	70-130/25
MSE2213-BS/BSD	VOCs	Acrylonitrile	**412**/**428**	4	70-130/25
MSE2213-BS/BSD	VOCs	2-Butanone	**142**/**159**	11	70-130/25
MSE2213-BS/BSD	VOCs	2-Chloroethyl vinyl ether	37/54	**36**	70-130/25
MSE2213-BS/BSD	VOCs	Dichlorodifluoromethane	**46**/**48**	3	70-130/25

LCS/ LCSD ID	Parameter	Analyte	LCS/LCSD Recovery	RPD	LCS/LCSD/ RPD Criteria
MSE2213-BS/BSD	VOCs	2-Hexanone	**176/168**	5	70-130/25

Analytical data that required qualification based on LCS data are included in the table below. Analytical data reported as non-detect and associated with LCS recoveries above evaluation criteria, indicating a possible high bias, did not require qualification. LCS MSG4232 was associated with trip blank TB 040111. Trip blank samples are quality control samples and are not qualified. All analytes with LCS/LCSD recoveries above evaluation criteria were nondetect; therefore, no qualification of data was required.

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

Yes

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

Were MS/MSD samples analyzed as part of this SDG?

No

8.0 Internal Standard (IS) Recoveries

Were internal standard area recoveries within evaluation criteria?

Yes

9.0 Laboratory Duplicate Results

Were laboratory duplicate samples collected as part of this SDG?

No

10.0 Field Duplicate Results

Were field duplicate samples collected as part of this SDG?

No

11.0 Sample Dilutions

For samples that were diluted and nondetect, were undiluted results also reported?

Not applicable; samples analyzed did not require dilution.

12.0 Additional Qualifications

Were additional qualifications applied?

No

New England ACCUTEST LABORATORIES

05/03/11

Technical Report for

Shell Oil

URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Roxana - ROST-4-PZ SAP#340061

Accutest Job Number: M98988

Sampling Date: 04/01/11

Report to:

URS Corporation

Elizabeth_Kunkel@URSCorp.com

ATTN: Elizabeth Kunkel

Reviewed on 6/8/11

Total number of pages in report: 79

ACCREDITED IN ACCORDANCE WITH nelac

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

Reza Tand
Lab Director

Client Service contact: Kristen Blanchard 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) ISO 17025:2005 (L2235)

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Sample Summary

Shell Oil

Job No: M98988

URSMOSTL:97216640 170 East Rand Avenue Hartford, IL
Project No: Roxana - ROST-4-PZ SAP#340061

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
M98988-1	04/01/11	00:00	NS	04/02/11	AQ	Trip Blank Water	TB 040111
M98988-2	04/01/11	09:30	NS	04/02/11	SO	Soil	ROST -4 PZ(E)10.5-11.5
M98988-3	04/01/11	10:00	NS	04/02/11	SO	Soil	ROST -4 PZ(E)17-18
M98988-4	04/01/11	10:30	NS	04/02/11	SO	Soil	ROST -4 PZ(E)27-28
M98988-5	04/01/11	11:00	NS	04/02/11	SO	Soil	ROST -4 PZ(E)36-37

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

ACCUTEST Laboratories

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SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	Shell Oil	Job No	M98988
Site:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL	Report Date	4/19/2011 3:54:00 PM

4 Sample(s), 1 Trip Blank(s) and 0 Field Blank(s) were collected on 04/01/2011 and were received at Accutest on 04/02/2011 properly preserved, at 2.0 Deg. C and intact. These Samples received an Accutest job number of M98988. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

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

Volatiles by GCMS By Method SW846 8260B

Matrix AQ **Batch ID:** MSG4232

- All samples were analyzed within the recommended method holding time.
- Sample(s) M99031-3MS, M99031-3MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Blank Spike Recovery(s) for 2-Chloroethyl vinyl ether are outside control limits. Blank Spike meets program technical requirements.
- MS/MSD Recovery(s) for 2-Chloroethyl vinyl ether are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- RPD(s) for MSD for 2-Chloroethyl vinyl ether are outside control limits for sample M99031-3MSD. High RPD due to possible matrix interference and/or sample non-homogeneity.
- MSG4232-BS/MS/MSD for Acrolein: Outside control limits. Associated samples are non-detect for this compound.

Matrix SO **Batch ID:** MSE2213

- All samples were analyzed within the recommended method holding time.
- Sample(s) M99080-8MS, M99080-8MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- BS/BSD Recovery(s) for 2-Butanone (MEK), Dichlorodifluoromethane are outside control limits. Blank Spike meets program technical requirements.
- MS/MSD Recovery(s) for 2-Hexanone, Dichlorodifluoromethane, Vinyl Acetate are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- MSE2213-BS/BSD for 2-Hexanone, Acetone, Acrolein, Acrylonitrile: Outside control limits. Associated samples are non-deteet for this compound.
- M99080-8MS/MSD for 2-Butanone (MEK), Acetone, Acrolein, Acrylonitrile: Outside control limits. Associated samples are non-detect for this compound.

Matrix SO **Batch ID:** MSK1709

- All samples were analyzed within the recommended method holding time.
- Sample(s) M98991-14MS, M98991-14MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Blank Spike Recovery(s) for 4-Methyl-2-pentanone (MIBK), Acetone, Isopropylbenzene, n-Propylbenzene, Vinyl Acetate are outside control limits. Blank Spike meets program technical requirements.
- Matrix Spike Recovery(s) for 1,2,3-Trichlorobenzene, Acetone, Vinyl Acetate are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Matrix Spike Duplicate Recovery(s) for Acetone, Isopropylbenzene, Vinyl Acetate are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- RPD(s) for MSD for 1,2,3-Trichlorobenzene are outside control limits for sample M98991-14MSD. High RPD due to possible matrix interference and/or sample non-homogeneity.

Volatiles by GCMS By Method SW846 8260B

Matrix SO	Batch ID: MSK1709

- MSK1709-BS/BSD/MS/MSD for 2-Hexanone, Acrolein: Outside control limits. Associated samples are non-detect for this compound.
- Blank Spike Duplicate Recovery(s) for 4-Methyl-2-pentanone (MIBK), Acetone, Isopropylbenzene, Vinyl Acetate are outside control limits. Blank Spike meets program technical requirements.

Extractables by GCMS By Method SW846 8270C

Matrix SO	Batch ID: OP24569

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) M99080-2MS, M99080-2MSD were used as the QC samples indicated.
- Matrix Spike Recovery(s) for 2,4-Dinitrophenol, Benzoic acid, Hexachlorocyclopentadiene, Pyridine are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Matrix Spike Duplicate Recovery(s) for Aniline, Pyridine, 2,4-Dinitrophenol, 4,6-Dinitro-o-cresol, Benzoic acid, Hexachlorocyclopentadiene are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- RPD(s) for MSD for 2,4-Dinitrophenol, 4,6-Dinitro-o-cresol, Benzoic acid, Hexachloroeyclopentadiene, Pentachlorophenol are outside control limits for sample OP24569-MSD. High RPD due to possible matrix interference and/or sample non-homogeneity.
- M98988-2 for surrogates: Surrogate recovery adjusted for double spike.

Wet Chemistry By Method SM21 2540 B MOD.

Matrix SO	Batch ID: GN34536

- Sample(s) M98958-3DUP were used as the QC samples for Solids, Percent.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety.The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(M98988).

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	TB 040111		
Lab Sample ID:	M98988-1	Date Sampled:	04/01/11
Matrix:	AQ - Trip Blank Water	Date Received:	04/02/11
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	G104922.D	1	04/14/11	EL	n/a	n/a	MSG4232
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	5.3	5.0	4.6	ug/l	
107-02-8	Acrolein	ND	25	17	ug/l	
107-13-1	Acrylonitrile	ND	5.0	3.0	ug/l	
71-43-2	Benzene	ND	0.50	0.35	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.52	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.91	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.62	ug/l	
75-25-2	Bromoform	ND	1.0	0.73	ug/l	
74-83-9	Bromomethane	ND	2.0	0.95	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.1	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.49	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.37	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.53	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.35	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.42	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.61	ug/l	
75-00-3	Chloroethane	ND	2.0	0.76	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	0.83	ug/l	
67-66-3	Chloroform	ND	1.0	0.72	ug/l	
74-87-3	Chloromethane	ND	2.0	0.81	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.58	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.67	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.3	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.86	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.76	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.74	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.77	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.81	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.61	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.63	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.74	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.70	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB 040111		
Lab Sample ID:	M98988-1	Date Sampled:	04/01/11
Matrix:	AQ - Trip Blank Water	Date Received:	04/02/11
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.66	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.74	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.83	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.73	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	0.44	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.23	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.23	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.90	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.61	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.56	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.5	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.51	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.45	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.54	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.3	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.94	ug/l	
75-09-2	Methylene chloride	3.4	2.0	0.75	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.43	ug/l	
100-42-5	Styrene	ND	5.0	0.68	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.64	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.89	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.39	ug/l	
108-88-3	Toluene	ND	1.0	0.74	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.57	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.35	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.72	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.49	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.61	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.62	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.51	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	0.51	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.86	ug/l	
	m,p-Xylene	ND	1.0	0.62	ug/l	
95-47-6	o-Xylene	ND	1.0	0.56	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.56	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB 040111		
Lab Sample ID:	M98988-1	Date Sampled:	04/01/11
Matrix:	AQ - Trip Blank Water	Date Received:	04/02/11
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		70-130%
2037-26-5	Toluene-D8	110%		70-130%
460-00-4	4-Bromofluorobenzene	113%		70-130%

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

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

Report of Analysis

Client Sample ID:	ROST -4 PZ(E)10.5-11.5		
Lab Sample ID:	M98988-2	Date Sampled:	04/01/11
Matrix:	SO - Soil	Date Received:	04/02/11
Method:	SW846 8260B	Percent Solids:	88.5
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	E52840.D	1	04/15/11	TD	n/a	n/a	MSE2213
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.06 g	10.0 ml	100 ul
Run #2			

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	0.59	0.59	mg/kg	
107-02-8	Acrolein	ND	3.0	2.0	mg/kg	
107-13-1	Acrylonitrile	ND	0.59	0.094	mg/kg	
71-43-2	Benzene	0.0250	0.059	0.013	mg/kg	J
108-86-1	Bromobenzene	ND	0.59	0.017	mg/kg	
74-97-5	Bromochloromethane	ND	0.59	0.057	mg/kg	
75-27-4	Bromodichloromethane	ND	0.24	0.022	mg/kg	
75-25-2	Bromoform	ND	0.24	0.12	mg/kg	
74-83-9	Bromomethane	ND	0.24	0.041	mg/kg	
78-93-3	2-Butanone (MEK)	ND	0.59	0.17	mg/kg	
104-51-8	n-Butylbenzene	ND	0.59	0.050	mg/kg	
135-98-8	sec-Butylbenzene	ND	0.59	0.043	mg/kg	
98-06-6	tert-Butylbenzene	ND	0.59	0.027	mg/kg	
75-15-0	Carbon disulfide	ND	0.59	0.022	mg/kg	
56-23-5	Carbon tetrachloride	ND	0.24	0.022	mg/kg	
108-90-7	Chlorobenzene	ND	0.24	0.026	mg/kg	
75-00-3	Chloroethane	ND	0.59	0.038	mg/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	0.59	0.59	mg/kg	
67-66-3	Chloroform	ND	0.24	0.019	mg/kg	
74-87-3	Chloromethane	ND	0.59	0.015	mg/kg	
95-49-8	o-Chlorotoluene	ND	0.59	0.022	mg/kg	
106-43-4	p-Chlorotoluene	ND	0.59	0.026	mg/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.59	0.084	mg/kg	
124-48-1	Dibromochloromethane	ND	0.24	0.12	mg/kg	
106-93-4	1,2-Dibromoethane	ND	0.24	0.018	mg/kg	
95-50-1	1,2-Dichlorobenzene	ND	0.24	0.037	mg/kg	
541-73-1	1,3-Dichlorobenzene	ND	0.24	0.036	mg/kg	
106-46-7	1,4-Dichlorobenzene	ND	0.24	0.035	mg/kg	
75-71-8	Dichlorodifluoromethane	ND	0.24	0.024	mg/kg	
75-34-3	1,1-Dichloroethane	ND	0.24	0.020	mg/kg	
107-06-2	1,2-Dichloroethane	ND	0.24	0.014	mg/kg	
75-35-4	1,1-Dichloroethene	ND	0.24	0.016	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST -4 PZ(E)10.5-11.5		
Lab Sample ID:	M98988-2	**Date Sampled:**	04/01/11
Matrix:	SO - Soil	**Date Received:**	04/02/11
Method:	SW846 8260B	**Percent Solids:**	88.5
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-59-2	cis-1,2-Dichloroethene	ND	0.24	0.024	mg/kg	
156-60-5	trans-1,2-Dichloroethene	ND	0.24	0.022	mg/kg	
78-87-5	1,2-Dichloropropane	ND	0.24	0.020	mg/kg	
142-28-9	1,3-Dichloropropane	ND	0.59	0.013	mg/kg	
594-20-7	2,2-Dichloropropane	ND	0.59	0.023	mg/kg	
563-58-6	1,1-Dichloropropene	ND	0.59	0.025	mg/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	0.24	0.059	mg/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	0.24	0.12	mg/kg	
97-63-2	Ethyl methacrylate	ND	0.59	0.015	mg/kg	
100-41-4	Ethylbenzene	ND	0.24	0.013	mg/kg	
87-68-3	Hexachlorobutadiene	ND	0.59	0.085	mg/kg	
591-78-6	2-Hexanone	ND	0.59	0.10	mg/kg	
98-82-8	Isopropylbenzene	ND	0.59	0.029	mg/kg	
99-87-6	p-Isopropyltoluene	ND	0.59	0.046	mg/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	0.24	0.015	mg/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	0.59	0.12	mg/kg	
74-95-3	Methylene bromide	~~ND~~	0.59	0.12	mg/kg	
75-09-2	Methylene chloride	~~0.300~~	~~0.240~~ 0.59	0.020	mg/kg	U
103-65-1	n-Propylbenzene	~~ND~~	0.59	0.033	mg/kg	
100-42-5	Styrene	ND	0.59	0.019	mg/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.59	0.020	mg/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.24	0.021	mg/kg	
127-18-4	Tetrachloroethene	ND	0.24	0.020	mg/kg	
108-88-3	Toluene	0.0237	0.59	0.021	mg/kg	J
87-61-6	1,2,3-Trichlorobenzene	ND	0.59	0.090	mg/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	0.59	0.060	mg/kg	
71-55-6	1,1,1-Trichloroethane	ND	0.24	0.015	mg/kg	
79-00-5	1,1,2-Trichloroethane	ND	0.24	0.015	mg/kg	
79-01-6	Trichloroethene	ND	0.24	0.025	mg/kg	
75-69-4	Trichlorofluoromethane	ND	0.24	0.018	mg/kg	
96-18-4	1,2,3-Trichloropropane	ND	0.59	0.020	mg/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	0.59	0.031	mg/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	0.59	0.026	mg/kg	
108-05-4	Vinyl Acetate	ND	0.59	0.32	mg/kg	
75-01-4	Vinyl chloride	ND	0.24	0.031	mg/kg	
	m,p-Xylene	ND	0.24	0.041	mg/kg	
95-47-6	o-Xylene	ND	0.24	0.016	mg/kg	
1330-20-7	Xylene (total)	ND	0.24	0.016	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST -4 PZ(E)10.5-11.5		
Lab Sample ID:	M98988-2	Date Sampled:	04/01/11
Matrix:	SO - Soil	Date Received:	04/02/11
Method:	SW846 8260B	Percent Solids:	88.5
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		70-130%
2037-26-5	Toluene-D8	95%		70-130%
460-00-4	4-Bromofluorobenzene	98%		70-130%

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

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

Report of Analysis

Client Sample ID:	ROST -4 PZ(E)10.5-11.5		
Lab Sample ID:	M98988-2	**Date Sampled:**	04/01/11
Matrix:	SO - Soil	**Date Received:**	04/02/11
Method:	SW846 8270C SW846 3546	**Percent Solids:**	88.5
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	171650.D	1	04/19/11	KR	04/07/11	OP24569	MSI2553
Run #2							

	Initial Weight	Final Volume
Run #1	20.5 g	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic acid	ND	0.55	0.043	mg/kg	
95-57-8	2-Chlorophenol	ND	0.28	0.015	mg/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	0.55	0.019	mg/kg	
120-83-2	2,4-Dichlorophenol	ND	0.55	0.032	mg/kg	
105-67-9	2,4-Dimethylphenol	ND	0.55	0.055	mg/kg	
51-28-5	2,4-Dinitrophenol	ND	1.1	0.28	mg/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	0.55	0.28	mg/kg	
95-48-7	2-Methylphenol	ND	0.55	0.016	mg/kg	
	3&4-Methylphenol	ND	0.55	0.029	mg/kg	
88-75-5	2-Nitrophenol	ND	0.55	0.033	mg/kg	
100-02-7	4-Nitrophenol	ND	1.1	0.28	mg/kg	
87-86-5	Pentachlorophenol	ND	0.55	0.051	mg/kg	
108-95-2	Phenol	ND	0.28	0.046	mg/kg	
95-95-4	2,4,5-Trichlorophenol	ND	0.55	0.041	mg/kg	
88-06-2	2,4,6-Trichlorophenol	ND	0.55	0.038	mg/kg	
83-32-9	Acenaphthene	ND	0.28	0.023	mg/kg	
208-96-8	Acenaphthylene	ND	0.28	0.021	mg/kg	
62-53-3	Aniline	ND	0.55	0.55	mg/kg	
120-12-7	Anthracene	ND	0.28	0.022	mg/kg	
56-55-3	Benzo(a)anthracene	ND	0.28	0.010	mg/kg	
50-32-8	Benzo(a)pyrene	ND	0.28	0.017	mg/kg	
205-99-2	Benzo(b)fluoranthene	ND	0.28	0.032	mg/kg	
191-24-2	Benzo(g,h,i)perylene	ND	0.28	0.018	mg/kg	
207-08-9	Benzo(k)fluoranthene	ND	0.28	0.0082	mg/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	0.28	0.022	mg/kg	
85-68-7	Butyl benzyl phthalate	ND	0.28	0.012	mg/kg	
91-58-7	2-Chloronaphthalene	ND	0.28	0.023	mg/kg	
106-47-8	4-Chloroaniline	ND	0.55	0.14	mg/kg	
218-01-9	Chrysene	ND	0.28	0.0090	mg/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	0.28	0.022	mg/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	0.28	0.0059	mg/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	0.28	0.026	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST -4 PZ(E)10.5-11.5		
Lab Sample ID:	M98988-2	**Date Sampled:**	04/01/11
Matrix:	SO - Soil	**Date Received:**	04/02/11
Method:	SW846 8270C SW846 3546	**Percent Solids:**	88.5
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	0.28	0.025	mg/kg	
121-14-2	2,4-Dinitrotoluene	ND	0.55	0.14	mg/kg	
606-20-2	2,6-Dinitrotoluene	ND	0.55	0.027	mg/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	0.28	0.0066	mg/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	0.28	0.018	mg/kg	
132-64-9	Dibenzofuran	ND	0.28	0.023	mg/kg	
84-74-2	Di-n-butyl phthalate	ND	0.28	0.025	mg/kg	
117-84-0	Di-n-octyl phthalate	ND	0.28	0.015	mg/kg	
84-66-2	Diethyl phthalate	ND	0.28	0.024	mg/kg	
131-11-3	Dimethyl phthalate	ND	0.28	0.019	mg/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	0.28	0.019	mg/kg	
206-44-0	Fluoranthene	ND	0.28	0.0094	mg/kg	
86-73-7	Fluorene	ND	0.28	0.0061	mg/kg	
118-74-1	Hexachlorobenzene	ND	0.28	0.024	mg/kg	
77-47-4	Hexachlorocyclopentadiene	ND	0.55	0.0037	mg/kg	
67-72-1	Hexachloroethane	ND	0.28	0.022	mg/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.28	0.017	mg/kg	
78-59-1	Isophorone	ND	0.28	0.027	mg/kg	
91-57-6	2-Methylnaphthalene	ND	0.28	0.023	mg/kg	
88-74-4	2-Nitroaniline	ND	0.55	0.14	mg/kg	
99-09-2	3-Nitroaniline	ND	0.55	0.14	mg/kg	
100-01-6	4-Nitroaniline	ND	0.55	0.020	mg/kg	
91-20-3	Naphthalene	ND	0.28	0.0064	mg/kg	
98-95-3	Nitrobenzene	ND	0.28	0.0082	mg/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	0.28	0.018	mg/kg	
86-30-6	N-Nitrosodiphenylamine	ND	0.28	0.015	mg/kg	
85-01-8	Phenanthrene	ND	0.28	0.0071	mg/kg	
129-00-0	Pyrene	ND	0.28	0.0089	mg/kg	
110-86-1	Pyridine	ND	0.55	0.55	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	68% [a]		30-130%
4165-62-2	Phenol-d5	66% [a]		30-130%
118-79-6	2,4,6-Tribromophenol	72% [a]		30-130%
4165-60-0	Nitrobenzene-d5	67% [a]		30-130%
321-60-8	2-Fluorobiphenyl	72% [a]		30-130%
1718-51-0	Terphenyl-d14	82% [a]		30-130%

(a) Surrogate recovery adjusted for double spike.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST -4 PZ(E)17-18		
Lab Sample ID:	M98988-3	Date Sampled:	04/01/11
Matrix:	SO - Soil	Date Received:	04/02/11
Method:	SW846 8260B	Percent Solids:	94.3
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K51603.D	1	04/13/11	GK	n/a	n/a	MSK1709
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	4.82 g	10.0 ml	50.0 ul
Run #2			

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	1.1	1.1	mg/kg	
107-02-8	Acrolein	ND	5.7	3.8	mg/kg	
107-13-1	Acrylonitrile	ND	1.1	0.18	mg/kg	
71-43-2	Benzene	ND	0.11	0.025	mg/kg	
108-86-1	Bromobenzene	ND	1.1	0.033	mg/kg	
74-97-5	Bromochloromethane	ND	1.1	0.11	mg/kg	
75-27-4	Bromodichloromethane	ND	0.45	0.042	mg/kg	
75-25-2	Bromoform	ND	0.45	0.23	mg/kg	
74-83-9	Bromomethane	ND	0.45	0.078	mg/kg	
78-93-3	2-Butanone (MEK)	ND	1.1	0.33	mg/kg	
104-51-8	n-Butylbenzene	ND	1.1	0.095	mg/kg	
135-98-8	sec-Butylbenzene	ND	1.1	0.082	mg/kg	
98-06-6	tert-Butylbenzene	ND	1.1	0.051	mg/kg	
75-15-0	Carbon disulfide	ND	1.1	0.042	mg/kg	
56-23-5	Carbon tetrachloride	ND	0.45	0.043	mg/kg	
108-90-7	Chlorobenzene	ND	0.45	0.049	mg/kg	
75-00-3	Chloroethane	ND	1.1	0.073	mg/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	1.1	1.1	mg/kg	
67-66-3	Chloroform	ND	0.45	0.036	mg/kg	
74-87-3	Chloromethane	ND	1.1	0.029	mg/kg	
95-49-8	o-Chlorotoluene	ND	1.1	0.043	mg/kg	
106-43-4	p-Chlorotoluene	ND	1.1	0.049	mg/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	1.1	0.16	mg/kg	
124-48-1	Dibromochloromethane	ND	0.45	0.23	mg/kg	
106-93-4	1,2-Dibromoethane	ND	0.45	0.034	mg/kg	
95-50-1	1,2-Dichlorobenzene	ND	0.45	0.071	mg/kg	
541-73-1	1,3-Dichlorobenzene	ND	0.45	0.069	mg/kg	
106-46-7	1,4-Dichlorobenzene	ND	0.45	0.067	mg/kg	
75-71-8	Dichlorodifluoromethane	ND	0.45	0.045	mg/kg	
75-34-3	1,1-Dichloroethane	ND	0.45	0.038	mg/kg	
107-06-2	1,2-Dichloroethane	ND	0.45	0.026	mg/kg	
75-35-4	1,1-Dichloroethene	ND	0.45	0.031	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST -4 PZ(E)17-18		
Lab Sample ID:	M98988-3	**Date Sampled:**	04/01/11
Matrix:	SO - Soil	**Date Received:**	04/02/11
Method:	SW846 8260B	**Percent Solids:**	94.3
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-59-2	cis-1,2-Dichloroethene	ND	0.45	0.045	mg/kg	
156-60-5	trans-1,2-Dichloroethene	ND	0.45	0.043	mg/kg	
78-87-5	1,2-Dichloropropane	ND	0.45	0.039	mg/kg	
142-28-9	1,3-Dichloropropane	ND	1.1	0.024	mg/kg	
594-20-7	2,2-Dichloropropane	ND	1.1	0.044	mg/kg	
563-58-6	1,1-Dichloropropene	ND	1.1	0.047	mg/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	0.45	0.11	mg/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	0.45	0.23	mg/kg	
97-63-2	Ethyl methacrylate	ND	1.1	0.029	mg/kg	
100-41-4	Ethylbenzene	ND	0.45	0.025	mg/kg	
87-68-3	Hexachlorobutadiene	ND	1.1	0.16	mg/kg	
591-78-6	2-Hexanone	ND	1.1	0.19	mg/kg	
98-82-8	Isopropylbenzene	ND	1.1	0.056	mg/kg	
99-87-6	p-Isopropyltoluene	ND	1.1	0.087	mg/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	0.45	0.029	mg/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	1.1	0.23	mg/kg	
74-95-3	Methylene bromide	ND	1.1	0.23	mg/kg	
75-09-2	Methylene chloride	ND	0.45	0.037	mg/kg	
103-65-1	n-Propylbenzene	ND	1.1	0.063	mg/kg	
100-42-5	Styrene	ND	1.1	0.037	mg/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.1	0.038	mg/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.45	0.040	mg/kg	
127-18-4	Tetrachloroethene	ND	0.45	0.038	mg/kg	
108-88-3	Toluene	ND	1.1	0.040	mg/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	1.1	0.17	mg/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1.1	0.12	mg/kg	
71-55-6	1,1,1-Trichloroethane	ND	0.45	0.029	mg/kg	
79-00-5	1,1,2-Trichloroethane	ND	0.45	0.029	mg/kg	
79-01-6	Trichloroethene	ND	0.45	0.047	mg/kg	
75-69-4	Trichlorofluoromethane	ND	0.45	0.035	mg/kg	
96-18-4	1,2,3-Trichloropropane	ND	1.1	0.037	mg/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	1.1	0.059	mg/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	1.1	0.049	mg/kg	
108-05-4	Vinyl Acetate	ND	1.1	0.62	mg/kg	
75-01-4	Vinyl chloride	ND	0.45	0.060	mg/kg	
	m,p-Xylene	ND	0.45	0.079	mg/kg	
95-47-6	o-Xylene	ND	0.45	0.030	mg/kg	
1330-20-7	Xylene (total)	ND	0.45	0.030	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST -4 PZ(E)17-18		
Lab Sample ID:	M98988-3	Date Sampled:	04/01/11
Matrix:	SO - Soil	Date Received:	04/02/11
Method:	SW846 8260B	Percent Solids:	94.3
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		70-130%
2037-26-5	Toluene-D8	115%		70-130%
460-00-4	4-Bromofluorobenzene	123%		70-130%

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

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

Report of Analysis

Client Sample ID:	ROST -4 PZ(E)17-18		
Lab Sample ID:	M98988-3	**Date Sampled:**	04/01/11
Matrix:	SO - Soil	**Date Received:**	04/02/11
Method:	SW846 8270C SW846 3546	**Percent Solids:**	94.3
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I71651.D	1	04/19/11	KR	04/07/11	OP24569	MSI2553
Run #2							

	Initial Weight	Final Volume
Run #1	20.3 g	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic acid	ND	0.52	0.041	mg/kg	
95-57-8	2-Chlorophenol	ND	0.26	0.014	mg/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	0.52	0.018	mg/kg	
120-83-2	2,4-Dichlorophenol	ND	0.52	0.031	mg/kg	
105-67-9	2,4-Dimethylphenol	ND	0.52	0.052	mg/kg	
51-28-5	2,4-Dinitrophenol	ND	1.0	0.26	mg/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	0.52	0.26	mg/kg	
95-48-7	2-Methylphenol	ND	0.52	0.015	mg/kg	
	3&4-Methylphenol	ND	0.52	0.028	mg/kg	
88-75-5	2-Nitrophenol	ND	0.52	0.031	mg/kg	
100-02-7	4-Nitrophenol	ND	1.0	0.26	mg/kg	
87-86-5	Pentachlorophenol	ND	0.52	0.048	mg/kg	
108-95-2	Phenol	ND	0.26	0.043	mg/kg	
95-95-4	2,4,5-Trichlorophenol	ND	0.52	0.039	mg/kg	
88-06-2	2,4,6-Trichlorophenol	ND	0.52	0.036	mg/kg	
83-32-9	Acenaphthene	ND	0.26	0.022	mg/kg	
208-96-8	Acenaphthylene	ND	0.26	0.020	mg/kg	
62-53-3	Aniline	ND	0.52	0.52	mg/kg	
120-12-7	Anthracene	ND	0.26	0.021	mg/kg	
56-55-3	Benzo(a)anthracene	ND	0.26	0.0096	mg/kg	
50-32-8	Benzo(a)pyrene	ND	0.26	0.016	mg/kg	
205-99-2	Benzo(b)fluoranthene	ND	0.26	0.031	mg/kg	
191-24-2	Benzo(g,h,i)perylene	ND	0.26	0.017	mg/kg	
207-08-9	Benzo(k)fluoranthene	ND	0.26	0.0077	mg/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	0.26	0.021	mg/kg	
85-68-7	Butyl benzyl phthalate	ND	0.26	0.011	mg/kg	
91-58-7	2-Chloronaphthalene	ND	0.26	0.022	mg/kg	
106-47-8	4-Chloroaniline	ND	0.52	0.13	mg/kg	
218-01-9	Chrysene	ND	0.26	0.0085	mg/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	0.26	0.020	mg/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	0.26	0.0056	mg/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	0.26	0.025	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST -4 PZ(E)17-18		
Lab Sample ID:	M98988-3	Date Sampled:	04/01/11
Matrix:	SO - Soil	Date Received:	04/02/11
Method:	SW846 8270C SW846 3546	Percent Solids:	94.3
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	0.26	0.023	mg/kg	
121-14-2	2,4-Dinitrotoluene	ND	0.52	0.13	mg/kg	
606-20-2	2,6-Dinitrotoluene	ND	0.52	0.025	mg/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	0.26	0.0063	mg/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	0.26	0.017	mg/kg	
132-64-9	Dibenzofuran	ND	0.26	0.022	mg/kg	
84-74-2	Di-n-butyl phthalate	ND	0.26	0.024	mg/kg	
117-84-0	Di-n-octyl phthalate	ND	0.26	0.014	mg/kg	
84-66-2	Diethyl phthalate	ND	0.26	0.023	mg/kg	
131-11-3	Dimethyl phthalate	ND	0.26	0.018	mg/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	0.26	0.018	mg/kg	
206-44-0	Fluoranthene	ND	0.26	0.0089	mg/kg	
86-73-7	Fluorene	ND	0.26	0.0057	mg/kg	
118-74-1	Hexachlorobenzene	ND	0.26	0.022	mg/kg	
77-47-4	Hexachlorocyclopentadiene	ND	0.52	0.0035	mg/kg	
67-72-1	Hexachloroethane	ND	0.26	0.021	mg/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.26	0.016	mg/kg	
78-59-1	Isophorone	ND	0.26	0.026	mg/kg	
91-57-6	2-Methylnaphthalene	ND	0.26	0.022	mg/kg	
88-74-4	2-Nitroaniline	ND	0.52	0.13	mg/kg	
99-09-2	3-Nitroaniline	ND	0.52	0.13	mg/kg	
100-01-6	4-Nitroaniline	ND	0.52	0.019	mg/kg	
91-20-3	Naphthalene	ND	0.26	0.0061	mg/kg	
98-95-3	Nitrobenzene	ND	0.26	0.0077	mg/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	0.26	0.017	mg/kg	
86-30-6	N-Nitrosodiphenylamine	ND	0.26	0.014	mg/kg	
85-01-8	Phenanthrene	ND	0.26	0.0067	mg/kg	
129-00-0	Pyrene	ND	0.26	0.0084	mg/kg	
110-86-1	Pyridine	ND	0.52	0.52	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	62%		30-130%
4165-62-2	Phenol-d5	61%		30-130%
118-79-6	2,4,6-Tribromophenol	68%		30-130%
4165-60-0	Nitrobenzene-d5	61%		30-130%
321-60-8	2-Fluorobiphenyl	70%		30-130%
1718-51-0	Terphenyl-d14	82%		30-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST -4 PZ(E)27-28		
Lab Sample ID:	M98988-4	Date Sampled:	04/01/11
Matrix:	SO - Soil	Date Received:	04/02/11
Method:	SW846 8260B	Percent Solids:	91.5
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	E52842.D	1	04/15/11	TD	n/a	n/a	MSE2213
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	4.43 g	10.0 ml	100 ul
Run #2			

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	0.64	0.64	mg/kg	
107-02-8	Acrolein	ND	3.2	2.2	mg/kg	
107-13-1	Acrylonitrile	ND	0.64	0.10	mg/kg	
71-43-2	Benzene	0.0333	0.064	0.014	mg/kg	J
108-86-1	Bromobenzene	ND	0.64	0.019	mg/kg	
74-97-5	Bromochloromethane	ND	0.64	0.061	mg/kg	
75-27-4	Bromodichloromethane	ND	0.26	0.024	mg/kg	
75-25-2	Bromoform	ND	0.26	0.13	mg/kg	
74-83-9	Bromomethane	ND	0.26	0.044	mg/kg	
78-93-3	2-Butanone (MEK)	ND	0.64	0.19	mg/kg	
104-51-8	n-Butylbenzene	ND	0.64	0.054	mg/kg	
135-98-8	sec-Butylbenzene	ND	0.64	0.046	mg/kg	
98-06-6	tert-Butylbenzene	ND	0.64	0.029	mg/kg	
75-15-0	Carbon disulfide	ND	0.64	0.024	mg/kg	
56-23-5	Carbon tetrachloride	ND	0.26	0.024	mg/kg	
108-90-7	Chlorobenzene	ND	0.26	0.028	mg/kg	
75-00-3	Chloroethane	ND	0.64	0.041	mg/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	0.64	0.64	mg/kg	
67-66-3	Chloroform	ND	0.26	0.021	mg/kg	
74-87-3	Chloromethane	ND	0.64	0.016	mg/kg	
95-49-8	o-Chlorotoluene	ND	0.64	0.024	mg/kg	
106-43-4	p-Chlorotoluene	ND	0.64	0.028	mg/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.64	0.091	mg/kg	
124-48-1	Dibromochloromethane	ND	0.26	0.13	mg/kg	
106-93-4	1,2-Dibromoethane	ND	0.26	0.019	mg/kg	
95-50-1	1,2-Dichlorobenzene	ND	0.26	0.040	mg/kg	
541-73-1	1,3-Dichlorobenzene	ND	0.26	0.039	mg/kg	
106-46-7	1,4-Dichlorobenzene	ND	0.26	0.038	mg/kg	
75-71-8	Dichlorodifluoromethane	ND	0.26	0.026	mg/kg	
75-34-3	1,1-Dichloroethane	ND	0.26	0.021	mg/kg	
107-06-2	1,2-Dichloroethane	ND	0.26	0.015	mg/kg	
75-35-4	1,1-Dichloroethene	ND	0.26	0.017	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST -4 PZ(E)27-28		
Lab Sample ID:	M98988-4	Date Sampled:	04/01/11
Matrix:	SO - Soil	Date Received:	04/02/11
Method:	SW846 8260B	Percent Solids:	91.5
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-59-2	cis-1,2-Dichloroethene	ND	0.26	0.026	mg/kg	
156-60-5	trans-1,2-Dichloroethene	ND	0.26	0.024	mg/kg	
78-87-5	1,2-Dichloropropane	ND	0.26	0.022	mg/kg	
142-28-9	1,3-Dichloropropane	ND	0.64	0.014	mg/kg	
594-20-7	2,2-Dichloropropane	ND	0.64	0.025	mg/kg	
563-58-6	1,1-Dichloropropene	ND	0.64	0.027	mg/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	0.26	0.064	mg/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	0.26	0.13	mg/kg	
97-63-2	Ethyl methacrylate	ND	0.64	0.016	mg/kg	
100-41-4	Ethylbenzene	ND	0.26	0.014	mg/kg	
87-68-3	Hexachlorobutadiene	ND	0.64	0.093	mg/kg	
591-78-6	2-Hexanone	ND	0.64	0.11	mg/kg	
98-82-8	Isopropylbenzene	ND	0.64	0.032	mg/kg	
99-87-6	p-Isopropyltoluene	ND	0.64	0.049	mg/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	0.26	0.017	mg/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	0.64	0.13	mg/kg	
74-95-3	Methylene bromide	ND	0.64	0.13	mg/kg	
75-09-2	Methylene chloride	~~0.472~~ ND	~~0.26~~ 0.472	0.021	mg/kg	U
103-65-1	n-Propylbenzene	ND	0.64	0.036	mg/kg	
100-42-5	Styrene	ND	0.64	0.021	mg/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.64	0.022	mg/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.26	0.023	mg/kg	
127-18-4	Tetrachloroethene	ND	0.26	0.021	mg/kg	
108-88-3	Toluene	0.0336	0.64	0.023	mg/kg	J
87-61-6	1,2,3-Trichlorobenzene	ND	0.64	0.098	mg/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	0.64	0.065	mg/kg	
71-55-6	1,1,1-Trichloroethane	ND	0.26	0.017	mg/kg	
79-00-5	1,1,2-Trichloroethane	ND	0.26	0.016	mg/kg	
79-01-6	Trichloroethene	ND	0.26	0.027	mg/kg	
75-69-4	Trichlorofluoromethane	ND	0.26	0.020	mg/kg	
96-18-4	1,2,3-Trichloropropane	ND	0.64	0.021	mg/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	0.64	0.033	mg/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	0.64	0.028	mg/kg	
108-05-4	Vinyl Acetate	ND	0.64	0.35	mg/kg	
75-01-4	Vinyl chloride	ND	0.26	0.034	mg/kg	
	m,p-Xylene	ND	0.26	0.045	mg/kg	
95-47-6	o-Xylene	ND	0.26	0.017	mg/kg	
1330-20-7	Xylene (total)	ND	0.26	0.017	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST -4 PZ(E)27-28		
Lab Sample ID:	M98988-4	Date Sampled:	04/01/11
Matrix:	SO - Soil	Date Received:	04/02/11
Method:	SW846 8260B	Percent Solids:	91.5
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	93%		70-130%
2037-26-5	Toluene-D8	97%		70-130%
460-00-4	4-Bromofluorobenzene	102%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST -4 PZ(E)27-28		
Lab Sample ID:	M98988-4	Date Sampled:	04/01/11
Matrix:	SO - Soil	Date Received:	04/02/11
Method:	SW846 8270C SW846 3546	Percent Solids:	91.5
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I71652.D	1	04/19/11	KR	04/07/11	OP24569	MSI2553
Run #2							

	Initial Weight	Final Volume
Run #1	20.7 g	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic acid	ND	0.53	0.041	mg/kg	
95-57-8	2-Chlorophenol	ND	0.26	0.014	mg/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	0.53	0.018	mg/kg	
120-83-2	2,4-Dichlorophenol	ND	0.53	0.031	mg/kg	
105-67-9	2,4-Dimethylphenol	ND	0.53	0.053	mg/kg	
51-28-5	2,4-Dinitrophenol	ND	1.1	0.26	mg/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	0.53	0.26	mg/kg	
95-48-7	2-Methylphenol	ND	0.53	0.015	mg/kg	
	3&4-Methylphenol	ND	0.53	0.028	mg/kg	
88-75-5	2-Nitrophenol	ND	0.53	0.032	mg/kg	
100-02-7	4-Nitrophenol	ND	1.1	0.26	mg/kg	
87-86-5	Pentachlorophenol	ND	0.53	0.049	mg/kg	
108-95-2	Phenol	ND	0.26	0.044	mg/kg	
95-95-4	2,4,5-Trichlorophenol	ND	0.53	0.039	mg/kg	
88-06-2	2,4,6-Trichlorophenol	ND	0.53	0.036	mg/kg	
83-32-9	Acenaphthene	ND	0.26	0.022	mg/kg	
208-96-8	Acenaphthylene	ND	0.26	0.020	mg/kg	
62-53-3	Aniline	ND	0.53	0.53	mg/kg	
120-12-7	Anthracene	ND	0.26	0.021	mg/kg	
56-55-3	Benzo(a)anthracene	ND	0.26	0.0097	mg/kg	
50-32-8	Benzo(a)pyrene	ND	0.26	0.016	mg/kg	
205-99-2	Benzo(b)fluoranthene	ND	0.26	0.031	mg/kg	
191-24-2	Benzo(g,h,i)perylene	ND	0.26	0.017	mg/kg	
207-08-9	Benzo(k)fluoranthene	ND	0.26	0.0078	mg/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	0.26	0.022	mg/kg	
85-68-7	Butyl benzyl phthalate	ND	0.26	0.011	mg/kg	
91-58-7	2-Chloronaphthalene	ND	0.26	0.022	mg/kg	
106-47-8	4-Chloroaniline	ND	0.53	0.13	mg/kg	
218-01-9	Chrysene	ND	0.26	0.0086	mg/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	0.26	0.021	mg/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	0.26	0.0057	mg/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	0.26	0.025	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST -4 PZ(E)27-28		
Lab Sample ID:	M98988-4	Date Sampled:	04/01/11
Matrix:	SO - Soil	Date Received:	04/02/11
Method:	SW846 8270C SW846 3546	Percent Solids:	91.5
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	0.26	0.024	mg/kg	
121-14-2	2,4-Dinitrotoluene	ND	0.53	0.13	mg/kg	
606-20-2	2,6-Dinitrotoluene	ND	0.53	0.025	mg/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	0.26	0.0063	mg/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	0.26	0.017	mg/kg	
132-64-9	Dibenzofuran	ND	0.26	0.022	mg/kg	
84-74-2	Di-n-butyl phthalate	ND	0.26	0.024	mg/kg	
117-84-0	Di-n-octyl pbthalate	ND	0.26	0.014	mg/kg	
84-66-2	Diethyl phthalate	ND	0.26	0.023	mg/kg	
131-11-3	Dimethyl phthalate	ND	0.26	0.019	mg/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	0.26	0.018	mg/kg	
206-44-0	Fluoranthene	ND	0.26	0.0090	mg/kg	
86-73-7	Fluorene	ND	0.26	0.0058	mg/kg	
118-74-1	Hexachlorobenzene	ND	0.26	0.023	mg/kg	
77-47-4	Hexachlorocyclopentadiene	ND	0.53	0.0036	mg/kg	
67-72-1	Hexachloroethane	ND	0.26	0.022	mg/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.26	0.016	mg/kg	
78-59-1	Isophorone	ND	0.26	0.026	mg/kg	
91-57-6	2-Methylnaphthalene	ND	0.26	0.022	mg/kg	
88-74-4	2-Nitroaniline	ND	0.53	0.13	mg/kg	
99-09-2	3-Nitroaniline	ND	0.53	0.13	mg/kg	
100-01-6	4-Nitroaniline	ND	0.53	0.020	mg/kg	
91-20-3	Naphthalene	ND	0.26	0.0061	mg/kg	
98-95-3	Nitrobenzene	ND	0.26	0.0078	mg/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	0.26	0.017	mg/kg	
86-30-6	N-Nitrosodiphenylamine	ND	0.26	0.014	mg/kg	
85-01-8	Phenanthrene	ND	0.26	0.0068	mg/kg	
129-00-0	Pyrene	ND	0.26	0.0085	mg/kg	
110-86-1	Pyridine	ND	0.53	0.53	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	66%		30-130%
4165-62-2	Phenol-d5	66%		30-130%
118-79-6	2,4,6-Tribromophenol	64%		30-130%
4165-60-0	Nitrobenzene-d5	56%		30-130%
321-60-8	2-Fluorobiphenyl	71%		30-130%
1718-51-0	Terphenyl-d14	87%		30-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST -4 PZ(E)36-37		
Lab Sample ID:	M98988-5	Date Sampled:	04/01/11
Matrix:	SO - Soil	Date Received:	04/02/11
Method:	SW846 8260B	Percent Solids:	93.6
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	E52843.D	1	04/15/11	TD	n/a	n/a	MSE2213
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	4.78 g	10.0 ml	100 ul
Run #2			

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	0.58	0.58	mg/kg	
107-02-8	Acrolein	ND	2.9	1.9	mg/kg	
107-13-1	Acrylonitrile	ND	0.58	0.091	mg/kg	
71-43-2	Benzene	ND	0.058	0.013	mg/kg	
108-86-1	Bromobenzene	ND	0.58	0.017	mg/kg	
74-97-5	Bromochloromethane	ND	0.58	0.055	mg/kg	
75-27-4	Bromodichloromethane	ND	0.23	0.022	mg/kg	
75-25-2	Bromoform	ND	0.23	0.12	mg/kg	
74-83-9	Bromomethane	ND	0.23	0.040	mg/kg	
78-93-3	2-Butanone (MEK)	ND	0.58	0.17	mg/kg	
104-51-8	n-Butylbenzene	ND	0.58	0.049	mg/kg	
135-98-8	sec-Butylbenzene	ND	0.58	0.042	mg/kg	
98-06-6	tert-Butylbenzene	ND	0.58	0.026	mg/kg	
75-15-0	Carbon disulfide	ND	0.58	0.021	mg/kg	
56-23-5	Carbon tetrachloride	ND	0.23	0.022	mg/kg	
108-90-7	Chlorobenzene	ND	0.23	0.025	mg/kg	
75-00-3	Chloroethane	ND	0.58	0.037	mg/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	0.58	0.58	mg/kg	
67-66-3	Chloroform	ND	0.23	0.018	mg/kg	
74-87-3	Chloromethane	ND	0.58	0.015	mg/kg	
95-49-8	o-Chlorotoluene	ND	0.58	0.022	mg/kg	
106-43-4	p-Chlorotoluene	ND	0.58	0.025	mg/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.58	0.081	mg/kg	
124-48-1	Dibromochloromethane	ND	0.23	0.12	mg/kg	
106-93-4	1,2-Dibromoethane	ND	0.23	0.017	mg/kg	
95-50-1	1,2-Dichlorobenzene	ND	0.23	0.036	mg/kg	
541-73-1	1,3-Dichlorobenzene	ND	0.23	0.035	mg/kg	
106-46-7	1,4-Dichlorobenzene	ND	0.23	0.034	mg/kg	
75-71-8	Dichlorodifluoromethane	ND	0.23	0.023	mg/kg	
75-34-3	1,1-Dichloroethane	ND	0.23	0.019	mg/kg	
107-06-2	1,2-Dichloroethane	ND	0.23	0.013	mg/kg	
75-35-4	1,1-Dichloroethene	ND	0.23	0.016	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

3.5
3

Client Sample ID:	ROST -4 PZ(E)36-37		
Lab Sample ID:	M98988-5	Date Sampled:	04/01/11
Matrix:	SO - Soil	Date Received:	04/02/11
Method:	SW846 8260B	Percent Solids:	93.6
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-59-2	cis-1,2-Dichloroethene	ND	0.23	0.023	mg/kg	
156-60-5	trans-1,2-Dichloroethene	ND	0.23	0.022	mg/kg	
78-87-5	1,2-Dichloropropane	ND	0.23	0.020	mg/kg	
142-28-9	1,3-Dichloropropane	ND	0.58	0.012	mg/kg	
594-20-7	2,2-Dichloropropane	ND	0.58	0.022	mg/kg	
563-58-6	1,1-Dichloropropene	ND	0.58	0.024	mg/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	0.23	0.058	mg/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	0.23	0.12	mg/kg	
97-63-2	Ethyl methacrylate	ND	0.58	0.015	mg/kg	
100-41-4	Ethylbenzene	ND	0.23	0.013	mg/kg	
87-68-3	Hexachlorobutadiene	ND	0.58	0.083	mg/kg	
591-78-6	2-Hexanone	ND	0.58	0.099	mg/kg	
98-82-8	Isopropylbenzene	ND	0.58	0.028	mg/kg	
99-87-6	p-Isopropyltoluene	ND	0.58	0.044	mg/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	0.23	0.015	mg/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	0.58	0.12	mg/kg	
74-95-3	Methylene bromide	ND	0.58	0.12	mg/kg	
75-09-2	Methylene chloride	~~0.360~~ ND	~~0.230~~	0.019	mg/kg	U
103-65-1	n-Propylbenzene	ND	0.58	0.032	mg/kg	
100-42-5	Styrene	ND	0.58	0.019	mg/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.58	0.019	mg/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.23	0.020	mg/kg	
127-18-4	Tetrachloroethene	ND	0.23	0.019	mg/kg	
108-88-3	Toluene	ND	0.58	0.020	mg/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	0.58	0.088	mg/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	0.58	0.059	mg/kg	
71-55-6	1,1,1-Trichloroethane	ND	0.23	0.015	mg/kg	
79-00-5	1,1,2-Trichloroethane	ND	0.23	0.015	mg/kg	
79-01-6	Trichloroethene	ND	0.23	0.024	mg/kg	
75-69-4	Trichlorofluoromethane	ND	0.23	0.018	mg/kg	
96-18-4	1,2,3-Trichloropropane	ND	0.58	0.019	mg/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	0.58	0.030	mg/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	0.58	0.025	mg/kg	
108-05-4	Vinyl Acetate	ND	0.58	0.31	mg/kg	
75-01-4	Vinyl chloride	ND	0.23	0.031	mg/kg	
	m,p-Xylene	ND	0.23	0.040	mg/kg	
95-47-6	o-Xylene	ND	0.23	0.015	mg/kg	
1330-20-7	Xylene (total)	ND	0.23	0.015	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST -4 PZ(E)36-37		
Lab Sample ID:	M98988-5	Date Sampled:	04/01/11
Matrix:	SO - Soil	Date Received:	04/02/11
Method:	SW846 8260B	Percent Solids:	93.6
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		70-130%
2037-26-5	Toluene-D8	98%		70-130%
460-00-4	4-Bromofluorobenzene	103%		70-130%

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

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

Report of Analysis

Client Sample ID:	ROST -4 PZ(E)36-37		
Lab Sample ID:	M98988-5	Date Sampled:	04/01/11
Matrix:	SO - Soil	Date Received:	04/02/11
Method:	SW846 8270C SW846 3546	Percent Solids:	93.6
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I71653.D	1	04/19/11	KR	04/07/11	OP24569	MSI2553
Run #2							

	Initial Weight	Final Volume
Run #1	20.8 g	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic acid	ND	0.51	0.040	mg/kg	
95-57-8	2-Chlorophenol	ND	0.26	0.014	mg/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	0.51	0.018	mg/kg	
120-83-2	2,4-Dichlorophenol	ND	0.51	0.030	mg/kg	
105-67-9	2,4-Dimethylphenol	ND	0.51	0.051	mg/kg	
51-28-5	2,4-Dinitrophenol	ND	1.0	0.26	mg/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	0.51	0.26	mg/kg	
95-48-7	2-Methylphenol	ND	0.51	0.015	mg/kg	
	3&4-Methylphenol	ND	0.51	0.027	mg/kg	
88-75-5	2-Nitrophenol	ND	0.51	0.031	mg/kg	
100-02-7	4-Nitrophenol	ND	1.0	0.26	mg/kg	
87-86-5	Pentachlorophenol	ND	0.51	0.048	mg/kg	
108-95-2	Phenol	ND	0.26	0.043	mg/kg	
95-95-4	2,4,5-Trichlorophenol	ND	0.51	0.038	mg/kg	
88-06-2	2,4,6-Trichlorophenol	ND	0.51	0.035	mg/kg	
83-32-9	Acenaphthene	ND	0.26	0.022	mg/kg	
208-96-8	Acenaphthylene	ND	0.26	0.019	mg/kg	
62-53-3	Aniline	ND	0.51	0.51	mg/kg	
120-12-7	Anthracene	ND	0.26	0.020	mg/kg	
56-55-3	Benzo(a)anthracene	ND	0.26	0.0095	mg/kg	
50-32-8	Benzo(a)pyrene	ND	0.26	0.015	mg/kg	
205-99-2	Benzo(b)fluoranthene	ND	0.26	0.030	mg/kg	
191-24-2	Benzo(g,h,i)perylene	ND	0.26	0.017	mg/kg	
207-08-9	Benzo(k)fluoranthene	ND	0.26	0.0076	mg/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	0.26	0.021	mg/kg	
85-68-7	Butyl benzyl phthalate	ND	0.26	0.011	mg/kg	
91-58-7	2-Chloronaphthalene	ND	0.26	0.022	mg/kg	
106-47-8	4-Chloroaniline	ND	0.51	0.13	mg/kg	
218-01-9	Chrysene	ND	0.26	0.0084	mg/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	0.26	0.020	mg/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	0.26	0.0055	mg/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	0.26	0.024	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST -4 PZ(E)36-37		
Lab Sample ID:	M98988-5	Date Sampled:	04/01/11
Matrix:	SO - Soil	Date Received:	04/02/11
Method:	SW846 8270C SW846 3546	Percent Solids:	93.6
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	0.26	0.023	mg/kg	
121-14-2	2,4-Dinitrotoluene	ND	0.51	0.13	mg/kg	
606-20-2	2,6-Dinitrotoluene	ND	0.51	0.025	mg/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	0.26	0.0062	mg/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	0.26	0.017	mg/kg	
132-64-9	Dibenzofuran	ND	0.26	0.022	mg/kg	
84-74-2	Di-n-butyl phthalate	ND	0.26	0.023	mg/kg	
117-84-0	Di-n-octyl pbthalate	ND	0.26	0.014	mg/kg	
84-66-2	Diethyl phthalate	ND	0.26	0.022	mg/kg	
131-11-3	Dimethyl phthalate	ND	0.26	0.018	mg/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	0.26	0.018	mg/kg	
206-44-0	Fluoranthene	ND	0.26	0.0087	mg/kg	
86-73-7	Fluorene	ND	0.26	0.0057	mg/kg	
118-74-1	Hexachlorobenzene	ND	0.26	0.022	mg/kg	
77-47-4	Hexachlorocyclopentadiene	ND	0.51	0.0035	mg/kg	
67-72-1	Hexachloroethane	ND	0.26	0.021	mg/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.26	0.016	mg/kg	
78-59-1	Isophorone	ND	0.26	0.025	mg/kg	
91-57-6	2-Methylnaphthalene	ND	0.26	0.022	mg/kg	
88-74-4	2-Nitroaniline	ND	0.51	0.13	mg/kg	
99-09-2	3-Nitroaniline	ND	0.51	0.13	mg/kg	
100-01-6	4-Nitroaniline	ND	0.51	0.019	mg/kg	
91-20-3	Naphthalene	ND	0.26	0.0060	mg/kg	
98-95-3	Nitrobenzene	ND	0.26	0.0076	mg/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	0.26	0.016	mg/kg	
86-30-6	N-Nitrosodipbenylamine	ND	0.26	0.014	mg/kg	
85-01-8	Phenanthrene	ND	0.26	0.0066	mg/kg	
129-00-0	Pyrene	ND	0.26	0.0083	mg/kg	
110-86-1	Pyridine	ND	0.51	0.51	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	71%		30-130%
4165-62-2	Phenol-d5	70%		30-130%
118-79-6	2,4,6-Tribromophenol	68%		30-130%
4165-60-0	Nitrobenzene-d5	61%		30-130%
321-60-8	2-Fluorobiphenyl	77%		30-130%
1718-51-0	Terphenyl-d14	90%		30-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

New England ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Certification Exceptions
- Certification Exceptions (IL)
- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody

Shell Oil Products Chain Of Custody Record

LAB (LOCATION)
- ☐ XENCO ( )
- ☐ CALSCIENCE ( )
- ☑ OTHER (Accutest Labs, 495 Technology Ctr W, Marlborough, MA 01752 (508-481-6200))
- ☐ SPL
- ☐ Lab Vendor # ( )

Lab Vendor #

Please Check Appropriate Box:
- ☑ ENV. SERVICES
- ☐ MOTIVA RETAIL
- ☐ SHELL RETAIL
- ☐ MOTIVA SD&CM
- ☐ CONSULTANT
- ☐ LUBES
- ☐ SHELL PIPELINE
- ☐ OTHER

Print Bill To Contact Name: WENDY PENNINGTON

PO #

INCIDENT # (ENV SERVICES): 9 7 2 1 6 6 4 0

☐ CHECK IF NO INCIDENT # APPLIES

SAP #: 3 4 0 0 8 1

DATE: 04/01/11

PAGE: 1 of 1

URS CORPORATION

1001 HIGHLANDS PLAZA DRIVE WEST - SUITE 300, ST. LOUIS, MO 63110

WENDY PENNINGTON

Telephone: 341-452-6929 | Fax: 314-429-0462

SITE ADDRESS: 170 EAST RAND AVENUE – HARTFORD | State: IL

Roxana ROST-4-PZ / 21562583.00011

Sampler: N Sattam

LAB USE ONLY: M98988

TURNAROUND TIME (CALENDAR DAYS): ☑ STANDARD (10 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND

☐ LA - RWQCB REPORT FORMAT ☐ UST AGENCY:

DELIVERABLES: ☐ LEVEL 1 ☑ LEVEL 2 ☐ LEVEL 3 ☑ LEVEL 4 ☑ OTHER (SPECIFY) EDD

TEMPERATURE ON RECEIPT C° Cooler #1 | Cooler #2 | Cooler #3

SPECIAL INSTRUCTIONS OR NOTES :
- ☑ SHELL CONTRACT RATE APPLIES
- ☐ STATE REIMBURSEMENT RATE APPLIES
- ☐ EDD NOT NEEDED
- ☑ RECEIPT VERIFICATION REQUESTED
- ☐ PROVIDE EDD DISK

REQUESTED ANALYSIS

FIELD NOTES:

TEMPERATURE ON RECEIPT C°

Lab Use Only	Field Sample Identification	Sampling Date	Sampling Time	Matrix	HCL	HNO3	H2SO4	[illegible]	[illegible]	NONE	OTHER	# of Cont.	VOC 8260	TPH 8015 - GRO/DRO/ORO	PID (ppm)	Notes / Comments
-1	TB 04-01 11	4/1/11		Soil	2							2	X			
-2	ROST-4 PZ(E) 10.5-11.5	4/1/11	0930	↓				1	2	2		5	X	X	1.4	
-3	ROST-4 PZ(E) 17-18	4/1/11	1000	↓				1	2	2		5	X	X	242	
-4	ROST-4 PZ(E) 27-28	4/1/11	1030	↓				1	2	2		5	X	X	12.0	
-5	ROST-4 PZ(E) 36-37	4/1/11	1100	↓				1	2	2		5	X	X	7.5	

–SVOC

ICC 215, 1063, 14B

Relinquished by (Signature)	Received by (Signature)	Date	Time
[signature]	FEDEX	4/1/11	1730
FEDEX	[signature]	4/2/11	10:15

ROC - 2.0 C

M98988: Chain of Custody
Page 1 of 1

Internal Sample Tracking Chronicle

Shell Oil

Job No: M98988

URSMOSTL:97216640 170 East Rand Avenue Hartford, IL
Project No: Roxana - ROST-4-PZ SAP#340061

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
M98988-1	Collected: 01-APR-11 00:00 By: NS		Received: 02-APR-11 By: JB			
TB 040111						
M98988-1	SW846 8260B	14-APR-11 15:23	EL			V8260SL
M98988-2	Collected: 01-APR-11 09:30 By: NS		Received: 02-APR-11 By: JB			
ROST -4 PZ(E)10 5-11 5						
M98988-2	SM21 2540 B MOD.	05-APR-11	MC			%SOL
M98988-2	SW846 8260B	15-APR-11 17:54	TD			V8260SL
M98988-2	SW846 8270C	19-APR-11 04:28	KR	07-APR-11	PR	AB8270SL
M98988-3	Collected: 01-APR-11 10:00 By: NS		Received: 02-APR-11 By: JB			
ROST -4 PZ(E)17-18						
M98988-3	SM21 2540 B MOD.	05-APR-11	MC			%SOL
M98988-3	SW846 8260B	13-APR-11 23:56	GK			V8260SL
M98988-3	SW846 8270C	19-APR-11 05:01	KR	07-APR-11	PR	AB8270SL
M98988-4	Collected: 01-APR-11 10:30 By: NS		Received: 02-APR-11 By: JB			
ROST -4 PZ(E)27-28						
M98988-4	SM21 2540 B MOD.	05-APR-11	MC			%SOL
M98988-4	SW846 8260B	15-APR-11 18:48	TD			V8260SL
M98988-4	SW846 8270C	19-APR-11 05:34	KR	07-APR-11	PR	AB8270SL
M98988-5	Collected: 01-APR-11 11:00 By: NS		Received: 02-APR-11 By: JB			
ROST -4 PZ(E)36-37						
M98988-5	SM21 2540 B MOD.	05-APR-11	MC			%SOL
M98988-5	SW846 8260B	15-APR-11 19:17	TD			V8260SL
M98988-5	SW846 8270C	19-APR-11 06:06	KR	07-APR-11	PR	AB8270SL

Accutest Internal Chain of Custody

Job Number: M98988
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL
Received: 04/02/11

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
M98988-1.1	VOC Ref #2	Elise LeBlanc	04/14/11 11:46	Retrieve from Storage
M98988-1.1	Elise LeBlanc	GCMSG	04/14/11 11:46	Load on Instrument
M98988-1.1	GCMSG	Elise LeBlanc	04/15/11 13:10	Unload from Instrument
M98988-1.1	Elise LeBlanc	VOC Ref #2	04/15/11 14:09	Return to Storage
M98988-2.1	VOC Ref #10	Gary Krasinski	04/04/11 11:48	Retrieve from Storage
M98988-2.1	Gary Krasinski	VOC Ref #10	04/05/11 13:27	Return to Storage
M98988-2.1	VOC Ref #10	Tamis Dudo	04/15/11 16:43	Retrieve from Storage
M98988-2.1	Tamis Dudo	GCMSE	04/15/11 16:43	Load on Instrument
M98988-2.1	GCMSE	Tamis Dudo	04/18/11 08:54	Unload from Instrument
M98988-2.1	Tamis Dudo	VOC Ref #10	04/18/11 09:01	Return to Storage
M98988-2.2	VOC Ref #10	Amy Min Yang	04/07/11 15:11	Retrieve from Storage
M98988-2.2	Amy Min Yang	GCMSP	04/07/11 15:11	Load on Instrument
M98988-2.2	GCMSP	Amy Min Yang	04/09/11 09:28	Unload from Instrument
M98988-2.2	Amy Min Yang	VOC Ref #10	04/09/11 09:28	Return to Storage
M98988-2.4	Walk In Ref #9	Francisco Castellanos	04/07/11 15:29	Retrieve from Storage
M98988-2.4	Francisco Castellanos	Walk In Ref #9	04/07/11 20:39	Return to Storage
M98988-3.1	VOC Ref #10	Gary Krasinski	04/04/11 11:48	Retrieve from Storage
M98988-3.1	Gary Krasinski	VOC Ref #10	04/05/11 13:27	Return to Storage
M98988-3.1	VOC Ref #10	Gary Krasinski	04/13/11 14:10	Retrieve from Storage
M98988-3.1	Gary Krasinski	VOC Ref #10	04/14/11 10:57	Return to Storage
M98988-3.1	VOC Ref #10	Tamis Dudo	04/15/11 16:43	Retrieve from Storage
M98988-3.1	Tamis Dudo	GCMSE	04/15/11 16:43	Load on Instrument
M98988-3.1	GCMSE	Tamis Dudo	04/18/11 08:54	Unload from Instrument
M98988-3.1	Tamis Dudo	VOC Ref #10	04/18/11 09:01	Return to Storage
M98988-3.4	Walk In Ref #9	Francisco Castellanos	04/07/11 15:29	Retrieve from Storage
M98988-3.4	Francisco Castellanos	Walk In Ref #9	04/07/11 20:39	Return to Storage
M98988-4.1	VOC Ref #10	Gary Krasinski	04/04/11 11:48	Retrieve from Storage
M98988-4.1	Gary Krasinski	VOC Ref #10	04/05/11 13:27	Return to Storage
M98988-4.1	VOC Ref #10	Tamis Dudo	04/15/11 16:43	Retrieve from Storage
M98988-4.1	Tamis Dudo	GCMSE	04/15/11 16:43	Load on Instrument
M98988-4.1	GCMSE	Tamis Dudo	04/18/11 08:54	Unload from Instrument
M98988-4.1	Tamis Dudo	VOC Ref #10	04/18/11 09:01	Return to Storage
M98988-4.2	VOC Ref #10	Amy Min Yang	04/07/11 15:11	Retrieve from Storage
M98988-4.2	Amy Min Yang	GCMSP	04/07/11 15:11	Load on Instrument
M98988-4.2	GCMSP	Amy Min Yang	04/09/11 09:28	Unload from Instrument
M98988-4.2	Amy Min Yang	VOC Ref #10	04/09/11 09:28	Return to Storage

Accutest Internal Chain of Custody

Job Number: M98988
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL
Received: 04/02/11

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
M98988-5.1	VOC Ref #10	Gary Krasinski	04/04/11 11:48	Retrieve from Storage
M98988-5.1	Gary Krasinski	VOC Ref #10	04/05/11 13:27	Return to Storage
M98988-5.1	VOC Ref #10	Tamis Dudo	04/15/11 16:43	Retrieve from Storage
M98988-5.1	Tamis Dudo	GCMSE	04/15/11 16:43	Load on Instrument
M98988-5.1	GCMSE	Tamis Dudo	04/18/11 08:54	Unload from Instrument
M98988-5.1	Tamis Dudo	VOC Ref #10	04/18/11 09:01	Return to Storage
M98988-5.2	VOC Ref #10	Amy Min Yang	04/07/11 15:11	Retrieve from Storage
M98988-5.2	Amy Min Yang	GCMSP	04/07/11 15:11	Load on Instrument
M98988-5.2	GCMSP	Amy Min Yang	04/09/11 09:28	Unload from Instrument
M98988-5.2	Amy Min Yang	VOC Ref #10	04/09/11 09:28	Return to Storage
M98988-5.4	Walk In Ref #9	Francisco Castellanos	04/07/11 15:29	Retrieve from Storage
M98988-5.4	Francisco Castellanos	Walk In Ref #9	04/07/11 20:39	Return to Storage

New England ACCUTEST LABORATORIES

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: M98988
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK1709-MB	K51581.D	1	04/13/11	GK	n/a	n/a	MSK1709

The QC reported here applies to the following samples: Method: SW846 8260B

M98988-3

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	250	250	ug/kg	
107-02-8	Acrolein	ND	1300	850	ug/kg	
107-13-1	Acrylonitrile	ND	250	40	ug/kg	
71-43-2	Benzene	ND	25	5.6	ug/kg	
108-86-1	Bromobenzene	ND	250	7.3	ug/kg	
74-97-5	Bromochloromethane	ND	250	24	ug/kg	
75-27-4	Bromodichloromethane	ND	100	9.4	ug/kg	
75-25-2	Bromoform	ND	100	50	ug/kg	
74-83-9	Bromomethane	ND	100	17	ug/kg	
78-93-3	2-Butanone (MEK)	ND	250	74	ug/kg	
104-51-8	n-Butylbenzene	ND	250	21	ug/kg	
135-98-8	sec-Butylbenzene	ND	250	18	ug/kg	
98-06-6	tert-Butylbenzene	ND	250	11	ug/kg	
75-15-0	Carbon disulfide	ND	250	9.3	ug/kg	
56-23-5	Carbon tetrachloride	ND	100	9.5	ug/kg	
108-90-7	Chlorobenzene	ND	100	11	ug/kg	
75-00-3	Chloroethane	ND	250	16	ug/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	250	250	ug/kg	
67-66-3	Chloroform	ND	100	8.0	ug/kg	
74-87-3	Chloromethane	ND	250	6.4	ug/kg	
95-49-8	o-Chlorotoluene	ND	250	9.4	ug/kg	
106-43-4	p-Chlorotoluene	ND	250	11	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	250	35	ug/kg	
124-48-1	Dibromochloromethane	ND	100	50	ug/kg	
106-93-4	1,2-Dibromoethane	ND	100	7.6	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	100	16	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	100	15	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	100	15	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	100	10	ug/kg	
75-34-3	1,1-Dichloroethane	ND	100	8.4	ug/kg	
107-06-2	1,2-Dichloroethane	ND	100	5.9	ug/kg	
75-35-4	1,1-Dichloroethene	ND	100	6.8	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	100	10	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	100	9.4	ug/kg	
78-87-5	1,2-Dichloropropane	ND	100	8.6	ug/kg	
142-28-9	1,3-Dichloropropane	ND	250	5.4	ug/kg	

Method Blank Summary

Job Number: M98988
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK1709-MB	K51581.D	1	04/13/11	GK	n/a	n/a	MSK1709

The QC reported here applies to the following samples: Method: SW846 8260B

M98988-3

CAS No.	Compound	Result	RL	MDL	Units	Q
594-20-7	2,2-Dichloropropane	ND	250	9.8	ug/kg	
563-58-6	1,1-Dichloropropene	ND	250	10	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	100	25	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	100	50	ug/kg	
97-63-2	Ethyl methacrylate	ND	250	6.3	ug/kg	
100-41-4	Ethylbenzene	ND	100	5.5	ug/kg	
87-68-3	Hexachlorobutadiene	ND	250	36	ug/kg	
591-78-6	2-Hexanone	ND	250	43	ug/kg	
98-82-8	Isopropylbenzene	ND	250	12	ug/kg	
99-87-6	p-Isopropyltoluene	ND	250	19	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	100	6.5	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	250	50	ug/kg	
74-95-3	Methylene bromide	ND	250	50	ug/kg	
75-09-2	Methylene chloride	ND	100	8.3	ug/kg	
103-65-1	n-Propylbenzene	ND	250	14	ug/kg	
100-42-5	Styrene	ND	250	8.1	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	250	8.4	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	100	8.9	ug/kg	
127-18-4	Tetrachloroethene	ND	100	8.4	ug/kg	
108-88-3	Toluene	ND	250	8.8	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	250	38	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	250	26	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	100	6.5	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	100	6.3	ug/kg	
79-01-6	Trichloroethene	ND	100	10	ug/kg	
75-69-4	Trichlorofluoromethane	ND	100	7.7	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	250	8.3	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	250	13	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	250	11	ug/kg	
108-05-4	Vinyl Acetate	ND	250	140	ug/kg	
75-01-4	Vinyl chloride	ND	100	13	ug/kg	
	m,p-Xylene	ND	100	17	ug/kg	
95-47-6	o-Xylene	ND	100	6.6	ug/kg	
1330-20-7	Xylene (total)	ND	100	6.6	ug/kg	

Method Blank Summary

Job Number: M98988
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK1709-MB	K51581.D	1	04/13/11	GK	n/a	n/a	MSK1709

The QC reported here applies to the following samples: Method: SW846 8260B

M98988-3

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	98%	70-130%
2037-26-5	Toluene-D8	107%	70-130%
460-00-4	4-Bromofluorobenzene	110%	70-130%

Method Blank Summary

Job Number: M98988
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSG4232-MB	G104914.D	1	04/14/11	EL	n/a	n/a	MSG4232

The QC reported here applies to the following samples: Method: SW846 8260B

M98988-1

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	4.6	ug/l	
107-02-8	Acrolein	ND	25	17	ug/l	
107-13-1	Acrylonitrile	ND	5.0	3.0	ug/l	
71-43-2	Benzene	ND	0.50	0.35	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.52	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.91	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.62	ug/l	
75-25-2	Bromoform	ND	1.0	0.73	ug/l	
74-83-9	Bromomethane	ND	2.0	0.95	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.1	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.49	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.37	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.53	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.35	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.42	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.61	ug/l	
75-00-3	Chloroethane	ND	2.0	0.76	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	0.83	ug/l	
67-66-3	Chloroform	ND	1.0	0.72	ug/l	
74-87-3	Chloromethane	ND	2.0	0.81	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.58	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.67	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.3	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.86	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.76	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.74	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.77	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.81	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.61	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.63	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.74	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.70	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.66	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.74	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.83	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.73	ug/l	

Method Blank Summary

Job Number: M98988
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSG4232-MB	G104914.D	1	04/14/11	EL	n/a	n/a	MSG4232

The QC reported here applies to the following samples: Method: SW846 8260B

M98988-1

CAS No.	Compound	Result	RL	MDL	Units	Q
594-20-7	2,2-Dichloropropane	ND	5.0	0.44	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.23	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.23	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.90	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.61	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.56	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.5	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.51	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.45	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.54	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.3	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.94	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.75	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.43	ug/l	
100-42-5	Styrene	ND	5.0	0.68	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.64	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.89	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.39	ug/l	
108-88-3	Toluene	ND	1.0	0.74	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.57	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.35	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.72	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.49	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.61	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.62	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.51	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	0.51	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.86	ug/l	
	m,p-Xylene	ND	1.0	0.62	ug/l	
95-47-6	o-Xylene	ND	1.0	0.56	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.56	ug/l	

Method Blank Summary

Job Number: M98988
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSG4232-MB	G104914.D	1	04/14/11	EL	n/a	n/a	MSG4232

The QC reported here applies to the following samples: Method: SW846 8260B

M98988-1

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	107%	70-130%
2037-26-5	Toluene-D8	107%	70-130%
460-00-4	4-Bromofluorobenzene	113%	70-130%

Method Blank Summary

Job Number: M98988
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSE2213-MB	E52836.D	1	04/15/11	TD	n/a	n/a	MSE2213

The QC reported here applies to the following samples: Method: SW846 8260B

M98988-2, M98988-4, M98988-5

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	250	250	ug/kg	
107-02-8	Acrolein	ND	1300	850	ug/kg	
107-13-1	Acrylonitrile	ND	250	40	ug/kg	
71-43-2	Benzene	ND	25	5.6	ug/kg	
108-86-1	Bromobenzene	ND	250	7.3	ug/kg	
74-97-5	Bromochloromethane	ND	250	24	ug/kg	
75-27-4	Bromodichloromethane	ND	100	9.4	ug/kg	
75-25-2	Bromoform	ND	100	50	ug/kg	
74-83-9	Bromomethane	ND	100	17	ug/kg	
78-93-3	2-Butanone (MEK)	ND	250	74	ug/kg	
104-51-8	n-Butylbenzene	ND	250	21	ug/kg	
135-98-8	sec-Butylbenzene	ND	250	18	ug/kg	
98-06-6	tert-Butylbenzene	ND	250	11	ug/kg	
75-15-0	Carbon disulfide	ND	250	9.3	ug/kg	
56-23-5	Carbon tetrachloride	ND	100	9.5	ug/kg	
108-90-7	Chlorobenzene	ND	100	11	ug/kg	
75-00-3	Chloroethane	ND	250	16	ug/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	250	250	ug/kg	
67-66-3	Chloroform	ND	100	8.0	ug/kg	
74-87-3	Chloromethane	ND	250	6.4	ug/kg	
95-49-8	o-Chlorotoluene	ND	250	9.4	ug/kg	
106-43-4	p-Chlorotoluene	ND	250	11	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	250	35	ug/kg	
124-48-1	Dibromochloromethane	ND	100	50	ug/kg	
106-93-4	1,2-Dibromoethane	ND	100	7.6	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	100	16	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	100	15	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	100	15	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	100	10	ug/kg	
75-34-3	1,1-Dichloroethane	ND	100	8.4	ug/kg	
107-06-2	1,2-Dichloroethane	ND	100	5.9	ug/kg	
75-35-4	1,1-Dichloroethene	ND	100	6.8	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	100	10	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	100	9.4	ug/kg	
78-87-5	1,2-Dichloropropane	ND	100	8.6	ug/kg	
142-28-9	1,3-Dichloropropane	ND	250	5.4	ug/kg	

Method Blank Summary

Job Number: M98988
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSE2213-MB	E52836.D	1	04/15/11	TD	n/a	n/a	MSE2213

The QC reported here applies to the following samples: Method: SW846 8260B

M98988-2, M98988-4, M98988-5

CAS No.	Compound	Result	RL	MDL	Units	Q
594-20-7	2,2-Dichloropropane	ND	250	9.8	ug/kg	
563-58-6	1,1-Dichloropropene	ND	250	10	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	100	25	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	100	50	ug/kg	
97-63-2	Ethyl methacrylate	ND	250	6.3	ug/kg	
100-41-4	Ethylbenzene	ND	100	5.5	ug/kg	
87-68-3	Hexachlorobutadiene	ND	250	36	ug/kg	
591-78-6	2-Hexanone	ND	250	43	ug/kg	
98-82-8	Isopropylbenzene	ND	250	12	ug/kg	
99-87-6	p-Isopropyltoluene	ND	250	19	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	100	6.5	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	250	50	ug/kg	
74-95-3	Methylene bromide	ND	250	50	ug/kg	
75-09-2	Methylene chloride	110	100	8.3	ug/kg	
103-65-1	n-Propylbenzene	ND	250	14	ug/kg	
100-42-5	Styrene	ND	250	8.1	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	250	8.4	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	100	8.9	ug/kg	
127-18-4	Tetrachloroethene	ND	100	8.4	ug/kg	
108-88-3	Toluene	ND	250	8.8	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	250	38	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	250	26	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	100	6.5	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	100	6.3	ug/kg	
79-01-6	Trichloroethene	ND	100	10	ug/kg	
75-69-4	Trichlorofluoromethane	ND	100	7.7	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	250	8.3	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	250	13	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	250	11	ug/kg	
108-05-4	Vinyl Acetate	ND	250	140	ug/kg	
75-01-4	Vinyl chloride	ND	100	13	ug/kg	
	m,p-Xylene	ND	100	17	ug/kg	
95-47-6	o-Xylene	ND	100	6.6	ug/kg	
1330-20-7	Xylene (total)	ND	100	6.6	ug/kg	

Method Blank Summary

Job Number: M98988
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSE2213-MB	E52836.D	1	04/15/11	TD	n/a	n/a	MSE2213

The QC reported here applies to the following samples: Method: SW846 8260B

M98988-2, M98988-4, M98988-5

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	82%	70-130%
2037-26-5	Toluene-D8	86%	70-130%
460-00-4	4-Bromofluorobenzene	90%	70-130%

Blank Spike Summary

Job Number: M98988
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSG4232-BS	G104912A.D	1	04/14/11	EL	n/a	n/a	MSG4232

The QC reported here applies to the following samples: Method: SW846 8260B

M98988-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	50	37.4	75	70-130
107-02-8	Acrolein	250	3950	1580*	70-130
107-13-1	Acrylonitrile	50	45.4	91	70-130
71-43-2	Benzene	50	44.8	90	70-130
108-86-1	Bromobenzene	50	45.3	91	70-130
74-97-5	Bromochloromethane	50	44.8	90	70-130
75-27-4	Bromodichloromethane	50	45.5	91	70-130
75-25-2	Bromoform	50	40.9	82	70-130
74-83-9	Bromomethane	50	43.6	87	70-130
78-93-3	2-Butanone (MEK)	50	45.0	90	70-130
104-51-8	n-Butylbenzene	50	44.3	89	70-130
135-98-8	sec-Butylbenzene	50	45.1	90	70-130
98-06-6	tert-Butylbenzene	50	43.1	86	70-130
75-15-0	Carbon disulfide	50	49.2	98	70-130
56-23-5	Carbon tetrachloride	50	44.9	90	70-130
108-90-7	Chlorobenzene	50	45.8	92	70-130
75-00-3	Chloroethane	50	45.3	91	70-130
110-75-8	2-Chloroethyl vinyl ether	50	13.4	27* b	70-130
67-66-3	Chloroform	50	44.2	88	70-130
74-87-3	Chloromethane	50	44.0	88	70-130
95-49-8	o-Chlorotoluene	50	43.2	86	70-130
106-43-4	p-Chlorotoluene	50	44.7	89	70-130
96-12-8	1,2-Dibromo-3-chloropropane	50	42.9	86	70-130
124-48-1	Dibromochloromethane	50	46.4	93	70-130
106-93-4	1,2-Dibromoethane	50	46.7	93	70-130
95-50-1	1,2-Dichlorobenzene	50	44.7	89	70-130
541-73-1	1,3-Dichlorobenzene	50	44.6	89	70-130
106-46-7	1,4-Dichlorobenzene	50	43.5	87	70-130
75-71-8	Dichlorodifluoromethane	50	40.8	82	70-130
75-34-3	1,1-Dichloroethane	50	44.9	90	70-130
107-06-2	1,2-Dichloroethane	50	44.2	88	70-130
75-35-4	1,1-Dichloroethene	50	45.4	91	70-130
156-59-2	cis-1,2-Dichloroethene	50	44.0	88	70-130
156-60-5	trans-1,2-Dichloroethene	50	44.2	88	70-130
78-87-5	1,2-Dichloropropane	50	44.6	89	70-130
142-28-9	1,3-Dichloropropane	50	44.6	89	70-130

Blank Spike Summary

Job Number: M98988
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSG4232-BS	G104912A.D	1	04/14/11	EL	n/a	n/a	MSG4232

The QC reported here applies to the following samples: Method: SW846 8260B

M98988-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
594-20-7	2,2-Dichloropropane	50	44.6	89	70-130
563-58-6	1,1-Dichloropropene	50	45.7	91	70-130
10061-01-5	cis-1,3-Dichloropropene	50	45.8	92	70-130
10061-02-6	trans-1,3-Dichloropropene	50	49.3	99	70-130
97-63-2	Ethyl methacrylate	50	43.9	88	77-137
100-41-4	Ethylbenzene	50	45.1	90	70-130
87-68-3	Hexachlorobutadiene	50	43.2	86	70-130
591-78-6	2-Hexanone	50	41.7	83	70-130
98-82-8	Isopropylbenzene	50	51.3	103	70-130
99-87-6	p-Isopropyltoluene	50	45.9	92	70-130
1634-04-4	Methyl Tert Butyl Ether	50	44.5	89	70-130
108-10-1	4-Methyl-2-pentanone (MIBK)	50	44.4	89	70-130
74-95-3	Methylene bromide	50	45.5	91	70-130
75-09-2	Methylene chloride	50	46.1	92	70-130
103-65-1	n-Propylbenzene	50	44.4	89	70-130
100-42-5	Styrene	50	45.8	92	70-130
630-20-6	1,1,1,2-Tetrachloroethane	50	46.0	92	70-130
79-34-5	1,1,2,2-Tetrachloroethane	50	45.1	90	70-130
127-18-4	Tetrachloroethene	50	47.1	94	70-130
108-88-3	Toluene	50	43.0	86	70-130
87-61-6	1,2,3-Trichlorobenzene	50	41.5	83	70-130
120-82-1	1,2,4-Trichlorobenzene	50	43.2	86	70-130
71-55-6	1,1,1-Trichloroethane	50	45.3	91	70-130
79-00-5	1,1,2-Trichloroethane	50	46.3	93	70-130
79-01-6	Trichloroethene	50	44.5	89	70-130
75-69-4	Trichlorofluoromethane	50	49.7	99	70-130
96-18-4	1,2,3-Trichloropropane	50	41.4	83	70-130
95-63-6	1,2,4-Trimethylbenzene	50	44.0	88	70-130
108-67-8	1,3,5-Trimethylbenzene	50	43.2	86	70-130
108-05-4	Vinyl Acetate	50	52.0	104	70-130
75-01-4	Vinyl chloride	50	45.0	90	70-130
	m,p-Xylene	100	90.8	91	70-130
95-47-6	o-Xylene	50	44.7	89	70-130
1330-20-7	Xylene (total)	150	135	90	70-130

Blank Spike Summary

Job Number: M98988
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSG4232-BS	G104912A.D	1	04/14/11	EL	n/a	n/a	MSG4232

The QC reported here applies to the following samples: **Method:** SW846 8260B

M98988-1

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	106%	70-130%
2037-26-5	Toluene-D8	110%	70-130%
460-00-4	4-Bromofluorobenzene	105%	70-130%

(a) Outside control limits. Associated samples are non-detect for this compound.
(b) Outside control limits. Blank Spike meets program technical requirements.

Blank Spike/Blank Spike Duplicate Summary

Job Number: M98988
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK1709-BS	K51578.D	1	04/13/11	GK	n/a	n/a	MSK1709
MSK1709-BSD	K51579.D	1	04/13/11	GK	n/a	n/a	MSK1709

The QC reported here applies to the following samples: Method: SW846 8260B

M98988-3

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	BSD ug/kg	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	2500	3930	157* a	3770	151* a	4	70-130/25
107-02-8	Acrolein	12500	197000	1576* b	198000	1584* b	1	70-130/25
107-13-1	Acrylonitrile	2500	2850	114	2780	111	2	70-130/25
71-43-2	Benzene	2500	3040	122	2950	118	3	70-130/25
108-86-1	Bromobenzene	2500	2860	114	2770	111	3	70-130/25
74-97-5	Bromochloromethane	2500	2800	112	2780	111	1	70-130/25
75-27-4	Bromodichloromethane	2500	3050	122	2960	118	3	70-130/25
75-25-2	Bromoform	2500	2530	101	2540	102	0	70-130/25
74-83-9	Bromomethane	2500	2590	104	2530	101	2	70-130/25
78-93-3	2-Butanone (MEK)	2500	3070	123	2960	118	4	70-130/25
104-51-8	n-Butylbenzene	2500	2960	118	2870	115	3	70-130/25
135-98-8	sec-Butylbenzene	2500	3180	127	3070	123	4	70-130/25
98-06-6	tert-Butylbenzene	2500	3220	129	3080	123	4	70-130/25
75-15-0	Carbon disulfide	2500	3070	123	2960	118	4	70-130/25
56-23-5	Carbon tetrachloride	2500	2960	118	2840	114	4	70-130/25
108-90-7	Chlorobenzene	2500	2810	112	2780	111	1	70-130/25
75-00-3	Chloroethane	2500	2750	110	2680	107	3	70-130/25
110-75-8	2-Chloroethyl vinyl ether	2500	3320	133	3230	129	3	10-160/25
67-66-3	Chloroform	2500	2900	116	2780	111	4	70-130/25
74-87-3	Chloromethane	2500	2320	93	2260	90	3	70-130/25
95-49-8	o-Chlorotoluene	2500	3100	124	2960	118	5	70-130/25
106-43-4	p-Chlorotoluene	2500	3170	127	3040	122	4	70-130/25
96-12-8	1,2-Dibromo-3-chloropropane	2500	2450	98	2370	95	3	70-130/25
124-48-1	Dibromochloromethane	2500	2910	116	2880	115	1	70-130/25
106-93-4	1,2-Dibromoethane	2500	2820	113	2820	113	0	70-130/25
95-50-1	1,2-Dichlorobenzene	2500	2890	116	2780	111	4	70-130/25
541-73-1	1,3-Dichlorobenzene	2500	2870	115	2780	111	3	70-130/25
106-46-7	1,4-Dichlorobenzene	2500	2800	112	2720	109	3	70-130/25
75-71-8	Dichlorodifluoromethane	2500	2090	84	2000	80	4	70-130/25
75-34-3	1,1-Dichloroethane	2500	2940	118	2870	115	2	70-130/25
107-06-2	1,2-Dichloroethane	2500	2870	115	2800	112	2	70-130/25
75-35-4	1,1-Dichloroethene	2500	3020	121	2980	119	1	70-130/25
156-59-2	cis-1,2-Dichloroethene	2500	2860	114	2770	111	3	70-130/25
156-60-5	trans-1,2-Dichloroethene	2500	3030	121	2930	117	3	70-130/25
78-87-5	1,2-Dichloropropane	2500	2950	118	2860	114	3	70-130/25
142-28-9	1,3-Dichloropropane	2500	2750	110	2750	110	0	70-130/25

Blank Spike/Blank Spike Duplicate Summary

Job Number: M98988
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK1709-BS	K51578.D	1	04/13/11	GK	n/a	n/a	MSK1709
MSK1709-BSD	K51579.D	1	04/13/11	GK	n/a	n/a	MSK1709

The QC reported here applies to the following samples: Method: SW846 8260B

M98988-3

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	BSD ug/kg	BSD %	RPD	Limits Rec/RPD
594-20-7	2,2-Dichloropropane	2500	3040	122	2900	116	5	70-130/25
563-58-6	1,1-Dichloropropene	2500	3120	125	2980	119	5	70-130/25
10061-01-5	cis-1,3-Dichloropropene	2500	3150	126	3040	122	4	70-130/25
10061-02-6	trans-1,3-Dichloropropene	2500	3060	122	2970	119	3	70-130/25
97-63-2	Ethyl methacrylate	2500	2830	113	2750	110	3	76-141/25
100-41-4	Ethylbenzene	2500	2960	118	2930	117	1	70-130/25
87-68-3	Hexachlorobutadiene	2500	2650	106	2550	102	4	70-130/25
591-78-6	2-Hexanone	2500	4450	178* b	4480	179* b	1	70-130/25
98-82-8	Isopropylbenzene	2500	3720	149* a	3550	142* a	5	70-130/25
99-87-6	p-Isopropyltoluene	2500	3170	127	3060	122	4	70-130/25
1634-04-4	Methyl Tert Butyl Ether	2500	2970	119	2920	117	2	70-130/25
108-10-1	4-Methyl-2-pentanone (MIBK)	2500	3390	136* a	3290	132* a	3	70-130/25
74-95-3	Methylene bromide	2500	2900	116	2830	113	2	70-130/25
75-09-2	Methylene chloride	2500	2880	115	2860	114	1	70-130/25
103-65-1	n-Propylbenzene	2500	3280	131* a	3110	124	5	70-130/25
100-42-5	Styrene	2500	2960	118	2970	119	0	70-130/25
630-20-6	1,1,1,2-Tetrachloroethane	2500	2800	112	2780	111	1	70-130/25
79-34-5	1,1,2,2-Tetrachloroethane	2500	2870	115	2760	110	4	70-130/25
127-18-4	Tetrachloroethene	2500	2730	109	2750	110	1	70-130/25
108-88-3	Toluene	2500	3170	127	3050	122	4	70-130/25
87-61-6	1,2,3-Trichlorobenzene	2500	2010	80	2050	82	2	70-130/25
120-82-1	1,2,4-Trichlorobenzene	2500	2230	89	2220	89	0	70-130/25
71-55-6	1,1,1-Trichloroethane	2500	2960	118	2860	114	3	70-130/25
79-00-5	1,1,2-Trichloroethane	2500	2980	119	2900	116	3	70-130/25
79-01-6	Trichloroethene	2500	2990	120	2920	117	2	70-130/25
75-69-4	Trichlorofluoromethane	2500	2650	106	2540	102	4	70-130/25
96-18-4	1,2,3-Trichloropropane	2500	2940	118	2830	113	4	70-130/25
95-63-6	1,2,4-Trimethylbenzene	2500	3130	125	3050	122	3	70-130/25
108-67-8	1,3,5-Trimethylbenzene	2500	3070	123	2930	117	5	70-130/25
108-05-4	Vinyl Acetate	2500	3620	145* a	3300	132* a	9	70-130/25
75-01-4	Vinyl chloride	2500	2620	105	2460	98	6	70-130/25
	m,p-Xylene	5000	5960	119	5960	119	0	70-130/25
95-47-6	o-Xylene	2500	2910	116	2940	118	1	70-130/25
1330-20-7	Xylene (total)	7500	8870	118	8900	119	0	70-130/25

Blank Spike/Blank Spike Duplicate Summary

Job Number: M98988
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK1709-BS	K51578.D	1	04/13/11	GK	n/a	n/a	MSK1709
MSK1709-BSD	K51579.D	1	04/13/11	GK	n/a	n/a	MSK1709

The QC reported here applies to the following samples: Method: SW846 8260B

M98988-3

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	110%	108%	70-130%
2037-26-5	Toluene-D8	124%	121%	70-130%
460-00-4	4-Bromofluorobenzene	119%	117%	70-130%

(a) Outside control limits. Blank Spike meets program technical requirements.
(b) Outside control limits. Associated samples are non-detect for this compound.

Blank Spike/Blank Spike Duplicate Summary

Job Number: M98988
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSE2213-BS	E52829.D	1	04/15/11	TD	n/a	n/a	MSE2213
MSE2213-BSD	E52830.D	1	04/15/11	TD	n/a	n/a	MSE2213

The QC reported here applies to the following samples: Method: SW846 8260B

M98988-2, M98988-4, M98988-5

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	BSD ug/kg	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	2500	5320	213* a	5510	220* a	4	70-130/25
107-02-8	Acrolein	12500	181000	1448* a	186000	1488* a	3	70-130/25
107-13-1	Acrylonitrile	2500	10300	412* a	10700	428* a	4	70-130/25
71-43-2	Benzene	2500	2330	93	2370	95	2	70-130/25
108-86-1	Bromobenzene	2500	2380	95	2400	96	1	70-130/25
74-97-5	Bromochloromethane	2500	2350	94	2430	97	3	70-130/25
75-27-4	Bromodichloromethane	2500	2220	89	2290	92	3	70-130/25
75-25-2	Bromoform	2500	2250	90	2260	90	0	70-130/25
74-83-9	Bromomethane	2500	2180	87	2260	90	4	70-130/25
78-93-3	2-Butanone (MEK)	2500	3540	142* b	3970	159* b	11	70-130/25
104-51-8	n-Butylbenzene	2500	2380	95	2420	97	2	70-130/25
135-98-8	sec-Butylbenzene	2500	2360	94	2400	96	2	70-130/25
98-06-6	tert-Butylbenzene	2500	2210	88	2300	92	4	70-130/25
75-15-0	Carbon disulfide	2500	2310	92	2420	97	5	70-130/25
56-23-5	Carbon tetrachloride	2500	2100	84	2120	85	1	70-130/25
108-90-7	Chlorobenzene	2500	2460	98	2480	99	1	70-130/25
75-00-3	Chloroethane	2500	1980	79	2060	82	4	70-130/25
110-75-8	2-Chloroethyl vinyl ether	2500	931	37	1340	54	36* a	10-160/25
67-66-3	Chloroform	2500	2270	91	2370	95	4	70-130/25
74-87-3	Chloromethane	2500	1750	70	1850	74	6	70-130/25
95-49-8	o-Chlorotoluene	2500	2400	96	2490	100	4	70-130/25
106-43-4	p-Chlorotoluene	2500	2260	90	2370	95	5	70-130/25
96-12-8	1,2-Dibromo-3-chloropropane	2500	2430	97	2360	94	3	70-130/25
124-48-1	Dibromochloromethane	2500	2440	98	2400	96	2	70-130/25
106-93-4	1,2-Dibromoethane	2500	2360	94	2370	95	0	70-130/25
95-50-1	1,2-Dichlorobenzene	2500	2290	92	2330	93	2	70-130/25
541-73-1	1,3-Dichlorobenzene	2500	2540	102	2650	106	4	70-130/25
106-46-7	1,4-Dichlorobenzene	2500	2390	96	2490	100	4	70-130/25
75-71-8	Dichlorodifluoromethane	2500	1150	46* b	1190	48* b	3	70-130/25
75-34-3	1,1-Dichloroethane	2500	2290	92	2390	96	4	70-130/25
107-06-2	1,2-Dichloroethane	2500	2220	89	2250	90	1	70-130/25
75-35-4	1,1-Dichloroethene	2500	2290	92	2390	96	4	70-130/25
156-59-2	cis-1,2-Dichloroethene	2500	2380	95	2410	96	1	70-130/25
156-60-5	trans-1,2-Dichloroethene	2500	2380	95	2470	99	4	70-130/25
78-87-5	1,2-Dichloropropane	2500	2260	90	2280	91	1	70-130/25
142-28-9	1,3-Dichloropropane	2500	2270	91	2330	93	3	70-130/25

Blank Spike/Blank Spike Duplicate Summary

Job Number: M98988
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSE2213-BS	E52829.D	1	04/15/11	TD	n/a	n/a	MSE2213
MSE2213-BSD	E52830.D	1	04/15/11	TD	n/a	n/a	MSE2213

The QC reported here applies to the following samples: Method: SW846 8260B

M98988-2, M98988-4, M98988-5

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	BSD ug/kg	BSD %	RPD	Limits Rec/RPD
594-20-7	2,2-Dichloropropane	2500	2390	96	2400	96	0	70-130/25
563-58-6	1,1-Dichloropropene	2500	2180	87	2220	89	2	70-130/25
10061-01-5	cis-1,3-Dichloropropene	2500	2380	95	2380	95	0	70-130/25
10061-02-6	trans-1,3-Dichloropropene	2500	2520	101	2490	100	1	70-130/25
97-63-2	Ethyl methacrylate	2500	2160	86	2200	88	2	76-141/25
100-41-4	Ethylbenzene	2500	2380	95	2430	97	2	70-130/25
87-68-3	Hexachlorobutadiene	2500	2440	98	2570	103	5	70-130/25
591-78-6	2-Hexanone	2500	4400	176* a	4190	168* a	5	70-130/25
98-82-8	Isopropylbenzene	2500	2710	108	2840	114	5	70-130/25
99-87-6	p-Isopropyltoluene	2500	2420	97	2490	100	3	70-130/25
1634-04-4	Methyl Tert Butyl Ether	2500	2210	88	2270	91	3	70-130/25
108-10-1	4-Methyl-2-pentanone (MIBK)	2500	2240	90	2560	102	13	70-130/25
74-95-3	Methylene bromide	2500	2340	94	2320	93	1	70-130/25
75-09-2	Methylene chloride	2500	2420	97	2470	99	2	70-130/25
103-65-1	n-Propylbenzene	2500	2350	94	2430	97	3	70-130/25
100-42-5	Styrene	2500	2360	94	2410	96	2	70-130/25
630-20-6	1,1,1,2-Tetrachloroethane	2500	2390	96	2390	96	0	70-130/25
79-34-5	1,1,2,2-Tetrachloroethane	2500	2120	85	2200	88	4	70-130/25
127-18-4	Tetrachloroethene	2500	2380	95	2430	97	2	70-130/25
108-88-3	Toluene	2500	2370	95	2380	95	0	70-130/25
87-61-6	1,2,3-Trichlorobenzene	2500	2350	94	2460	98	5	70-130/25
120-82-1	1,2,4-Trichlorobenzene	2500	2410	96	2500	100	4	70-130/25
71-55-6	1,1,1-Trichloroethane	2500	2200	88	2320	93	5	70-130/25
79-00-5	1,1,2-Trichloroethane	2500	2280	91	2320	93	2	70-130/25
79-01-6	Trichloroethene	2500	2310	92	2310	92	0	70-130/25
75-69-4	Trichlorofluoromethane	2500	1880	75	1930	77	3	70-130/25
96-18-4	1,2,3-Trichloropropane	2500	2180	87	2290	92	5	70-130/25
95-63-6	1,2,4-Trimethylbenzene	2500	2320	93	2370	95	2	70-130/25
108-67-8	1,3,5-Trimethylbenzene	2500	2310	92	2370	95	3	70-130/25
108-05-4	Vinyl Acetate	2500	2460	98	2540	102	3	70-130/25
75-01-4	Vinyl chloride	2500	1790	72	1840	74	3	70-130/25
	m,p-Xylene	5000	4900	98	4930	99	1	70-130/25
95-47-6	o-Xylene	2500	2430	97	2410	96	1	70-130/25
1330-20-7	Xylene (total)	7500	7330	98	7340	98	0	70-130/25

Blank Spike/Blank Spike Duplicate Summary

Job Number: M98988
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSE2213-BS	E52829.D	1	04/15/11	TD	n/a	n/a	MSE2213
MSE2213-BSD	E52830.D	1	04/15/11	TD	n/a	n/a	MSE2213

The QC reported here applies to the following samples: Method: SW846 8260B

M98988-2, M98988-4, M98988-5

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	82%	84%	70-130%
2037-26-5	Toluene-D8	86%	88%	70-130%
460-00-4	4-Bromofluorobenzene	91%	94%	70-130%

(a) Outside control limits. Associated samples are non-detect for this compound.
(b) Outside control limits. Blank Spike meets program technical requirements.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M98988
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M98991-14MS	K51587.D	1	04/13/11	GK	n/a	n/a	MSK1709
M98991-14MSD	K51588.D	1	04/13/11	GK	n/a	n/a	MSK1709
M98991-14	K51582.D	1	04/13/11	GK	n/a	n/a	MSK1709

The QC reported here applies to the following samples: Method: SW846 8260B

M98988-3

CAS No.	Compound	M98991-14 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		3760	5210	139* a	5420	144* a	4	70-130/30
107-02-8	Acrolein	ND		18800	238000	1266* b	268000	1426* b	12	70-130/30
107-13-1	Acrylonitrile	ND		3760	3520	94	3910	104	10	70-130/30
71-43-2	Benzene	ND		3760	3870	103	4260	113	10	70-130/30
108-86-1	Bromobenzene	ND		3760	3830	102	4030	107	5	70-130/30
74-97-5	Bromochloromethane	ND		3760	3550	94	4040	107	13	70-130/30
75-27-4	Bromodichloromethane	ND		3760	3990	106	4360	116	9	70-130/30
75-25-2	Bromoform	ND		3760	3510	93	3690	98	5	70-130/30
74-83-9	Bromomethane	ND		3760	3290	88	3760	100	13	70-130/30
78-93-3	2-Butanone (MEK)	ND		3760	3870	103	4530	121	16	70-130/30
104-51-8	n-Butylbenzene	ND		3760	3850	102	4230	113	9	70-130/30
135-98-8	sec-Butylbenzene	ND		3760	4190	111	4540	121	8	70-130/30
98-06-6	tert-Butylbenzene	ND		3760	4220	112	4560	121	8	70-130/30
75-15-0	Carbon disulfide	ND		3760	3710	99	4310	115	15	70-130/30
56-23-5	Carbon tetrachloride	ND		3760	3840	102	4270	114	11	70-130/30
108-90-7	Chlorobenzene	ND		3760	3670	98	4050	108	10	70-130/30
75-00-3	Chloroethane	ND		3760	3350	89	3910	104	15	70-130/30
110-75-8	2-Chloroethyl vinyl ether	ND		3760	4210	112	4530	121	7	10-160/30
67-66-3	Chloroform	ND		3760	3670	98	4080	109	11	70-130/30
74-87-3	Chloromethane	ND		3760	2810	75	3310	88	16	70-130/30
95-49-8	o-Chlorotoluene	ND		3760	4040	107	4340	115	7	70-130/30
106-43-4	p-Chlorotoluene	ND		3760	4140	110	4430	118	7	70-130/30
96-12-8	1,2-Dibromo-3-chloropropane	ND		3760	3270	87	3410	91	4	70-130/30
124-48-1	Dibromochloromethane	ND		3760	3950	105	4150	110	5	70-130/30
106-93-4	1,2-Dibromoethane	ND		3760	3800	101	4040	107	6	70-130/30
95-50-1	1,2-Dichlorobenzene	ND		3760	3820	102	4090	109	7	70-130/30
541-73-1	1,3-Dichlorobenzene	ND		3760	3810	101	4080	109	7	70-130/30
106-46-7	1,4-Dichlorobenzene	ND		3760	3700	98	3960	105	7	70-130/30
75-71-8	Dichlorodifluoromethane	ND		3760	2800	74	3170	84	12	70-130/30
75-34-3	1,1-Dichloroethane	ND		3760	3590	95	4110	109	14	70-130/30
107-06-2	1,2-Dichloroethane	ND		3760	3860	103	4130	110	7	70-130/30
75-35-4	1,1-Dichloroethene	ND		3760	3710	99	4370	116	16	70-130/30
156-59-2	cis-1,2-Dichloroethene	ND		3760	3550	94	3980	106	11	70-130/30
156-60-5	trans-1,2-Dichloroethene	ND		3760	3690	98	4260	113	14	70-130/30
78-87-5	1,2-Dichloropropane	ND		3760	3730	99	4080	109	9	70-130/30
142-28-9	1,3-Dichloropropane	ND		3760	3680	98	3880	103	5	70-130/30

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M98988
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M98991-14MS	K51587.D	1	04/13/11	GK	n/a	n/a	MSK1709
M98991-14MSD	K51588.D	1	04/13/11	GK	n/a	n/a	MSK1709
M98991-14	K51582.D	1	04/13/11	GK	n/a	n/a	MSK1709

Not Sample from this SDG

5.4.1

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The QC reported here applies to the following samples: Method: SW846 8260B

M98988-3

CAS No.	Compound	M98991-14 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
594-20-7	2,2-Dichloropropane	ND		3760	3850	102	4340	115	12	70-130/30
563-58-6	1,1-Dichloropropene	ND		3760	3960	105	4430	118	11	70-130/30
10061-01-5	cis-1,3-Dichloropropene	ND		3760	4040	107	4380	117	8	70-130/30
10061-02-6	trans-1,3-Dichloropropene	ND		3760	3980	106	4310	115	8	70-130/30
97-63-2	Ethyl methacrylate	ND		3760	3650	97	3940	105	8	41-160/30
100-41-4	Ethylbenzene	ND		3760	3870	103	4270	114	10	70-130/30
87-68-3	Hexachlorobutadiene	ND		3760	3520	94	3890	103	10	70-130/30
591-78-6	2-Hexanone	ND		3760	5900	157* b	6260	167* b	6	70-130/30
98-82-8	Isopropylbenzene	ND		3760	4810	128	5250	140* a	9	70-130/30
99-87-6	p-Isopropyltoluene	ND		3760	4150	110	4510	120	8	70-130/30
1634-04-4	Methyl Tert Butyl Ether	ND		3760	3750	100	4160	111	10	70-130/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		3760	4390	117	4730	126	7	70-130/30
74-95-3	Methylene bromide	ND		3760	3810	101	4090	109	7	70-130/30
75-09-2	Methylene chloride	ND		3760	3610	96	4020	107	11	70-130/30
103-65-1	n-Propylbenzene	ND		3760	4260	113	4550	121	7	70-130/30
100-42-5	Styrene	ND		3760	3940	105	4320	115	9	70-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		3760	3740	99	4010	107	7	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		3760	3830	102	4070	108	6	70-130/30
127-18-4	Tetrachloroethene	ND		3760	3650	97	4050	108	10	70-130/30
108-88-3	Toluene	ND		3760	4010	107	4470	119	11	70-130/30
87-61-6	1,2,3-Trichlorobenzene	ND		3760	1940	52* a	2830	75	37* c	70-130/30
120-82-1	1,2,4-Trichlorobenzene	ND		3760	2760	73	3220	86	15	70-130/30
71-55-6	1,1,1-Trichloroethane	ND		3760	3680	98	4180	111	13	70-130/30
79-00-5	1,1,2-Trichloroethane	ND		3760	3880	103	4180	111	7	70-130/30
79-01-6	Trichloroethene	ND		3760	3830	102	4210	112	9	70-130/30
75-69-4	Trichlorofluoromethane	ND		3760	3460	92	3900	104	12	70-130/30
96-18-4	1,2,3-Trichloropropane	ND		3760	3840	102	4040	107	5	70-130/30
95-63-6	1,2,4-Trimethylbenzene	ND		3760	4140	110	4430	118	7	70-130/30
108-67-8	1,3,5-Trimethylbenzene	ND		3760	4050	108	4300	114	6	70-130/30
108-05-4	Vinyl Acetate	ND		3760	5480	146* a	5830	155* a	6	70-130/30
75-01-4	Vinyl chloride	ND		3760	3710	99	4250	113	14	70-130/30
	m,p-Xylene	ND		7520	7880	105	8580	114	9	70-130/30
95-47-6	o-Xylene	ND		3760	3910	104	4280	114	9	70-130/30
1330-20-7	Xylene (total)	ND		11300	11800	105	12900	114	9	70-130/30

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M98988
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M98991-14MS	K51587.D	1	04/13/11	GK	n/a	n/a	MSK1709
M98991-14MSD	K51588.D	1	04/13/11	GK	n/a	n/a	MSK1709
M98991-14	K51582.D	1	04/13/11	GK	n/a	n/a	MSK1709

The QC reported here applies to the following samples: Method: SW846 8260B

M98988-3

CAS No.	Surrogate Recoveries	MS	MSD	M98991-14	Limits
1868-53-7	Dibromofluoromethane	97%	108%	100%	70-130%
2037-26-5	Toluene-D8	109%	121%	108%	70-130%
460-00-4	4-Bromofluorobenzene	109%	116%	113%	70-130%

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.
(b) Outside control limits. Associated samples are non-detect for this compound.
(c) High RPD due to possible matrix interference and/or sample non-homogeneity.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M98988
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

not Sample from 4-5 SDG

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M99031-3MS	G104928.D	1	04/14/11	EL	n/a	n/a	MSG4232
M99031-3MSD	G104929.D	1	04/14/11	EL	n/a	n/a	MSG4232
M99031-3	G104923.D	1	04/14/11	EL	n/a	n/a	MSG4232

5.4.2

5

The QC reported here applies to the following samples: Method: SW846 8260B

M98988-1

CAS No.	Compound	M99031-3 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		50	41.2	82	43.1	86	5	70-130/30
107-02-8	Acrolein	ND		250	3850	1540* [a]	3920	1568* [a]	2	70-130/30
107-13-1	Acrylonitrile	ND		50	46.4	93	46.9	94	1	70-130/30
71-43-2	Benzene	ND		50	44.7	89	44.6	89	0	70-130/30
108-86-1	Bromobenzene	ND		50	44.4	89	43.9	88	1	70-130/30
74-97-5	Bromochloromethane	ND		50	45.4	91	45.7	91	1	70-130/30
75-27-4	Bromodichloromethane	ND		50	44.8	90	44.9	90	0	70-130/30
75-25-2	Bromoform	ND		50	39.3	79	40.4	81	3	70-130/30
74-83-9	Bromomethane	ND		50	42.8	86	43.1	86	1	70-130/30
78-93-3	2-Butanone (MEK)	ND		50	46.0	92	48.4	97	5	70-130/30
104-51-8	n-Butylbenzene	ND		50	43.2	86	43.5	87	1	70-130/30
135-98-8	sec-Butylbenzene	ND		50	44.2	88	44.6	89	1	70-130/30
98-06-6	tert-Butylbenzene	ND		50	42.3	85	42.5	85	0	70-130/30
75-15-0	Carbon disulfide	ND		50	42.3	85	43.1	86	2	70-130/30
56-23-5	Carbon tetrachloride	ND		50	44.1	88	44.2	88	0	70-130/30
108-90-7	Chlorobenzene	ND		50	44.8	90	44.9	90	0	70-130/30
75-00-3	Chloroethane	ND		50	44.6	89	45.2	90	1	70-130/30
110-75-8	2-Chloroethyl vinyl ether	ND		50	ND	0* [b]	13.8	28* [b]	200* [c]	70-130/30
67-66-3	Chloroform	ND		50	44.3	89	44.4	89	0	70-130/30
74-87-3	Chloromethane	ND		50	43.4	87	42.9	86	1	70-130/30
95-49-8	o-Chlorotoluene	ND		50	42.2	84	42.9	86	2	70-130/30
106-43-4	p-Chlorotoluene	ND		50	43.8	88	43.6	87	0	70-130/30
96-12-8	1,2-Dibromo-3-chloropropane	ND		50	42.8	86	44.4	89	4	70-130/30
124-48-1	Dibromochloromethane	ND		50	44.3	89	45.0	90	2	70-130/30
106-93-4	1,2-Dibromoethane	ND		50	46.5	93	46.9	94	1	70-130/30
95-50-1	1,2-Dichlorobenzene	ND		50	43.8	88	44.0	88	0	70-130/30
541-73-1	1,3-Dichlorobenzene	ND		50	43.7	87	43.6	87	0	70-130/30
106-46-7	1,4-Dichlorobenzene	ND		50	42.6	85	43.4	87	2	70-130/30
75-71-8	Dichlorodifluoromethane	ND		50	39.1	78	38.8	78	1	70-130/30
75-34-3	1,1-Dichloroethane	ND		50	45.3	91	45.0	90	1	70-130/30
107-06-2	1,2-Dichloroethane	ND		50	44.9	90	44.8	90	0	70-130/30
75-35-4	1,1-Dichloroethene	ND		50	45.0	90	45.3	91	1	70-130/30
156-59-2	cis-1,2-Dichloroethene	ND		50	43.7	87	43.3	87	1	70-130/30
156-60-5	trans-1,2-Dichloroethene	ND		50	44.0	88	44.3	89	1	70-130/30
78-87-5	1,2-Dichloropropane	ND		50	44.0	88	44.8	90	2	70-130/30
142-28-9	1,3-Dichloropropane	ND		50	45.0	90	45.2	90	0	70-130/30

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M98988
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M99031-3MS	G104928.D	1	04/14/11	EL	n/a	n/a	MSG4232
M99031-3MSD	G104929.D	1	04/14/11	EL	n/a	n/a	MSG4232
M99031-3	G104923.D	1	04/14/11	EL	n/a	n/a	MSG4232

The QC reported here applies to the following samples: Method: SW846 8260B

M98988-1

CAS No.	Compound	M99031-3 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
594-20-7	2,2-Dichloropropane	ND		50	42.6	85	41.8	84	2	70-130/30
563-58-6	1,1-Dichloropropene	ND		50	46.0	92	45.8	92	0	70-130/30
10061-01-5	cis-1,3-Dichloropropene	ND		50	44.0	88	44.3	89	1	70-130/30
10061-02-6	trans-1,3-Dichloropropene	ND		50	48.0	96	48.7	97	1	70-130/30
97-63-2	Ethyl methacrylate	ND		50	44.3	89	44.5	89	0	72-139/30
100-41-4	Ethylbenzene	ND		50	47.9	96	48.0	96	0	70-130/30
87-68-3	Hexachlorobutadiene	ND		50	42.3	85	43.6	87	3	70-130/30
591-78-6	2-Hexanone	ND		50	44.6	89	44.8	90	0	70-130/30
98-82-8	Isopropylbenzene	ND		50	50.3	101	50.7	101	1	70-130/30
99-87-6	p-Isopropyltoluene	ND		50	44.7	89	45.1	90	1	70-130/30
1634-04-4	Methyl Tert Butyl Ether	ND		50	45.0	90	45.0	90	0	70-130/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		50	46.3	93	46.8	94	1	70-130/30
74-95-3	Methylene bromide	ND		50	45.6	91	46.5	93	2	70-130/30
75-09-2	Methylene chloride	ND		50	46.6	93	47.2	94	1	70-130/30
103-65-1	n-Propylbenzene	ND		50	43.9	88	44.2	88	1	70-130/30
100-42-5	Styrene	ND		50	44.0	88	44.3	89	1	70-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		50	45.4	91	46.1	92	2	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		50	45.7	91	46.2	92	1	70-130/30
127-18-4	Tetrachloroethene	ND		50	46.0	92	46.1	92	0	70-130/30
108-88-3	Toluene	ND		50	42.6	85	43.1	86	1	70-130/30
87-61-6	1,2,3-Trichlorobenzene	ND		50	41.1	82	41.7	83	1	70-130/30
120-82-1	1,2,4-Trichlorobenzene	ND		50	41.4	83	43.1	86	4	70-130/30
71-55-6	1,1,1-Trichloroethane	ND		50	44.2	88	44.4	89	0	70-130/30
79-00-5	1,1,2-Trichloroethane	ND		50	46.6	93	46.5	93	0	70-130/30
79-01-6	Trichloroethene	ND		50	43.9	88	43.9	88	0	70-130/30
75-69-4	Trichlorofluoromethane	ND		50	48.4	97	49.1	98	1	70-130/30
96-18-4	1,2,3-Trichloropropane	ND		50	41.2	82	41.9	84	2	70-130/30
95-63-6	1,2,4-Trimethylbenzene	ND		50	44.3	89	45.0	90	2	70-130/30
108-67-8	1,3,5-Trimethylbenzene	ND		50	42.2	84	42.6	85	1	70-130/30
108-05-4	Vinyl Acetate	ND		50	49.3	99	49.2	98	0	70-130/30
75-01-4	Vinyl chloride	ND		50	44.6	89	44.9	90	1	70-130/30
	m,p-Xylene	ND		100	93.8	94	92.5	93	1	70-130/30
95-47-6	o-Xylene	ND		50	45.4	91	45.5	91	0	70-130/30
1330-20-7	Xylene (total)	ND		150	139	93	138	92	1	70-130/30

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M98988
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M99031-3MS	G104928.D	1	04/14/11	EL	n/a	n/a	MSG4232
M99031-3MSD	G104929.D	1	04/14/11	EL	n/a	n/a	MSG4232
M99031-3	G104923.D	1	04/14/11	EL	n/a	n/a	MSG4232

The QC reported here applies to the following samples: Method: SW846 8260B

M98988-1

CAS No.	Surrogate Recoveries	MS	MSD	M99031-3	Limits
1868-53-7	Dibromofluoromethane	108%	107%	107%	70-130%
2037-26-5	Toluene-D8	109%	109%	109%	70-130%
460-00-4	4-Bromofluorobenzene	106%	104%	114%	70-130%

(a) Outside control limits. Associated samples are non-detect for this compound.
(b) Outside control limits due to possible matrix interference. Refer to Blank Spike.
(c) High RPD due to possible matrix interference and/or sample non-homogeneity.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M98988
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Not sample from this SDG

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M99080-8MS	E52849.D	1	04/15/11	TD	n/a	n/a	MSE2213
M99080-8MSD	E52850.D	1	04/15/11	TD	n/a	n/a	MSE2213
M99080-8	E52848.D	1	04/15/11	TD	n/a	n/a	MSE2213

The QC reported here applies to the following samples: Method: SW846 8260B

M98988-2, M98988-4, M98988-5

CAS No.	Compound	M99080-8 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		6710	15200	227* [a]	14600	218* [a]	4	70-130/30
107-02-8	Acrolein	ND		33600	469000	1398* [a]	473000	1410* [a]	1	70-130/30
107-13-1	Acrylonitrile	ND		6710	27200	405* [a]	28000	417* [a]	3	70-130/30
71-43-2	Benzene	ND		6710	6640	99	6360	95	4	70-130/30
108-86-1	Bromobenzene	ND		6710	6580	98	6300	94	4	70-130/30
74-97-5	Bromochloromethane	ND		6710	6520	97	6380	95	2	70-130/30
75-27-4	Bromodichloromethane	ND		6710	6380	95	6090	91	5	70-130/30
75-25-2	Bromoform	ND		6710	5790	86	5900	88	2	70-130/30
74-83-9	Bromomethane	ND		6710	6150	92	6030	90	2	70-130/30
78-93-3	2-Butanone (MEK)	ND		6710	10100	151* [a]	9450	141* [a]	7	70-130/30
104-51-8	n-Butylbenzene	ND		6710	6340	94	6440	96	2	70-130/30
135-98-8	sec-Butylbenzene	ND		6710	6500	97	6490	97	0	70-130/30
98-06-6	tert-Butylbenzene	ND		6710	6200	92	6140	91	1	70-130/30
75-15-0	Carbon disulfide	ND		6710	6610	98	6490	97	2	70-130/30
56-23-5	Carbon tetrachloride	ND		6710	6000	89	5930	88	1	70-130/30
108-90-7	Chlorobenzene	ND		6710	6830	102	6760	101	1	70-130/30
75-00-3	Chloroethane	ND		6710	5620	84	5760	86	2	70-130/30
110-75-8	2-Chloroethyl vinyl ether	ND		6710	2920	44	3590	53	21	10-160/30
67-66-3	Chloroform	ND		6710	6400	95	6390	95	0	70-130/30
74-87-3	Chloromethane	ND		6710	5080	76	4890	73	4	70-130/30
95-49-8	o-Chlorotoluene	ND		6710	6730	100	6630	99	1	70-130/30
106-43-4	p-Chlorotoluene	ND		6710	6510	97	6510	97	0	70-130/30
96-12-8	1,2-Dibromo-3-chloropropane	ND		6710	6390	95	5450	81	16	70-130/30
124-48-1	Dibromochloromethane	ND		6710	6380	95	6340	94	1	70-130/30
106-93-4	1,2-Dibromoethane	ND		6710	6360	95	6250	93	2	70-130/30
95-50-1	1,2-Dichlorobenzene	ND		6710	6250	93	6160	92	1	70-130/30
541-73-1	1,3-Dichlorobenzene	ND		6710	6900	103	6960	104	1	70-130/30
106-46-7	1,4-Dichlorobenzene	ND		6710	6490	97	6570	98	1	70-130/30
75-71-8	Dichlorodifluoromethane	ND		6710	3360	50* [b]	3370	50* [b]	0	70-130/30
75-34-3	1,1-Dichloroethane	ND		6710	6580	98	6450	96	2	70-130/30
107-06-2	1,2-Dichloroethane	ND		6710	6120	91	5940	89	3	70-130/30
75-35-4	1,1-Dichloroethene	ND		6710	6620	99	6500	97	2	70-130/30
156-59-2	cis-1,2-Dichloroethene	ND		6710	6600	98	6480	97	2	70-130/30
156-60-5	trans-1,2-Dichloroethene	ND		6710	6870	102	6710	100	2	70-130/30
78-87-5	1,2-Dichloropropane	ND		6710	6190	92	6230	93	1	70-130/30
142-28-9	1,3-Dichloropropane	ND		6710	6110	91	6070	90	1	70-130/30

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M98988
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M99080-8MS	E52849.D	1	04/15/11	TD	n/a	n/a	MSE2213
M99080-8MSD	E52850.D	1	04/15/11	TD	n/a	n/a	MSE2213
M99080-8	E52848.D	1	04/15/11	TD	n/a	n/a	MSE2213

The QC reported here applies to the following samples: Method: SW846 8260B

M98988-2, M98988-4, M98988-5

CAS No.	Compound	M99080-8 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
594-20-7	2,2-Dichloropropane	ND		6710	6310	94	5810	87	8	70-130/30
563-58-6	1,1-Dichloropropene	ND		6710	6150	92	5920	88	4	70-130/30
10061-01-5	cis-1,3-Dichloropropene	ND		6710	6420	96	6210	93	3	70-130/30
10061-02-6	trans-1,3-Dichloropropene	ND		6710	6780	101	6460	96	5	70-130/30
97-63-2	Ethyl methacrylate	ND		6710	5950	89	5820	87	2	41-160/30
100-41-4	Ethylbenzene	ND		6710	6700	100	6570	98	2	70-130/30
87-68-3	Hexachlorobutadiene	ND		6710	6340	94	6720	100	6	70-130/30
591-78-6	2-Hexanone	ND		6710	10900	162* [b]	11100	165* [b]	2	70-130/30
98-82-8	Isopropylbenzene	ND		6710	7750	115	7560	113	2	70-130/30
99-87-6	p-Isopropyltoluene	ND		6710	6660	99	6690	100	0	70-130/30
1634-04-4	Methyl Tert Butyl Ether	ND		6710	6100	91	5930	88	3	70-130/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		6710	5520	82	5680	85	3	70-130/30
74-95-3	Methylene bromide	ND		6710	6280	94	6110	91	3	70-130/30
75-09-2	Methylene chloride	703		6710	7940	108	7700	104	3	70-130/30
103-65-1	n-Propylbenzene	ND		6710	6680	100	6530	97	2	70-130/30
100-42-5	Styrene	ND		6710	6600	98	6500	97	2	70-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		6710	6540	97	6450	96	1	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		6710	5470	82	5510	82	1	70-130/30
127-18-4	Tetrachloroethene	ND		6710	6640	99	6530	97	2	70-130/30
108-88-3	Toluene	ND		6710	6790	101	6570	98	3	70-130/30
87-61-6	1,2,3-Trichlorobenzene	ND		6710	5500	82	6220	93	12	70-130/30
120-82-1	1,2,4-Trichlorobenzene	ND		6710	6000	89	6280	94	5	70-130/30
71-55-6	1,1,1-Trichloroethane	ND		6710	6400	95	6220	93	3	70-130/30
79-00-5	1,1,2-Trichloroethane	ND		6710	6600	98	6140	91	7	70-130/30
79-01-6	Trichloroethene	ND		6710	6920	103	6550	98	5	70-130/30
75-69-4	Trichlorofluoromethane	ND		6710	5550	83	5420	81	2	70-130/30
96-18-4	1,2,3-Trichloropropane	ND		6710	5800	86	5770	86	1	70-130/30
95-63-6	1,2,4-Trimethylbenzene	ND		6710	6350	95	6350	95	0	70-130/30
108-67-8	1,3,5-Trimethylbenzene	ND		6710	6380	95	6400	95	0	70-130/30
108-05-4	Vinyl Acetate	ND		6710	3500	52* [b]	3720	55* [b]	6	70-130/30
75-01-4	Vinyl chloride	ND		6710	5220	78	5240	78	0	70-130/30
	m,p-Xylene	ND		13400	13600	101	13600	101	0	70-130/30
95-47-6	o-Xylene	ND		6710	6750	101	6650	99	1	70-130/30
1330-20-7	Xylene (total)	ND		20100	20300	101	20300	101	0	70-130/30

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M98988
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M99080-8MS	E52849.D	1	04/15/11	TD	n/a	n/a	MSE2213
M99080-8MSD	E52850.D	1	04/15/11	TD	n/a	n/a	MSE2213
M99080-8	E52848.D	1	04/15/11	TD	n/a	n/a	MSE2213

The QC reported here applies to the following samples: Method: SW846 8260B

M98988-2, M98988-4, M98988-5

CAS No.	Surrogate Recoveries	MS	MSD	M99080-8	Limits
1868-53-7	Dibromofluoromethane	91%	88%	91%	70-130%
2037-26-5	Toluene-D8	97%	94%	94%	70-130%
460-00-4	4-Bromofluorobenzene	99%	97%	100%	70-130%

(a) Outside control limits. Associated samples are non-detect for this compound.
(b) Outside control limits due to possible matrix interference. Refer to Blank Spike.

Volatile Internal Standard Area Summary

Job Number: M98988
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Check Std:	MSE2213-CC2208	Injection Date:	04/15/11
Lab File ID:	E52828.D	Injection Time:	11:55
Instrument ID:	GCMSE	Method:	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	294630	9.09	465925	9.97	204721	13.23	178128	15.80	57422	6.60
Upper Limit [a]	589260	9.59	931850	10.47	409442	13.73	356256	16.30	114844	7.10
Lower Limit [b]	147315	8.59	232963	9.47	102361	12.73	89064	15.30	28711	6.10
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSE2213-BS	280377	9.09	437630	9.97	192458	13.23	170105	15.79	58331	6.60
MSE2213-BSD	278457	9.09	440558	9.97	195171	13.23	169211	15.79	58187	6.60
MSE2213-MB	276196	9.09	431695	9.97	187251	13.24	164998	15.79	55338	6.60
ZZZZZZ	263040	9.09	416955	9.96	180758	13.24	168228	15.80	57027	6.60
ZZZZZZ	274003	9.09	428903	9.97	185440	13.24	168017	15.79	57201	6.61
ZZZZZZ	269784	9.09	430898	9.97	186745	13.24	168623	15.79	55254	6.60
M98988-2	280052	9.09	433896	9.97	188411	13.23	171052	15.80	61109	6.60
M98988-4	258033	9.09	414120	9.96	179218	13.24	163142	15.79	51342	6.60
M98988-5	262955	9.09	415459	9.97	181678	13.23	160123	15.80	51648	6.60
ZZZZZZ	259481	9.09	417662	9.97	179773	13.24	163250	15.79	51576	6.60
ZZZZZZ	266397	9.09	419604	9.97	182560	13.23	163303	15.80	48488	6.60
ZZZZZZ	268245	9.09	429624	9.96	182546	13.23	169058	15.79	50289	6.60
ZZZZZZ	274795	9.08	432166	9.96	187645	13.23	168815	15.80	52047	6.60
M99080-8	273296	9.08	427126	9.96	184688	13.23	165426	15.79	48637	6.60
M99080-8MS	274531	9.08	429891	9.96	192729	13.23	166690	15.79	52238	6.60
M99080-8MSD	275708	9.09	437935	9.96	192732	13.23	169495	15.79	49702	6.60
ZZZZZZ	268609	9.08	421805	9.96	184019	13.23	160874	15.79	51722	6.59

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Internal Standard Area Summary

Job Number: M98988
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Check Std:	MSG4232-CC4220	Injection Date:	04/14/11
Lab File ID:	G104912.D	Injection Time:	10:44
Instrument ID:	GCMSG	Method:	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	89624	9.12	132006	10.00	66946	13.28	68529	15.85	36823	6.67
Upper Limit [a]	179248	9.62	264012	10.50	133892	13.78	137058	16.35	73646	7.17
Lower Limit [b]	44812	8.62	66003	9.50	33473	12.78	34265	15.35	18412	6.17
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSG4232-BS	89624	9.12	132006	10.00	66946	13.28	68529	15.85	36823	6.67
MSG4232-MB	87751	9.12	129950	10.00	63938	13.28	58848	15.85	35673	6.67
ZZZZZZ	86510	9.12	128191	10.00	64111	13.28	62663	15.85	29616	6.68
ZZZZZZ	87234	9.12	128417	10.00	64757	13.28	64847	15.85	33149	6.67
ZZZZZZ	87246	9.12	128190	10.00	65049	13.28	63430	15.85	33863	6.68
ZZZZZZ	89012	9.12	130700	10.00	65661	13.28	66868	15.85	35413	6.67
ZZZZZZ	86895	9.12	128416	10.00	63696	13.28	59114	15.85	35602	6.68
ZZZZZZ	89412	9.12	131352	10.00	65402	13.28	62859	15.85	36474	6.68
ZZZZZZ	89132	9.13	131948	10.00	66209	13.28	64616	15.85	36454	6.68
M98988-1	89114	9.13	129961	10.00	65562	13.28	59385	15.85	37142	6.68
M99031-3	88369	9.13	129243	10.00	64540	13.28	58601	15.85	37218	6.68
ZZZZZZ	87892	9.12	128976	10.00	64250	13.28	58157	15.85	36403	6.68
ZZZZZZ	88047	9.12	128538	10.00	65095	13.28	58859	15.85	37583	6.68
ZZZZZZ	88429	9.13	129733	10.00	64629	13.28	58756	15.85	38137	6.68
ZZZZZZ	88617	9.13	129425	10.00	63741	13.28	58207	15.85	38013	6.68
M99031-3MS	88315	9.12	131243	10.00	66621	13.28	68696	15.85	38873	6.68
M99031-3MSD	89121	9.12	131556	10.00	67124	13.28	68852	15.85	40446	6.67
ZZZZZZ	86965	9.12	127755	10.00	63179	13.28	58071	15.85	37783	6.68
ZZZZZZ	84787	9.12	125657	10.00	62702	13.28	57362	15.85	35602	6.68
ZZZZZZ	86285	9.12	128139	10.00	63294	13.28	57565	15.85	36594	6.67
ZZZZZZ	86891	9.12	127526	10.00	63414	13.28	57702	15.85	36085	6.68
ZZZZZZ	87082	9.12	129293	10.00	64176	13.28	57356	15.85	35737	6.68
ZZZZZZ	86183	9.12	125358	10.00	62617	13.28	57426	15.85	34839	6.68

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Internal Standard Area Summary

Job Number: M98988
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Check Std:	MSK1709-CC1681	Injection Date:	04/13/11
Lab File ID:	K51577.D	Injection Time:	12:04
Instrument ID:	GCMSK	Method:	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	188032	9.04	240703	9.91	120714	13.16	139762	15.72	53732	6.65
Upper Limit [a]	376064	9.54	481406	10.41	241428	13.66	279524	16.22	107464	7.15
Lower Limit [b]	94016	8.54	120352	9.41	60357	12.66	69881	15.22	26866	6.15

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSK1709-BS	190458	9.04	243325	9.91	122120	13.16	140893	15.72	55654	6.65
MSK1709-BSD	194100	9.04	247885	9.91	121510	13.16	144851	15.72	56102	6.65
MSK1709-MB	200512	9.05	259483	9.92	121979	13.17	137238	15.73	55232	6.66
M98991-14	195191	9.05	252623	9.92	116802	13.17	129723	15.73	52901	6.65
ZZZZZZ	195105	9.05	243064	9.92	113682	13.17	108823	15.73	53358	6.65
ZZZZZZ	204591	9.05	258563	9.92	119389	13.17	108957	15.73	54321	6.64
ZZZZZZ	190707	9.05	237186	9.92	111585	13.17	110466	15.73	51893	6.65
M98991-14MS	197607	9.05	245546	9.92	120226	13.16	139292	15.72	50711	6.65
M98991-14MSD	187103	9.04	236367	9.91	117742	13.16	140199	15.72	53231	6.65
ZZZZZZ	191803	9.04	243421	9.91	115804	13.17	135754	15.73	49447	6.69
ZZZZZZ	202050	9.05	260966	9.92	123024	13.17	137693	15.73	54587	6.66
ZZZZZZ	191274	9.05	242548	9.92	112900	13.17	114407	15.73	51681	6.64
ZZZZZZ	188259	9.05	235641	9.92	111310	13.17	112179	15.73	51188	6.65
ZZZZZZ	184363	9.05	236854	9.92	110638	13.17	121291	15.73	50778	6.65
ZZZZZZ	186684	9.05	234515	9.92	108418	13.17	107956	15.73	51091	6.65
ZZZZZZ	188042	9.05	236565	9.92	109833	13.17	121673	15.73	47228	6.65
ZZZZZZ	178641	9.05	229294	9.92	108135	13.17	120517	15.73	49099	6.66
ZZZZZZ	176928	9.05	225433	9.92	105198	13.17	120938	15.73	48384	6.65
ZZZZZZ	177419	9.05	226118	9.92	106536	13.17	119327	15.73	47537	6.66
M98988-3	177566	9.05	223429	9.92	106409	13.17	117443	15.73	47573	6.64

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Surrogate Recovery Summary

Job Number: M98988
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Method: SW846 8260B Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
M98988-1	G104922.D	106.0	110.0	113.0
M99031-3MS	G104928.D	108.0	109.0	106.0
M99031-3MSD	G104929.D	107.0	109.0	104.0
MSG4232-BS	G104912A.D	106.0	110.0	105.0
MSG4232-MB	G104914.D	107.0	107.0	113.0

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	70-130%
S2 = Toluene-D8	70-130%
S3 = 4-Bromofluorobenzene	70-130%

Volatile Surrogate Recovery Summary

Job Number: M98988
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Method: SW846 8260B Matrix: SO

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
M98988-2	E52840.D	91.0	95.0	98.0
M98988-3	K51603.D	106.0	115.0	123.0
M98988-4	E52842.D	93.0	97.0	102.0
M98988-5	E52843.D	91.0	98.0	103.0
M98991-14MS	K51587.D	97.0	109.0	109.0
M98991-14MSD	K51588.D	108.0	121.0	116.0
M99080-8MS	E52849.D	91.0	97.0	99.0
M99080-8MSD	E52850.D	88.0	94.0	97.0
MSE2213-BS	E52829.D	82.0	86.0	91.0
MSE2213-BSD	E52830.D	84.0	88.0	94.0
MSE2213-MB	E52836.D	82.0	86.0	90.0
MSK1709-BS	K51578.D	110.0	124.0	119.0
MSK1709-BSD	K51579.D	108.0	121.0	117.0
MSK1709-MB	K51581.D	98.0	107.0	110.0

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	70-130%
S2 = Toluene-D8	70-130%
S3 = 4-Bromofluorobenzene	70-130%

New England ACCUTEST LABORATORIES

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: M98988
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24569-MB	I71645.D	1	04/19/11	KR	04/07/11	OP24569	MSI2553

The QC reported here applies to the following samples: Method: SW846 8270C

M98988-2, M98988-3, M98988-4, M98988-5

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic acid	ND	500	39	ug/kg	
95-57-8	2-Chlorophenol	ND	250	13	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	500	17	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	500	29	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	500	50	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	990	250	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	500	250	ug/kg	
95-48-7	2-Methylphenol	ND	500	14	ug/kg	
	3&4-Methylphenol	ND	500	26	ug/kg	
88-75-5	2-Nitrophenol	ND	500	30	ug/kg	
100-02-7	4-Nitrophenol	ND	990	250	ug/kg	
87-86-5	Pentachlorophenol	ND	500	46	ug/kg	
108-95-2	Phenol	ND	250	41	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	500	37	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	500	34	ug/kg	
83-32-9	Acenaphthene	ND	250	21	ug/kg	
208-96-8	Acenaphthylene	ND	250	19	ug/kg	
62-53-3	Aniline	ND	500	500	ug/kg	
120-12-7	Anthracene	ND	250	20	ug/kg	
56-55-3	Benzo(a)anthracene	ND	250	9.1	ug/kg	
50-32-8	Benzo(a)pyrene	ND	250	15	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	250	29	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	250	16	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	250	7.3	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	250	20	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	250	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	250	21	ug/kg	
106-47-8	4-Chloroaniline	ND	500	120	ug/kg	
218-01-9	Chrysene	ND	250	8.1	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	250	19	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	250	5.3	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	250	24	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	250	22	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	500	120	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	500	24	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	250	6.0	ug/kg	

Method Blank Summary

Job Number: M98988
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24569-MB	I71645.D	1	04/19/11	KR	04/07/11	OP24569	MSI2553

The QC reported here applies to the following samples: Method: SW846 8270C

M98988-2, M98988-3, M98988-4, M98988-5

CAS No.	Compound	Result	RL	MDL	Units	Q
53-70-3	Dibenzo(a,h)anthracene	ND	250	16	ug/kg	
132-64-9	Dibenzofuran	ND	250	21	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	250	23	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	250	13	ug/kg	
84-66-2	Diethyl phthalate	ND	250	22	ug/kg	
131-11-3	Dimetbyl phthalate	ND	250	17	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	250	17	ug/kg	
206-44-0	Fluoranthene	ND	250	8.4	ug/kg	
86-73-7	Fluorene	ND	250	5.5	ug/kg	
118-74-1	Hexachlorobenzene	ND	250	21	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	500	3.3	ug/kg	
67-72-1	Hexachloroethane	ND	250	20	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	250	15	ug/kg	
78-59-1	Isophorone	ND	250	25	ug/kg	
91-57-6	2-Methylnaphthalene	ND	250	21	ug/kg	
88-74-4	2-Nitroaniline	ND	500	120	ug/kg	
99-09-2	3-Nitroaniline	ND	500	120	ug/kg	
100-01-6	4-Nitroaniline	ND	500	18	ug/kg	
91-20-3	Naphthalene	ND	250	5.8	ug/kg	
98-95-3	Nitrobenzene	ND	250	7.3	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	250	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	250	13	ug/kg	
85-01-8	Phenanthrene	ND	250	6.4	ug/kg	
129-00-0	Pyrene	ND	250	8.0	ug/kg	
110-86-1	Pyridine	ND	500	500	ug/kg	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	76%	30-130%
4165-62-2	Phenol-d5	76%	30-130%
118-79-6	2,4,6-Tribromophenol	58%	30-130%
4165-60-0	Nitrobenzene-d5	77%	30-130%
321-60-8	2-Fluorobiphenyl	86%	30-130%
1718-51-0	Terphenyl-d14	96%	30-130%

Blank Spike Summary

Job Number: M98988
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24569-BS	I71646.D	1	04/19/11	KR	04/07/11	OP24569	MSI2553

The QC reported here applies to the following samples: Method: SW846 8270C

M98988-2, M98988-3, M98988-4, M98988-5

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
65-85-0	Benzoic acid	4970	2210	44	30-130
95-57-8	2-Chlorophenol	4970	3410	69	30-130
59-50-7	4-Chloro-3-methyl phenol	4970	4560	92	30-130
120-83-2	2,4-Dichlorophenol	4970	4200	85	30-130
105-67-9	2,4-Dimethylphenol	4970	3700	74	30-130
51-28-5	2,4-Dinitrophenol	4970	2170	44	30-130
534-52-1	4,6-Dinitro-o-cresol	4970	4200	85	30-130
95-48-7	2-Methylphenol	4970	3580	72	30-130
	3&4-Methylphenol	9940	9320	94	30-130
88-75-5	2-Nitrophenol	4970	4260	86	30-130
100-02-7	4-Nitrophenol	4970	4650	94	30-130
87-86-5	Pentachlorophenol	4970	4480	90	30-130
108-95-2	Phenol	4970	3420	69	30-130
95-95-4	2,4,5-Trichlorophenol	4970	4110	83	30-130
88-06-2	2,4,6-Trichlorophenol	4970	3950	79	30-130
83-32-9	Acenaphthene	2490	1940	78	40-140
208-96-8	Acenaphthylene	2490	1490	60	40-140
62-53-3	Aniline	2490	1080	43	40-140
120-12-7	Anthracene	2490	2060	83	40-140
56-55-3	Benzo(a)anthracene	2490	2330	94	40-140
50-32-8	Benzo(a)pyrene	2490	1930	78	40-140
205-99-2	Benzo(b)fluoranthene	2490	2070	83	40-140
191-24-2	Benzo(g,h,i)perylene	2490	2320	93	40-140
207-08-9	Benzo(k)fluoranthene	2490	2280	92	40-140
101-55-3	4-Bromophenyl phenyl ether	2490	2260	91	40-140
85-68-7	Butyl benzyl phthalate	2490	2250	91	40-140
91-58-7	2-Chloronaphthalene	2490	1940	78	40-140
106-47-8	4-Chloroaniline	2490	1650	66	40-140
218-01-9	Chrysene	2490	2200	89	40-140
111-91-1	bis(2-Chloroethoxy)methane	2490	2030	82	40-140
111-44-4	bis(2-Chloroethyl)ether	2490	1650	66	40-140
108-60-1	bis(2-Chloroisopropyl)ether	2490	1630	66	40-140
7005-72-3	4-Chlorophenyl phenyl ether	2490	2030	82	40-140
121-14-2	2,4-Dinitrotoluene	2490	2000	80	40-140
606-20-2	2,6-Dinitrotoluene	2490	2040	82	40-140
91-94-1	3,3'-Dichlorobenzidine	2490	1870	75	40-140

Blank Spike Summary

Job Number: M98988
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24569-BS	I71646.D	1	04/19/11	KR	04/07/11	OP24569	MSI2553

The QC reported here applies to the following samples: Method: SW846 8270C

M98988-2, M98988-3, M98988-4, M98988-5

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
53-70-3	Dibenzo(a,h)anthracene	2490	2410	97	40-140
132-64-9	Dibenzofuran	2490	2010	81	40-140
84-74-2	Di-n-butyl phthalate	2490	2310	93	40-140
117-84-0	Di-n-octyl phthalate	2490	2580	104	40-140
84-66-2	Diethyl phthalate	2490	2140	86	40-140
131-11-3	Dimethyl phthalate	2490	2040	82	40-140
117-81-7	bis(2-Ethylhexyl)phthalate	2490	2390	96	40-140
206-44-0	Fluoranthene	2490	2210	89	40-140
86-73-7	Fluorene	2490	2010	81	40-140
118-74-1	Hexachlorobenzene	2490	2210	89	40-140
77-47-4	Hexachlorocyclopentadiene	2490	1080	43	40-140
67-72-1	Hexachloroethane	2490	1550	62	40-140
193-39-5	Indeno(1,2,3-cd)pyrene	2490	2570	103	40-140
78-59-1	Isophorone	2490	2130	86	40-140
91-57-6	2-Methylnaphthalene	2490	1920	77	40-140
88-74-4	2-Nitroaniline	2490	2000	80	40-140
99-09-2	3-Nitroaniline	2490	1760	71	40-140
100-01-6	4-Nitroaniline	2490	1840	74	40-140
91-20-3	Naphthalene	2490	1980	80	40-140
98-95-3	Nitrobenzene	2490	1950	78	40-140
621-64-7	N-Nitroso-di-n-propylamine	2490	1880	76	40-140
86-30-6	N-Nitrosodiphenylamine	2490	2120	85	40-140
85-01-8	Phenanthrene	2490	2130	86	40-140
129-00-0	Pyrene	2490	2170	87	40-140
110-86-1	Pyridine	2490	1090	44	40-140

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	72%	30-130%
4165-62-2	Phenol-d5	74%	30-130%
118-79-6	2,4,6-Tribromophenol	90%	30-130%
4165-60-0	Nitrobenzene-d5	84%	30-130%
321-60-8	2-Fluorobiphenyl	83%	30-130%
1718-51-0	Terphenyl-d14	95%	30-130%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M98988
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Not Sample from this SDG.

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24569-MS	I71647.D	1	04/19/11	KR	04/07/11	OP24569	MSI2553
OP24569-MSD	I71648.D	1	04/19/11	KR	04/07/11	OP24569	MSI2553
M99080-2	I71649.D	1	04/19/11	KR	04/07/11	OP24569	MSI2553

The QC reported here applies to the following samples: Method: SW846 8270C

M98988-2, M98988-3, M98988-4, M98988-5

6.3.1 6

CAS No.	Compound	M99080-2 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
65-85-0	Benzoic acid	ND		5280	898	17* [a]	552	10* [a]	48* [b]	30-130/30
95-57-8	2-Chlorophenol	ND		5280	3090	58	2890	55	7	30-130/30
59-50-7	4-Chloro-3-methyl phenol	ND		5280	3710	70	3290	62	12	30-130/30
120-83-2	2,4-Dichlorophenol	ND		5280	3490	66	2960	56	16	30-130/30
105-67-9	2,4-Dimethylphenol	ND		5280	3350	63	3160	60	6	30-130/30
51-28-5	2,4-Dinitrophenol	ND		5280	1190	23* [a]	502	10* [a]	81* [b]	30-130/30
534-52-1	4,6-Dinitro-o-cresol	ND		5280	3190	60	1480	28* [a]	73* [b]	30-130/30
95-48-7	2-Methylphenol	ND		5280	3430	65	3040	58	12	30-130/30
	3&4-Methylphenol	ND		10600	8620	82	7960	75	8	30-130/30
88-75-5	2-Nitrophenol	ND		5280	3260	62	2580	49	23	30-130/30
100-02-7	4-Nitrophenol	ND		5280	4210	80	3670	70	14	30-130/30
87-86-5	Pentachlorophenol	ND		5280	4270	81	2500	47	52* [b]	30-130/30
108-95-2	Phenol	ND		5280	3030	57	2790	53	8	30-130/30
95-95-4	2,4,5-Trichlorophenol	ND		5280	3870	73	3180	60	20	30-130/30
88-06-2	2,4,6-Trichlorophenol	ND		5280	3980	75	3170	60	23	30-130/30
83-32-9	Acenaphthene	ND		2640	1750	66	1590	60	10	40-140/30
208-96-8	Acenaphthylene	ND		2640	1350	51	1260	48	7	40-140/30
62-53-3	Aniline	ND		2640	1150	44	1010	38* [a]	13	40-140/30
120-12-7	Anthracene	ND		2640	1850	70	1630	62	13	40-140/30
56-55-3	Benzo(a)anthracene	ND		2640	2110	80	1860	70	13	40-140/30
50-32-8	Benzo(a)pyrene	ND		2640	1840	70	1680	64	9	40-140/30
205-99-2	Benzo(b)fluoranthene	ND		2640	2000	76	1810	69	10	40-140/30
191-24-2	Benzo(g,h,i)perylene	ND		2640	2390	90	1920	73	22	40-140/30
207-08-9	Benzo(k)fluoranthene	ND		2640	2130	81	1910	72	11	40-140/30
101-55-3	4-Bromophenyl phenyl ether	ND		2640	2230	84	1710	65	26	40-140/30
85-68-7	Butyl benzyl phthalate	ND		2640	1990	75	1640	62	19	40-140/30
91-58-7	2-Chloronaphthalene	ND		2640	1860	70	1700	64	9	40-140/30
106-47-8	4-Chloroaniline	ND		2640	1410	53	1220	46	14	40-140/30
218-01-9	Chrysene	ND		2640	1960	74	1720	65	13	40-140/30
111-91-1	bis(2-Chloroethoxy)methane	ND		2640	1560	59	1450	55	7	40-140/30
111-44-4	bis(2-Chloroethyl)ether	ND		2640	1380	52	1350	51	2	40-140/30
108-60-1	bis(2-Chloroisopropyl)ether	ND		2640	1540	58	1320	50	15	40-140/30
7005-72-3	4-Chlorophenyl phenyl ether	ND		2640	1820	69	1670	63	9	40-140/30
121-14-2	2,4-Dinitrotoluene	ND		2640	2010	76	1660	63	19	40-140/30
606-20-2	2,6-Dinitrotoluene	ND		2640	1960	74	1620	61	19	40-140/30
91-94-1	3,3'-Dichlorobenzidine	ND		2640	1750	66	1580	60	10	40-140/30

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M98988
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24569-MS	I71647.D	1	04/19/11	KR	04/07/11	OP24569	MSI2553
OP24569-MSD	I71648.D	1	04/19/11	KR	04/07/11	OP24569	MSI2553
M99080-2	I71649.D	1	04/19/11	KR	04/07/11	OP24569	MSI2553

The QC reported here applies to the following samples: Method: SW846 8270C

M98988-2, M98988-3, M98988-4, M98988-5

CAS No.	Compound	M99080-2 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
53-70-3	Dibenzo(a,h)anthracene	ND		2640	2460	93	2050	78	18	40-140/30
132-64-9	Dibenzofuran	ND		2640	1660	63	1550	59	7	40-140/30
84-74-2	Di-n-butyl phthalate	ND		2640	2040	77	1740	66	16	40-140/30
117-84-0	Di-n-octyl phthalate	ND		2640	2300	87	1990	75	14	40-140/30
84-66-2	Diethyl phthalate	ND		2640	1900	72	1730	66	9	40-140/30
131-11-3	Dimethyl phthalate	ND		2640	1940	73	1670	63	15	40-140/30
117-81-7	bis(2-Ethylhexyl)phthalate	ND		2640	2080	79	1780	67	16	40-140/30
206-44-0	Fluoranthene	ND		2640	1990	75	1790	68	11	40-140/30
86-73-7	Fluorene	ND		2640	1850	70	1730	66	7	40-140/30
118-74-1	Hexachlorobenzene	ND		2640	2000	76	1700	64	16	40-140/30
77-47-4	Hexachlorocyclopentadiene	ND		2640	740	28* [a]	524	20* [a]	34* [b]	40-140/30
67-72-1	Hexachloroethane	ND		2640	1440	55	1270	48	13	40-140/30
193-39-5	Indeno(1,2,3-cd)pyrene	ND		2640	2480	94	2010	76	21	40-140/30
78-59-1	Isophorone	ND		2640	1560	59	1400	53	11	40-140/30
91-57-6	2-Methylnaphthalene	ND		2640	1630	62	1500	57	8	40-140/30
88-74-4	2-Nitroaniline	ND		2640	2000	76	1700	64	16	40-140/30
99-09-2	3-Nitroaniline	ND		2640	1600	61	1550	59	3	40-140/30
100-01-6	4-Nitroaniline	ND		2640	1630	62	1620	61	1	40-140/30
91-20-3	Naphthalene	ND		2640	1650	62	1490	56	10	40-140/30
98-95-3	Nitrobenzene	ND		2640	1450	55	1370	52	6	40-140/30
621-64-7	N-Nitroso-di-n-propylamine	ND		2640	1700	64	1480	56	14	40-140/30
86-30-6	N-Nitrosodiphenylamine	ND		2640	1880	71	1670	63	12	40-140/30
85-01-8	Phenanthrene	ND		2640	1910	72	1700	64	12	40-140/30
129-00-0	Pyrene	ND		2640	2050	78	1660	63	21	40-140/30
110-86-1	Pyridine	ND		2640	837	32* [a]	680	26* [a]	21	40-140/30

CAS No.	Surrogate Recoveries	MS	MSD	M99080-2	Limits
367-12-4	2-Fluorophenol	56%	55%	59%	30-130%
4165-62-2	Phenol-d5	59%	54%	60%	30-130%
118-79-6	2,4,6-Tribromophenol	77%	62%	61%	30-130%
4165-60-0	Nitrobenzene-d5	59%	56%	54%	30-130%
321-60-8	2-Fluorobiphenyl	75%	68%	66%	30-130%
1718-51-0	Terphenyl-d14	81%	70%	77%	30-130%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M98988
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24569-MS	I71647.D	1	04/19/11	KR	04/07/11	OP24569	MSI2553
OP24569-MSD	I71648.D	1	04/19/11	KR	04/07/11	OP24569	MSI2553
M99080-2	I71649.D	1	04/19/11	KR	04/07/11	OP24569	MSI2553

The QC reported here applies to the following samples: Method: SW846 8270C

M98988-2, M98988-3, M98988-4, M98988-5

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.
(b) High RPD due to possible matrix interference and/or sample non-homogeneity.

Semivolatile Internal Standard Area Summary

Job Number: M98988
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Check Std:	MSI2553-CC2552	Injection Date:	04/18/11
Lab File ID:	I71637.D	Injection Time:	21:22
Instrument ID:	GCMSI	Method:	SW846 8270C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	133716	5.47	468690	6.78	256224	9.24	413693	11.76	361737	16.72	339372	19.26
Upper Limit [a]	267432	5.97	937380	7.28	512448	9.74	827386	12.26	723474	17.22	678744	19.76
Lower Limit [b]	66858	4.97	234345	6.28	128112	8.74	206847	11.26	180869	16.22	169686	18.76
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP24627-BS	134602	5.47	470045	6.77	262750	9.24	439404	11.76	390605	16.72	332997	19.26
OP24627-MS	121537	5.47	431846	6.77	235134	9.24	379013	11.76	320407	16.72	282888	19.26
OP24627-MSD	127263	5.47	450650	6.77	248042	9.24	402684	11.76	366092	16.72	344940	19.26
M99189-6	104141	5.47	378094	6.77	205735	9.23	342620	11.76	297432	16.72	283069	19.25
ZZZZZZ	127657	5.47	462595	6.77	248915	9.23	414340	11.76	341017	16.72	330431	19.25
ZZZZZZ	104083	5.46	375617	6.77	203436	9.23	333956	11.76	267656	16.72	261899	19.25
OP24569-MB	113174	5.47	401961	6.77	209551	9.23	329098	11.75	250712	16.72	224881	19.25
OP24569-BS	145539	5.47	440368	6.77	249072	9.24	369145	11.76	289036	16.72	271358	19.25
OP24569-MS	153455	5.48	559729	6.78	278661	9.24	404958	11.76	313426	16.72	281430	19.25
OP24569-MSD	138481	5.48	483033	6.78	242602	9.23	393503	11.76	334220	16.72	299963	19.25
M99080-2	138863	5.48	519242	6.77	269276	9.23	404212	11.76	318100	16.72	294668	19.25
M98988-2	146213	5.47	520205	6.77	267906	9.23	408094	11.76	315692	16.72	292699	19.25
M98988-3	151514	5.48	528622	6.77	277351	9.23	416588	11.76	312411	16.72	275485	19.25
M98988-4	174201	5.48	619548	6.78	321667	9.23	473877	11.76	338615	16.72	288578	19.25
M98988-5	137238	5.47	484376	6.77	264699	9.23	377274	11.76	281465	16.71	236156	19.25
ZZZZZZ	143275	5.47	543886	6.77	276932	9.23	413239	11.75	310327	16.72	278298	19.25
ZZZZZZ	128401	5.49	302874	6.80	262741	9.33	348229	11.85	443916	16.76	555614	19.28
ZZZZZZ	152716	5.48	540663	6.77	279888	9.23	426275	11.75	343288	16.71	318240	19.25
ZZZZZZ	169108	5.48	599396	6.77	307675	9.23	477357	11.75	379258	16.72	356093	19.25

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Napbthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Surrogate Recovery Summary

Job Number: M98988
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Method: SW846 8270C	Matrix: SO

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
M98988-2	I71650.D	68.0 [a]	66.0 [a]	72.0 [a]	67.0 [a]	72.0 [a]	82.0 [a]
M98988-3	I71651.D	62.0	61.0	68.0	61.0	70.0	82.0
M98988-4	I71652.D	66.0	66.0	64.0	56.0	71.0	87.0
M98988-5	I71653.D	71.0	70.0	68.0	61.0	77.0	90.0
OP24569-BS	I71646.D	72.0	74.0	90.0	84.0	83.0	95.0
OP24569-MB	I71645.D	76.0	76.0	58.0	77.0	86.0	96.0
OP24569-MS	I71647.D	56.0	59.0	77.0	59.0	75.0	81.0
OP24569-MSD	I71648.D	55.0	54.0	62.0	56.0	68.0	70.0

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	30-130%
S2 = Phenol-d5	30-130%
S3 = 2,4,6-Tribromophenol	30-130%
S4 = Nitrobenzene-d5	30-130%
S5 = 2-Fluorobiphenyl	30-130%
S6 = Terphenyl-d14	30-130%

(a) Surrogate recovery adjusted for double spike.

New England ACCUTEST LABORATORIES

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Percent Solids Raw Data Summary

Percent Solids Raw Data Summary

Job Number: M98988
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample: M98988-2 **Analyzed:** 05-APR-11 by MC **Method:** SM21 2540 B MOD.
ClientID: ROST -4 PZ(E)10.5-11.5

Wet Weight (Total)	26.863	g
Tare Weight	17.06	g
Dry Weight (Total)	25.731	g
Solids, Percent	88.5	%

Sample: M98988-3 **Analyzed:** 05-APR-11 by MC **Method:** SM21 2540 B MOD.
ClientID: ROST -4 PZ(E)17-18

Wet Weight (Total)	35.705	g
Tare Weight	21.974	g
Dry Weight (Total)	34.92	g
Solids, Percent	94.3	%

Sample: M98988-4 **Analyzed:** 05-APR-11 by MC **Method:** SM21 2540 B MOD.
ClientID: ROST -4 PZ(E)27-28

Wet Weight (Total)	34.277	g
Tare Weight	24.372	g
Dry Weight (Total)	33.436	g
Solids, Percent	91.5	%

Sample: M98988-5 **Analyzed:** 05-APR-11 by MC **Method:** SM21 2540 B MOD.
ClientID: ROST -4 PZ(E)36-37

Wet Weight (Total)	37.563	g
Tare Weight	25.848	g
Dry Weight (Total)	36.815	g
Solids, Percent	93.6	%

7.1

7

Roxana ROST 4-PZ

Laboratory SDG: M99080

Data Reviewer: Tony Sedlacek

Peer Reviewer: Jeff Aust

Date Reviewed: 6/8/2011

Guidance: USEPA National Functional Guidelines for Superfund Organic Methods Data Review 2008

Sample Identification	Sample Identification
TB 040411	ROST-4PZ(F)11-12
ROST-4PZ(F)21-22	ROST-4PZ(F)36.5-37.5
ROST-4PZ(A)11.5-12.5 EB	ROST-4PZ(A)11.5-12.5
ROST-4PZ(A)27-28	ROST-4PZ(A)36-37

1.0 Data Package Completeness

Were all items delivered as specified in the QAPP and COC as appropriate?

No, the COC requested TPH-DRO,TPH-ORO and TPH-GRO analyses for all samples except the trip blank but samples were analyzed for SVOCs. A pre-populated COC with TPH analyses was used for this SDG, and the TPH was not crossed out and replaced with SVOC analysis. URS contacted the laboratory and indicated that the samples required SVOC analysis instead of TPH analyses. Samples were analyzed for SVOCs. No qualification of data was required.

2.0 Laboratory Case Narrative \ Cooler Receipt Form

Were problems noted in the laboratory case narrative or cooler receipt form?

Yes, the laboratory case narrative indicated samples were received by the laboratory at 1.9° C which is outside temperature criteria 4°C ± 2°C. All samples were received in good condition; no qualification of data was required. VOC and SVOC LCS recoveries were outside evaluation criteria. VOC and SVOC MS/MSD recoveries and RPDs were outside evaluation criteria. Although not indicated in the laboratory case narrative, analytes were detected in the method blank. Samples were evaluated and qualified using professional judgment. These issues are addressed further in the appropriate sections below.

No problems were indicated in the cooler receipt form.

3.0 Holding Times

Were samples extracted/analyzed within applicable limits?

Yes

4.0 Blank Contamination

Were any analytes detected in the Method Blanks, Field Blanks or Trip Blanks?

Yes

Blank ID	Parameter	Analyte	Concentration/Amount
MSP1728-MB	VOCs	Methylene chloride	3.8 µg/kg
MSE2212-MB	VOCs	Methylene chloride	42.2 µg/kg
OP24605-MB	SVOCs	Di-n-butyl phthalate	5.4 µg/L
OP24605-MB	SVOCs	Bis(2-Ethylhexyl)phthalate	8.0 µg/L

Qualifications due to blank contamination are included in the table below. Analytical data that were reported non-detect or at concentrations greater than five times (5X) the associated blank concentration (10X for common laboratory contaminants) did not require qualification. Method blank OP24605-MB is associated with equipment blank sample ROST-4PZ(A)11.5-12.5 EB. Equipment blank samples are quality control samples and are not qualified.

Sample ID	Parameter	Analyte	New Reporting Limit (RL)	Qualification
ROST-4PZ(F)21-22	VOCs	Methylene chloride	-	**U**

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

No

LCS/ LCSD ID	Parameter	Analyte	LCS/LCSD Recovery	RPD	LCS/LCSD/ RPD Criteria
MSP1728-BS	VOCs	Acetone	**137**	N/A	70-130
MSP1728-BS	VOCs	Acrolein	**2164**	N/A	70-130
MSE2212-BS	VOCs	Acetone	**212**	N/A	70-130
MSE2212-BS	VOCs	Acrolein	**1368**	N/A	70-130
MSE2212-BS	VOCs	Acrylonitrile	**412**	N/A	70-130
MSE2212-BS	VOCs	2-Butanone	**144**	N/A	70-130
MSE2212-BS	VOCs	Dichlorodifluoromethane	**62**	N/A	70-130
MSE2212-BS	VOCs	2-Hexanone	**168**	N/A	70-130
MSG4238-BS	VOCs	Acrolein	**1624**	N/A	70-130

LCS/ LCSD ID	Parameter	Analyte	LCS/LCSD Recovery	RPD	LCS/LCSD/ RPD Criteria
MSG4238-BS	VOCs	2-Chloroethyl vinyl ether	**26**	N/A	70-130
MSG4238-BS	VOCs	Dichlorodifluoromethane	**61**	N/A	70-130
MSE2213-BS/BSD	VOCs	2-Chloroethyl vinyl ether	37/54	**36**	10-160/25
OP24605-BS	SVOCs	Benzoic acid	**8**	N/A	30-130
OP24605-BS	SVOCs	4-Chloroaniline	**37**	N/A	40-140
OP24605-BS	SVOCs	Hexachlorocyclopentadiene	**29**	N/A	40-140
OP24605-BS	SVOCs	Pyridine	**39**	N/A	40-140

Analytical data that required qualification based on LCS data are included in the table below. Analytical data reported as non-detect and associated with LCS recoveries above evaluation criteria, indicating a possible high bias, did not require qualification. LCS MSG4238 was associated with trip blank TB 040411 and equipment blank ROST-4PZ(A)11.5-12.5 EB. Trip blank and equipment blank samples are quality control samples and are not qualified. Samples did not require qualification if LCS/LSCD recoveries were within evaluation criteria and only RPDs were outside evaluation critiera. LCS OP24605 was associated with equipment blank ROST-4PZ(A)11.5-12.5 EB. Equipment blank samples are quality control samples and are not qualified.

Field ID	Parameter	Analyte	Qualification
ROST-4PZ(F)21-22	VOCs	Dichlorodifluoromethane	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Field ID	Parameter	Surrogate	Recovery	Criteria
ROST-4PZ(F)21-22	SVOCs	2,4,6-Tribromophenol	**251**	30-130

Analytical data that required qualification based on surrogate data are included in the table below. Analytical data which were reported as nondetect and associated with surrogate recoveries above evaluation criteria, indicating a possible high bias, did not require qualification.

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

Were MS/MSD samples analyzed as part of this SDG?

Yes, sample ROST-4PZ(F)11-12 was spiked and analyzed for VOCs and SVOCs.

Were MS/MSD recoveries within evaluation criteria?

No, 13 out of 69 VOC MS recoveries, 9 out of 69 VOC MSD recoveries and 6 out of 69 VOC MS/MSD RPDs in sample ROST-4PZ(F)11-12 were outside evaluation criteria and were not listed individually.

MS/MSD ID	Parameter	Analyte	MS/MSD Recovery	RPD	MS/MSD/ RPD Criteria
ROST-4PZ(F)11-12	SVOCs	Benzoic Acid	**17**/**10**	**48**	30-130/30
ROST-4PZ(F)11-12	SVOCs	2,4-Dinitrophenol	**23**/**10**	**81**	30-130/30
ROST-4PZ(F)11-12	SVOCs	4,6-Dinitro-o-cresol	60/**28**	**72**	30-130/30
ROST-4PZ(F)11-12	SVOCs	Pentachlorophenol	81/47	**52**	30-130/30
ROST-4PZ(F)11-12	SVOCs	Anthracene	44/**38**	13	40-140/30
ROST-4PZ(F)11-12	SVOCs	Hexachlorocyclopentadine	**28**/**20**	**34**	40-140/30
ROST-4PZ(F)11-12	SVOCs	Pyridine	**32**/**26**	21	40-140/30

USEPA National Functional Guidelines for Organic Data Review indicates that organic data does not require qualification based on MS/MSD data alone and LCS recoveries were within evaluation criteria for these compounds. Analytes with LCS and MS/MSD recoveries outside evaluation criteria were previously qualified due to LCS recoveries, no additional qualification of data was required.

8.0 Internal Standard (IS) Recoveries

Were internal standard area recoveries within evaluation criteria?

Yes

9.0 Laboratory Duplicate Results

Were laboratory duplicate samples collected as part of this SDG?

No

10.0 Field Duplicate Results

Were field duplicate samples collected as part of this SDG?

No

11.0 Sample Dilutions

For samples that were diluted and nondetect, were undiluted results also reported?

Analytes were detected in samples that were diluted.

12.0 Additional Qualifications

Were additional qualifications applied?

Yes

Professional judgment was used to qualify the common laboratory contaminants acetone reported at concentrations less than two times (2X) the RL. Additionally, USEPA Method 5035A states that acidification of certain soils with sodium bisulfate may produce a false positive acetone artifact of 100-200 ppb, or more. Acetone reported at concentrations less than 200 ppb (ug/kg) were qualified.

Field ID	Analyte	New RL	Qualification	Comments
ROST-4PZ(F)36.5-37.5	Acetone	0.0187	**U**	Professional Judgment
ROST-4PZ(A)27-28	Acetone	0.0231	**U**	Professional Judgment

New England ACCUTEST LABORATORIES

05/03/11

Technical Report for

Shell Oil

URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Roxana - ROST-4-PZ SAP#340061

Accutest Job Number: M99080

Sampling Dates: 04/04/11 - 04/05/11

Report to:

URS Corporation

Elizabeth_Kunkel@URSCorp.com

ATTN: Elizabeth Kunkel

Reviewed on 6/8/11

Total number of pages in report: **115**

ACCREDITED IN ACCORDANCE WITH nelac

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

Reza Tand
Lab Director

Client Service contact: Kristen Blanchard 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) ISO 17025:2005 (L2235)

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Test results relate only to samples analyzed.

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Table of Contents

Sample Summary

Shell Oil

Job No: M99080

URSMOSTL:97216640 170 East Rand Avenue Hartford, IL
Project No: Roxana - ROST-4-PZ SAP#340061

Sample Number	Collected Date	Time By	Received	Matrix Code	Matrix Type	Client Sample ID
M99080-1	04/04/11	00:00 NS	04/06/11	AQ	Trip Blank Water	TB 040411
M99080-2	04/04/11	09:45 NS	04/06/11	SO	Soil	ROST-4PZ(F) 11-12
M99080-2D	04/04/11	09:45 NS	04/06/11	SO	Soil Matrix Spike	ROST-4PZ(F) 11-12
M99080-2S	04/04/11	09:45 NS	04/06/11	SO	Soil Dup/MSD	ROST-4PZ(F) 11-12
M99080-3	04/04/11	10:45 NS	04/06/11	SO	Soil	ROST-4PZ(F) 21-22
M99080-4	04/04/11	11:45 NS	04/06/11	SO	Soil	ROST-4PZ(F) 36.5-37.5
M99080-5	04/05/11	08:15 NS	04/06/11	AQ	Equipment Blank	ROST-4PZ(A) 11.5-12.5 EB
M99080-6	04/05/11	08:45 NS	04/06/11	SO	Soil	ROST-4PZ(A) 11.5-12.5
M99080-7	04/05/11	09:15 NS	04/06/11	SO	Soil	ROST-4PZ(A) 27-28
M99080-8	04/05/11	10:00 NS	04/06/11	SO	Soil	ROST-4PZ(A) 36-37

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

ACCUTEST Laboratories

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	Shell Oil	**Job No**	M99080
Site:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL	**Report Date**	4/22/2011 1:08:16 PM

7 Sample(s), 1 Trip Blank(s) and 0 Field Blank(s) were collected on between 04/04/2011 and 04/05/2011 and were received at Accutest on 04/06/2011 properly preserved, at 1.9 Deg. C and intact. These Samples received an Accutest job number of M99080. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

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

Volatiles by GCMS By Method SW846 8260B

Matrix AQ **Batch ID:** MSG4238

- All samples were analyzed within the recommended method holding time.
- Sample(s) M99200-2MS, M99200-2MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Blank Spike Recovery(s) for 2-Chloroethyl vinyl ether, Dichlorodifluoromethane are outside control limits. Blank Spike meets program technical requirements.
- MS/MSD Recovery(s) for 2-Chloroethyl vinyl ether are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- MSG4238-BS/MS/MSD for Acrolein: Outside control limits. Associated samples are non-detect for this compound.

Matrix SO **Batch ID:** MSE2212

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) M99247-2MS, M99247-2MSD were used as the QC samples indicated.
- Blank Spike Recovery(s) for Dichlorodifluoromethane are outside control limits. Blank Spike meets program technical requirements.
- Matrix Spike Recovery(s) for Dichlorodifluoromethane are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Matrix Spike Duplicate Recovery(s) for 2-Hexanone, Dichlorodifluoromethane are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- RPD(s) for MSD for 1,2,3-Trichlorobenzene, 2-Chloroethyl vinyl ether are outside control limits for sample M99247-2MSD. High RPD due to possible matrix interference and/or sample non-homogeneity.
- MSE2212-MSD for Acrolein, Acetone, Acrylonitrile, 2-Butanone (MEK): Outside control limits. Associated samples are non-detect for this compound.
- MSE2212-BS for 2-Butanone (MEK), 2-Hexanone, Acetone, Acrolein, Acrylonitrile: Outside control limits. Associated samples are non-detect for this compound.
- M99247-2MS for Acetone, Acrolein, Acrylonitrile: Outside control limits. Associated samples are non-detect for this compound.

Matrix SO **Batch ID:** MSE2213

- All samples were analyzed within the recommended method holding time.
- Sample(s) M99080-8MS, M99080-8MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- RPD for MSE2213-BSD for 2-Chloroethyl vinyl ether: Outside control limits. Associated samples are non-detect for this compound.

Matrix SO **Batch ID:** MSP1728

- All samples were analyzed within the recommended method holding time.

Volatiles by GCMS By Method SW846 8260B

Matrix SO	Batch ID: MSP1728

- Sample(s) M99080-2MS, M99080-2MSD were used as the QC samples indicated.
- Blank Spike Recovery(s) for Acetone are outside control limits. Blank Spike meets program technical requirements.
- Matrix Spike Recovery(s) for 1,1,2,2-Tetrachloroethane, 1,1-Dichloroethane, 1,1-Dichloroethene, 1,2,3-Trichloropropane, 1,2-Dibromo-3-chloropropane, 4-Methyl-2-pentanone (MIBK), Bromochloromethane, Carbon disulfide, Chloroethane, trans-1,2-Dichloroethene, Vinyl chloride are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Matrix Spike Duplicate Recovery(s) for 1,1,2,2-Tetrachloroethane, 1,2,3-Trichloropropane, 1,2-Dibromo-3-chloropropane, 4-Methyl-2-pentanone (MIBK), Chloromethane, 2,2-Dichloropropane, 2-Butanone (MEK) are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- RPD(s) for MSD for 1,1,1-Trichloroethane, 1,1-Dichloropropene, 2,2-Dichloropropane, 2-Butanone (MEK), Carbon disulfide, Vinyl chloride are outside control limits for sample M99080-2MSD. High RPD due to possible matrix interference and/or sample non-homogeneity.
- M99080-2MS/2MSD for Acrolein, Acrylonitrile: Outside control limits. Associated samples are non-detect for this compound.
- MSP1728-BS for Acrolein: Outside control limits. Associated samples are non-detect for this compound.
- M99080-2MSD has internal standards outside control limits due to possible matrix interference. Confirmed by MS/MSD.

Extractables by GCMS By Method SW846 8270C

Matrix AQ	Batch ID: OP24605

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) M99246-2MS, M99246-2MSD were used as the QC samples indicated.
- Sample(s) M99080-5 have compound(s) reported with a "B" qualifier, indicating analyte is found in the associated method blank.
- OP24605-BS/MS/MSD Recovery(s) for 4-Chloroaniline, Benzoic Acid, Hexachlorocyclopentadiene, Pyridine are outside control limits. Blank Spike meets program technical requirements.
- RPD(s) for MSD for bis(2-Ethylhexyl)phthalate are outside control limits for sample OP24605-MSD. High RPD due to possible matrix interference and/or sample non-homogeneity.

Matrix SO	Batch ID: OP24569

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) M99080-2MS, M99080-2MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Matrix Spike Recovery(s) for 2,4-Dinitrophenol, Benzoic acid, Hexachlorocyclopentadiene, Pyridine are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Matrix Spike Duplicate Recovery(s) for Aniline, Pyridine, 2,4-Dinitrophenol, 4,6-Dinitro-o-cresol, Benzoic acid, Hexachlorocyclopentadiene are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- RPD(s) for MSD for 2,4-Dinitrophenol, 4,6-Dinitro-o-cresol, Benzoic acid, Hexachlorocyclopentadiene, Pentachlorophenol are outside control limits for sample OP24569-MSD. High RPD due to possible matrix interference and/or sample non-homogeneity.
- M99080-3 for 2,4,6-Tribromophenol: Outside control limits due to dilution.

Wet Chemistry By Method SM21 2540 B MOD.

Matrix SO	Batch ID: GN34566

- Sample(s) M99080-2DUP were used as the QC samples for Solids, Percent.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety.The Aecutest Lahoratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(M99080).

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	TB 040411		
Lab Sample ID:	M99080-1	**Date Sampled:**	04/04/11
Matrix:	AQ - Trip Blank Water	**Date Received:**	04/06/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	G105069.D	1	04/18/11	EL	n/a	n/a	MSG4238
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	4.6	ug/l	
107-02-8	Acrolein	ND	25	17	ug/l	
107-13-1	Acrylonitrile	ND	5.0	3.0	ug/l	
71-43-2	Benzene	ND	0.50	0.35	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.52	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.91	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.62	ug/l	
75-25-2	Bromoform	ND	1.0	0.73	ug/l	
74-83-9	Bromomethane	ND	2.0	0.95	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.1	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.49	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.37	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.53	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.35	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.42	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.61	ug/l	
75-00-3	Chloroethane	ND	2.0	0.76	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	0.83	ug/l	
67-66-3	Chloroform	ND	1.0	0.72	ug/l	
74-87-3	Chloromethane	ND	2.0	0.81	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.58	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.67	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.3	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.86	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.76	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.74	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.77	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.81	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.61	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.63	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.74	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.70	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB 040411		
Lab Sample ID:	M99080-1	**Date Sampled:**	04/04/11
Matrix:	AQ - Trip Blank Water	**Date Received:**	04/06/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.66	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.74	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.83	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.73	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	0.44	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.23	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.23	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.90	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.61	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.56	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.5	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.51	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.45	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.54	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.3	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.94	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.75	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.43	ug/l	
100-42-5	Styrene	ND	5.0	0.68	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.64	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.89	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.39	ug/l	
108-88-3	Toluene	ND	1.0	0.74	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.57	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.35	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.72	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.49	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.61	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.62	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.51	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	0.51	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.86	ug/l	
	m,p-Xylene	ND	1.0	0.62	ug/l	
95-47-6	o-Xylene	ND	1.0	0.56	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.56	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB 040411		
Lab Sample ID:	M99080-1	Date Sampled:	04/04/11
Matrix:	AQ - Trip Blank Water	Date Received:	04/06/11
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	116%		70-130%
2037-26-5	Toluene-D8	110%		70-130%
460-00-4	4-Bromofluorobenzene	107%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(F) 11-12		
Lab Sample ID:	M99080-2	Date Sampled:	04/04/11
Matrix:	SO - Soil	Date Received:	04/06/11
Method:	SW846 8260B	Percent Solids:	93.8
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P52175.D	1	04/11/11	AMY	n/a	n/a	MSP1728
Run #2	E52844.D	1	04/15/11	TD	n/a	n/a	MSE2213

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	3.97 g	5.0 ml	
Run #2	5.37 g	10.0 ml	100 ul

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	0.0067	0.0067	mg/kg	
107-02-8	Acrolein	ND	0.034	0.023	mg/kg	
107-13-1	Acrylonitrile	ND	0.0067	0.0011	mg/kg	
71-43-2	Benzene	0.00088	0.00067	0.00015	mg/kg	
108-86-1	Bromobenzene	ND	0.0067	0.00020	mg/kg	
74-97-5	Bromochloromethane	ND	0.0067	0.00064	mg/kg	
75-27-4	Bromodichloromethane	ND	0.0027	0.00025	mg/kg	
75-25-2	Bromoform	ND	0.0027	0.0013	mg/kg	
74-83-9	Bromomethane	ND	0.0027	0.00047	mg/kg	
78-93-3	2-Butanone (MEK)	ND	0.0067	0.0020	mg/kg	
104-51-8	n-Butylbenzene	ND	0.0067	0.00057	mg/kg	
135-98-8	sec-Butylbenzene	ND	0.0067	0.00049	mg/kg	
98-06-6	tert-Butylbenzene	ND	0.0067	0.00030	mg/kg	
75-15-0	Carbon disulfide	ND	0.0067	0.00025	mg/kg	
56-23-5	Carbon tetrachloride	ND	0.0027	0.00025	mg/kg	
108-90-7	Chlorobenzene	ND	0.0027	0.00029	mg/kg	
75-00-3	Chloroethane	ND	0.0067	0.00043	mg/kg	
110-75-8	2-Chloroethyl vinyl ether	ND [a]	0.51	0.51	mg/kg	
67-66-3	Chloroform	ND	0.0027	0.00022	mg/kg	
74-87-3	Chloromethane	ND	0.0067	0.00017	mg/kg	
95-49-8	o-Chlorotoluene	ND	0.0067	0.00025	mg/kg	
106-43-4	p-Chlorotoluene	ND	0.0067	0.00029	mg/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0067	0.00095	mg/kg	
124-48-1	Dibromochloromethane	ND	0.0027	0.0013	mg/kg	
106-93-4	1,2-Dibromoethane	ND	0.0027	0.00020	mg/kg	
95-50-1	1,2-Dichlorobenzene	ND	0.0027	0.00042	mg/kg	
541-73-1	1,3-Dichlorobenzene	ND	0.0027	0.00041	mg/kg	
106-46-7	1,4-Dichlorobenzene	ND	0.0027	0.00040	mg/kg	
75-71-8	Dichlorodifluoromethane	ND	0.0027	0.00027	mg/kg	
75-34-3	1,1-Dichloroethane	ND	0.0027	0.00022	mg/kg	
107-06-2	1,2-Dichloroethane	ND	0.0027	0.00016	mg/kg	
75-35-4	1,1-Dichloroethene	ND	0.0027	0.00018	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(F) 11-12		
Lab Sample ID:	M99080-2	Date Sampled:	04/04/11
Matrix:	SO - Soil	Date Received:	04/06/11
Method:	SW846 8260B	Percent Solids:	93.8
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-59-2	cis-1,2-Dichloroethene	ND	0.0027	0.00027	mg/kg	
156-60-5	trans-1,2-Dichloroethene	ND	0.0027	0.00025	mg/kg	
78-87-5	1,2-Dichloropropane	ND	0.0027	0.00023	mg/kg	
142-28-9	1,3-Dichloropropane	ND	0.0067	0.00015	mg/kg	
594-20-7	2,2-Dichloropropane	ND	0.0067	0.00026	mg/kg	
563-58-6	1,1-Dichloropropene	ND	0.0067	0.00028	mg/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0027	0.00067	mg/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0027	0.0013	mg/kg	
97-63-2	Ethyl methacrylate	ND	0.0067	0.00017	mg/kg	
100-41-4	Ethylbenzene	0.0023	0.0027	0.00015	mg/kg	J
87-68-3	Hexachlorobutadiene	ND	0.0067	0.00097	mg/kg	
591-78-6	2-Hexanone	ND	0.0067	0.0012	mg/kg	
98-82-8	Isopropylbenzene	ND	0.0067	0.00033	mg/kg	
99-87-6	p-Isopropyltoluene	ND	0.0067	0.00052	mg/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	0.0027	0.00017	mg/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	0.0067	0.0013	mg/kg	
74-95-3	Methylene bromide	ND	0.0067	0.0013	mg/kg	
75-09-2	Methylene chloride	ND	0.0027	0.00022	mg/kg	
103-65-1	n-Propylbenzene	ND	0.0067	0.00038	mg/kg	
100-42-5	Styrene	ND	0.0067	0.00022	mg/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0067	0.00023	mg/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.0027	0.00024	mg/kg	
127-18-4	Tetrachloroethene	ND	0.0027	0.00022	mg/kg	
108-88-3	Toluene	0.0027	0.0067	0.00024	mg/kg	J
87-61-6	1,2,3-Trichlorobenzene	ND	0.0067	0.0010	mg/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0067	0.00069	mg/kg	
71-55-6	1,1,1-Trichloroethane	ND	0.0027	0.00017	mg/kg	
79-00-5	1,1,2-Trichloroethane	ND	0.0027	0.00017	mg/kg	
79-01-6	Trichloroethene	ND	0.0027	0.00028	mg/kg	
75-69-4	Trichlorofluoromethane	ND	0.0027	0.00021	mg/kg	
96-18-4	1,2,3-Trichloropropane	ND	0.0067	0.00022	mg/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	0.0067	0.00035	mg/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	0.0067	0.00029	mg/kg	
108-05-4	Vinyl Acetate	ND	0.0067	0.0037	mg/kg	
75-01-4	Vinyl chloride	ND	0.0027	0.00036	mg/kg	
	m,p-Xylene	ND	0.0027	0.00047	mg/kg	
95-47-6	o-Xylene	ND	0.0027	0.00018	mg/kg	
1330-20-7	Xylene (total)	ND	0.0027	0.00018	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(F) 11-12		
Lab Sample ID:	M99080-2	**Date Sampled:**	04/04/11
Matrix:	SO - Soil	**Date Received:**	04/06/11
Method:	SW846 8260B	**Percent Solids:**	93.8
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	123%	93%	70-130%
2037-26-5	Toluene-D8	124%	97%	70-130%
460-00-4	4-Bromofluorobenzene	114%	104%	70-130%

(a) Result is from Run# 2

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

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

Report of Analysis

Client Sample ID:	ROST-4PZ(F) 11-12		
Lab Sample ID:	M99080-2	Date Sampled:	04/04/11
Matrix:	SO - Soil	Date Received:	04/06/11
Method:	SW846 8270C SW846 3546	Percent Solids:	93.8
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I71649.D	1	04/19/11	KR	04/07/11	OP24569	MS12553
Run #2							

	Initial Weight	Final Volume
Run #1	20.9 g	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic acid	ND	0.51	0.040	mg/kg	
95-57-8	2-Chlorophenol	ND	0.25	0.014	mg/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	0.51	0.018	mg/kg	
120-83-2	2,4-Dichlorophenol	ND	0.51	0.030	mg/kg	
105-67-9	2,4-Dimethylphenol	ND	0.51	0.051	mg/kg	
51-28-5	2,4-Dinitrophenol	ND	1.0	0.25	mg/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	0.51	0.25	mg/kg	
95-48-7	2-Methylphenol	ND	0.51	0.015	mg/kg	
	3&4-Methylphenol	ND	0.51	0.027	mg/kg	
88-75-5	2-Nitrophenol	ND	0.51	0.031	mg/kg	
100-02-7	4-Nitrophenol	ND	1.0	0.25	mg/kg	
87-86-5	Pentachlorophenol	ND	0.51	0.047	mg/kg	
108-95-2	Phenol	ND	0.25	0.042	mg/kg	
95-95-4	2,4,5-Trichlorophenol	ND	0.51	0.038	mg/kg	
88-06-2	2,4,6-Trichlorophenol	ND	0.51	0.035	mg/kg	
83-32-9	Acenaphthene	ND	0.25	0.022	mg/kg	
208-96-8	Acenaphthylene	ND	0.25	0.019	mg/kg	
62-53-3	Aniline	ND	0.51	0.51	mg/kg	
120-12-7	Anthracene	ND	0.25	0.020	mg/kg	
56-55-3	Benzo(a)anthracene	ND	0.25	0.0094	mg/kg	
50-32-8	Benzo(a)pyrene	ND	0.25	0.015	mg/kg	
205-99-2	Benzo(b)fluoranthene	ND	0.25	0.030	mg/kg	
191-24-2	Benzo(g,h,i)perylene	ND	0.25	0.017	mg/kg	
207-08-9	Benzo(k)fluoranthene	ND	0.25	0.0075	mg/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	0.25	0.021	mg/kg	
85-68-7	Butyl benzyl phthalate	ND	0.25	0.011	mg/kg	
91-58-7	2-Chloronaphthalene	ND	0.25	0.021	mg/kg	
106-47-8	4-Chloroaniline	ND	0.51	0.13	mg/kg	
218-01-9	Chrysene	ND	0.25	0.0083	mg/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	0.25	0.020	mg/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	0.25	0.0055	mg/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	0.25	0.024	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(F) 11-12		
Lab Sample ID:	M99080-2	Date Sampled:	04/04/11
Matrix:	SO - Soil	Date Received:	04/06/11
Method:	SW846 8270C SW846 3546	Percent Solids:	93.8
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	0.25	0.023	mg/kg	
121-14-2	2,4-Dinitrotoluene	ND	0.51	0.13	mg/kg	
606-20-2	2,6-Dinitrotoluene	ND	0.51	0.025	mg/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	0.25	0.0061	mg/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	0.25	0.017	mg/kg	
132-64-9	Dibenzofuran	ND	0.25	0.022	mg/kg	
84-74-2	Di-n-butyl phthalate	ND	0.25	0.023	mg/kg	
117-84-0	Di-n-octyl phthalate	ND	0.25	0.013	mg/kg	
84-66-2	Diethyl phthalate	ND	0.25	0.022	mg/kg	
131-11-3	Dimethyl phthalate	ND	0.25	0.018	mg/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	0.25	0.018	mg/kg	
206-44-0	Fluoranthene	ND	0.25	0.0087	mg/kg	
86-73-7	Fluorene	ND	0.25	0.0056	mg/kg	
118-74-1	Hexachlorobenzene	ND	0.25	0.022	mg/kg	
77-47-4	Hexachlorocyclopentadiene	ND	0.51	0.0034	mg/kg	
67-72-1	Hexachloroethane	ND	0.25	0.021	mg/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.25	0.016	mg/kg	
78-59-1	Isophorone	ND	0.25	0.025	mg/kg	
91-57-6	2-Methylnaphthalene	ND	0.25	0.021	mg/kg	
88-74-4	2-Nitroaniline	ND	0.51	0.13	mg/kg	
99-09-2	3-Nitroaniline	ND	0.51	0.13	mg/kg	
100-01-6	4-Nitroaniline	ND	0.51	0.019	mg/kg	
91-20-3	Naphthalene	ND	0.25	0.0059	mg/kg	
98-95-3	Nitrobenzene	ND	0.25	0.0075	mg/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	0.25	0.016	mg/kg	
86-30-6	N-Nitrosodiphenylamine	ND	0.25	0.014	mg/kg	
85-01-8	Phenanthrene	ND	0.25	0.0066	mg/kg	
129-00-0	Pyrene	ND	0.25	0.0082	mg/kg	
110-86-1	Pyridine	ND	0.51	0.51	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	59%		30-130%
4165-62-2	Phenol-d5	60%		30-130%
118-79-6	2,4,6-Tribromophenol	61%		30-130%
4165-60-0	Nitrobenzene-d5	54%		30-130%
321-60-8	2-Fluorobiphenyl	66%		30-130%
1718-51-0	Terphenyl-d14	77%		30-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(F) 21-22		
Lab Sample ID:	M99080-3	Date Sampled:	04/04/11
Matrix:	SO - Soil	Date Received:	04/06/11
Method:	SW846 8260B	Percent Solids:	81.5
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	E52807.D	1	04/14/11	TD	n/a	n/a	MSE2212
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	4.35 g	10.0 ml	5.0 ul
Run #2			

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	15	15	mg/kg	
107-02-8	Acrolein	ND	76	52	mg/kg	
107-13-1	Acrylonitrile	ND	15	2.4	mg/kg	
71-43-2	Benzene	8.11	1.5	0.34	mg/kg	
108-86-1	Bromobenzene	ND	15	0.44	mg/kg	
74-97-5	Bromochloromethane	ND	15	1.5	mg/kg	
75-27-4	Bromodichloromethane	ND	6.1	0.57	mg/kg	
75-25-2	Bromoform	ND	6.1	3.0	mg/kg	
74-83-9	Bromomethane	ND	6.1	1.1	mg/kg	
78-93-3	2-Butanone (MEK)	ND	15	4.5	mg/kg	
104-51-8	n-Butylbenzene	16.6	15	1.3	mg/kg	
135-98-8	sec-Butylbenzene	8.16	15	1.1	mg/kg	J
98-06-6	tert-Butylbenzene	ND	15	0.69	mg/kg	
75-15-0	Carbon disulfide	ND	15	0.57	mg/kg	
56-23-5	Carbon tetrachloride	ND	6.1	0.58	mg/kg	
108-90-7	Chlorobenzene	ND	6.1	0.66	mg/kg	
75-00-3	Chloroethane	ND	15	0.98	mg/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	15	15	mg/kg	
67-66-3	Chloroform	ND	6.1	0.49	mg/kg	
74-87-3	Chloromethane	ND	15	0.39	mg/kg	
95-49-8	o-Chlorotoluene	ND	15	0.57	mg/kg	
106-43-4	p-Chlorotoluene	ND	15	0.66	mg/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	15	2.2	mg/kg	
124-48-1	Dibromochloromethane	ND	6.1	3.0	mg/kg	
106-93-4	1,2-Dibromoethane	ND	6.1	0.46	mg/kg	
95-50-1	1,2-Dichlorobenzene	ND	6.1	0.95	mg/kg	
541-73-1	1,3-Dichlorobenzene	ND	6.1	0.93	mg/kg	
106-46-7	1,4-Dichlorobenzene	ND	6.1	0.90	mg/kg	
75-71-8	Dichlorodifluoromethane	ND	6.1	0.61	mg/kg	UJ
75-34-3	1,1-Dichloroethane	ND	6.1	0.51	mg/kg	
107-06-2	1,2-Dichloroethane	ND	6.1	0.36	mg/kg	
75-35-4	1,1-Dichloroethene	ND	6.1	0.41	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(F) 21-22		
Lab Sample ID:	M99080-3	Date Sampled:	04/04/11
Matrix:	SO - Soil	Date Received:	04/06/11
Method:	SW846 8260B	Percent Solids:	81.5
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-59-2	cis-1,2-Dichloroethene	ND	6.1	0.61	mg/kg	
156-60-5	trans-1,2-Dichloroethene	ND	6.1	0.57	mg/kg	
78-87-5	1,2-Dichloropropane	ND	6.1	0.52	mg/kg	
142-28-9	1,3-Dichloropropane	ND	15	0.33	mg/kg	
594-20-7	2,2-Dichloropropane	ND	15	0.59	mg/kg	
563-58-6	1,1-Dichloropropene	ND	15	0.64	mg/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	6.1	1.5	mg/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	6.1	3.0	mg/kg	
97-63-2	Ethyl methacrylate	ND	15	0.38	mg/kg	
100-41-4	Ethylbenzene	233	6.1	0.33	mg/kg	
87-68-3	Hexachlorobutadiene	ND	15	2.2	mg/kg	
591-78-6	2-Hexanone	ND	15	2.6	mg/kg	
98-82-8	Isopropylbenzene	24.1	15	0.75	mg/kg	
99-87-6	p-Isopropyltoluene	8.48	15	1.2	mg/kg	J
1634-04-4	Methyl Tert Butyl Ether	ND	6.1	0.40	mg/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	15	3.0	mg/kg	
74-95-3	Methylene bromide	ND	15	3.0	mg/kg	
75-09-2	Methylene chloride	~~3.00~~ ND	6.1	0.50	mg/kg	J U
103-65-1	n-Propylbenzene	45.2	15	0.85	mg/kg	
100-42-5	Styrene	ND	15	0.49	mg/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	15	0.51	mg/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	6.1	0.54	mg/kg	
127-18-4	Tetrachloroethene	ND	6.1	0.51	mg/kg	
108-88-3	Toluene	225	15	0.54	mg/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	15	2.3	mg/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	15	1.6	mg/kg	
71-55-6	1,1,1-Trichloroethane	ND	6.1	0.40	mg/kg	
79-00-5	1,1,2-Trichloroethane	ND	6.1	0.38	mg/kg	
79-01-6	Trichloroethene	ND	6.1	0.63	mg/kg	
75-69-4	Trichlorofluoromethane	ND	6.1	0.47	mg/kg	
96-18-4	1,2,3-Trichloropropane	ND	15	0.50	mg/kg	
95-63-6	1,2,4-Trimethylbenzene	172	15	0.79	mg/kg	
108-67-8	1,3,5-Trimethylbenzene	46.2	15	0.66	mg/kg	
108-05-4	Vinyl Acetate	ND	15	8.3	mg/kg	
75-01-4	Vinyl chloride	ND	6.1	0.81	mg/kg	
	m,p-Xylene	512	6.1	1.1	mg/kg	
95-47-6	o-Xylene	183	6.1	0.40	mg/kg	
1330-20-7	Xylene (total)	695	6.1	0.40	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(F) 21-22		
Lab Sample ID:	M99080-3	Date Sampled:	04/04/11
Matrix:	SO - Soil	Date Received:	04/06/11
Method:	SW846 8260B	Percent Solids:	81.5
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	86%		70-130%
2037-26-5	Toluene-D8	90%		70-130%
460-00-4	4-Bromofluorobenzene	97%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(F) 21-22		
Lab Sample ID:	M99080-3	Date Sampled:	04/04/11
Matrix:	SO - Soil	Date Received:	04/06/11
Method:	SW846 8270C SW846 3546	Percent Solids:	81.5
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I71655.D	1	04/19/11	KR	04/07/11	OP24569	MSI2553
Run #2	S23158.D	20	04/19/11	PR	04/07/11	OP24569	MSS980

	Initial Weight	Final Volume
Run #1	21.0 g	1.0 ml
Run #2	21.0 g	1.0 ml

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic acid	ND	0.58	0.045	mg/kg	
95-57-8	2-Chlorophenol	ND	0.29	0.016	mg/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	0.58	0.020	mg/kg	
120-83-2	2,4-Dichlorophenol	ND	0.58	0.034	mg/kg	
105-67-9	2,4-Dimethylphenol	ND	0.58	0.058	mg/kg	
51-28-5	2,4-Dinitrophenol	ND	1.2	0.29	mg/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	0.58	0.29	mg/kg	
95-48-7	2-Methylphenol	ND	0.58	0.017	mg/kg	
	3&4-Methylphenol	ND	0.58	0.031	mg/kg	
88-75-5	2-Nitrophenol	ND	0.58	0.035	mg/kg	
100-02-7	4-Nitrophenol	ND	1.2	0.29	mg/kg	
87-86-5	Pentachlorophenol	ND	0.58	0.054	mg/kg	
108-95-2	Phenol	ND	0.29	0.049	mg/kg	
95-95-4	2,4,5-Trichlorophenol	ND	0.58	0.044	mg/kg	
88-06-2	2,4,6-Trichlorophenol	ND	0.58	0.040	mg/kg	
83-32-9	Acenaphthene	ND	0.29	0.025	mg/kg	
208-96-8	Acenaphthylene	ND	0.29	0.022	mg/kg	
62-53-3	Aniline	ND	0.58	0.58	mg/kg	
120-12-7	Anthracene	1.76	0.29	0.023	mg/kg	
56-55-3	Benzo(a)anthracene	0.161	0.29	0.011	mg/kg	J
50-32-8	Benzo(a)pyrene	ND	0.29	0.017	mg/kg	
205-99-2	Benzo(b)fluoranthene	ND	0.29	0.034	mg/kg	
191-24-2	Benzo(g,h,i)perylene	ND	0.29	0.019	mg/kg	
207-08-9	Benzo(k)fluoranthene	ND	0.29	0.0087	mg/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	0.29	0.024	mg/kg	
85-68-7	Butyl benzyl phthalate	ND	0.29	0.013	mg/kg	
91-58-7	2-Chloronaphthalene	ND	0.29	0.025	mg/kg	
106-47-8	4-Chloroaniline	ND	0.58	0.15	mg/kg	
218-01-9	Chrysene	0.371	0.29	0.0095	mg/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	0.29	0.023	mg/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	0.29	0.0063	mg/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	0.29	0.028	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(F) 21-22		
Lab Sample ID:	M99080-3	**Date Sampled:**	04/04/11
Matrix:	SO - Soil	**Date Received:**	04/06/11
Method:	SW846 8270C SW846 3546	**Percent Solids:**	81.5
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	0.29	0.026	mg/kg	
121-14-2	2,4-Dinitrotoluene	ND	0.58	0.15	mg/kg	
606-20-2	2,6-Dinitrotoluene	ND	0.58	0.028	mg/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	0.29	0.0070	mg/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	0.29	0.019	mg/kg	
132-64-9	Dibenzofuran	ND	0.29	0.025	mg/kg	
84-74-2	Di-n-butyl phthalate	ND	0.29	0.027	mg/kg	
117-84-0	Di-n-octyl phthalate	ND	0.29	0.015	mg/kg	
84-66-2	Diethyl phthalate	ND	0.29	0.025	mg/kg	
131-11-3	Dimethyl phthalate	ND	0.29	0.021	mg/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	0.29	0.020	mg/kg	
206-44-0	Fluoranthene	ND	0.29	0.0099	mg/kg	
86-73-7	Fluorene	ND	0.29	0.0064	mg/kg	
118-74-1	Hexachlorobenzene	ND	0.29	0.025	mg/kg	
77-47-4	Hexachlorocyclopentadiene	ND	0.58	0.0039	mg/kg	
67-72-1	Hexachloroethane	ND	0.29	0.024	mg/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.29	0.018	mg/kg	
78-59-1	Isophorone	ND	0.29	0.029	mg/kg	
91-57-6	2-Methylnaphthalene	62.2 [a]	5.8	0.49	mg/kg	
88-74-4	2-Nitroaniline	ND	0.58	0.15	mg/kg	
99-09-2	3-Nitroaniline	ND	0.58	0.15	mg/kg	
100-01-6	4-Nitroaniline	ND	0.58	0.022	mg/kg	
91-20-3	Naphthalene	31.4 [a]	5.8	0.14	mg/kg	
98-95-3	Nitrobenzene	ND	0.29	0.0087	mg/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	0.29	0.019	mg/kg	
86-30-6	N-Nitrosodiphenylamine	ND	0.29	0.016	mg/kg	
85-01-8	Phenanthrene	11.4	0.29	0.0075	mg/kg	
129-00-0	Pyrene	0.801	0.29	0.0094	mg/kg	
110-86-1	Pyridine	ND	0.58	0.58	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	47%	74%	30-130%
4165-62-2	Phenol-d5	69%	67%	30-130%
118-79-6	2,4,6-Tribromophenol	78%	251% [b]	30-130%
4165-60-0	Nitrobenzene-d5	56%	39%	30-130%
321-60-8	2-Fluorobiphenyl	69%	99%	30-130%
1718-51-0	Terphenyl-d14	68%	79%	30-130%

(a) Result is from Run# 2

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(F) 21-22		
Lab Sample ID:	M99080-3	**Date Sampled:**	04/04/11
Matrix:	SO - Soil	**Date Received:**	04/06/11
Method:	SW846 8270C SW846 3546	**Percent Solids:**	81.5
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q

(b) Outside control limits due to dilution.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(F) 36.5-37.5		
Lab Sample ID:	M99080-4	Date Sampled:	04/04/11
Matrix:	SO - Soil	Date Received:	04/06/11
Method:	SW846 8260B	Percent Solids:	96.1
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P52176.D	1	04/11/11	AMY	n/a	n/a	MSP1728
Run #2	E52845.D	1	04/15/11	TD	n/a	n/a	MSE2213

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	4.42 g	5.0 ml	
Run #2	4.88 g	10.0 ml	100 ul

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND 0.0187	~~0.0059~~ 0.0187	0.0059	mg/kg	U
107-02-8	Acrolein	ND	0.029	0.020	mg/kg	
107-13-1	Acrylonitrile	ND	0.0059	0.00093	mg/kg	
71-43-2	Benzene	0.0014	0.00059	0.00013	mg/kg	
108-86-1	Bromobenzene	ND	0.0059	0.00017	mg/kg	
74-97-5	Bromochloromethane	ND	0.0059	0.00056	mg/kg	
75-27-4	Bromodichloromethane	ND	0.0024	0.00022	mg/kg	
75-25-2	Bromoform	ND	0.0024	0.0012	mg/kg	
74-83-9	Bromomethane	ND	0.0024	0.00041	mg/kg	
78-93-3	2-Butanone (MEK)	ND	0.0059	0.0017	mg/kg	
104-51-8	n-Butylbenzene	ND	0.0059	0.00050	mg/kg	
135-98-8	sec-Butylbenzene	ND	0.0059	0.00043	mg/kg	
98-06-6	tert-Butylbenzene	ND	0.0059	0.00026	mg/kg	
75-15-0	Carbon disulfide	ND	0.0059	0.00022	mg/kg	
56-23-5	Carbon tetrachloride	ND	0.0024	0.00022	mg/kg	
108-90-7	Chlorobenzene	ND	0.0024	0.00026	mg/kg	
75-00-3	Chloroethane	ND	0.0059	0.00038	mg/kg	
110-75-8	2-Chloroethyl vinyl ether	ND [a]	0.54	0.54	mg/kg	
67-66-3	Chloroform	ND	0.0024	0.00019	mg/kg	
74-87-3	Chloromethane	ND	0.0059	0.00015	mg/kg	
95-49-8	o-Chlorotoluene	ND	0.0059	0.00022	mg/kg	
106-43-4	p-Chlorotoluene	ND	0.0059	0.00025	mg/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0059	0.00083	mg/kg	
124-48-1	Dibromochloromethane	ND	0.0024	0.0012	mg/kg	
106-93-4	1,2-Dibromoethane	ND	0.0024	0.00018	mg/kg	
95-50-1	1,2-Dichlorobenzene	ND	0.0024	0.00037	mg/kg	
541-73-1	1,3-Dichlorobenzene	ND	0.0024	0.00036	mg/kg	
106-46-7	1,4-Dichlorobenzene	ND	0.0024	0.00035	mg/kg	
75-71-8	Dichlorodifluoromethane	ND	0.0024	0.00024	mg/kg	
75-34-3	1,1-Dichloroethane	ND	0.0024	0.00020	mg/kg	
107-06-2	1,2-Dichloroethane	ND	0.0024	0.00014	mg/kg	
75-35-4	1,1-Dichloroethene	ND	0.0024	0.00016	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(F) 36.5-37.5		
Lab Sample ID:	M99080-4	**Date Sampled:**	04/04/11
Matrix:	SO - Soil	**Date Received:**	04/06/11
Method:	SW846 8260B	**Percent Solids:**	96.1
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-59-2	cis-1,2-Dichloroethene	ND	0.0024	0.00024	mg/kg	
156-60-5	trans-1,2-Dichloroethene	ND	0.0024	0.00022	mg/kg	
78-87-5	1,2-Dichloropropane	ND	0.0024	0.00020	mg/kg	
142-28-9	1,3-Dichloropropane	ND	0.0059	0.00013	mg/kg	
594-20-7	2,2-Dichloropropane	ND	0.0059	0.00023	mg/kg	
563-58-6	1,1-Dichloropropene	ND	0.0059	0.00025	mg/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0024	0.00059	mg/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0024	0.0012	mg/kg	
97-63-2	Ethyl methacrylate	ND	0.0059	0.00015	mg/kg	
100-41-4	Ethylbenzene	0.0023	0.0024	0.00013	mg/kg	J
87-68-3	Hexachlorobutadiene	ND	0.0059	0.00085	mg/kg	
591-78-6	2-Hexanone	ND	0.0059	0.0010	mg/kg	
98-82-8	Isopropylbenzene	ND	0.0059	0.00029	mg/kg	
99-87-6	p-Isopropyltoluene	ND	0.0059	0.00045	mg/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	0.0024	0.00015	mg/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	0.0059	0.0012	mg/kg	
74-95-3	Methylene bromide	ND	0.0059	0.0012	mg/kg	
75-09-2	Methylene chloride	ND	0.0024	0.00019	mg/kg	
103-65-1	n-Propylbenzene	ND	0.0059	0.00033	mg/kg	
100-42-5	Styrene	ND	0.0059	0.00019	mg/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0059	0.00020	mg/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.0024	0.00021	mg/kg	
127-18-4	Tetrachloroethene	ND	0.0024	0.00020	mg/kg	
108-88-3	Toluene	0.0026	0.0059	0.00021	mg/kg	J
87-61-6	1,2,3-Trichlorobenzene	ND	0.0059	0.00090	mg/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0059	0.00060	mg/kg	
71-55-6	1,1,1-Trichloroethane	ND	0.0024	0.00015	mg/kg	
79-00-5	1,1,2-Trichloroethane	ND	0.0024	0.00015	mg/kg	
79-01-6	Trichloroethene	ND	0.0024	0.00024	mg/kg	
75-69-4	Trichlorofluoromethane	ND	0.0024	0.00018	mg/kg	
96-18-4	1,2,3-Trichloropropane	ND	0.0059	0.00019	mg/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	0.0059	0.00030	mg/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	0.0059	0.00025	mg/kg	
108-05-4	Vinyl Acetate	ND	0.0059	0.0032	mg/kg	
75-01-4	Vinyl chloride	ND	0.0024	0.00031	mg/kg	
	m,p-Xylene	0.00090	0.0024	0.00041	mg/kg	J
95-47-6	o-Xylene	ND	0.0024	0.00016	mg/kg	
1330-20-7	Xylene (total)	0.00090	0.0024	0.00016	mg/kg	J

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(F) 36.5-37.5		
Lab Sample ID:	M99080-4	**Date Sampled:**	04/04/11
Matrix:	SO - Soil	**Date Received:**	04/06/11
Method:	SW846 8260B	**Percent Solids:**	96.1
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	123%	90%	70-130%
2037-26-5	Toluene-D8	121%	94%	70-130%
460-00-4	4-Bromofluorobenzene	108%	101%	70-130%

(a) Result is from Run# 2

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(F) 36.5-37.5		
Lab Sample ID:	M99080-4	Date Sampled:	04/04/11
Matrix:	SO - Soil	Date Received:	04/06/11
Method:	SW846 8270C SW846 3546	Percent Solids:	96.1
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I71656.D	1	04/19/11	KR	04/07/11	OP24569	MSI2553
Run #2							

	Initial Weight	Final Volume
Run #1	20.4 g	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic acid	ND	0.51	0.040	mg/kg	
95-57-8	2-Chlorophenol	ND	0.26	0.014	mg/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	0.51	0.018	mg/kg	
120-83-2	2,4-Dichlorophenol	ND	0.51	0.030	mg/kg	
105-67-9	2,4-Dimethylphenol	ND	0.51	0.051	mg/kg	
51-28-5	2,4-Dinitrophenol	ND	1.0	0.26	mg/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	0.51	0.26	mg/kg	
95-48-7	2-Methylphenol	ND	0.51	0.015	mg/kg	
	3&4-Methylphenol	ND	0.51	0.027	mg/kg	
88-75-5	2-Nitrophenol	ND	0.51	0.031	mg/kg	
100-02-7	4-Nitrophenol	ND	1.0	0.26	mg/kg	
87-86-5	Pentachlorophenol	ND	0.51	0.047	mg/kg	
108-95-2	Phenol	ND	0.26	0.042	mg/kg	
95-95-4	2,4,5-Trichlorophenol	ND	0.51	0.038	mg/kg	
88-06-2	2,4,6-Trichlorophenol	ND	0.51	0.035	mg/kg	
83-32-9	Acenaphthene	ND	0.26	0.022	mg/kg	
208-96-8	Acenaphthylene	ND	0.26	0.019	mg/kg	
62-53-3	Aniline	ND	0.51	0.51	mg/kg	
120-12-7	Anthracene	ND	0.26	0.020	mg/kg	
56-55-3	Benzo(a)anthracene	ND	0.26	0.0094	mg/kg	
50-32-8	Benzo(a)pyrene	ND	0.26	0.015	mg/kg	
205-99-2	Benzo(b)fluoranthene	ND	0.26	0.030	mg/kg	
191-24-2	Benzo(g,h,i)perylene	ND	0.26	0.017	mg/kg	
207-08-9	Benzo(k)fluoranthene	ND	0.26	0.0075	mg/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	0.26	0.021	mg/kg	
85-68-7	Butyl benzyl phthalate	ND	0.26	0.011	mg/kg	
91-58-7	2-Chloronaphthalene	ND	0.26	0.021	mg/kg	
106-47-8	4-Chloroaniline	ND	0.51	0.13	mg/kg	
218-01-9	Chrysene	ND	0.26	0.0083	mg/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	0.26	0.020	mg/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	0.26	0.0055	mg/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	0.26	0.024	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(F) 36.5-37.5		
Lab Sample ID:	M99080-4	**Date Sampled:**	04/04/11
Matrix:	SO - Soil	**Date Received:**	04/06/11
Method:	SW846 8270C SW846 3546	**Percent Solids:**	96.1
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	0.26	0.023	mg/kg	
121-14-2	2,4-Dinitrotoluene	ND	0.51	0.13	mg/kg	
606-20-2	2,6-Dinitrotoluene	ND	0.51	0.025	mg/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	0.26	0.0061	mg/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	0.26	0.017	mg/kg	
132-64-9	Dibenzofuran	ND	0.26	0.022	mg/kg	
84-74-2	Di-n-butyl phthalate	ND	0.26	0.023	mg/kg	
117-84-0	Di-n-octyl phthalate	ND	0.26	0.013	mg/kg	
84-66-2	Diethyl phthalate	ND	0.26	0.022	mg/kg	
131-11-3	Dimethyl phthalate	ND	0.26	0.018	mg/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	0.26	0.018	mg/kg	
206-44-0	Fluoranthene	ND	0.26	0.0087	mg/kg	
86-73-7	Fluorene	ND	0.26	0.0056	mg/kg	
118-74-1	Hexachlorobenzene	ND	0.26	0.022	mg/kg	
77-47-4	Hexachlorocyclopentadiene	ND	0.51	0.0034	mg/kg	
67-72-1	Hexachloroethane	ND	0.26	0.021	mg/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.26	0.016	mg/kg	
78-59-1	Isophorone	ND	0.26	0.025	mg/kg	
91-57-6	2-Methylnaphthalene	ND	0.26	0.021	mg/kg	
88-74-4	2-Nitroaniline	ND	0.51	0.13	mg/kg	
99-09-2	3-Nitroaniline	ND	0.51	0.13	mg/kg	
100-01-6	4-Nitroaniline	ND	0.51	0.019	mg/kg	
91-20-3	Naphthalene	ND	0.26	0.0059	mg/kg	
98-95-3	Nitrobenzene	ND	0.26	0.0075	mg/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	0.26	0.016	mg/kg	
86-30-6	N-Nitrosodiphenylamine	ND	0.26	0.014	mg/kg	
85-01-8	Phenanthrene	ND	0.26	0.0066	mg/kg	
129-00-0	Pyrene	ND	0.26	0.0082	mg/kg	
110-86-1	Pyridine	ND	0.51	0.51	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	60%		30-130%
4165-62-2	Phenol-d5	60%		30-130%
118-79-6	2,4,6-Tribromophenol	58%		30-130%
4165-60-0	Nitrobenzene-d5	59%		30-130%
321-60-8	2-Fluorobiphenyl	68%		30-130%
1718-51-0	Terphenyl-d14	80%		30-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(A) 11.5-12.5 EB		
Lab Sample ID:	M99080-5	Date Sampled:	04/05/11
Matrix:	AQ - Equipment Blank	Date Received:	04/06/11
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	G105070.D	1	04/18/11	EL	n/a	n/a	MSG4238
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	4.6	ug/l	
107-02-8	Acrolein	ND	25	17	ug/l	
107-13-1	Acrylonitrile	ND	5.0	3.0	ug/l	
71-43-2	Benzene	ND	0.50	0.35	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.52	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.91	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.62	ug/l	
75-25-2	Bromoform	ND	1.0	0.73	ug/l	
74-83-9	Bromomethane	ND	2.0	0.95	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.1	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.49	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.37	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.53	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.35	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.42	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.61	ug/l	
75-00-3	Chloroethane	ND	2.0	0.76	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	0.83	ug/l	
67-66-3	Chloroform	ND	1.0	0.72	ug/l	
74-87-3	Chloromethane	ND	2.0	0.81	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.58	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.67	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.3	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.86	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.76	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.74	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.77	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.81	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.61	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.63	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.74	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.70	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(A) 11.5-12.5 EB		
Lab Sample ID:	M99080-5	Date Sampled:	04/05/11
Matrix:	AQ - Equipment Blank	Date Received:	04/06/11
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.66	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.74	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.83	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.73	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	0.44	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.23	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.23	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.90	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.61	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.56	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.5	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.51	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.45	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.54	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.3	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.94	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.75	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.43	ug/l	
100-42-5	Styrene	ND	5.0	0.68	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.64	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.89	ug/l	
127-18-4	Tetrachloroetbene	ND	1.0	0.39	ug/l	
108-88-3	Toluene	ND	1.0	0.74	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.57	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.35	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.72	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.49	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.61	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.62	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.51	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	0.51	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.86	ug/l	
	m,p-Xylene	ND	1.0	0.62	ug/l	
95-47-6	o-Xylene	ND	1.0	0.56	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.56	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(A) 11.5-12.5 EB		
Lab Sample ID:	M99080-5	**Date Sampled:**	04/05/11
Matrix:	AQ - Equipment Blank	**Date Received:**	04/06/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	117%		70-130%
2037-26-5	Toluene-D8	111%		70-130%
460-00-4	4-Bromofluorobenzene	107%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(A) 11.5-12.5 EB		
Lab Sample ID:	M99080-5	Date Sampled:	04/05/11
Matrix:	AQ - Equipment Blank	Date Received:	04/06/11
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	S23153.D	1	04/19/11	PR	04/11/11	OP24605	MSS979
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	0.77	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	0.68	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.57	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.69	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	2.2	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	5.0	ug/l	
95-48-7	2-Methylphenol	ND	10	0.48	ug/l	
	3&4-Methylphenol	ND	10	0.63	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.66	ug/l	
100-02-7	4-Nitrophenol	ND	20	5.0	ug/l	
87-86-5	Pentachlorophenol	ND	10	3.3	ug/l	
108-95-2	Phenol	ND	5.0	2.1	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	0.40	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.38	ug/l	
83-32-9	Acenaphthene	ND	5.0	0.34	ug/l	
208-96-8	Acenaphthylene	ND	5.0	1.3	ug/l	
62-53-3	Aniline	ND	10	0.46	ug/l	
120-12-7	Anthracene	ND	5.0	0.27	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	0.27	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	0.23	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	0.27	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	0.61	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.0	0.29	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	0.32	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	0.41	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	0.31	ug/l	
106-47-8	4-Chloroaniline	ND	10	0.58	ug/l	
218-01-9	Chrysene	ND	5.0	0.22	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	0.35	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	0.23	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	0.21	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(A) 11.5-12.5 EB		
Lab Sample ID:	M99080-5	Date Sampled:	04/05/11
Matrix:	AQ - Equipment Blank	Date Received:	04/06/11
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	0.61	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	1.3	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.34	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	2.5	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	0.25	ug/l	
132-64-9	Dibenzofuran	ND	5.0	0.32	ug/l	
84-74-2	Di-n-butyl phthalate	4.6	5.0	0.34	ug/l	JB
117-84-0	Di-n-octyl phthalate	ND	5.0	0.34	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	0.61	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	1.3	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	5.2	2.0	0.49	ug/l	B
206-44-0	Fluoranthene	ND	5.0	0.22	ug/l	
86-73-7	Fluorene	ND	5.0	0.29	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	0.16	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	2.5	ug/l	
67-72-1	Hexachloroethane	ND	5.0	0.43	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	0.29	ug/l	
78-59-1	Isophorone	ND	5.0	0.47	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	0.31	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.33	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.32	ug/l	
100-01-6	4-Nitroaniline	ND	10	0.33	ug/l	
91-20-3	Naphthalene	ND	5.0	0.33	ug/l	
98-95-3	Nitrobenzene	ND	5.0	0.31	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.0	0.41	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.61	ug/l	
85-01-8	Phenanthrene	ND	5.0	0.26	ug/l	
129-00-0	Pyrene	ND	5.0	0.25	ug/l	
110-86-1	Pyridine	ND	10	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	39%		15-110%
4165-62-2	Phenol-d5	27%		15-110%
118-79-6	2,4,6-Tribromophenol	59%		15-110%
4165-60-0	Nitrobenzene-d5	66%		30-130%
321-60-8	2-Fluorobiphenyl	59%		30-130%
1718-51-0	Terphenyl-d14	64%		30-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(A) 11.5-12.5		
Lab Sample ID:	M99080-6	Date Sampled:	04/05/11
Matrix:	SO - Soil	Date Received:	04/06/11
Method:	SW846 8260B	Percent Solids:	97.3
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P52177.D	1	04/11/11	AMY	n/a	n/a	MSP1728
Run #2	E52846.D	1	04/15/11	TD	n/a	n/a	MSE2213

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	4.08 g	5.0 ml	
Run #2	3.68 g	10.0 ml	100 ul

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	0.0602	0.0063	0.0063	mg/kg	
107-02-8	Acrolein	ND	0.031	0.021	mg/kg	
107-13-1	Acrylonitrile	ND	0.0063	0.0010	mg/kg	
71-43-2	Benzene	0.0019	0.00063	0.00014	mg/kg	
108-86-1	Bromobenzene	ND	0.0063	0.00018	mg/kg	
74-97-5	Bromochloromethane	ND	0.0063	0.00060	mg/kg	
75-27-4	Bromodichloromethane	ND	0.0025	0.00024	mg/kg	
75-25-2	Bromoform	ND	0.0025	0.0013	mg/kg	
74-83-9	Bromomethane	ND	0.0025	0.00044	mg/kg	
78-93-3	2-Butanone (MEK)	ND	0.0063	0.0019	mg/kg	
104-51-8	n-Butylbenzene	ND	0.0063	0.00053	mg/kg	
135-98-8	sec-Butylbenzene	ND	0.0063	0.00046	mg/kg	
98-06-6	tert-Butylbenzene	ND	0.0063	0.00028	mg/kg	
75-15-0	Carbon disulfide	ND	0.0063	0.00023	mg/kg	
56-23-5	Carbon tetrachloride	ND	0.0025	0.00024	mg/kg	
108-90-7	Chlorobenzene	ND	0.0025	0.00027	mg/kg	
75-00-3	Chloroethane	ND	0.0063	0.00040	mg/kg	
110-75-8	2-Chloroethyl vinyl ether	ND [a]	0.71	0.71	mg/kg	
67-66-3	Chloroform	ND	0.0025	0.00020	mg/kg	
74-87-3	Chloromethane	ND	0.0063	0.00016	mg/kg	
95-49-8	o-Chlorotoluene	ND	0.0063	0.00024	mg/kg	
106-43-4	p-Chlorotoluene	ND	0.0063	0.00027	mg/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0063	0.00089	mg/kg	
124-48-1	Dibromochloromethane	ND	0.0025	0.0013	mg/kg	
106-93-4	1,2-Dibromoethane	ND	0.0025	0.00019	mg/kg	
95-50-1	1,2-Dichlorobenzene	ND	0.0025	0.00039	mg/kg	
541-73-1	1,3-Dichlorobenzene	ND	0.0025	0.00038	mg/kg	
106-46-7	1,4-Dichlorobenzene	ND	0.0025	0.00037	mg/kg	
75-71-8	Dichlorodifluoromethane	ND	0.0025	0.00025	mg/kg	
75-34-3	1,1-Dichloroethane	ND	0.0025	0.00021	mg/kg	
107-06-2	1,2-Dichloroethane	ND	0.0025	0.00015	mg/kg	
75-35-4	1,1-Dichloroethene	ND	0.0025	0.00017	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(A) 11.5-12.5		
Lab Sample ID:	M99080-6	Date Sampled:	04/05/11
Matrix:	SO - Soil	Date Received:	04/06/11
Method:	SW846 8260B	Percent Solids:	97.3
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-59-2	cis-1,2-Dichloroethene	ND	0.0025	0.00025	mg/kg	
156-60-5	trans-1,2-Dichloroethene	ND	0.0025	0.00024	mg/kg	
78-87-5	1,2-Dichloropropane	ND	0.0025	0.00022	mg/kg	
142-28-9	1,3-Dichloropropane	ND	0.0063	0.00014	mg/kg	
594-20-7	2,2-Dichloropropane	ND	0.0063	0.00025	mg/kg	
563-58-6	1,1-Dichloropropene	ND	0.0063	0.00026	mg/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0025	0.00063	mg/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0025	0.0013	mg/kg	
97-63-2	Ethyl methacrylate	ND	0.0063	0.00016	mg/kg	
100-41-4	Ethylbenzene	0.0070	0.0025	0.00014	mg/kg	
87-68-3	Hexachlorobutadiene	ND	0.0063	0.00091	mg/kg	
591-78-6	2-Hexanone	ND	0.0063	0.0011	mg/kg	
98-82-8	Isopropylbenzene	ND	0.0063	0.00031	mg/kg	
99-87-6	p-Isopropyltoluene	ND	0.0063	0.00049	mg/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	0.0025	0.00016	mg/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	0.0063	0.0013	mg/kg	
74-95-3	Methylene bromide	ND	0.0063	0.0013	mg/kg	
75-09-2	Methylene chloride	ND	0.0025	0.00021	mg/kg	
103-65-1	n-Propylbenzene	ND	0.0063	0.00035	mg/kg	
100-42-5	Styrene	ND	0.0063	0.00020	mg/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0063	0.00021	mg/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.0025	0.00022	mg/kg	
127-18-4	Tetrachloroethene	ND	0.0025	0.00021	mg/kg	
108-88-3	Toluene	0.0070	0.0063	0.00022	mg/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	0.0063	0.00096	mg/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0063	0.00064	mg/kg	
71-55-6	1,1,1-Trichloroethane	ND	0.0025	0.00016	mg/kg	
79-00-5	1,1,2-Trichloroethane	ND	0.0025	0.00016	mg/kg	
79-01-6	Trichloroethene	ND	0.0025	0.00026	mg/kg	
75-69-4	Trichlorofluoromethane	ND	0.0025	0.00019	mg/kg	
96-18-4	1,2,3-Trichloropropane	ND	0.0063	0.00021	mg/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	0.0063	0.00033	mg/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	0.0063	0.00027	mg/kg	
108-05-4	Vinyl Acetate	ND	0.0063	0.0034	mg/kg	
75-01-4	Vinyl chloride	ND	0.0025	0.00033	mg/kg	
	m,p-Xylene	0.00096	0.0025	0.00044	mg/kg	J
95-47-6	o-Xylene	ND	0.0025	0.00017	mg/kg	
1330-20-7	Xylene (total)	0.00096	0.0025	0.00017	mg/kg	J

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(A) 11.5-12.5		
Lab Sample ID:	M99080-6	Date Sampled:	04/05/11
Matrix:	SO - Soil	Date Received:	04/06/11
Method:	SW846 8260B	Percent Solids:	97.3
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	128%	89%	70-130%
2037-26-5	Toluene-D8	124%	91%	70-130%
460-00-4	4-Bromofluorobenzene	119%	96%	70-130%

(a) Result is from Run# 2

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

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

Report of Analysis

Client Sample ID:	ROST-4PZ(A) 11.5-12.5		
Lab Sample ID:	M99080-6	Date Sampled:	04/05/11
Matrix:	SO - Soil	Date Received:	04/06/11
Method:	SW846 8270C SW846 3546	Percent Solids:	97.3
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	171657.D	1	04/19/11	KR	04/07/11	OP24569	MSI2553
Run #2							

	Initial Weight	Final Volume
Run #1	20.4 g	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic acid	0.651	0.50	0.039	mg/kg	
95-57-8	2-Chlorophenol	ND	0.25	0.014	mg/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	0.50	0.018	mg/kg	
120-83-2	2,4-Dichlorophenol	ND	0.50	0.030	mg/kg	
105-67-9	2,4-Dimethylphenol	ND	0.50	0.050	mg/kg	
51-28-5	2,4-Dinitrophenol	ND	1.0	0.25	mg/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	0.50	0.25	mg/kg	
95-48-7	2-Methylphenol	ND	0.50	0.014	mg/kg	
	3&4-Methylphenol	ND	0.50	0.027	mg/kg	
88-75-5	2-Nitrophenol	ND	0.50	0.030	mg/kg	
100-02-7	4-Nitrophenol	ND	1.0	0.25	mg/kg	
87-86-5	Pentachlorophenol	ND	0.50	0.047	mg/kg	
108-95-2	Phenol	ND	0.25	0.042	mg/kg	
95-95-4	2,4,5-Trichlorophenol	ND	0.50	0.038	mg/kg	
88-06-2	2,4,6-Trichlorophenol	ND	0.50	0.035	mg/kg	
83-32-9	Acenaphthene	ND	0.25	0.021	mg/kg	
208-96-8	Acenaphthylene	ND	0.25	0.019	mg/kg	
62-53-3	Aniline	ND	0.50	0.50	mg/kg	
120-12-7	Anthracene	ND	0.25	0.020	mg/kg	
56-55-3	Benzo(a)anthracene	ND	0.25	0.0093	mg/kg	
50-32-8	Benzo(a)pyrene	ND	0.25	0.015	mg/kg	
205-99-2	Benzo(b)fluoranthene	ND	0.25	0.030	mg/kg	
191-24-2	Benzo(g,h,i)perylene	0.0205	0.25	0.016	mg/kg	J
207-08-9	Benzo(k)fluoranthene	ND	0.25	0.0075	mg/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	0.25	0.021	mg/kg	
85-68-7	Butyl benzyl phthalate	0.0143	0.25	0.011	mg/kg	J
91-58-7	2-Chloronaphthalene	ND	0.25	0.021	mg/kg	
106-47-8	4-Chloroaniline	ND	0.50	0.13	mg/kg	
218-01-9	Chrysene	ND	0.25	0.0082	mg/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	0.25	0.020	mg/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	0.25	0.0054	mg/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	0.25	0.024	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(A) 11.5-12.5		
Lab Sample ID:	M99080-6	Date Sampled:	04/05/11
Matrix:	SO - Soil	Date Received:	04/06/11
Method:	SW846 8270C SW846 3546	Percent Solids:	97.3
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	0.25	0.023	mg/kg	
121-14-2	2,4-Dinitrotoluene	ND	0.50	0.13	mg/kg	
606-20-2	2,6-Dinitrotoluene	ND	0.50	0.024	mg/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	0.25	0.0061	mg/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	0.25	0.016	mg/kg	
132-64-9	Dibenzofuran	ND	0.25	0.021	mg/kg	
84-74-2	Di-n-butyl phthalate	ND	0.25	0.023	mg/kg	
117-84-0	Di-n-octyl phthalate	ND	0.25	0.013	mg/kg	
84-66-2	Diethyl phthalate	ND	0.25	0.022	mg/kg	
131-11-3	Dimethyl phthalate	ND	0.25	0.018	mg/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	0.0723	0.25	0.017	mg/kg	J
206-44-0	Fluoranthene	0.0108	0.25	0.0086	mg/kg	J
86-73-7	Fluorene	ND	0.25	0.0055	mg/kg	
118-74-1	Hexachlorobenzene	ND	0.25	0.022	mg/kg	
77-47-4	Hexachlorocyclopentadiene	ND	0.50	0.0034	mg/kg	
67-72-1	Hexachloroethane	ND	0.25	0.021	mg/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.25	0.015	mg/kg	
78-59-1	Isophorone	0.0505	0.25	0.025	mg/kg	J
91-57-6	2-Methylnaphthalene	ND	0.25	0.021	mg/kg	
88-74-4	2-Nitroaniline	ND	0.50	0.13	mg/kg	
99-09-2	3-Nitroaniline	ND	0.50	0.13	mg/kg	
100-01-6	4-Nitroaniline	ND	0.50	0.019	mg/kg	
91-20-3	Naphthalene	ND	0.25	0.0058	mg/kg	
98-95-3	Nitrobenzene	ND	0.25	0.0075	mg/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	0.25	0.016	mg/kg	
86-30-6	N-Nitrosodiphenylamine	ND	0.25	0.013	mg/kg	
85-01-8	Phenanthrene	ND	0.25	0.0065	mg/kg	
129-00-0	Pyrene	0.0511	0.25	0.0081	mg/kg	J
110-86-1	Pyridine	ND	0.50	0.50	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	66%		30-130%
4165-62-2	Phenol-d5	65%		30-130%
118-79-6	2,4,6-Tribromophenol	71%		30-130%
4165-60-0	Nitrobenzene-d5	64%		30-130%
321-60-8	2-Fluorobiphenyl	72%		30-130%
1718-51-0	Terphenyl-d14	80%		30-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(A) 27-28		
Lab Sample ID:	M99080-7	**Date Sampled:**	04/05/11
Matrix:	SO - Soil	**Date Received:**	04/06/11
Method:	SW846 8260B	**Percent Solids:**	95.2
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P52178.D	1	04/11/11	AMY	n/a	n/a	MSP1728
Run #2	E52847.D	1	04/15/11	TD	n/a	n/a	MSE2213

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	4.17 g	5.0 ml	
Run #2	4.27 g	1.0 ml	10.0 ul

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND ~~0.0231~~	0.0231 ~~0.0063~~	0.0063	mg/kg	U
107-02-8	Acrolein	ND	0.032	0.021	mg/kg	
107-13-1	Acrylonitrile	ND	0.0063	0.0010	mg/kg	
71-43-2	Benzene	0.0015	0.00063	0.00014	mg/kg	
108-86-1	Bromobenzene	ND	0.0063	0.00018	mg/kg	
74-97-5	Bromochloromethane	ND	0.0063	0.00060	mg/kg	
75-27-4	Bromodichloromethane	ND	0.0025	0.00024	mg/kg	
75-25-2	Bromoform	ND	0.0025	0.0013	mg/kg	
74-83-9	Bromomethane	ND	0.0025	0.00044	mg/kg	
78-93-3	2-Butanone (MEK)	ND	0.0063	0.0019	mg/kg	
104-51-8	n-Butylbenzene	ND	0.0063	0.00053	mg/kg	
135-98-8	sec-Butylbenzene	ND	0.0063	0.00046	mg/kg	
98-06-6	tert-Butylbenzene	ND	0.0063	0.00028	mg/kg	
75-15-0	Carbon disulfide	ND	0.0063	0.00023	mg/kg	
56-23-5	Carbon tetrachloride	ND	0.0025	0.00024	mg/kg	
108-90-7	Chlorobenzene	ND	0.0025	0.00027	mg/kg	
75-00-3	Chloroethane	ND	0.0063	0.00040	mg/kg	
110-75-8	2-Chloroethyl vinyl ether	ND [a]	0.74	0.74	mg/kg	
67-66-3	Chloroform	ND	0.0025	0.00020	mg/kg	
74-87-3	Chloromethane	ND	0.0063	0.00016	mg/kg	
95-49-8	o-Chlorotoluene	ND	0.0063	0.00024	mg/kg	
106-43-4	p-Chlorotoluene	ND	0.0063	0.00027	mg/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0063	0.00089	mg/kg	
124-48-1	Dibromochloromethane	ND	0.0025	0.0013	mg/kg	
106-93-4	1,2-Dibromoethane	ND	0.0025	0.00019	mg/kg	
95-50-1	1,2-Dichlorobenzene	ND	0.0025	0.00039	mg/kg	
541-73-1	1,3-Dichlorobenzene	ND	0.0025	0.00038	mg/kg	
106-46-7	1,4-Dichlorobenzene	ND	0.0025	0.00037	mg/kg	
75-71-8	Dichlorodifluoromethane	ND	0.0025	0.00025	mg/kg	
75-34-3	1,1-Dichloroethane	ND	0.0025	0.00021	mg/kg	
107-06-2	1,2-Dichloroethane	ND	0.0025	0.00015	mg/kg	
75-35-4	1,1-Dichloroethene	ND	0.0025	0.00017	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(A) 27-28		
Lab Sample ID:	M99080-7	Date Sampled:	04/05/11
Matrix:	SO - Soil	Date Received:	04/06/11
Method:	SW846 8260B	Percent Solids:	95.2
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-59-2	cis-1,2-Dichloroethene	ND	0.0025	0.00025	mg/kg	
156-60-5	trans-1,2-Dichloroethene	ND	0.0025	0.00024	mg/kg	
78-87-5	1,2-Dichloropropane	ND	0.0025	0.00022	mg/kg	
142-28-9	1,3-Dichloropropane	ND	0.0063	0.00014	mg/kg	
594-20-7	2,2-Dichloropropane	ND	0.0063	0.00025	mg/kg	
563-58-6	1,1-Dichloropropene	ND	0.0063	0.00026	mg/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0025	0.00063	mg/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0025	0.0013	mg/kg	
97-63-2	Ethyl methacrylate	ND	0.0063	0.00016	mg/kg	
100-41-4	Ethylbenzene	0.0036	0.0025	0.00014	mg/kg	
87-68-3	Hexachlorobutadiene	ND	0.0063	0.00091	mg/kg	
591-78-6	2-Hexanone	ND	0.0063	0.0011	mg/kg	
98-82-8	Isopropylbenzene	ND	0.0063	0.00031	mg/kg	
99-87-6	p-Isopropyltoluene	ND	0.0063	0.00049	mg/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	0.0025	0.00016	mg/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	0.0063	0.0013	mg/kg	
74-95-3	Methylene bromide	ND	0.0063	0.0013	mg/kg	
75-09-2	Methylene chloride	ND	0.0025	0.00021	mg/kg	
103-65-1	n-Propylbenzene	ND	0.0063	0.00035	mg/kg	
100-42-5	Styrene	ND	0.0063	0.00020	mg/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0063	0.00021	mg/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.0025	0.00022	mg/kg	
127-18-4	Tetrachloroethene	ND	0.0025	0.00021	mg/kg	
108-88-3	Toluene	0.0043	0.0063	0.00022	mg/kg	J
87-61-6	1,2,3-Trichlorobenzene	ND	0.0063	0.00096	mg/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0063	0.00064	mg/kg	
71-55-6	1,1,1-Trichloroethane	ND	0.0025	0.00016	mg/kg	
79-00-5	1,1,2-Trichloroethane	ND	0.0025	0.00016	mg/kg	
79-01-6	Trichloroethene	ND	0.0025	0.00026	mg/kg	
75-69-4	Trichlorofluoromethane	ND	0.0025	0.00019	mg/kg	
96-18-4	1,2,3-Trichloropropane	ND	0.0063	0.00021	mg/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	0.0063	0.00033	mg/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	0.0063	0.00027	mg/kg	
108-05-4	Vinyl Acetate	ND	0.0063	0.0034	mg/kg	
75-01-4	Vinyl chloride	ND	0.0025	0.00034	mg/kg	
	m,p-Xylene	0.0012	0.0025	0.00044	mg/kg	J
95-47-6	o-Xylene	ND	0.0025	0.00017	mg/kg	
1330-20-7	Xylene (total)	0.0012	0.0025	0.00017	mg/kg	J

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(A) 27-28		
Lab Sample ID:	M99080-7	Date Sampled:	04/05/11
Matrix:	SO - Soil	Date Received:	04/06/11
Method:	SW846 8260B	Percent Solids:	95.2
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	124%	93%	70-130%
2037-26-5	Toluene-D8	123%	96%	70-130%
460-00-4	4-Bromofluorobenzene	113%	100%	70-130%

(a) Result is from Run# 2

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(A) 27-28		
Lab Sample ID:	M99080-7	Date Sampled:	04/05/11
Matrix:	SO - Soil	Date Received:	04/06/11
Method:	SW846 8270C SW846 3546	Percent Solids:	95.2
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	S23179.D	1	04/19/11	PR	04/07/11	OP24569	MSS981
Run #2							

	Initial Weight	Final Volume
Run #1	20.3 g	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic acid	ND	0.52	0.040	mg/kg	
95-57-8	2-Chlorophenol	ND	0.26	0.014	mg/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	0.52	0.018	mg/kg	
120-83-2	2,4-Dichlorophenol	ND	0.52	0.030	mg/kg	
105-67-9	2,4-Dimethylphenol	ND	0.52	0.052	mg/kg	
51-28-5	2,4-Dinitrophenol	ND	1.0	0.26	mg/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	0.52	0.26	mg/kg	
95-48-7	2-Methylphenol	ND	0.52	0.015	mg/kg	
	3&4-Methylphenol	ND	0.52	0.027	mg/kg	
88-75-5	2-Nitrophenol	ND	0.52	0.031	mg/kg	
100-02-7	4-Nitrophenol	ND	1.0	0.26	mg/kg	
87-86-5	Pentachlorophenol	ND	0.52	0.048	mg/kg	
108-95-2	Phenol	ND	0.26	0.043	mg/kg	
95-95-4	2,4,5-Trichlorophenol	ND	0.52	0.039	mg/kg	
88-06-2	2,4,6-Trichlorophenol	ND	0.52	0.036	mg/kg	
83-32-9	Acenaphthene	ND	0.26	0.022	mg/kg	
208-96-8	Acenaphthylene	ND	0.26	0.019	mg/kg	
62-53-3	Aniline	ND	0.52	0.52	mg/kg	
120-12-7	Anthracene	ND	0.26	0.020	mg/kg	
56-55-3	Benzo(a)anthracene	ND	0.26	0.0095	mg/kg	
50-32-8	Benzo(a)pyrene	ND	0.26	0.016	mg/kg	
205-99-2	Benzo(b)fluoranthene	ND	0.26	0.030	mg/kg	
191-24-2	Benzo(g,h,i)perylene	ND	0.26	0.017	mg/kg	
207-08-9	Benzo(k)fluoranthene	ND	0.26	0.0077	mg/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	0.26	0.021	mg/kg	
85-68-7	Butyl benzyl phthalate	ND	0.26	0.011	mg/kg	
91-58-7	2-Chloronaphthalene	ND	0.26	0.022	mg/kg	
106-47-8	4-Chloroaniline	ND	0.52	0.13	mg/kg	
218-01-9	Chrysene	ND	0.26	0.0085	mg/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	0.26	0.020	mg/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	0.26	0.0055	mg/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	0.26	0.025	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(A) 27-28		
Lab Sample ID:	M99080-7	Date Sampled:	04/05/11
Matrix:	SO - Soil	Date Received:	04/06/11
Method:	SW846 8270C SW846 3546	Percent Solids:	95.2
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	0.26	0.023	mg/kg	
121-14-2	2,4-Dinitrotoluene	ND	0.52	0.13	mg/kg	
606-20-2	2,6-Dinitrotoluene	ND	0.52	0.025	mg/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	0.26	0.0062	mg/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	0.26	0.017	mg/kg	
132-64-9	Dibenzofuran	ND	0.26	0.022	mg/kg	
84-74-2	Di-n-butyl phthalate	0.234	0.26	0.024	mg/kg	J
117-84-0	Di-n-octyl phthalate	ND	0.26	0.014	mg/kg	
84-66-2	Diethyl phthalate	ND	0.26	0.023	mg/kg	
131-11-3	Dimethyl phthalate	ND	0.26	0.018	mg/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	0.260	0.26	0.018	mg/kg	
206-44-0	Fluoranthene	ND	0.26	0.0088	mg/kg	
86-73-7	Fluorene	ND	0.26	0.0057	mg/kg	
118-74-1	Hexachlorobenzene	ND	0.26	0.022	mg/kg	
77-47-4	Hexachlorocyclopentadiene	ND	0.52	0.0035	mg/kg	
67-72-1	Hexachloroethane	ND	0.26	0.021	mg/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.26	0.016	mg/kg	
78-59-1	Isophorone	ND	0.26	0.026	mg/kg	
91-57-6	2-Methylnaphthalene	ND	0.26	0.022	mg/kg	
88-74-4	2-Nitroaniline	ND	0.52	0.13	mg/kg	
99-09-2	3-Nitroaniline	ND	0.52	0.13	mg/kg	
100-01-6	4-Nitroaniline	ND	0.52	0.019	mg/kg	
91-20-3	Naphthalene	ND	0.26	0.0060	mg/kg	
98-95-3	Nitrobenzene	ND	0.26	0.0077	mg/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	0.26	0.016	mg/kg	
86-30-6	N-Nitrosodiphenylamine	ND	0.26	0.014	mg/kg	
85-01-8	Phenanthrene	ND	0.26	0.0067	mg/kg	
129-00-0	Pyrene	ND	0.26	0.0083	mg/kg	
110-86-1	Pyridine	ND	0.52	0.52	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	58%		30-130%
4165-62-2	Phenol-d5	62%		30-130%
118-79-6	2,4,6-Tribromophenol	59%		30-130%
4165-60-0	Nitrobenzene-d5	65%		30-130%
321-60-8	2-Fluorobiphenyl	64%		30-130%
1718-51-0	Terphenyl-d14	79%		30-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(A) 36-37		
Lab Sample ID:	M99080-8	Date Sampled:	04/05/11
Matrix:	SO - Soil	Date Received:	04/06/11
Method:	SW846 8260B	Percent Solids:	81.2
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P52179.D	1	04/11/11	AMY	n/a	n/a	MSP1728
Run #2	E52848.D	1	04/15/11	TD	n/a	n/a	MSE2213

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	3.91 g	5.0 ml	
Run #2	5.02 g	10.0 ml	100 ul

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	0.0079	0.0079	mg/kg	
107-02-8	Acrolein	ND	0.039	0.027	mg/kg	
107-13-1	Acrylonitrile	ND	0.0079	0.0013	mg/kg	
71-43-2	Benzene	0.0034	0.00079	0.00018	mg/kg	
108-86-1	Bromobenzene	ND	0.0079	0.00023	mg/kg	
74-97-5	Bromochloromethane	ND	0.0079	0.00075	mg/kg	
75-27-4	Bromodichloromethane	ND	0.0032	0.00029	mg/kg	
75-25-2	Bromoform	ND	0.0032	0.0016	mg/kg	
74-83-9	Bromomethane	ND	0.0032	0.00055	mg/kg	
78-93-3	2-Butanone (MEK)	ND	0.0079	0.0023	mg/kg	
104-51-8	n-Butylbenzene	ND	0.0079	0.00066	mg/kg	
135-98-8	sec-Butylbenzene	ND	0.0079	0.00057	mg/kg	
98-06-6	tert-Butylbenzene	ND	0.0079	0.00035	mg/kg	
75-15-0	Carbon disulfide	ND	0.0079	0.00029	mg/kg	
56-23-5	Carbon tetrachloride	ND	0.0032	0.00030	mg/kg	
108-90-7	Chlorobenzene	ND	0.0032	0.00034	mg/kg	
75-00-3	Chloroethane	ND	0.0079	0.00051	mg/kg	
110-75-8	2-Chloroethyl vinyl ether	ND [a]	0.67	0.67	mg/kg	
67-66-3	Chloroform	ND	0.0032	0.00025	mg/kg	
74-87-3	Chloromethane	ND	0.0079	0.00020	mg/kg	
95-49-8	o-Chlorotoluene	ND	0.0079	0.00030	mg/kg	
106-43-4	p-Chlorotoluene	ND	0.0079	0.00034	mg/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0079	0.0011	mg/kg	
124-48-1	Dibromochloromethane	ND	0.0032	0.0016	mg/kg	
106-93-4	1,2-Dibromoethane	ND	0.0032	0.00024	mg/kg	
95-50-1	1,2-Dichlorobenzene	ND	0.0032	0.00049	mg/kg	
541-73-1	1,3-Dichlorobenzene	ND	0.0032	0.00048	mg/kg	
106-46-7	1,4-Dichlorobenzene	ND	0.0032	0.00046	mg/kg	
75-71-8	Dichlorodifluoromethane	ND	0.0032	0.00032	mg/kg	
75-34-3	1,1-Dichloroethane	ND	0.0032	0.00026	mg/kg	
107-06-2	1,2-Dichloroethane	ND	0.0032	0.00018	mg/kg	
75-35-4	1,1-Dichloroethene	ND	0.0032	0.00021	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(A) 36-37		
Lab Sample ID:	M99080-8	Date Sampled:	04/05/11
Matrix:	SO - Soil	Date Received:	04/06/11
Method:	SW846 8260B	Percent Solids:	81.2
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-59-2	cis-1,2-Dichloroethene	ND	0.0032	0.00032	mg/kg	
156-60-5	trans-1,2-Dichloroethene	ND	0.0032	0.00030	mg/kg	
78-87-5	1,2-Dichloropropane	ND	0.0032	0.00027	mg/kg	
142-28-9	1,3-Dichloropropane	ND	0.0079	0.00017	mg/kg	
594-20-7	2,2-Dichloropropane	ND	0.0079	0.00031	mg/kg	
563-58-6	1,1-Dichloropropene	ND	0.0079	0.00033	mg/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0032	0.00079	mg/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0032	0.0016	mg/kg	
97-63-2	Ethyl methacrylate	ND	0.0079	0.00020	mg/kg	
100-41-4	Ethylbenzene	0.0088	0.0032	0.00017	mg/kg	
87-68-3	Hexachlorobutadiene	ND	0.0079	0.0011	mg/kg	
591-78-6	2-Hexanone	ND	0.0079	0.0014	mg/kg	
98-82-8	Isopropylbenzene	ND	0.0079	0.00039	mg/kg	
99-87-6	p-Isopropyltoluene	ND	0.0079	0.00061	mg/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	0.0032	0.00020	mg/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	0.0079	0.0016	mg/kg	
74-95-3	Methylene bromide	ND	0.0079	0.0016	mg/kg	
75-09-2	Methylene chloride	ND	0.0032	0.00026	mg/kg	
103-65-1	n-Propylbenzene	ND	0.0079	0.00044	mg/kg	
100-42-5	Styrene	ND	0.0079	0.00026	mg/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0079	0.00026	mg/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.0032	0.00028	mg/kg	
127-18-4	Tetrachloroethene	ND	0.0032	0.00026	mg/kg	
108-88-3	Toluene	0.0090	0.0079	0.00028	mg/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	0.0079	0.0012	mg/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0079	0.00081	mg/kg	
71-55-6	1,1,1-Trichloroethane	ND	0.0032	0.00020	mg/kg	
79-00-5	1,1,2-Trichloroethane	ND	0.0032	0.00020	mg/kg	
79-01-6	Trichloroethene	ND	0.0032	0.00033	mg/kg	
75-69-4	Trichlorofluoromethane	ND	0.0032	0.00024	mg/kg	
96-18-4	1,2,3-Trichloropropane	ND	0.0079	0.00026	mg/kg	
95-63-6	1,2,4-Trimethylbenzene	0.0014	0.0079	0.00041	mg/kg	J
108-67-8	1,3,5-Trimethylbenzene	0.0025	0.0079	0.00034	mg/kg	J
108-05-4	Vinyl Acetate	ND	0.0079	0.0043	mg/kg	
75-01-4	Vinyl chloride	ND	0.0032	0.00042	mg/kg	
	m,p-Xylene	0.0025	0.0032	0.00055	mg/kg	J
95-47-6	o-Xylene	ND	0.0032	0.00021	mg/kg	
1330-20-7	Xylene (total)	0.0025	0.0032	0.00021	mg/kg	J

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(A) 36-37		
Lab Sample ID:	M99080-8	Date Sampled:	04/05/11
Matrix:	SO - Soil	Date Received:	04/06/11
Method:	SW846 8260B	Percent Solids:	81.2
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	119%	91%	70-130%
2037-26-5	Toluene-D8	121%	94%	70-130%
460-00-4	4-Bromofluorobenzene	114%	100%	70-130%

(a) Result is from Run# 2

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

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

Report of Analysis

Client Sample ID:	ROST-4PZ(A) 36-37		
Lab Sample ID:	M99080-8	**Date Sampled:**	04/05/11
Matrix:	SO - Soil	**Date Received:**	04/06/11
Method:	SW846 8270C SW846 3546	**Percent Solids:**	81.2
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	S23180.D	1	04/20/11	PR	04/07/11	OP24569	MSS981
Run #2							

	Initial Weight	Final Volume
Run #1	20.3 g	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic acid	ND	0.61	0.047	mg/kg	
95-57-8	2-Chlorophenol	ND	0.30	0.016	mg/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	0.61	0.021	mg/kg	
120-83-2	2,4-Dichlorophenol	ND	0.61	0.036	mg/kg	
105-67-9	2,4-Dimethylphenol	ND	0.61	0.061	mg/kg	
51-28-5	2,4-Dinitrophenol	ND	1.2	0.30	mg/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	0.61	0.30	mg/kg	
95-48-7	2-Methylphenol	ND	0.61	0.017	mg/kg	
	3&4-Methylphenol	ND	0.61	0.032	mg/kg	
88-75-5	2-Nitrophenol	ND	0.61	0.036	mg/kg	
100-02-7	4-Nitrophenol	ND	1.2	0.30	mg/kg	
87-86-5	Pentachlorophenol	ND	0.61	0.056	mg/kg	
108-95-2	Phenol	ND	0.30	0.050	mg/kg	
95-95-4	2,4,5-Trichlorophenol	ND	0.61	0.045	mg/kg	
88-06-2	2,4,6-Trichlorophenol	ND	0.61	0.042	mg/kg	
83-32-9	Acenaphthene	ND	0.30	0.026	mg/kg	
208-96-8	Acenaphthylene	ND	0.30	0.023	mg/kg	
62-53-3	Aniline	ND	0.61	0.61	mg/kg	
120-12-7	Anthracene	ND	0.30	0.024	mg/kg	
56-55-3	Benzo(a)anthracene	ND	0.30	0.011	mg/kg	
50-32-8	Benzo(a)pyrene	ND	0.30	0.018	mg/kg	
205-99-2	Benzo(b)fluoranthene	ND	0.30	0.035	mg/kg	
191-24-2	Benzo(g,h,i)perylene	ND	0.30	0.020	mg/kg	
207-08-9	Benzo(k)fluoranthene	ND	0.30	0.0090	mg/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	0.30	0.025	mg/kg	
85-68-7	Butyl benzyl phthalate	ND	0.30	0.013	mg/kg	
91-58-7	2-Chloronaphthalene	ND	0.30	0.025	mg/kg	
106-47-8	4-Chloroaniline	ND	0.61	0.15	mg/kg	
218-01-9	Chrysene	ND	0.30	0.0099	mg/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	0.30	0.024	mg/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	0.30	0.0065	mg/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	0.30	0.029	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(A) 36-37		
Lab Sample ID:	M99080-8	Date Sampled:	04/05/11
Matrix:	SO - Soil	Date Received:	04/06/11
Method:	SW846 8270C SW846 3546	Percent Solids:	81.2
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	0.30	0.027	mg/kg	
121-14-2	2,4-Dinitrotoluene	ND	0.61	0.15	mg/kg	
606-20-2	2,6-Dinitrotoluene	ND	0.61	0.029	mg/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	0.30	0.0073	mg/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	0.30	0.020	mg/kg	
132-64-9	Dibenzofuran	ND	0.30	0.026	mg/kg	
84-74-2	Di-n-butyl phthalate	ND	0.30	0.028	mg/kg	
117-84-0	Di-n-octyl phthalate	ND	0.30	0.016	mg/kg	
84-66-2	Diethyl phthalate	ND	0.30	0.026	mg/kg	
131-11-3	Dimethyl phthalate	ND	0.30	0.021	mg/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	0.30	0.021	mg/kg	
206-44-0	Fluoranthene	ND	0.30	0.010	mg/kg	
86-73-7	Fluorene	ND	0.30	0.0067	mg/kg	
118-74-1	Hexachlorobenzene	ND	0.30	0.026	mg/kg	
77-47-4	Hexachlorocyclopentadiene	ND	0.61	0.0041	mg/kg	
67-72-1	Hexachloroethane	ND	0.30	0.025	mg/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.30	0.019	mg/kg	
78-59-1	Isophorone	ND	0.30	0.030	mg/kg	
91-57-6	2-Methylnaphthalene	ND	0.30	0.025	mg/kg	
88-74-4	2-Nitroaniline	ND	0.61	0.15	mg/kg	
99-09-2	3-Nitroaniline	ND	0.61	0.15	mg/kg	
100-01-6	4-Nitroaniline	ND	0.61	0.023	mg/kg	
91-20-3	Naphthalene	ND	0.30	0.0070	mg/kg	
98-95-3	Nitrobenzene	ND	0.30	0.0090	mg/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	0.30	0.019	mg/kg	
86-30-6	N-Nitrosodiphenylamine	ND	0.30	0.016	mg/kg	
85-01-8	Phenanthrene	ND	0.30	0.0078	mg/kg	
129-00-0	Pyrene	ND	0.30	0.0098	mg/kg	
110-86-1	Pyridine	ND	0.61	0.61	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	65%		30-130%
4165-62-2	Phenol-d5	66%		30-130%
118-79-6	2,4,6-Tribromophenol	64%		30-130%
4165-60-0	Nitrobenzene-d5	65%		30-130%
321-60-8	2-Fluorobiphenyl	66%		30-130%
1718-51-0	Terphenyl-d14	80%		30-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

New England ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Certification Exceptions
- Certification Exceptions (IL)
- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody

Shell Oil Products Chain Of Custody Record

URS

LAB (LOCATION)
☐ XENCO
☐ CALSCIENCE
☑ OTHER (Accutest Labs: 495 Technology Ctr W, Marlborough, MA 01752 (508-481-6200))
☐ EPL
Lab Vendor #

Please Check Appropriate Box: ☑ ENV. SERVICES ☐ MOTIVA RETAIL ☐ SHELL RETAIL ☐ MOTIVA SD&CM ☐ CONSULTANT ☐ LUBES ☐ SHELL PIPELINE ☐ OTHER

Print Bill To Contact Name: WENDY PENNINGTON
PO #

INCIDENT # (ENV SERVICES): 9 7 2 1 6 6 4 0
SAP #: 3 4 0 0 6 1
☐ CHECK IF NO INCIDENT # APPLIES

DATE: 4/4/11
PAGE: 1 of 1

SAMPLING COMPANY: URS CORPORATION
ADDRESS: 1001 HIGHLANDS PLAZA DRIVE WEST - SUITE 300; ST. LOUIS, MO 63110
PROJECT CONTACT: WENDY PENNINGTON
TELEPHONE: 341-462-6929 FAX: 314-429-0462
SITE ADDRESS: 170 EAST RAND AVENUE – HARTFORD, IL
CONSULTANT PROJECT NO.: Roxana ROST-4-PZ / 21562593.00011
SAMPLER NAME(S): N SATAM
LAB USE ONLY: M99080

TURNAROUND TIME: ☑ STANDARD (10 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND
☐ LA - RWQCB REPORT FORMAT ☐ UST AGENCY:
DELIVERABLES: ☐ LEVEL 1 ☑ LEVEL 2 ☐ LEVEL 3 ☑ LEVEL 4 ☑ OTHER (SPECIFY) EDD
TEMPERATURE ON RECEIPT C° Cooler #1 Cooler #2 Cooler #3

SPECIAL INSTRUCTIONS OR NOTES:
☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD DISK

REQUESTED ANALYSIS

FIELD NOTES:
TEMPERATURE ON RECEIPT C°

LAB USE ONLY	Field Sample Identification	DATE	TIME	MATRIX	HCL	HNO3	H2SO4	[illegible]	[illegible]	NONE	# of Cont.	VOC 8260	TPH 8015 - GRO/DRO/ORO	M99080	PID (ppm)	NOTES / COMMENTS
1	TB 040411	4/4/11		Soil	2						2	X		-1		Trip Blank
2	ROST-4PZ(F) 11-12	4/4/11	0945					1	2	2	5	X	X	-2	1.2	
3	ROST-4PZ(F) 11-12 MS	4/4/11	0945					1	2	2	5	X	X	-2S	1.2	
4	ROST-4PZ(F) 11-12 MSD	4/4/11	0945					1	2	2	5	X	X	-2SD	1.2	
5	ROST-4PZ(F) 21-22	4/4/11	1045					1	2	2	5	X	X	-3	450	
6	ROST-4 PZ(F) 36.5-37.5	4/4/11	1145	Soil				1	2	2	5	X	X	-4	72	
7	ROST-4 PZ(A) 11.5-12.5 EB	4/5/11	0815	Water	3					2	5	X	X	-5		Equipment Rinsate Blank
8	ROST-4PZ(A) 11.5-12.5	4/5/11	0845	Soil				1	2	2	5	X	X	-6	4.0	
9	ROST-4PZ(A) 27-28	4/5/11	0915					1	2	2	5	X	X	-7	23.5	14F, 16DD,
10	ROST-4PZ(A) 36-37	4/5/11	1000					1	2	2	5	X	X	-8	3.0	3H6, 10A2

JB

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
[signature]	FEDEX	4/5/11	1700
FedEx	[signature]	4/6/11	9:00
			1.9°

M99080: Chain of Custody
Page 1 of 2

ACCUTEST LABORATORIES
M99080

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: M99080 Client: URS Immediate Client Services Action Required: No

Date / Time Received: 4/6/2011 Delivery Method: Client Service Action Required at Login: No

Project: 170 EAST RAND AVE HARTFORD No. Coolers: 1 Airbill #'s: N/A

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	Infared gun		
3. Cooler media:	Ice (bag)		

Quality Control Preservatio	Y	or	N	N/A
1. Trip Blank present / cooler:	☑		☐	☐
2. Trip Blank listed on COC:	☑		☐	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☑		☐	☐

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Comments

Accutest Laboratories
V.508.481.6200

495 Technology Center West, Bldg One
F: 508.481.7753

Marlborough, MA
www.accutest.com

4.1

4

M99080: Chain of Custody
Page 2 of 2

Internal Sample Tracking Chronicle

Shell Oil

Job No: M99080

URSMOSTL:97216640 170 East Rand Avenue Hartford, IL
Project No: Roxana - ROST-4-PZ SAP#340061

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
M99080-1	Collected: 04-APR-11 00:00 By: NS		Received: 06-APR-11 By: JB			
TB 040411						
M99080-1	SW846 8260B	18-APR-11 11:04	EL			V8260SL
M99080-2	Collected: 04-APR-11 09:45 By: NS		Received: 06-APR-11 By: JB			
ROST-4PZ(F) 11-12						
M99080-2	SM21 2540 B MOD.	07-APR-11	CF			%SOL
M99080-2	SW846 8260B	11-APR-11 16:52	AMY			V8260SL
M99080-2	SW846 8260B	15-APR-11 19:46	TD			V8260SL
M99080-2	SW846 8270C	19-APR-11 03:56	KR	07-APR-11	PR	AB8270SL
M99080-3	Collected: 04-APR-11 10:45 By: NS		Received: 06-APR-11 By: JB			
ROST-4PZ(F) 21-22						
M99080-3	SM21 2540 B MOD.	07-APR-11	CF			%SOL
M99080-3	SW846 8260B	14-APR-11 22:42	TD			V8260SL
M99080-3	SW846 8270C	19-APR-11 07:12	KR	07-APR-11	PR	AB8270SL
M99080-3	SW846 8270C	19-APR-11 12:15	PR	07-APR-11	PR	AB8270SL
M99080-4	Collected: 04-APR-11 11:45 By: NS		Received: 06-APR-11 By: JB			
ROST-4PZ(F) 36.5-37.5						
M99080-4	SM21 2540 B MOD.	07-APR-11	CF			%SOL
M99080-4	SW846 8260B	11-APR-11 17:20	AMY			V8260SL
M99080-4	SW846 8260B	15-APR-11 20:15	TD			V8260SL
M99080-4	SW846 8270C	19-APR-11 07:44	KR	07-APR-11	PR	AB8270SL
M99080-5	Collected: 05-APR-11 08:15 By: NS		Received: 06-APR-11 By: JB			
ROST-4PZ(A) 11.5-12.5 EB						
M99080-5	SW846 8260B	18-APR-11 11:32	EL			V8260SL
M99080-5	SW846 8270C	19-APR-11 04:45	PR	11-APR-11	AJ	AB8270SL
M99080-6	Collected: 05-APR-11 08:45 By: NS		Received: 06-APR-11 By: JB			
ROST-4PZ(A) 11.5-12.5						
M99080-6	SM21 2540 B MOD.	07-APR-11	CF			%SOL
M99080-6	SW846 8260B	11-APR-11 17:48	AMY			V8260SL

Internal Sample Tracking Chronicle

Shell Oil

Job No: M99080

URSMOSTL:97216640 170 East Rand Avenue Hartford, IL
Project No: Roxana - ROST-4-PZ SAP#340061

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
M99080-6	SW846 8260B	15-APR-11 20:44	TD			V8260SL
M99080-6	SW846 8270C	19-APR-11 08:17	KR	07-APR-11	PR	AB8270SL
M99080-7	Collected: 05-APR-11 09:15 By: NS		Received: 06-APR-11 By: JB			
ROST-4PZ(A) 27-28						
M99080-7	SM21 2540 B MOD.	07-APR-11	CF			%SOL
M99080-7	SW846 8260B	11-APR-11 18:15	AMY			V8260SL
M99080-7	SW846 8260B	15-APR-11 21:13	TD			V8260SL
M99080-7	SW846 8270C	19-APR-11 23:56	PR	07-APR-11	PR	AB8270SL
M99080-8	Collected: 05-APR-11 10:00 By: NS		Received: 06-APR-11 By: JB			
ROST-4PZ(A) 36-37						
M99080-8	SM21 2540 B MOD.	07-APR-11	CF			%SOL
M99080-8	SW846 8260B	11-APR-11 18:43	AMY			V8260SL
M99080-8	SW846 8260B	15-APR-11 21:41	TD			V8260SL
M99080-8	SW846 8270C	20-APR-11 00:27	PR	07-APR-11	PR	AB8270SL

Accutest Internal Chain of Custody

Job Number: M99080
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL
Received: 04/06/11

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
M99080-1.1	VOC Ref #3	Elise LeBlanc	04/18/11 10:35	Retrieve from Storage
M99080-1.1	Elise LeBlanc	GCMSG	04/18/11 10:35	Load on Instrument
M99080-1.1	GCMSG	Elise LeBlanc	04/19/11 16:35	Unload from Instrument
M99080-1.1	Elise LeBlanc	VOC Ref #3	04/19/11 16:35	Return to Storage
M99080-2.1	Walk In Ref #9	Francisco Castellanos	04/07/11 15:29	Retrieve from Storage
M99080-2.1	Francisco Castellanos	Walk In Ref #9	04/07/11 20:39	Return to Storage
M99080-2.4	VOC Ref #10	Amy Min Yang	04/11/11 13:12	Retrieve from Storage
M99080-2.4	Amy Min Yang	GCMSP	04/11/11 13:12	Load on Instrument
M99080-2.4	GCMSP	Amy Min Yang	04/12/11 09:05	Unload from Instrument
M99080-2.4	Amy Min Yang	VOC Ref #10	04/12/11 09:05	Return to Storage
M99080-2.12	VOC Ref #10	Amy Min Yang	04/11/11 13:12	Retrieve from Storage
M99080-2.12	Amy Min Yang	GCMSP	04/11/11 13:12	Load on Instrument
M99080-2.12	GCMSP	Amy Min Yang	04/12/11 09:05	Unload from Instrument
M99080-2.12	Amy Min Yang	VOC Ref #10	04/12/11 09:05	Return to Storage
M99080-2.13	VOC Ref #10	Amy Min Yang	04/11/11 13:12	Retrieve from Storage
M99080-2.13	Amy Min Yang	GCMSP	04/11/11 13:12	Load on Instrument
M99080-2.13	GCMSP	Amy Min Yang	04/12/11 09:05	Unload from Instrument
M99080-2.13	Amy Min Yang	VOC Ref #10	04/12/11 09:05	Return to Storage
M99080-2.14	VOC Ref #10	Gary Krasinski	04/07/11 11:54	Retrieve from Storage
M99080-2.14	Gary Krasinski	VOC Ref #10	04/08/11 16:44	Return to Storage
M99080-2.15	VOC Ref #10	Tamis Dudo	04/15/11 16:43	Retrieve from Storage
M99080-2.15	Tamis Dudo	GCMSE	04/15/11 16:43	Load on Instrument
M99080-2.15	GCMSE	Tamis Dudo	04/18/11 08:54	Unload from Instrument
M99080-2.15	Tamis Dudo	VOC Ref #10	04/18/11 09:01	Return to Storage
M99080-3.1	Walk In Ref #9	Crystall Woodruff	04/07/11 10:44	Retrieve from Storage
M99080-3.1	Crystall Woodruff	Walk In Ref #9	04/07/11 11:36	Return to Storage
M99080-3.1	Walk In Ref #9	Francisco Castellanos	04/07/11 15:29	Retrieve from Storage
M99080-3.1	Francisco Castellanos	Walk In Ref #9	04/07/11 20:39	Return to Storage
M99080-3.5	VOC Ref #10	Gary Krasinski	04/07/11 11:54	Retrieve from Storage
M99080-3.5	Gary Krasinski	VOC Ref #10	04/22/11 15:08	Return to Storage
M99080-4.2	Walk In Ref #9	Crystall Woodruff	04/07/11 10:44	Retrieve from Storage
M99080-4.2	Crystall Woodruff	Walk In Ref #9	04/07/11 11:36	Return to Storage
M99080-4.2	Walk In Ref #9	Francisco Castellanos	04/07/11 15:29	Retrieve from Storage
M99080-4.2	Francisco Castellanos	Walk In Ref #9	04/07/11 20:39	Return to Storage

Accutest Internal Chain of Custody

Job Number: M99080
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL
Received: 04/06/11

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
M99080-4.3	VOC Ref #10	Amy Min Yang	04/11/11 13:12	Retrieve from Storage
M99080-4.3	Amy Min Yang	GCMSP	04/11/11 13:12	Load on Instrument
M99080-4.3	GCMSP	Amy Min Yang	04/12/11 09:05	Unload from Instrument
M99080-4.3	Amy Min Yang	VOC Ref #10	04/12/11 09:05	Return to Storage
M99080-4.5	VOC Ref #10	Gary Krasinski	04/07/11 11:54	Retrieve from Storage
M99080-4.5	Gary Krasinski	VOC Ref #10	04/08/11 16:44	Return to Storage
M99080-4.5	VOC Ref #10	Tamis Dudo	04/15/11 16:43	Retrieve from Storage
M99080-4.5	Tamis Dudo	GCMSE	04/15/11 16:43	Load on Instrument
M99080-4.5	GCMSE	Tamis Dudo	04/18/11 08:54	Unload from Instrument
M99080-4.5	Tamis Dudo	VOC Ref #10	04/18/11 09:01	Return to Storage
M99080-5.2	Walk In Ref #22	Corey Aldoupolis	04/12/11 16:56	Retrieve from Storage
M99080-5.2	Corey Aldoupolis		04/13/11 15:27	Depleted
M99080-5.5	VOC Ref #3	Elise LeBlanc	04/18/11 10:35	Retrieve from Storage
M99080-5.5	Elise LeBlanc	GCMSG	04/18/11 10:35	Load on Instrument
M99080-5.5	GCMSG	Elise LeBlanc	04/19/11 16:35	Unload from Instrument
M99080-5.5	Elise LeBlanc	VOC Ref #3	04/19/11 16:35	Return to Storage
M99080-6.2	Walk In Ref #9	Crystall Woodruff	04/07/11 10:44	Retrieve from Storage
M99080-6.2	Crystall Woodruff	Walk In Ref #9	04/07/11 11:36	Return to Storage
M99080-6.2	Walk In Ref #9	Francisco Castellanos	04/07/11 15:29	Retrieve from Storage
M99080-6.2	Francisco Castellanos	Walk In Ref #9	04/07/11 20:39	Return to Storage
M99080-6.4	VOC Ref #10	Amy Min Yang	04/11/11 13:12	Retrieve from Storage
M99080-6.4	Amy Min Yang	GCMSP	04/11/11 13:12	Load on Instrument
M99080-6.4	GCMSP	Amy Min Yang	04/12/11 09:05	Unload from Instrument
M99080-6.4	Amy Min Yang	VOC Ref #10	04/12/11 09:05	Return to Storage
M99080-6.5	VOC Ref #10	Gary Krasinski	04/07/11 11:54	Retrieve from Storage
M99080-6.5	Gary Krasinski	VOC Ref #10	04/08/11 16:44	Return to Storage
M99080-6.5	VOC Ref #10	Tamis Dudo	04/15/11 16:43	Retrieve from Storage
M99080-6.5	Tamis Dudo	GCMSE	04/15/11 16:43	Load on Instrument
M99080-6.5	GCMSE	Tamis Dudo	04/18/11 08:54	Unload from Instrument
M99080-6.5	Tamis Dudo	VOC Ref #10	04/18/11 09:01	Return to Storage
M99080-7.2	Walk In Ref #9	Crystall Woodruff	04/07/11 10:44	Retrieve from Storage
M99080-7.2	Crystall Woodruff	Walk In Ref #9	04/07/11 11:36	Return to Storage
M99080-7.2	Walk In Ref #9	Francisco Castellanos	04/07/11 15:29	Retrieve from Storage
M99080-7.2	Francisco Castellanos	Walk In Ref #9	04/07/11 20:39	Return to Storage
M99080-7.3	VOC Ref #10	Amy Min Yang	04/11/11 13:12	Retrieve from Storage
M99080-7.3	Amy Min Yang	GCMSP	04/11/11 13:12	Load on Instrument

Accutest Internal Chain of Custody

Job Number: M99080
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL
Received: 04/06/11

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
M99080-7.3	GCMSP	Amy Min Yang	04/12/11 09:05	Unload from Instrument
M99080-7.3	Amy Min Yang	VOC Ref #10	04/12/11 09:05	Return to Storage
M99080-7.5	VOC Ref #10	Gary Krasinski	04/07/11 11:54	Retrieve from Storage
M99080-7.5	Gary Krasinski	VOC Ref #10	04/08/11 16:44	Return to Storage
M99080-7.5	VOC Ref #10	Tamis Dudo	04/15/11 16:43	Retrieve from Storage
M99080-7.5	Tamis Dudo	GCMSE	04/15/11 16:43	Load on Instrument
M99080-7.5	GCMSE	Tamis Dudo	04/18/11 08:54	Unload from Instrument
M99080-7.5	Tamis Dudo	VOC Ref #10	04/18/11 09:01	Return to Storage
M99080-8.1	Walk In Ref #9	Crystall Woodruff	04/07/11 10:44	Retrieve from Storage
M99080-8.1	Crystall Woodruff	Walk In Ref #9	04/07/11 11:36	Return to Storage
M99080-8.1	Walk In Ref #9	Francisco Castellanos	04/07/11 15:29	Retrieve from Storage
M99080-8.1	Francisco Castellanos	Walk In Ref #9	04/07/11 20:39	Return to Storage
M99080-8.4	VOC Ref #10	Amy Min Yang	04/11/11 13:12	Retrieve from Storage
M99080-8.4	Amy Min Yang	GCMSP	04/11/11 13:12	Load on Instrument
M99080-8.4	GCMSP	Amy Min Yang	04/12/11 09:05	Unload from Instrument
M99080-8.4	Amy Min Yang	VOC Ref #10	04/12/11 09:05	Return to Storage
M99080-8.5	VOC Ref #10	Gary Krasinski	04/07/11 11:54	Retrieve from Storage
M99080-8.5	Gary Krasinski	VOC Ref #10	04/08/11 16:44	Return to Storage
M99080-8.5	VOC Ref #10	Tamis Dudo	04/15/11 16:43	Retrieve from Storage
M99080-8.5	Tamis Dudo	GCMSE	04/15/11 16:43	Load on Instrument
M99080-8.5	GCMSE	Tamis Dudo	04/18/11 08:54	Unload from Instrument
M99080-8.5	Tamis Dudo	VOC Ref #10	04/18/11 09:01	Return to Storage

New England ACCUTEST LABORATORIES

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: M99080
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP1728-MB	P52160.D	1	04/11/11	AMY	n/a	n/a	MSP1728

The QC reported here applies to the following samples: Method: SW846 8260B

M99080-2, M99080-4, M99080-6, M99080-7, M99080-8

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	5.0	ug/kg	
107-02-8	Acrolein	ND	25	17	ug/kg	
107-13-1	Acrylonitrile	ND	5.0	0.79	ug/kg	
71-43-2	Benzene	ND	0.50	0.11	ug/kg	
108-86-1	Bromobenzene	ND	5.0	0.15	ug/kg	
74-97-5	Bromochloromethane	ND	5.0	0.48	ug/kg	
75-27-4	Bromodichloromethane	ND	2.0	0.19	ug/kg	
75-25-2	Bromoform	ND	2.0	1.0	ug/kg	
74-83-9	Bromomethane	ND	2.0	0.35	ug/kg	
78-93-3	2-Butanone (MEK)	ND	5.0	1.5	ug/kg	
104-51-8	n-Butylbenzene	ND	5.0	0.42	ug/kg	
135-98-8	sec-Butylbenzene	ND	5.0	0.36	ug/kg	
98-06-6	tert-Butylbenzene	ND	5.0	0.23	ug/kg	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.0	0.19	ug/kg	
108-90-7	Chlorobenzene	ND	2.0	0.22	ug/kg	
75-00-3	Chloroethane	ND	5.0	0.32	ug/kg	
67-66-3	Chloroform	ND	2.0	0.16	ug/kg	
74-87-3	Chloromethane	ND	5.0	0.13	ug/kg	
95-49-8	o-Chlorotoluene	ND	5.0	0.19	ug/kg	
106-43-4	p-Chlorotoluene	ND	5.0	0.22	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	0.71	ug/kg	
124-48-1	Dibromochloromethane	ND	2.0	1.0	ug/kg	
106-93-4	1,2-Dibromoethane	ND	2.0	0.15	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	2.0	0.31	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	2.0	0.30	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	2.0	0.29	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.20	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.0	0.17	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.0	0.12	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.0	0.14	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.0	0.20	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.0	0.19	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.0	0.17	ug/kg	
142-28-9	1,3-Dichloropropane	ND	5.0	0.11	ug/kg	
594-20-7	2,2-Dichloropropane	ND	5.0	0.20	ug/kg	

Method Blank Summary

Job Number: M99080
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP1728-MB	P52160.D	1	04/11/11	AMY	n/a	n/a	MSP1728

The QC reported here applies to the following samples: Method: SW846 8260B

M99080-2, M99080-4, M99080-6, M99080-7, M99080-8

CAS No.	Compound	Result	RL	MDL	Units	Q
563-58-6	1,1-Dichloropropene	ND	5.0	0.21	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.50	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	1.0	ug/kg	
97-63-2	Ethyl methacrylate	ND	5.0	0.13	ug/kg	
100-41-4	Ethylbenzene	ND	2.0	0.11	ug/kg	
87-68-3	Hexachlorobutadiene	ND	5.0	0.72	ug/kg	
591-78-6	2-Hexanone	ND	5.0	0.86	ug/kg	
98-82-8	Isopropylbenzene	ND	5.0	0.25	ug/kg	
99-87-6	p-Isopropyltoluene	ND	5.0	0.39	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.0	0.13	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/kg	
74-95-3	Methylene bromide	ND	5.0	1.0	ug/kg	
75-09-2	Methylene chloride	3.8	2.0	0.17	ug/kg	
103-65-1	n-Propylbenzene	ND	5.0	0.28	ug/kg	
100-42-5	Styrene	ND	5.0	0.16	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.17	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	0.18	ug/kg	
127-18-4	Tetrachloroethene	ND	2.0	0.17	ug/kg	
108-88-3	Toluene	ND	5.0	0.18	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.77	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.51	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.0	0.13	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.0	0.13	ug/kg	
79-01-6	Trichloroethene	ND	2.0	0.21	ug/kg	
75-69-4	Trichlorofluoromethane	ND	2.0	0.15	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.17	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.26	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.22	ug/kg	
108-05-4	Vinyl Acetate	ND	5.0	2.7	ug/kg	
75-01-4	Vinyl chloride	ND	2.0	0.27	ug/kg	
	m,p-Xylene	ND	2.0	0.35	ug/kg	
95-47-6	o-Xylene	ND	2.0	0.13	ug/kg	
1330-20-7	Xylene (total)	ND	2.0	0.13	ug/kg	

Method Blank Summary

Job Number: M99080
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP1728-MB	P52160.D	1	04/11/11	AMY	n/a	n/a	MSP1728

The QC reported here applies to the following samples: Method: SW846 8260B

M99080-2, M99080-4, M99080-6, M99080-7, M99080-8

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	109%	70-130%
2037-26-5	Toluene-D8	111%	70-130%
460-00-4	4-Bromofluorobenzene	108%	70-130%

Method Blank Summary

Job Number: M99080
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSE2212-MB	E52790.D	1	04/14/11	TD	n/a	n/a	MSE2212

The QC reported here applies to the following samples: Method: SW846 8260B

M99080-3

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	250	250	ug/kg	
107-02-8	Acrolein	ND	1300	850	ug/kg	
107-13-1	Acrylonitrile	ND	250	40	ug/kg	
71-43-2	Benzene	ND	25	5.6	ug/kg	
108-86-1	Bromobenzene	ND	250	7.3	ug/kg	
74-97-5	Bromochloromethane	ND	250	24	ug/kg	
75-27-4	Bromodichloromethane	ND	100	9.4	ug/kg	
75-25-2	Bromoform	ND	100	50	ug/kg	
74-83-9	Bromomethane	ND	100	17	ug/kg	
78-93-3	2-Butanone (MEK)	ND	250	74	ug/kg	
104-51-8	n-Butylbenzene	ND	250	21	ug/kg	
135-98-8	sec-Butylbenzene	ND	250	18	ug/kg	
98-06-6	tert-Butylbenzene	ND	250	11	ug/kg	
75-15-0	Carbon disulfide	ND	250	9.3	ug/kg	
56-23-5	Carbon tetrachloride	ND	100	9.5	ug/kg	
108-90-7	Chlorobenzene	ND	100	11	ug/kg	
75-00-3	Chloroethane	ND	250	16	ug/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	250	250	ug/kg	
67-66-3	Chloroform	ND	100	8.0	ug/kg	
74-87-3	Chloromethane	ND	250	6.4	ug/kg	
95-49-8	o-Chlorotoluene	ND	250	9.4	ug/kg	
106-43-4	p-Chlorotoluene	ND	250	11	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	250	35	ug/kg	
124-48-1	Dibromochloromethane	ND	100	50	ug/kg	
106-93-4	1,2-Dibromoethane	ND	100	7.6	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	100	16	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	100	15	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	100	15	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	100	10	ug/kg	
75-34-3	1,1-Dichloroethane	ND	100	8.4	ug/kg	
107-06-2	1,2-Dichloroethane	ND	100	5.9	ug/kg	
75-35-4	1,1-Dichloroethene	ND	100	6.8	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	100	10	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	100	9.4	ug/kg	
78-87-5	1,2-Dichloropropane	ND	100	8.6	ug/kg	
142-28-9	1,3-Dichloropropane	ND	250	5.4	ug/kg	

Method Blank Summary

Job Number: M99080
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSE2212-MB	E52790.D	1	04/14/11	TD	n/a	n/a	MSE2212

The QC reported here applies to the following samples: Method: SW846 8260B

M99080-3

CAS No.	Compound	Result	RL	MDL	Units	Q
594-20-7	2,2-Dichloropropane	ND	250	9.8	ug/kg	
563-58-6	1,1-Dichloropropene	ND	250	10	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	100	25	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	100	50	ug/kg	
97-63-2	Ethyl methacrylate	ND	250	6.3	ug/kg	
100-41-4	Ethylbenzene	ND	100	5.5	ug/kg	
87-68-3	Hexachlorobutadiene	ND	250	36	ug/kg	
591-78-6	2-Hexanone	ND	250	43	ug/kg	
98-82-8	Isopropylbenzene	ND	250	12	ug/kg	
99-87-6	p-Isopropyltoluene	ND	250	19	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	100	6.5	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	250	50	ug/kg	
74-95-3	Methylene bromide	ND	250	50	ug/kg	
75-09-2	Methylene chloride	42.2	100	8.3	ug/kg	J
103-65-1	n-Propylbenzene	ND	250	14	ug/kg	
100-42-5	Styrene	ND	250	8.1	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	250	8.4	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	100	8.9	ug/kg	
127-18-4	Tetrachloroethene	ND	100	8.4	ug/kg	
108-88-3	Toluene	ND	250	8.8	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	250	38	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	250	26	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	100	6.5	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	100	6.3	ug/kg	
79-01-6	Trichloroethene	ND	100	10	ug/kg	
75-69-4	Trichlorofluoromethane	ND	100	7.7	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	250	8.3	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	250	13	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	250	11	ug/kg	
108-05-4	Vinyl Acetate	ND	250	140	ug/kg	
75-01-4	Vinyl chloride	ND	100	13	ug/kg	
	m,p-Xylene	ND	100	17	ug/kg	
95-47-6	o-Xylene	ND	100	6.6	ug/kg	
1330-20-7	Xylene (total)	ND	100	6.6	ug/kg	

Method Blank Summary

Job Number: M99080
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSE2212-MB	E52790.D	1	04/14/11	TD	n/a	n/a	MSE2212

The QC reported here applies to the following samples: Method: SW846 8260B

M99080-3

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	82%	70-130%
2037-26-5	Toluene-D8	89%	70-130%
460-00-4	4-Bromofluorobenzene	94%	70-130%

Method Blank Summary

Job Number: M99080
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSE2213-MB	E52836.D	1	04/15/11	TD	n/a	n/a	MSE2213

The QC reported here applies to the following samples: Method: SW846 8260B

M99080-2, M99080-4, M99080-6, M99080-7, M99080-8

CAS No.	Compound	Result	RL	MDL	Units	Q
110-75-8	2-Chloroethyl vinyl ether	ND	250	250	ug/kg	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	82%	70-130%
2037-26-5	Toluene-D8	86%	70-130%
460-00-4	4-Bromofluorobenzene	90%	70-130%

Method Blank Summary

Job Number: M99080
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSG4238-MB	G105068.D	1	04/18/11	EL	n/a	n/a	MSG4238

The QC reported here applies to the following samples: Method: SW846 8260B

M99080-1, M99080-5

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	4.6	ug/l	
107-02-8	Acrolein	ND	25	17	ug/l	
107-13-1	Acrylonitrile	ND	5.0	3.0	ug/l	
71-43-2	Benzene	ND	0.50	0.35	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.52	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.91	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.62	ug/l	
75-25-2	Bromoform	ND	1.0	0.73	ug/l	
74-83-9	Bromomethane	ND	2.0	0.95	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.1	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.49	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.37	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.53	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.35	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.42	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.61	ug/l	
75-00-3	Chloroethane	ND	2.0	0.76	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	0.83	ug/l	
67-66-3	Chloroform	ND	1.0	0.72	ug/l	
74-87-3	Chloromethane	ND	2.0	0.81	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.58	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.67	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.3	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.86	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.76	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.74	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.77	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.81	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.61	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.63	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.74	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.70	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.66	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.74	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.83	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.73	ug/l	

Method Blank Summary

Job Number: M99080
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSG4238-MB	G105068.D	1	04/18/11	EL	n/a	n/a	MSG4238

The QC reported here applies to the following samples: Method: SW846 8260B

M99080-1, M99080-5

CAS No.	Compound	Result	RL	MDL	Units	Q
594-20-7	2,2-Dichloropropane	ND	5.0	0.44	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.23	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.23	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.90	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.61	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.56	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.5	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.51	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.45	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.54	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.3	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.94	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.75	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.43	ug/l	
100-42-5	Styrene	ND	5.0	0.68	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.64	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.89	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.39	ug/l	
108-88-3	Toluene	ND	1.0	0.74	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.57	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.35	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.72	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.49	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.61	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.62	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.51	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	0.51	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.86	ug/l	
	m,p-Xylene	ND	1.0	0.62	ug/l	
95-47-6	o-Xylene	ND	1.0	0.56	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.56	ug/l	

Method Blank Summary

Job Number: M99080
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSG4238-MB	G105068.D	1	04/18/11	EL	n/a	n/a	MSG4238

The QC reported here applies to the following samples: Method: SW846 8260B

M99080-1, M99080-5

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	116%	70-130%
2037-26-5	Toluene-D8	111%	70-130%
460-00-4	4-Bromofluorobenzene	110%	70-130%

Blank Spike Summary

Job Number: M99080
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP1728-BS	P52158.D	1	04/11/11	AMY	n/a	n/a	MSP1728

The QC reported here applies to the following samples: Method: SW846 8260B

M99080-2, M99080-4, M99080-6, M99080-7, M99080-8

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
67-64-1	Acetone	50	68.4	137* [a]	70-130
107-02-8	Acrolein	250	5410	2164* [b]	70-130
107-13-1	Acrylonitrile	50	56.5	113	70-130
71-43-2	Benzene	50	52.8	106	70-130
108-86-1	Bromobenzene	50	48.4	97	70-130
74-97-5	Bromochloromethane	50	56.6	113	70-130
75-27-4	Bromodichloromethane	50	53.9	108	70-130
75-25-2	Bromoform	50	50.6	101	70-130
74-83-9	Bromomethane	50	51.9	104	70-130
78-93-3	2-Butanone (MEK)	50	49.8	100	70-130
104-51-8	n-Butylbenzene	50	53.4	107	70-130
135-98-8	sec-Butylbenzene	50	48.7	97	70-130
98-06-6	tert-Butylbenzene	50	46.7	93	70-130
75-15-0	Carbon disulfide	50	58.6	117	70-130
56-23-5	Carbon tetrachloride	50	51.0	102	70-130
108-90-7	Chlorobenzene	50	48.5	97	70-130
75-00-3	Chloroethane	50	56.3	113	70-130
67-66-3	Chloroform	50	51.1	102	70-130
74-87-3	Chloromethane	50	57.0	114	70-130
95-49-8	o-Chlorotoluene	50	48.9	98	70-130
106-43-4	p-Chlorotoluene	50	51.2	102	70-130
96-12-8	1,2-Dibromo-3-chloropropane	50	53.3	107	70-130
124-48-1	Dibromochloromethane	50	54.3	109	70-130
106-93-4	1,2-Dibromoethane	50	48.6	97	70-130
95-50-1	1,2-Dichlorobenzene	50	49.0	98	70-130
541-73-1	1,3-Dichlorobenzene	50	48.6	97	70-130
106-46-7	1,4-Dichlorobenzene	50	49.5	99	70-130
75-71-8	Dichlorodifluoromethane	50	46.8	94	70-130
75-34-3	1,1-Dichloroethane	50	56.4	113	70-130
107-06-2	1,2-Dichloroethane	50	48.8	98	70-130
75-35-4	1,1-Dichloroethene	50	57.5	115	70-130
156-59-2	cis-1,2-Dichloroethene	50	53.9	108	70-130
156-60-5	trans-1,2-Dichloroethene	50	56.8	114	70-130
78-87-5	1,2-Dichloropropane	50	53.3	107	70-130
142-28-9	1,3-Dichloropropane	50	49.0	98	70-130
594-20-7	2,2-Dichloropropane	50	40.7	81	70-130

Blank Spike Summary

Job Number: M99080
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP1728-BS	P52158.D	1	04/11/11	AMY	n/a	n/a	MSP1728

The QC reported here applies to the following samples: Method: SW846 8260B

M99080-2, M99080-4, M99080-6, M99080-7, M99080-8

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
563-58-6	1,1-Dichloropropene	50	52.5	105	70-130
10061-01-5	cis-1,3-Dichloropropene	50	51.7	103	70-130
10061-02-6	trans-1,3-Dichloropropene	50	50.3	101	70-130
97-63-2	Ethyl methacrylate	50	46.4	93	76-141
100-41-4	Ethylbenzene	50	48.4	97	70-130
87-68-3	Hexachlorobutadiene	50	46.5	93	70-130
591-78-6	2-Hexanone	50	43.4	87	70-130
98-82-8	Isopropylbenzene	50	54.7	109	70-130
99-87-6	p-Isopropyltoluene	50	49.8	100	70-130
1634-04-4	Methyl Tert Butyl Ether	50	47.0	94	70-130
108-10-1	4-Methyl-2-pentanone (MIBK)	50	44.5	89	70-130
74-95-3	Methylene bromide	50	53.4	107	70-130
75-09-2	Methylene chloride	50	58.1	116	70-130
103-65-1	n-Propylbenzene	50	50.0	100	70-130
100-42-5	Styrene	50	48.3	97	70-130
630-20-6	1,1,1,2-Tetrachloroethane	50	50.4	101	70-130
79-34-5	1,1,2,2-Tetrachloroethane	50	51.0	102	70-130
127-18-4	Tetrachloroethene	50	46.3	93	70-130
108-88-3	Toluene	50	50.8	102	70-130
87-61-6	1,2,3-Trichlorobenzene	50	48.1	96	70-130
120-82-1	1,2,4-Trichlorobenzene	50	48.9	98	70-130
71-55-6	1,1,1-Trichloroethane	50	53.8	108	70-130
79-00-5	1,1,2-Trichloroethane	50	52.5	105	70-130
79-01-6	Trichloroethene	50	52.4	105	70-130
75-69-4	Trichlorofluoromethane	50	50.7	101	70-130
96-18-4	1,2,3-Trichloropropane	50	51.5	103	70-130
95-63-6	1,2,4-Trimethylbenzene	50	47.9	96	70-130
108-67-8	1,3,5-Trimethylbenzene	50	47.2	94	70-130
108-05-4	Vinyl Acetate	50	54.8	110	70-130
75-01-4	Vinyl chloride	50	59.9	120	70-130
	m,p-Xylene	100	95.1	95	70-130
95-47-6	o-Xylene	50	48.1	96	70-130
1330-20-7	Xylene (total)	150	143	95	70-130

Blank Spike Summary

Job Number: M99080
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP1728-BS	P52158.D	1	04/11/11	AMY	n/a	n/a	MSP1728

The QC reported here applies to the following samples: Method: SW846 8260B

M99080-2, M99080-4, M99080-6, M99080-7, M99080-8

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	109%	70-130%
2037-26-5	Toluene-D8	112%	70-130%
460-00-4	4-Bromofluorobenzene	97%	70-130%

(a) Outside control limits. Blank Spike meets program technical requirements.
(b) Outside control limits. Associated samples are non-detect for this compound.

Blank Spike Summary

Job Number: M99080
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSE2212-BS	E52788.D	1	04/14/11	TD	n/a	n/a	MSE2212

The QC reported here applies to the following samples: Method: SW846 8260B

M99080-3

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
67-64-1	Acetone	2500	5290	212* a	70-130
107-02-8	Acrolein	12500	171000	1368* a	70-130
107-13-1	Acrylonitrile	2500	10300	412* a	70-130
71-43-2	Benzene	2500	2460	98	70-130
108-86-1	Bromobenzene	2500	2380	95	70-130
74-97-5	Bromochloromethane	2500	2330	93	70-130
75-27-4	Bromodichloromethane	2500	2390	96	70-130
75-25-2	Bromoform	2500	2020	81	70-130
74-83-9	Bromomethane	2500	2430	97	70-130
78-93-3	2-Butanone (MEK)	2500	3590	144* a	70-130
104-51-8	n-Butylbenzene	2500	2600	104	70-130
135-98-8	sec-Butylbenzene	2500	2570	103	70-130
98-06-6	tert-Butylbenzene	2500	2540	102	70-130
75-15-0	Carbon disulfide	2500	2530	101	70-130
56-23-5	Carbon tetrachloride	2500	2460	98	70-130
108-90-7	Chlorobenzene	2500	2430	97	70-130
75-00-3	Chloroethane	2500	2280	91	70-130
110-75-8	2-Chloroethyl vinyl ether	2500	3160	126	10-160
67-66-3	Chloroform	2500	2390	96	70-130
74-87-3	Chloromethane	2500	2110	84	70-130
95-49-8	o-Chlorotoluene	2500	2520	101	70-130
106-43-4	p-Chlorotoluene	2500	2540	102	70-130
96-12-8	1,2-Dibromo-3-chloropropane	2500	2550	102	70-130
124-48-1	Dibromochloromethane	2500	2350	94	70-130
106-93-4	1,2-Dibromoethane	2500	2230	89	70-130
95-50-1	1,2-Dichlorobenzene	2500	2290	92	70-130
541-73-1	1,3-Dichlorobenzene	2500	2430	97	70-130
106-46-7	1,4-Dichlorobenzene	2500	2400	96	70-130
75-71-8	Dichlorodifluoromethane	2500	1560	62* b	70-130
75-34-3	1,1-Dichloroethane	2500	2450	98	70-130
107-06-2	1,2-Dichloroethane	2500	2340	94	70-130
75-35-4	1,1-Dichloroethene	2500	2460	98	70-130
156-59-2	cis-1,2-Dichloroethene	2500	2400	96	70-130
156-60-5	trans-1,2-Dichloroethene	2500	2510	100	70-130
78-87-5	1,2-Dichloropropane	2500	2320	93	70-130
142-28-9	1,3-Dichloropropane	2500	2210	88	70-130

Blank Spike Summary

Job Number: M99080
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSE2212-BS	E52788.D	1	04/14/11	TD	n/a	n/a	MSE2212

The QC reported here applies to the following samples: Method: SW846 8260B

M99080-3

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
594-20-7	2,2-Dichloropropane	2500	2730	109	70-130
563-58-6	1,1-Dichloropropene	2500	2420	97	70-130
10061-01-5	cis-1,3-Dichloropropene	2500	2480	99	70-130
10061-02-6	trans-1,3-Dichloropropene	2500	2560	102	70-130
97-63-2	Ethyl methacrylate	2500	2210	88	76-141
100-41-4	Ethylbenzene	2500	2500	100	70-130
87-68-3	Hexachlorobutadiene	2500	2640	106	70-130
591-78-6	2-Hexanone	2500	4210	168* [a]	70-130
98-82-8	Isopropylbenzene	2500	3000	120	70-130
99-87-6	p-Isopropyltoluene	2500	2630	105	70-130
1634-04-4	Methyl Tert Butyl Ether	2500	2280	91	70-130
108-10-1	4-Methyl-2-pentanone (MIBK)	2500	2470	99	70-130
74-95-3	Methylene bromide	2500	2300	92	70-130
75-09-2	Methylene chloride	2500	2470	99	70-130
103-65-1	n-Propylbenzene	2500	2620	105	70-130
100-42-5	Styrene	2500	2360	94	70-130
630-20-6	1,1,1,2-Tetrachloroethane	2500	2300	92	70-130
79-34-5	1,1,2,2-Tetrachloroethane	2500	2100	84	70-130
127-18-4	Tetrachloroethene	2500	2450	98	70-130
108-88-3	Toluene	2500	2530	101	70-130
87-61-6	1,2,3-Trichlorobenzene	2500	2260	90	70-130
120-82-1	1,2,4-Trichlorobenzene	2500	2390	96	70-130
71-55-6	1,1,1-Trichloroethane	2500	2490	100	70-130
79-00-5	1,1,2-Trichloroethane	2500	2240	90	70-130
79-01-6	Trichloroethene	2500	2460	98	70-130
75-69-4	Trichlorofluoromethane	2500	2310	92	70-130
96-18-4	1,2,3-Trichloropropane	2500	2160	86	70-130
95-63-6	1,2,4-Trimethylbenzene	2500	2510	100	70-130
108-67-8	1,3,5-Trimethylbenzene	2500	2470	99	70-130
108-05-4	Vinyl Acetate	2500	2510	100	70-130
75-01-4	Vinyl chloride	2500	2230	89	70-130
	m,p-Xylene	5000	4950	99	70-130
95-47-6	o-Xylene	2500	2420	97	70-130
1330-20-7	Xylene (total)	7500	7370	98	70-130

Blank Spike Summary

Job Number: M99080
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSE2212-BS	E52788.D	1	04/14/11	TD	n/a	n/a	MSE2212

The QC reported here applies to the following samples: Method: SW846 8260B

M99080-3

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	96%	70-130%
2037-26-5	Toluene-D8	105%	70-130%
460-00-4	4-Bromofluorobenzene	111%	70-130%

(a) Outside control limits. Associated samples are non-detect for this compound.
(b) Outside control limits. Blank Spike meets program technical requirements.

Blank Spike Summary

Job Number: M99080
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSG4238-BS	G105066A.D	1	04/18/11	EL	n/a	n/a	MSG4238

The QC reported here applies to the following samples: Method: SW846 8260B

M99080-1, M99080-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	50	38.5	77	70-130
107-02-8	Acrolein	250	4060	1624* a	70-130
107-13-1	Acrylonitrile	50	47.2	94	70-130
71-43-2	Benzene	50	44.9	90	70-130
108-86-1	Bromobenzene	50	41.5	83	70-130
74-97-5	Bromochloromethane	50	48.6	97	70-130
75-27-4	Bromodichloromethane	50	46.6	93	70-130
75-25-2	Bromoform	50	42.0	84	70-130
74-83-9	Bromomethane	50	43.5	87	70-130
78-93-3	2-Butanone (MEK)	50	45.9	92	70-130
104-51-8	n-Butylbenzene	50	40.3	81	70-130
135-98-8	sec-Butylbenzene	50	41.3	83	70-130
98-06-6	tert-Butylbenzene	50	39.8	80	70-130
75-15-0	Carbon disulfide	50	53.2	106	70-130
56-23-5	Carbon tetrachloride	50	46.2	92	70-130
108-90-7	Chlorobenzene	50	42.7	85	70-130
75-00-3	Chloroethane	50	45.6	91	70-130
110-75-8	2-Chloroethyl vinyl ether	50	13.0	26* b	70-130
67-66-3	Chloroform	50	47.4	95	70-130
74-87-3	Chloromethane	50	41.2	82	70-130
95-49-8	o-Chlorotoluene	50	40.1	80	70-130
106-43-4	p-Chlorotoluene	50	40.3	81	70-130
96-12-8	1,2-Dibromo-3-chloropropane	50	38.2	76	70-130
124-48-1	Dibromochloromethane	50	45.4	91	70-130
106-93-4	1,2-Dibromoethane	50	43.7	87	70-130
95-50-1	1,2-Dichlorobenzene	50	41.3	83	70-130
541-73-1	1,3-Dichlorobenzene	50	41.2	82	70-130
106-46-7	1,4-Dichlorobenzene	50	40.7	81	70-130
75-71-8	Dichlorodifluoromethane	50	30.5	61* b	70-130
75-34-3	1,1-Dichloroethane	50	47.7	95	70-130
107-06-2	1,2-Dichloroethane	50	44.6	89	70-130
75-35-4	1,1-Dichloroethene	50	46.9	94	70-130
156-59-2	cis-1,2-Dichloroethene	50	45.9	92	70-130
156-60-5	trans-1,2-Dichloroethene	50	47.2	94	70-130
78-87-5	1,2-Dichloropropane	50	44.9	90	70-130
142-28-9	1,3-Dichloropropane	50	42.5	85	70-130

Blank Spike Summary

Job Number: M99080
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSG4238-BS	G105066A.D	1	04/18/11	EL	n/a	n/a	MSG4238

The QC reported here applies to the following samples: Method: SW846 8260B

M99080-1, M99080-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
594-20-7	2,2-Dichloropropane	50	49.6	99	70-130
563-58-6	1,1-Dichloropropene	50	46.0	92	70-130
10061-01-5	cis-1,3-Dichloropropene	50	46.7	93	70-130
10061-02-6	trans-1,3-Dichloropropene	50	51.9	104	70-130
97-63-2	Ethyl methacrylate	50	42.7	85	77-137
100-41-4	Ethylbenzene	50	42.2	84	70-130
87-68-3	Hexachlorobutadiene	50	40.3	81	70-130
591-78-6	2-Hexanone	50	36.6	73	70-130
98-82-8	Isopropylbenzene	50	46.8	94	70-130
99-87-6	p-Isopropyltoluene	50	41.9	84	70-130
1634-04-4	Methyl Tert Butyl Ether	50	46.3	93	70-130
108-10-1	4-Methyl-2-pentanone (MIBK)	50	43.8	88	70-130
74-95-3	Methylene bromide	50	46.0	92	70-130
75-09-2	Methylene chloride	50	48.5	97	70-130
103-65-1	n-Propylbenzene	50	40.8	82	70-130
100-42-5	Styrene	50	42.7	85	70-130
630-20-6	1,1,1,2-Tetrachloroethane	50	43.8	88	70-130
79-34-5	1,1,2,2-Tetrachloroethane	50	41.0	82	70-130
127-18-4	Tetrachloroethene	50	44.3	89	70-130
108-88-3	Toluene	50	42.8	86	70-130
87-61-6	1,2,3-Trichlorobenzene	50	38.6	77	70-130
120-82-1	1,2,4-Trichlorobenzene	50	39.5	79	70-130
71-55-6	1,1,1-Trichloroethane	50	47.5	95	70-130
79-00-5	1,1,2-Trichloroethane	50	45.9	92	70-130
79-01-6	Trichloroethene	50	45.0	90	70-130
75-69-4	Trichlorofluoromethane	50	51.8	104	70-130
96-18-4	1,2,3-Trichloropropane	50	38.5	77	70-130
95-63-6	1,2,4-Trimethylbenzene	50	40.1	80	70-130
108-67-8	1,3,5-Trimethylbenzene	50	39.3	79	70-130
108-05-4	Vinyl Acetate	50	54.0	108	70-130
75-01-4	Vinyl chloride	50	44.6	89	70-130
	m,p-Xylene	100	85.5	86	70-130
95-47-6	o-Xylene	50	43.1	86	70-130
1330-20-7	Xylene (total)	150	129	86	70-130

Blank Spike Summary

Job Number: M99080
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSG4238-BS	G105066A.D	1	04/18/11	EL	n/a	n/a	MSG4238

The QC reported here applies to the following samples: Method: SW846 8260B

M99080-1, M99080-5

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	117%	70-130%
2037-26-5	Toluene-D8	112%	70-130%
460-00-4	4-Bromofluorobenzene	101%	70-130%

(a) Outside control limits. Associated samples are non-detect for this compound.
(b) Outside control limits. Blank Spike meets program technical requirements.

Blank Spike/Blank Spike Duplicate Summary

Job Number: M99080
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSE2213-BS	E52829.D	1	04/15/11	TD	n/a	n/a	MSE2213
MSE2213-BSD	E52830.D	1	04/15/11	TD	n/a	n/a	MSE2213

The QC reported here applies to the following samples: Method: SW846 8260B

M99080-2, M99080-4, M99080-6, M99080-7, M99080-8

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	BSD ug/kg	BSD %	RPD	Limits Rec/RPD
110-75-8	2-Chloroethyl vinyl ether	2500	931	37	1340	54	36* [a]	10-160/25

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	82%	84%	70-130%
2037-26-5	Toluene-D8	86%	88%	70-130%
460-00-4	4-Bromofluorobenzene	91%	94%	70-130%

(a) Outside control limits. Associated samples are non-detect for this compound.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M99080
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M99080-2MS	P52182.D	1	04/11/11	AMY	n/a	n/a	MSP1728
M99080-2MSD	P52183.D	1	04/11/11	AMY	n/a	n/a	MSP1728
M99080-2	P52175.D	1	04/11/11	AMY	n/a	n/a	MSP1728

The QC reported here applies to the following samples: Method: SW846 8260B

M99080-2, M99080-4, M99080-6, M99080-7, M99080-8

CAS No.	Compound	M99080-2 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		60.5	51.2	85	61.4	109	18	70-130/30
107-02-8	Acrolein	ND		303	6670	2204* a	8120	2885* a	20	70-130/30
107-13-1	Acrylonitrile	ND		60.5	111	183* a	96.8	172* a	14	70-130/30
71-43-2	Benzene	0.88		60.5	72.0	118	56.8	99	24	70-130/30
108-86-1	Bromobenzene	ND		60.5	58.1	96	47.4	84	20	70-130/30
74-97-5	Bromochloromethane	ND		60.5	81.3	134* b	64.6	115	23	70-130/30
75-27-4	Bromodichloromethane	ND		60.5	72.5	120	60.3	107	18	70-130/30
75-25-2	Bromoform	ND		60.5	69.6	115	65.8	117	6	70-130/30
74-83-9	Bromomethane	ND		60.5	73.2	121	56.4	100	26	70-130/30
78-93-3	2-Butanone (MEK)	ND		60.5	53.9	89	27.0	48* b	67* c	70-130/30
104-51-8	n-Butylbenzene	ND		60.5	62.8	104	49.8	88	23	70-130/30
135-98-8	sec-Butylbenzene	ND		60.5	60.5	100	50.7	90	18	70-130/30
98-06-6	tert-Butylbenzene	ND		60.5	58.9	97	47.7	85	21	70-130/30
75-15-0	Carbon disulfide	ND		60.5	86.7	143* b	63.5	113	31* c	70-130/30
56-23-5	Carbon tetrachloride	ND		60.5	70.1	116	52.4	93	29	70-130/30
108-90-7	Chlorobenzene	ND		60.5	58.5	97	49.6	88	16	70-130/30
75-00-3	Chloroethane	ND		60.5	83.7	138* b	67.2	119	22	70-130/30
67-66-3	Chloroform	ND		60.5	71.3	118	57.0	101	22	70-130/30
74-87-3	Chloromethane	ND		60.5	76.2	126	94.0	167* b	21	70-130/30
95-49-8	o-Chlorotoluene	ND		60.5	59.4	98	48.5	86	20	70-130/30
106-43-4	p-Chlorotoluene	ND		60.5	61.8	102	46.6	83	28	70-130/30
96-12-8	1,2-Dibromo-3-chloropropane	ND		60.5	87.7	145* b	96.9	172* b	10	70-130/30
124-48-1	Dibromochloromethane	ND		60.5	70.5	116	66.3	118	6	70-130/30
106-93-4	1,2-Dibromoethane	ND		60.5	67.5	112	67.1	119	1	70-130/30
95-50-1	1,2-Dichlorobenzene	ND		60.5	57.0	94	50.4	90	12	70-130/30
541-73-1	1,3-Dichlorobenzene	ND		60.5	56.1	93	47.1	84	17	70-130/30
106-46-7	1,4-Dichlorobenzene	ND		60.5	56.0	93	46.9	83	18	70-130/30
75-71-8	Dichlorodifluoromethane	ND		60.5	62.8	104	47.2	84	28	70-130/30
75-34-3	1,1-Dichloroethane	ND		60.5	80.7	133* b	61.4	109	27	70-130/30
107-06-2	1,2-Dichloroethane	ND		60.5	68.5	113	63.7	113	7	70-130/30
75-35-4	1,1-Dichloroethene	ND		60.5	85.2	141* b	63.0	112	30	70-130/30
156-59-2	cis-1,2-Dichloroethene	ND		60.5	75.4	125	59.0	105	24	70-130/30
156-60-5	trans-1,2-Dichloroethene	ND		60.5	79.3	131* b	60.2	107	27	70-130/30
78-87-5	1,2-Dichloropropane	ND		60.5	71.7	118	57.9	103	21	70-130/30
142-28-9	1,3-Dichloropropane	ND		60.5	68.1	113	65.9	117	3	70-130/30
594-20-7	2,2-Dichloropropane	ND		60.5	53.2	88	17.1	30* b	103* c	70-130/30

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M99080
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M99080-2MS	P52182.D	1	04/11/11	AMY	n/a	n/a	MSP1728
M99080-2MSD	P52183.D	1	04/11/11	AMY	n/a	n/a	MSP1728
M99080-2	P52175.D	1	04/11/11	AMY	n/a	n/a	MSP1728

The QC reported here applies to the following samples: Method: SW846 8260B

M99080-2, M99080-4, M99080-6, M99080-7, M99080-8

CAS No.	Compound	M99080-2 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
563-58-6	1,1-Dichloropropene	ND		60.5	71.6	118	50.7	90	34* c	70-130/30
10061-01-5	cis-1,3-Dichloropropene	ND		60.5	67.7	112	52.6	93	25	70-130/30
10061-02-6	trans-1,3-Dichloropropene	ND		60.5	69.5	115	51.8	92	29	70-130/30
97-63-2	Ethyl methacrylate	ND		60.5	69.8	115	60.9	108	14	41-160/30
100-41-4	Ethylbenzene	2.3	J	60.5	60.5	96	49.1	83	21	70-130/30
87-68-3	Hexachlorobutadiene	ND		60.5	51.9	86	55.4	98	7	70-130/30
591-78-6	2-Hexanone	ND		60.5	49.9	82	52.8	94	6	70-130/30
98-82-8	Isopropylbenzene	ND		60.5	70.3	116	54.1	96	26	70-130/30
99-87-6	p-Isopropyltoluene	ND		60.5	60.3	100	49.0	87	21	70-130/30
1634-04-4	Methyl Tert Butyl Ether	ND		60.5	73.4	121	66.0	117	11	70-130/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		60.5	80.2	133* b	89.1	158* b	11	70-130/30
74-95-3	Methylene bromide	ND		60.5	76.8	127	66.4	118	15	70-130/30
75-09-2	Methylene chloride	ND		60.5	78.4	130	65.0	115	19	70-130/30
103-65-1	n-Propylbenzene	ND		60.5	62.2	103	47.9	85	26	70-130/30
100-42-5	Styrene	ND		60.5	54.3	90	43.7	78	22	70-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		60.5	62.9	104	54.4	97	14	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		60.5	82.6	136* b	84.0	149* b	2	70-130/30
127-18-4	Tetrachloroethene	ND		60.5	57.2	95	45.1	80	24	70-130/30
108-88-3	Toluene	2.7	J	60.5	68.9	109	50.8	85	30	70-130/30
87-61-6	1,2,3-Trichlorobenzene	ND		60.5	49.7	82	49.4	88	1	70-130/30
120-82-1	1,2,4-Trichlorobenzene	ND		60.5	49.3	81	42.7	76	14	70-130/30
71-55-6	1,1,1-Trichloroethane	ND		60.5	76.8	127	53.8	96	35* c	70-130/30
79-00-5	1,1,2-Trichloroethane	ND		60.5	77.6	128	70.2	125	10	70-130/30
79-01-6	Trichloroethene	ND		60.5	69.9	116	55.1	98	24	70-130/30
75-69-4	Trichlorofluoromethane	ND		60.5	73.5	121	54.2	96	30	70-130/30
96-18-4	1,2,3-Trichloropropane	ND		60.5	85.5	141* b	78.8	140* b	8	70-130/30
95-63-6	1,2,4-Trimethylbenzene	ND		60.5	57.2	95	45.1	80	24	70-130/30
108-67-8	1,3,5-Trimethylbenzene	ND		60.5	57.1	94	44.7	79	24	70-130/30
108-05-4	Vinyl Acetate	ND		60.5	73.6	122	63.3	112	15	70-130/30
75-01-4	Vinyl chloride	ND		60.5	87.9	145* b	60.2	107	37* c	70-130/30
	m,p-Xylene	ND		121	116	96	91.1	81	24	70-130/30
95-47-6	o-Xylene	ND		60.5	58.6	97	47.8	85	20	70-130/30
1330-20-7	Xylene (total)	ND		182	175	96	139	82	23	70-130/30

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Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M99080
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M99080-2MS	P52182.D	1	04/11/11	AMY	n/a	n/a	MSP1728
M99080-2MSD	P52183.D	1	04/11/11	AMY	n/a	n/a	MSP1728
M99080-2	P52175.D	1	04/11/11	AMY	n/a	n/a	MSP1728

The QC reported here applies to the following samples: Method: SW846 8260B

M99080-2, M99080-4, M99080-6, M99080-7, M99080-8

CAS No.	Surrogate Recoveries	MS	MSD	M99080-2	Limits
1868-53-7	Dibromofluoromethane	122%	120%	123%	70-130%
2037-26-5	Toluene-D8	116%	113%	124%	70-130%
460-00-4	4-Bromofluorobenzene	103%	100%	114%	70-130%

(a) Outside control limits. Associated samples are non-detect for this compound.
(b) Outside control limits due to possible matrix interference. Refer to Blank Spike.
(c) High RPD due to possible matrix interference and/or sample non-homogeneity.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M99080
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Not Sample from this SDG

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M99247-2MS	E52802.D	1	04/14/11	TD	n/a	n/a	MSE2212
M99247-2MSD	E52803.D	1	04/14/11	TD	n/a	n/a	MSE2212
M99247-2	E52801.D	1	04/14/11	TD	n/a	n/a	MSE2212

The QC reported here applies to the following samples: Method: SW846 8260B

M99080-3

CAS No.	Compound	M99247-2 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		3110	5750	185* [a]	6640	214* [a]	14	70-130/30
107-02-8	Acrolein	ND		15500	214000	1378* [a]	242000	1558* [a]	12	70-130/30
107-13-1	Acrylonitrile	ND		3110	11900	383* [a]	13700	441* [a]	14	70-130/30
71-43-2	Benzene	ND		3110	2780	90	3190	103	14	70-130/30
108-86-1	Bromobenzene	ND		3110	2790	90	3250	105	15	70-130/30
74-97-5	Bromochloromethane	ND		3110	2710	87	3090	99	13	70-130/30
75-27-4	Bromodichloromethane	ND		3110	2680	86	3090	99	14	70-130/30
75-25-2	Bromoform	ND		3110	2510	81	2860	92	13	70-130/30
74-83-9	Bromomethane	ND		3110	2750	89	3120	100	13	70-130/30
78-93-3	2-Butanone (MEK)	ND		3110	3710	119	4420	142* [a]	17	70-130/30
104-51-8	n-Butylbenzene	ND		3110	2710	87	3370	108	22	70-130/30
135-98-8	sec-Butylbenzene	ND		3110	2710	87	3340	108	21	70-130/30
98-06-6	tert-Butylbenzene	ND		3110	2680	86	3160	102	16	70-130/30
75-15-0	Carbon disulfide	ND		3110	2870	92	3200	103	11	70-130/30
56-23-5	Carbon tetrachloride	ND		3110	2650	85	3050	98	14	70-130/30
108-90-7	Chlorobenzene	ND		3110	2910	94	3290	106	12	70-130/30
75-00-3	Chloroethane	ND		3110	2470	80	2780	90	12	70-130/30
110-75-8	2-Chloroethyl vinyl ether	ND		3110	1270	41	1740	56	31* [b]	10-160/30
67-66-3	Chloroform	ND		3110	2760	89	3120	100	12	70-130/30
74-87-3	Chloromethane	ND		3110	2250	72	2500	80	11	70-130/30
95-49-8	o-Chlorotoluene	ND		3110	2790	90	3270	105	16	70-130/30
106-43-4	p-Chlorotoluene	ND		3110	2840	91	3340	108	16	70-130/30
96-12-8	1,2-Dibromo-3-chloropropane	ND		3110	2790	90	3220	104	14	70-130/30
124-48-1	Dibromochloromethane	ND		3110	2750	89	3110	100	12	70-130/30
106-93-4	1,2-Dibromoethane	ND		3110	2720	88	3020	97	10	70-130/30
95-50-1	1,2-Dichlorobenzene	ND		3110	2660	86	3030	98	13	70-130/30
541-73-1	1,3-Dichlorobenzene	ND		3110	2970	96	3180	102	7	70-130/30
106-46-7	1,4-Dichlorobenzene	ND		3110	2790	90	3230	104	15	70-130/30
75-71-8	Dichlorodifluoromethane	ND		3110	1540	50* [c]	1750	56* [c]	13	70-130/30
75-34-3	1,1-Dichloroethane	ND		3110	2850	92	3200	103	12	70-130/30
107-06-2	1,2-Dichloroethane	ND		3110	2610	84	2930	94	12	70-130/30
75-35-4	1,1-Dichloroethene	ND		3110	2880	93	3220	104	11	70-130/30
156-59-2	cis-1,2-Dichloroethene	ND		3110	2760	89	3160	102	14	70-130/30
156-60-5	trans-1,2-Dichloroethene	ND		3110	2890	93	3210	103	10	70-130/30
78-87-5	1,2-Dichloropropane	ND		3110	2650	85	3020	97	13	70-130/30
142-28-9	1,3-Dichloropropane	ND		3110	2670	86	2900	93	8	70-130/30

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M99080
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M99247-2MS	E52802.D	1	04/14/11	TD	n/a	n/a	MSE2212
M99247-2MSD	E52803.D	1	04/14/11	TD	n/a	n/a	MSE2212
M99247-2	E52801.D	1	04/14/11	TD	n/a	n/a	MSE2212

The QC reported here applies to the following samples: Method: SW846 8260B

M99080-3

CAS No.	Compound	M99247-2 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
594-20-7	2,2-Dichloropropane	ND		3110	2840	91	3120	100	9	70-130/30
563-58-6	1,1-Dichloropropene	ND		3110	2670	86	3040	98	13	70-130/30
10061-01-5	cis-1,3-Dichloropropene	ND		3110	2700	87	3160	102	16	70-130/30
10061-02-6	trans-1,3-Dichloropropene	ND		3110	2850	92	3200	103	12	70-130/30
97-63-2	Ethyl methacrylate	ND		3110	2520	81	2930	94	15	41-160/30
100-41-4	Ethylbenzene	67.0		3110	2910	92	3310	104	13	70-130/30
87-68-3	Hexachlorobutadiene	ND		3110	2730	88	3320	107	20	70-130/30
591-78-6	2-Hexanone	ND		3110	3950	127	5280	170* c	29	70-130/30
98-82-8	Isopropylbenzene	ND		3110	3300	106	3900	126	17	70-130/30
99-87-6	p-Isopropyltoluene	ND		3110	2840	91	3390	109	18	70-130/30
1634-04-4	Methyl Tert Butyl Ether	ND		3110	2590	83	2890	93	11	70-130/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		3110	2330	75	2800	90	18	70-130/30
74-95-3	Methylene bromide	ND		3110	2630	85	2990	96	13	70-130/30
75-09-2	Methylene chloride	73.9		3110	2960	93	3260	103	10	70-130/30
103-65-1	n-Propylbenzene	31.0		3110	2900	92	3390	108	16	70-130/30
100-42-5	Styrene	ND		3110	2810	90	3180	102	12	70-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		3110	2760	89	3190	103	14	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		3110	2400	77	2800	90	15	70-130/30
127-18-4	Tetrachloroethene	83.1		3110	2890	90	3290	103	13	70-130/30
108-88-3	Toluene	103		3110	2930	91	3320	104	12	70-130/30
87-61-6	1,2,3-Trichlorobenzene	ND		3110	2250	72	3060	99	31* b	70-130/30
120-82-1	1,2,4-Trichlorobenzene	ND		3110	2530	81	3160	102	22	70-130/30
71-55-6	1,1,1-Trichloroethane	ND		3110	2760	89	3130	101	13	70-130/30
79-00-5	1,1,2-Trichloroethane	ND		3110	2630	85	2980	96	12	70-130/30
79-01-6	Trichloroethene	ND		3110	2760	89	3210	103	15	70-130/30
75-69-4	Trichlorofluoromethane	ND		3110	2480	80	2800	90	12	70-130/30
96-18-4	1,2,3-Trichloropropane	ND		3110	2440	79	2920	94	18	70-130/30
95-63-6	1,2,4-Trimethylbenzene	221		3110	2980	89	3450	104	15	70-130/30
108-67-8	1,3,5-Trimethylbenzene	92.9		3110	2830	88	3330	104	16	70-130/30
108-05-4	Vinyl Acetate	ND		3110	2550	82	2710	87	6	70-130/30
75-01-4	Vinyl chloride	ND		3110	2430	78	2640	85	8	70-130/30
	m,p-Xylene	231		6210	6020	93	6880	107	13	70-130/30
95-47-6	o-Xylene	132		3110	3010	93	3330	103	10	70-130/30
1330-20-7	Xylene (total)	363		9320	9030	93	10200	106	12	70-130/30

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M99080
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M99247-2MS	E52802.D	1	04/14/11	TD	n/a	n/a	MSE2212
M99247-2MSD	E52803.D	1	04/14/11	TD	n/a	n/a	MSE2212
M99247-2	E52801.D	1	04/14/11	TD	n/a	n/a	MSE2212

The QC reported here applies to the following samples: Method: SW846 8260B

M99080-3

CAS No.	Surrogate Recoveries	MS	MSD	M99247-2	Limits
1868-53-7	Dibromofluoromethane	78%	90%	92%	70-130%
2037-26-5	Toluene-D8	82%	96%	98%	70-130%
460-00-4	4-Bromofluorobenzene	86%	102%	102%	70-130%

(a) Outside control limits. Associated samples are non-detect for this compound.
(b) High RPD due to possible matrix interference and/or sample non-homogeneity.
(c) Outside control limits due to possible matrix interference. Refer to Blank Spike.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M99080
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M99080-8MS	E52849.D	1	04/15/11	TD	n/a	n/a	MSE2213
M99080-8MSD	E52850.D	1	04/15/11	TD	n/a	n/a	MSE2213
M99080-8	E52848.D	1	04/15/11	TD	n/a	n/a	MSE2213

The QC reported here applies to the following samples: Method: SW846 8260B

M99080-2, M99080-4, M99080-6, M99080-7, M99080-8

CAS No.	Compound	M99080-8 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
110-75-8	2-Chloroethyl vinyl ether	ND		6710	2920	44	3590	53	21	10-160/30

CAS No.	Surrogate Recoveries	MS	MSD	M99080-8	Limits
1868-53-7	Dibromofluoromethane	91%	88%	91%	70-130%
2037-26-5	Toluene-D8	97%	94%	94%	70-130%
460-00-4	4-Bromofluorobenzene	99%	97%	100%	70-130%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M99080
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Not Sample from this SDG

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M99200-2MS	G105088.D	5	04/18/11	EL	n/a	n/a	MSG4238
M99200-2MSD	G105089.D	5	04/18/11	EL	n/a	n/a	MSG4238
M99200-2	G105087.D	1	04/18/11	EL	n/a	n/a	MSG4238

5.4.4

5

The QC reported here applies to the following samples: Method: SW846 8260B

M99080-1, M99080-5

CAS No.	Compound	M99200-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		250	222	89	232	93	4	70-130/30
107-02-8	Acrolein	ND		1250	22400	1792* [a]	23000	1840* [a]	3	70-130/30
107-13-1	Acrylonitrile	ND		250	258	103	264	106	2	70-130/30
71-43-2	Benzene	ND		250	249	100	254	102	2	70-130/30
108-86-1	Bromobenzene	ND		250	219	88	224	90	2	70-130/30
74-97-5	Bromochloromethane	ND		250	273	109	277	111	1	70-130/30
75-27-4	Bromodichloromethane	ND		250	250	100	254	102	2	70-130/30
75-25-2	Bromoform	ND		250	209	84	216	86	3	70-130/30
74-83-9	Bromomethane	ND		250	263	105	267	107	2	70-130/30
78-93-3	2-Butanone (MEK)	ND		250	263	105	279	112	6	70-130/30
104-51-8	n-Butylbenzene	ND		250	211	84	217	87	3	70-130/30
135-98-8	sec-Butylbenzene	ND		250	219	88	225	90	3	70-130/30
98-06-6	tert-Butylbenzene	ND		250	211	84	215	86	2	70-130/30
75-15-0	Carbon disulfide	ND		250	293	117	291	116	1	70-130/30
56-23-5	Carbon tetrachloride	ND		250	252	101	257	103	2	70-130/30
108-90-7	Chlorobenzene	ND		250	229	92	231	92	1	70-130/30
75-00-3	Chloroethane	ND		250	274	110	275	110	0	70-130/30
110-75-8	2-Chloroethyl vinyl ether	ND		250	71.4	29* [b]	70.7	28* [b]	1	70-130/30
67-66-3	Chloroform	ND		250	265	106	269	108	1	70-130/30
74-87-3	Chloromethane	ND		250	267	107	268	107	0	70-130/30
95-49-8	o-Chlorotoluene	ND		250	211	84	217	87	3	70-130/30
106-43-4	p-Chlorotoluene	ND		250	214	86	222	89	4	70-130/30
96-12-8	1,2-Dibromo-3-chloropropane	ND		250	190	76	204	82	7	70-130/30
124-48-1	Dibromochloromethane	ND		250	231	92	238	95	3	70-130/30
106-93-4	1,2-Dibromoethane	ND		250	231	92	233	93	1	70-130/30
95-50-1	1,2-Dichlorobenzene	ND		250	211	84	219	88	4	70-130/30
541-73-1	1,3-Dichlorobenzene	ND		250	214	86	219	88	2	70-130/30
106-46-7	1,4-Dichlorobenzene	ND		250	209	84	217	87	4	70-130/30
75-71-8	Dichlorodifluoromethane	ND		250	267	107	268	107	0	70-130/30
75-34-3	1,1-Dichloroethane	ND		250	269	108	273	109	1	70-130/30
107-06-2	1,2-Dichloroethane	ND		250	242	97	250	100	3	70-130/30
75-35-4	1,1-Dichloroethene	ND		250	280	112	275	110	2	70-130/30
156-59-2	cis-1,2-Dichloroethene	ND		250	261	104	267	107	2	70-130/30
156-60-5	trans-1,2-Dichloroethene	ND		250	266	106	271	108	2	70-130/30
78-87-5	1,2-Dichloropropane	ND		250	243	97	251	100	3	70-130/30
142-28-9	1,3-Dichloropropane	ND		250	226	90	228	91	1	70-130/30

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M99080
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M99200-2MS	G105088.D	5	04/18/11	EL	n/a	n/a	MSG4238
M99200-2MSD	G105089.D	5	04/18/11	EL	n/a	n/a	MSG4238
M99200-2	G105087.D	1	04/18/11	EL	n/a	n/a	MSG4238

The QC reported here applies to the following samples: Method: SW846 8260B

M99080-1, M99080-5

CAS No.	Compound	M99200-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
594-20-7	2,2-Dichloropropane	ND		250	267	107	268	107	0	70-130/30
563-58-6	1,1-Dichloropropene	ND		250	255	102	263	105	3	70-130/30
10061-01-5	cis-1,3-Dichloropropene	ND		250	246	98	255	102	4	70-130/30
10061-02-6	trans-1,3-Dichloropropene	ND		250	269	108	274	110	2	70-130/30
97-63-2	Ethyl methacrylate	ND		250	228	91	236	94	3	72-139/30
100-41-4	Ethylbenzene	ND		250	228	91	231	92	1	70-130/30
87-68-3	Hexachlorobutadiene	ND		250	209	84	214	86	2	70-130/30
591-78-6	2-Hexanone	ND		250	191	76	206	82	8	70-130/30
98-82-8	Isopropylbenzene	ND		250	249	100	257	103	3	70-130/30
99-87-6	p-Isopropyltoluene	ND		250	222	89	227	91	2	70-130/30
1634-04-4	Methyl Tert Butyl Ether	ND		250	257	103	264	106	3	70-130/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		250	227	91	234	94	3	70-130/30
74-95-3	Methylene bromide	ND		250	251	100	256	102	2	70-130/30
75-09-2	Methylene chloride	ND		250	284	114	280	112	1	70-130/30
103-65-1	n-Propylbenzene	ND		250	216	86	224	90	4	70-130/30
100-42-5	Styrene	ND		250	228	91	230	92	1	70-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		250	231	92	233	93	1	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		250	209	84	216	86	3	70-130/30
127-18-4	Tetrachloroethene	ND		250	238	95	242	97	2	70-130/30
108-88-3	Toluene	ND		250	239	96	241	96	1	70-130/30
87-61-6	1,2,3-Trichlorobenzene	ND		250	190	76	200	80	5	70-130/30
120-82-1	1,2,4-Trichlorobenzene	ND		250	195	78	205	82	5	70-130/30
71-55-6	1,1,1-Trichloroethane	ND		250	269	108	281	112	4	70-130/30
79-00-5	1,1,2-Trichloroethane	ND		250	248	99	258	103	4	70-130/30
79-01-6	Trichloroethene	ND		250	247	99	251	100	2	70-130/30
75-69-4	Trichlorofluoromethane	ND		250	311	124	308	123	1	70-130/30
96-18-4	1,2,3-Trichloropropane	ND		250	198	79	210	84	6	70-130/30
95-63-6	1,2,4-Trimethylbenzene	ND		250	211	84	218	87	3	70-130/30
108-67-8	1,3,5-Trimethylbenzene	ND		250	209	84	219	88	5	70-130/30
108-05-4	Vinyl Acetate	ND		250	305	122	311	124	2	70-130/30
75-01-4	Vinyl chloride	ND		250	282	113	283	113	0	70-130/30
	m,p-Xylene	ND		500	460	92	465	93	1	70-130/30
95-47-6	o-Xylene	ND		250	228	91	231	92	1	70-130/30
1330-20-7	Xylene (total)	ND		750	687	92	696	93	1	70-130/30

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M99080
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M99200-2MS	G105088.D	5	04/18/11	EL	n/a	n/a	MSG4238
M99200-2MSD	G105089.D	5	04/18/11	EL	n/a	n/a	MSG4238
M99200-2	G105087.D	1	04/18/11	EL	n/a	n/a	MSG4238

The QC reported here applies to the following samples: Method: SW846 8260B

M99080-1, M99080-5

CAS No.	Surrogate Recoveries	MS	MSD	M99200-2	Limits
1868-53-7	Dibromofluoromethane	121%	121%	119%	70-130%
2037-26-5	Toluene-D8	114%	115%	113%	70-130%
460-00-4	4-Bromofluorobenzene	101%	102%	110%	70-130%

(a) Outside control limits. Associated samples are non-detect for this compound.
(b) Outside control limits due to possible matrix interference. Refer to Blank Spike.

Volatile Internal Standard Area Summary

Job Number: M99080
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Check Std:	MSE2212-CC2208	Injection Date:	04/14/11
Lab File ID:	E52787.D	Injection Time:	12:55
Instrument ID:	GCMSE	Method:	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	244851	9.13	382735	10.00	176370	13.27	144925	15.82	51664	6.64
Upper Limit [a]	489702	9.63	765470	10.50	352740	13.77	289850	16.32	103328	7.14
Lower Limit [b]	122426	8.63	191368	9.50	88185	12.77	72463	15.32	25832	6.14
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSE2212-BS	253496	9.12	388720	10.00	178098	13.26	148062	15.82	52503	6.63
MSE2212-MB	253546	9.12	397087	9.99	176108	13.26	152155	15.82	56771	6.64
ZZZZZZ	251598	9.12	390637	9.99	169912	13.27	145885	15.82	51775	6.64
ZZZZZZ	260522	9.12	403782	9.99	175155	13.26	149014	15.82	54150	6.64
ZZZZZZ	257512	9.11	405819	10.00	174257	13.26	149893	15.82	55572	6.63
ZZZZZZ	258122	9.12	404544	9.99	175782	13.26	148716	15.82	57031	6.64
ZZZZZZ	247828	9.12	400111	9.99	174272	13.26	154277	15.82	59613	6.63
ZZZZZZ	257016	9.12	398699	9.99	175992	13.26	155489	15.82	55281	6.63
ZZZZZZ	255182	9.11	401862	9.99	179248	13.25	160884	15.82	55774	6.62
ZZZZZZ	251072	9.12	394059	9.99	175713	13.26	156290	15.81	54819	6.63
ZZZZZZ	258336	9.11	409557	9.99	181318	13.25	159746	15.82	62939	6.63
ZZZZZZ	255221	9.11	405383	9.99	177351	13.25	160221	15.82	59633	6.63
M99247-2	263468	9.11	403947	9.99	176693	13.25	157310	15.82	52602	6.62
M99247-2MS	265463	9.11	416618	9.98	184280	13.26	159063	15.81	48927	6.63
M99247-2MSD	268797	9.11	420029	9.99	186047	13.25	157056	15.81	54449	6.63
ZZZZZZ	273693	9.11	421565	9.99	180546	13.25	158538	15.81	56962	6.62
ZZZZZZ	265131	9.10	410712	9.98	173646	13.25	154273	15.81	54071	6.63
ZZZZZZ	270182	9.10	418032	9.98	181690	13.24	172523	15.81	45193	6.63
M99080-3	258027	9.10	408593	9.98	181303	13.24	164402	15.81	52400	6.62
ZZZZZZ	258664	9.11	401538	9.98	181071	13.25	161265	15.80	55650	6.62
ZZZZZZ	261533	9.10	416271	9.98	179478	13.24	162614	15.81	56609	6.62
ZZZZZZ	255375	9.10	399762	9.98	174412	13.24	164967	15.81	56873	6.62

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Internal Standard Area Summary

Job Number: M99080
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Check Std:	MSE2213-CC2208	Injection Date:	04/15/11
Lab File ID:	E52828.D	Injection Time:	11:55
Instrument ID:	GCMSE	Method:	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	294630	9.09	465925	9.97	204721	13.23	178128	15.80	57422	6.60
Upper Limit [a]	589260	9.59	931850	10.47	409442	13.73	356256	16.30	114844	7.10
Lower Limit [b]	147315	8.59	232963	9.47	102361	12.73	89064	15.30	28711	6.10
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSE2213-BS	280377	9.09	437630	9.97	192458	13.23	170105	15.79	58331	6.60
MSE2213-BSD	278457	9.09	440558	9.97	195171	13.23	169211	15.79	58187	6.60
MSE2213-MB	276196	9.09	431695	9.97	187251	13.24	164998	15.79	55338	6.60
ZZZZZZ	263040	9.09	416955	9.96	180758	13.24	168228	15.80	57027	6.60
ZZZZZZ	274003	9.09	428903	9.97	185440	13.24	168017	15.79	57201	6.61
ZZZZZZ	269784	9.09	430898	9.97	186745	13.24	168623	15.79	55254	6.60
ZZZZZZ	280052	9.09	433896	9.97	188411	13.23	171052	15.80	61109	6.60
ZZZZZZ	258033	9.09	414120	9.96	179218	13.24	163142	15.79	51342	6.60
ZZZZZZ	262955	9.09	415459	9.97	181678	13.23	160123	15.80	51648	6.60
M99080-2	259481	9.09	417662	9.97	179773	13.24	163250	15.79	51576	6.60
M99080-4	266397	9.09	419604	9.97	182560	13.23	163303	15.80	48488	6.60
M99080-6	268245	9.09	429624	9.96	182546	13.23	169058	15.79	50289	6.60
M99080-7	274795	9.08	432166	9.96	187645	13.23	168815	15.80	52047	6.60
M99080-8	273296	9.08	427126	9.96	184688	13.23	165426	15.79	48637	6.60
M99080-8MS	274531	9.08	429891	9.96	192729	13.23	166690	15.79	52238	6.60
M99080-8MSD	275708	9.09	437935	9.96	192732	13.23	169495	15.79	49702	6.60
ZZZZZZ	268609	9.08	421805	9.96	184019	13.23	160874	15.79	51722	6.59

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Internal Standard Area Summary

Job Number: M99080
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Check Std:	MSG4238-CC4220	Injection Date:	04/18/11
Lab File ID:	G105066.D	Injection Time:	09:41
Instrument ID:	GCMSG	Method:	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	74665	9.12	115777	10.00	62679	13.28	65805	15.85	31758	6.67
Upper Limit [a]	149330	9.62	231554	10.50	125358	13.78	131610	16.35	63516	7.17
Lower Limit [b]	37333	8.62	57889	9.50	31340	12.78	32903	15.35	15879	6.17

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSG4238-BS	74665	9.12	115777	10.00	62679	13.28	65805	15.85	31758	6.67
MSG4238-MB	73961	9.12	114194	10.00	60364	13.28	56122	15.85	31489	6.67
M99080-1	72829	9.13	112689	10.00	59766	13.28	55012	15.85	27559	6.68
M99080-5	72941	9.13	112746	10.00	59545	13.28	56304	15.85	28557	6.68
ZZZZZZ	73002	9.12	114192	10.00	60775	13.28	56618	15.85	27722	6.67
ZZZZZZ	73473	9.12	113991	10.00	60201	13.28	55906	15.85	29685	6.68
ZZZZZZ	73610	9.12	113558	10.00	59916	13.28	55852	15.85	32065	6.68
ZZZZZZ	73331	9.12	112142	10.00	60399	13.28	55981	15.85	30982	6.67
ZZZZZZ	71393	9.12	111075	10.00	59470	13.28	55069	15.85	31975	6.68
ZZZZZZ	71532	9.13	111156	10.00	58902	13.28	54800	15.85	31238	6.68
ZZZZZZ	72469	9.12	112527	10.00	59730	13.28	55614	15.85	32856	6.68
ZZZZZZ	72107	9.13	112485	10.00	59383	13.28	55466	15.85	33455	6.68
ZZZZZZ	72374	9.13	112870	10.00	59423	13.28	55282	15.85	32228	6.68
ZZZZZZ	73213	9.13	113663	10.00	60627	13.28	58893	15.85	34161	6.68
ZZZZZZ	70866	9.12	109627	10.00	60010	13.28	62091	15.85	27590	6.68
ZZZZZZ	72557	9.13	112943	10.00	60090	13.28	55907	15.85	28319	6.68
ZZZZZZ	72273	9.13	113141	10.00	60192	13.28	55764	15.85	29986	6.68
ZZZZZZ	69639	9.13	108544	10.00	58731	13.28	54012	15.85	29584	6.68
ZZZZZZ	71073	9.12	111156	10.00	60464	13.28	55356	15.85	32113	6.68
ZZZZZZ	70103	9.12	112375	10.00	63358	13.28	66901	15.85	41711	6.68
M99200-2	72253	9.12	114072	10.00	61190	13.28	56293	15.85	32536	6.68
M99200-2MS	72031	9.12	114745	10.00	63262	13.28	67336	15.85	33729	6.68
M99200-2MSD	71693	9.12	114244	10.00	63305	13.28	66158	15.85	34877	6.67

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Internal Standard Area Summary

Job Number: M99080
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Check Std:	MSP1728-CC1725	Injection Date:	04/11/11
Lab File ID:	P52158.D	Injection Time:	08:57
Instrument ID:	GCMSP	Method:	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	40762	8.57	63404	9.42	33459	12.64	34672	15.20	12294	6.27
Upper Limit [a]	81524	9.07	126808	9.92	66918	13.14	69344	15.70	24588	6.77
Lower Limit [b]	20381	8.07	31702	8.92	16730	12.14	17336	14.70	6147	5.77
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSP1728-BS	40762	8.57	63404	9.42	33459	12.64	34672	15.20	12294	6.27
MSP1728-MB	35785	8.57	54586	9.43	26978	12.65	23297	15.21	10795	6.29
ZZZZZZ	34436	8.57	52602	9.43	25829	12.65	22375	15.21	8897	6.29
ZZZZZZ	26004	8.57	38791	9.43	13468[c]	12.65	7224[c]	15.21	8459	6.30
ZZZZZZ	30263	8.57	45609	9.43	18873	12.65	10337[c]	15.21	9005	6.30
ZZZZZZ	32882	8.57	49681	9.43	24497	12.65	20197	15.21	10426	6.29
ZZZZZZ	29263	8.57	44703	9.43	19228	12.65	11997[c]	15.21	8457	6.30
ZZZZZZ	2565[c]	8.58	3753[c]	9.44	1500[c]	12.66	837[c]	15.22	0[c]	0.00*
ZZZZZZ	25657	8.57	37157	9.43	15374[c]	12.65	8747[c]	15.21	8395	6.30
ZZZZZZ	1124[c]	8.58	1492[c]	9.44	0[c]	0.00*	103[c]	15.22	0[c]	0.00*
ZZZZZZ	2738[c]	8.58	3904[c]	9.44	1396[c]	12.66	631[c]	15.22	0[c]	0.00*
ZZZZZZ	29805	8.57	45686	9.43	22768	12.65	18467	15.21	7819	6.29
ZZZZZZ	0[c]	0.00*	0[c]	0.00*	0[c]	0.00*	0[c]	0.00*	0[c]	0.00*
ZZZZZZ	29643	8.57	45788	9.43	21713	12.65	15904[c]	15.21	8073	6.30
ZZZZZZ	30457	8.57	47032	9.43	22077	12.65	16255[c]	15.21	7347	6.31
ZZZZZZ	23268	8.57	36387	9.43	18335	12.65	14871[c]	15.21	9928	6.27
M99080-2	32685	8.57	50088	9.43	26839	12.65	24148	15.21	15561	6.28
M99080-4	31374	8.57	49335	9.43	25955	12.65	24306	15.21	18392	6.27
M99080-6	30701	8.57	49382	9.43	25259	12.65	22251	15.21	16620	6.31
M99080-7	33933	8.57	53267	9.43	27483	12.65	25300	15.21	18426	6.28
M99080-8	35190	8.57	55098	9.42	29121	12.65	25690	15.21	19819	6.26
ZZZZZZ	33567	8.57	53768	9.43	26904	12.65	23955	15.21	20041	6.28
ZZZZZZ	3051[c]	8.58	4901[c]	9.43	2302[c]	12.66	1821[c]	15.22	788[c]	6.36
M99080-2MS	26712	8.57	43722	9.42	24518	12.65	24687	15.20	14897	6.27
M99080-2MSD	5696[d]	8.57	9136[d]	9.42	4786[d]	12.65	5074[d]	15.21	3182[d]	6.31

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.
(c) Outside control limits due to possible matrix interference. Confirmed by reanalysis.

Volatile Internal Standard Area Summary

Job Number: M99080
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Check Std:	MSP1728-CC1725	Injection Date:	04/11/11
Lab File ID:	P52158.D	Injection Time:	08:57
Instrument ID:	GCMSP	Method:	SW846 8260B

Lab Sample ID	IS 1 AREA	IS 1 RT	IS 2 AREA	IS 2 RT	IS 3 AREA	IS 3 RT	IS 4 AREA	IS 4 RT	IS 5 AREA	IS 5 RT

(d) Outside control limits due to possible matrix interference. Confirmed by MS/MSD.

Volatile Surrogate Recovery Summary

Job Number: M99080
Account: SHELLW1C Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Method: SW846 8260B	Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
M99080-1	G105069.D	116.0	110.0	107.0
M99080-5	G105070.D	117.0	111.0	107.0
M99200-2MS	G105088.D	121.0	114.0	101.0
M99200-2MSD	G105089.D	121.0	115.0	102.0
MSG4238-BS	G105066A.D	117.0	112.0	101.0
MSG4238-MB	G105068.D	116.0	111.0	110.0

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	70-130%
S2 = Toluene-D8	70-130%
S3 = 4-Bromofluorobenzene	70-130%

Volatile Surrogate Recovery Summary

Job Number: M99080
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Method: SW846 8260B Matrix: SO

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
M99080-2	E52844.D	93.0	97.0	104.0
M99080-2	P52175.D	123.0	124.0	114.0
M99080-3	E52807.D	86.0	90.0	97.0
M99080-4	E52845.D	90.0	94.0	101.0
M99080-4	P52176.D	123.0	121.0	108.0
M99080-6	E52846.D	89.0	91.0	96.0
M99080-6	P52177.D	128.0	124.0	119.0
M99080-7	E52847.D	93.0	96.0	100.0
M99080-7	P52178.D	124.0	123.0	113.0
M99080-8	E52848.D	91.0	94.0	100.0
M99080-8	P52179.D	119.0	121.0	114.0
M99080-2MS	P52182.D	122.0	116.0	103.0
M99080-2MSD	P52183.D	120.0	113.0	100.0
M99080-8MS	E52849.D	91.0	97.0	99.0
M99080-8MSD	E52850.D	88.0	94.0	97.0
M99247-2MS	E52802.D	78.0	82.0	86.0
M99247-2MSD	E52803.D	90.0	96.0	102.0
MSE2212-BS	E52788.D	96.0	105.0	111.0
MSE2212-MB	E52790.D	82.0	89.0	94.0
MSE2213-BS	E52829.D	82.0	86.0	91.0
MSE2213-BSD	E52830.D	84.0	88.0	94.0
MSE2213-MB	E52836.D	82.0	86.0	90.0
MSP1728-BS	P52158.D	109.0	112.0	97.0
MSP1728-MB	P52160.D	109.0	111.0	108.0

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	70-130%
S2 = Toluene-D8	70-130%
S3 = 4-Bromofluorobenzene	70-130%

New England ACCUTEST LABORATORIES

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: M99080
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24569-MB	I71645.D	1	04/19/11	KR	04/07/11	OP24569	MSI2553

The QC reported here applies to the following samples: Method: SW846 8270C

M99080-2, M99080-3, M99080-4, M99080-6, M99080-7, M99080-8

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic acid	ND	500	39	ug/kg	
95-57-8	2-Chlorophenol	ND	250	13	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	500	17	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	500	29	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	500	50	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	990	250	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	500	250	ug/kg	
95-48-7	2-Methylphenol	ND	500	14	ug/kg	
	3&4-Methylphenol	ND	500	26	ug/kg	
88-75-5	2-Nitrophenol	ND	500	30	ug/kg	
100-02-7	4-Nitrophenol	ND	990	250	ug/kg	
87-86-5	Pentachlorophenol	ND	500	46	ug/kg	
108-95-2	Phenol	ND	250	41	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	500	37	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	500	34	ug/kg	
83-32-9	Acenaphthene	ND	250	21	ug/kg	
208-96-8	Acenaphthylene	ND	250	19	ug/kg	
62-53-3	Aniline	ND	500	500	ug/kg	
120-12-7	Anthracene	ND	250	20	ug/kg	
56-55-3	Benzo(a)anthracene	ND	250	9.1	ug/kg	
50-32-8	Benzo(a)pyrene	ND	250	15	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	250	29	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	250	16	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	250	7.3	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	250	20	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	250	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	250	21	ug/kg	
106-47-8	4-Chloroaniline	ND	500	120	ug/kg	
218-01-9	Chrysene	ND	250	8.1	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	250	19	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	250	5.3	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	250	24	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	250	22	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	500	120	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	500	24	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	250	6.0	ug/kg	

Method Blank Summary

Job Number: M99080
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24569-MB	I71645.D	1	04/19/11	KR	04/07/11	OP24569	MSI2553

The QC reported here applies to the following samples: Method: SW846 8270C

M99080-2, M99080-3, M99080-4, M99080-6, M99080-7, M99080-8

CAS No.	Compound	Result	RL	MDL	Units	Q
53-70-3	Dibenzo(a,h)anthracene	ND	250	16	ug/kg	
132-64-9	Dibenzofuran	ND	250	21	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	250	23	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	250	13	ug/kg	
84-66-2	Diethyl phthalate	ND	250	22	ug/kg	
131-11-3	Dimethyl phthalate	ND	250	17	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	250	17	ug/kg	
206-44-0	Fluoranthene	ND	250	8.4	ug/kg	
86-73-7	Fluorene	ND	250	5.5	ug/kg	
118-74-1	Hexachlorobenzene	ND	250	21	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	500	3.3	ug/kg	
67-72-1	Hexachloroethane	ND	250	20	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	250	15	ug/kg	
78-59-1	Isophorone	ND	250	25	ug/kg	
91-57-6	2-Methylnaphthalene	ND	250	21	ug/kg	
88-74-4	2-Nitroaniline	ND	500	120	ug/kg	
99-09-2	3-Nitroaniline	ND	500	120	ug/kg	
100-01-6	4-Nitroaniline	ND	500	18	ug/kg	
91-20-3	Naphthalene	ND	250	5.8	ug/kg	
98-95-3	Nitrobenzene	ND	250	7.3	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	250	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	250	13	ug/kg	
85-01-8	Phenanthrene	ND	250	6.4	ug/kg	
129-00-0	Pyrene	ND	250	8.0	ug/kg	
110-86-1	Pyridine	ND	500	500	ug/kg	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	76%	30-130%
4165-62-2	Phenol-d5	76%	30-130%
118-79-6	2,4,6-Tribromophenol	58%	30-130%
4165-60-0	Nitrobenzene-d5	77%	30-130%
321-60-8	2-Fluorobiphenyl	86%	30-130%
1718-51-0	Terphenyl-d14	96%	30-130%

Method Blank Summary

Job Number: M99080
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24605-MB	S23146.D	1	04/19/11	PR	04/11/11	OP24605	MSS979

The QC reported here applies to the following samples: Method: SW846 8270C

M99080-5

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	0.77	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	0.68	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.57	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.69	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	2.2	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	5.0	ug/l	
95-48-7	2-Methylphenol	ND	10	0.48	ug/l	
	3&4-Methylphenol	ND	10	0.63	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.66	ug/l	
100-02-7	4-Nitrophenol	ND	20	5.0	ug/l	
87-86-5	Pentachlorophenol	ND	10	3.3	ug/l	
108-95-2	Phenol	ND	5.0	2.1	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	0.40	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.38	ug/l	
83-32-9	Acenaphthene	ND	5.0	0.34	ug/l	
208-96-8	Acenaphthylene	ND	5.0	1.3	ug/l	
62-53-3	Aniline	ND	10	0.46	ug/l	
120-12-7	Anthracene	ND	5.0	0.27	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	0.27	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	0.23	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	0.27	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	0.61	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.0	0.29	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	0.32	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	0.41	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	0.31	ug/l	
106-47-8	4-Chloroaniline	ND	10	0.58	ug/l	
218-01-9	Chrysene	ND	5.0	0.22	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	0.35	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	0.23	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	0.21	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	0.61	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	1.3	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.34	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	2.5	ug/l	

Method Blank Summary

Job Number: M99080
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24605-MB	S23146.D	1	04/19/11	PR	04/11/11	OP24605	MSS979

The QC reported here applies to the following samples: Method: SW846 8270C

M99080-5

CAS No.	Compound	Result	RL	MDL	Units	Q
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	0.25	ug/l	
132-64-9	Dibenzofuran	ND	5.0	0.32	ug/l	
84-74-2	Di-n-butyl phthalate	5.4	5.0	0.34	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	0.34	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	0.61	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	1.3	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	8.0	2.0	0.49	ug/l	
206-44-0	Fluoranthene	ND	5.0	0.22	ug/l	
86-73-7	Fluorene	ND	5.0	0.29	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	0.16	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	2.5	ug/l	
67-72-1	Hexachloroethane	ND	5.0	0.43	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	0.29	ug/l	
78-59-1	Isophorone	ND	5.0	0.47	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	0.31	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.33	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.32	ug/l	
100-01-6	4-Nitroaniline	ND	10	0.33	ug/l	
91-20-3	Napbthalene	ND	5.0	0.33	ug/l	
98-95-3	Nitrobenzene	ND	5.0	0.31	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.0	0.41	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.61	ug/l	
85-01-8	Phenanthrene	ND	5.0	0.26	ug/l	
129-00-0	Pyrene	ND	5.0	0.25	ug/l	
110-86-1	Pyridine	ND	10	0.50	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	40%	15-110%
4165-62-2	Phenol-d5	27%	15-110%
118-79-6	2,4,6-Tribromophenol	57%	15-110%
4165-60-0	Nitrobenzene-d5	67%	30-130%
321-60-8	2-Fluorobiphenyl	65%	30-130%
1718-51-0	Terphenyl-d14	76%	30-130%

Blank Spike Summary

Job Number: M99080
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24569-BS	I71646.D	1	04/19/11	KR	04/07/11	OP24569	MSI2553

The QC reported here applies to the following samples: Method: SW846 8270C

M99080-2, M99080-3, M99080-4, M99080-6, M99080-7, M99080-8

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
65-85-0	Benzoic acid	4970	2210	44	30-130
95-57-8	2-Chlorophenol	4970	3410	69	30-130
59-50-7	4-Chloro-3-methyl phenol	4970	4560	92	30-130
120-83-2	2,4-Dichlorophenol	4970	4200	85	30-130
105-67-9	2,4-Dimethylphenol	4970	3700	74	30-130
51-28-5	2,4-Dinitrophenol	4970	2170	44	30-130
534-52-1	4,6-Dinitro-o-cresol	4970	4200	85	30-130
95-48-7	2-Methylphenol	4970	3580	72	30-130
	3&4-Methylphenol	9940	9320	94	30-130
88-75-5	2-Nitrophenol	4970	4260	86	30-130
100-02-7	4-Nitrophenol	4970	4650	94	30-130
87-86-5	Pentachlorophenol	4970	4480	90	30-130
108-95-2	Phenol	4970	3420	69	30-130
95-95-4	2,4,5-Trichlorophenol	4970	4110	83	30-130
88-06-2	2,4,6-Trichlorophenol	4970	3950	79	30-130
83-32-9	Acenaphthene	2490	1940	78	40-140
208-96-8	Acenaphthylene	2490	1490	60	40-140
62-53-3	Aniline	2490	1080	43	40-140
120-12-7	Anthracene	2490	2060	83	40-140
56-55-3	Benzo(a)anthracene	2490	2330	94	40-140
50-32-8	Benzo(a)pyrene	2490	1930	78	40-140
205-99-2	Benzo(b)fluoranthene	2490	2070	83	40-140
191-24-2	Benzo(g,h,i)perylene	2490	2320	93	40-140
207-08-9	Benzo(k)fluoranthene	2490	2280	92	40-140
101-55-3	4-Bromophenyl phenyl ether	2490	2260	91	40-140
85-68-7	Butyl benzyl phthalate	2490	2250	91	40-140
91-58-7	2-Chloronaphthalene	2490	1940	78	40-140
106-47-8	4-Chloroaniline	2490	1650	66	40-140
218-01-9	Chrysene	2490	2200	89	40-140
111-91-1	bis(2-Chloroethoxy)methane	2490	2030	82	40-140
111-44-4	bis(2-Chloroethyl)ether	2490	1650	66	40-140
108-60-1	bis(2-Chloroisopropyl)ether	2490	1630	66	40-140
7005-72-3	4-Chlorophenyl phenyl ether	2490	2030	82	40-140
121-14-2	2,4-Dinitrotoluene	2490	2000	80	40-140
606-20-2	2,6-Dinitrotoluene	2490	2040	82	40-140
91-94-1	3,3'-Dichlorobenzidine	2490	1870	75	40-140

Blank Spike Summary

Job Number: M99080
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24569-BS	I71646.D	1	04/19/11	KR	04/07/11	OP24569	MSI2553

The QC reported here applies to the following samples: Method: SW846 8270C

M99080-2, M99080-3, M99080-4, M99080-6, M99080-7, M99080-8

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
53-70-3	Dibenzo(a,h)anthracene	2490	2410	97	40-140
132-64-9	Dibenzofuran	2490	2010	81	40-140
84-74-2	Di-n-butyl phthalate	2490	2310	93	40-140
117-84-0	Di-n-octyl phthalate	2490	2580	104	40-140
84-66-2	Diethyl phthalate	2490	2140	86	40-140
131-11-3	Dimethyl phthalate	2490	2040	82	40-140
117-81-7	bis(2-Ethylhexyl)phthalate	2490	2390	96	40-140
206-44-0	Fluoranthene	2490	2210	89	40-140
86-73-7	Fluorene	2490	2010	81	40-140
118-74-1	Hexachlorobenzene	2490	2210	89	40-140
77-47-4	Hexachlorocyclopentadiene	2490	1080	43	40-140
67-72-1	Hexachloroethane	2490	1550	62	40-140
193-39-5	Indeno(1,2,3-cd)pyrene	2490	2570	103	40-140
78-59-1	Isophorone	2490	2130	86	40-140
91-57-6	2-Methylnaphthalene	2490	1920	77	40-140
88-74-4	2-Nitroaniline	2490	2000	80	40-140
99-09-2	3-Nitroaniline	2490	1760	71	40-140
100-01-6	4-Nitroaniline	2490	1840	74	40-140
91-20-3	Naphthalene	2490	1980	80	40-140
98-95-3	Nitrobenzene	2490	1950	78	40-140
621-64-7	N-Nitroso-di-n-propylamine	2490	1880	76	40-140
86-30-6	N-Nitrosodiphenylamine	2490	2120	85	40-140
85-01-8	Phenanthrene	2490	2130	86	40-140
129-00-0	Pyrene	2490	2170	87	40-140
110-86-1	Pyridine	2490	1090	44	40-140

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	72%	30-130%
4165-62-2	Phenol-d5	74%	30-130%
118-79-6	2,4,6-Tribromophenol	90%	30-130%
4165-60-0	Nitrobenzene-d5	84%	30-130%
321-60-8	2-Fluorobiphenyl	83%	30-130%
1718-51-0	Terphenyl-d14	95%	30-130%

Blank Spike Summary

Job Number: M99080
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24605-BS	S23147.D	1	04/19/11	PR	04/11/11	OP24605	MSS979

The QC reported here applies to the following samples: Method: SW846 8270C

M99080-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
65-85-0	Benzoic Acid	100	8.1	8* a	30-130
95-57-8	2-Chlorophenol	100	73.4	73	30-130
59-50-7	4-Chloro-3-methyl phenol	100	73.7	74	30-130
120-83-2	2,4-Dichlorophenol	100	78.7	79	30-130
105-67-9	2,4-Dimethylphenol	100	63.7	64	30-130
51-28-5	2,4-Dinitrophenol	100	41.3	41	30-130
534-52-1	4,6-Dinitro-o-cresol	100	52.9	53	30-130
95-48-7	2-Methylphenol	100	66.7	67	30-130
	3&4-Methylphenol	200	169	85	30-130
88-75-5	2-Nitrophenol	100	83.0	83	30-130
100-02-7	4-Nitrophenol	100	41.6	42	30-130
87-86-5	Pentachlorophenol	100	63.0	63	30-130
108-95-2	Phenol	100	35.0	35	30-130
95-95-4	2,4,5-Trichlorophenol	100	65.8	66	30-130
88-06-2	2,4,6-Trichlorophenol	100	71.8	72	30-130
83-32-9	Acenaphthene	50	36.6	73	40-140
208-96-8	Acenaphthylene	50	28.1	56	40-140
62-53-3	Aniline	50	24.8	50	40-140
120-12-7	Anthracene	50	35.8	72	40-140
56-55-3	Benzo(a)anthracene	50	39.3	79	40-140
50-32-8	Benzo(a)pyrene	50	33.4	67	40-140
205-99-2	Benzo(b)fluoranthene	50	35.6	71	40-140
191-24-2	Benzo(g,h,i)perylene	50	44.2	88	40-140
207-08-9	Benzo(k)fluoranthene	50	37.2	74	40-140
101-55-3	4-Bromophenyl phenyl ether	50	39.9	80	40-140
85-68-7	Butyl benzyl phthalate	50	42.0	84	40-140
91-58-7	2-Chloronaphthalene	50	37.0	74	40-140
106-47-8	4-Chloroaniline	50	18.5	37* a	40-140
218-01-9	Chrysene	50	36.9	74	40-140
111-91-1	bis(2-Chloroethoxy)methane	50	36.4	73	40-140
111-44-4	bis(2-Chloroethyl)ether	50	24.1	48	40-140
108-60-1	bis(2-Chloroisopropyl)ether	50	38.4	77	40-140
7005-72-3	4-Chlorophenyl phenyl ether	50	37.4	75	40-140
121-14-2	2,4-Dinitrotoluene	50	39.8	80	40-140
606-20-2	2,6-Dinitrotoluene	50	38.8	78	40-140
91-94-1	3,3'-Dichlorobenzidine	50	34.2	68	40-140

Blank Spike Summary

Job Number: M99080
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24605-BS	S23147.D	1	04/19/11	PR	04/11/11	OP24605	MSS979

The QC reported here applies to the following samples: Method: SW846 8270C

M99080-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
53-70-3	Dibenzo(a,h)anthracene	50	42.8	86	40-140
132-64-9	Dibenzofuran	50	35.6	71	40-140
84-74-2	Di-n-butyl phthalate	50	40.7	81	40-140
117-84-0	Di-n-octyl phthalate	50	43.7	87	40-140
84-66-2	Diethyl phthalate	50	40.9	82	40-140
131-11-3	Dimethyl phthalate	50	39.9	80	40-140
117-81-7	bis(2-Ethylhexyl)phthalate	50	41.9	84	40-140
206-44-0	Fluoranthene	50	38.1	76	40-140
86-73-7	Fluorene	50	37.5	75	40-140
118-74-1	Hexachlorobenzene	50	39.5	79	40-140
77-47-4	Hexachlorocyclopentadiene	50	14.4	29* a	40-140
67-72-1	Hexachloroethane	50	33.5	67	40-140
193-39-5	Indeno(1,2,3-cd)pyrene	50	46.0	92	40-140
78-59-1	Isophorone	50	37.1	74	40-140
91-57-6	2-Methylnaphthalene	50	34.7	69	40-140
88-74-4	2-Nitroaniline	50	39.6	79	40-140
99-09-2	3-Nitroaniline	50	20.7	41	40-140
100-01-6	4-Nitroaniline	50	31.0	62	40-140
91-20-3	Naphthalene	50	35.7	71	40-140
98-95-3	Nitrobenzene	50	35.6	71	40-140
621-64-7	N-Nitroso-di-n-propylamine	50	41.7	83	40-140
86-30-6	N-Nitrosodiphenylamine	50	39.2	78	40-140
85-01-8	Phenanthrene	50	37.3	75	40-140
129-00-0	Pyrene	50	37.5	75	40-140
110-86-1	Pyridine	50	19.4	39* a	40-140

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	49%	15-110%
4165-62-2	Phenol-d5	34%	15-110%
118-79-6	2,4,6-Tribromophenol	75%	15-110%
4165-60-0	Nitrobenzene-d5	77%	30-130%
321-60-8	2-Fluorobiphenyl	74%	30-130%
1718-51-0	Terphenyl-d14	75%	30-130%

Blank Spike Summary

Job Number: M99080
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24605-BS	S23147.D	1	04/19/11	PR	04/11/11	OP24605	MSS979

The QC reported here applies to the following samples: Method: SW846 8270C

M99080-5

(a) Outside control limits. Blank Spike meets program technical requirements.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M99080
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24569-MS	I71647.D	1	04/19/11	KR	04/07/11	OP24569	MSI2553
OP24569-MSD	I71648.D	1	04/19/11	KR	04/07/11	OP24569	MSI2553
M99080-2	I71649.D	1	04/19/11	KR	04/07/11	OP24569	MSI2553

The QC reported here applies to the following samples: Method: SW846 8270C

M99080-2, M99080-3, M99080-4, M99080-6, M99080-7, M99080-8

CAS No.	Compound	M99080-2 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
65-85-0	Benzoic acid	ND		5280	898	17* a	552	10* a	48* b	30-130/30
95-57-8	2-Chlorophenol	ND		5280	3090	58	2890	55	7	30-130/30
59-50-7	4-Chloro-3-methyl phenol	ND		5280	3710	70	3290	62	12	30-130/30
120-83-2	2,4-Dichlorophenol	ND		5280	3490	66	2960	56	16	30-130/30
105-67-9	2,4-Dimethylphenol	ND		5280	3350	63	3160	60	6	30-130/30
51-28-5	2,4-Dinitrophenol	ND		5280	1190	23* a	502	10* a	81* b	30-130/30
534-52-1	4,6-Dinitro-o-cresol	ND		5280	3190	60	1480	28* a	73* b	30-130/30
95-48-7	2-Methylphenol	ND		5280	3430	65	3040	58	12	30-130/30
	3&4-Methylphenol	ND		10600	8620	82	7960	75	8	30-130/30
88-75-5	2-Nitrophenol	ND		5280	3260	62	2580	49	23	30-130/30
100-02-7	4-Nitrophenol	ND		5280	4210	80	3670	70	14	30-130/30
87-86-5	Pentachlorophenol	ND		5280	4270	81	2500	47	52* b	30-130/30
108-95-2	Phenol	ND		5280	3030	57	2790	53	8	30-130/30
95-95-4	2,4,5-Trichlorophenol	ND		5280	3870	73	3180	60	20	30-130/30
88-06-2	2,4,6-Trichlorophenol	ND		5280	3980	75	3170	60	23	30-130/30
83-32-9	Acenaphthene	ND		2640	1750	66	1590	60	10	40-140/30
208-96-8	Acenaphthylene	ND		2640	1350	51	1260	48	7	40-140/30
62-53-3	Aniline	ND		2640	1150	44	1010	38* a	13	40-140/30
120-12-7	Anthracene	ND		2640	1850	70	1630	62	13	40-140/30
56-55-3	Benzo(a)anthracene	ND		2640	2110	80	1860	70	13	40-140/30
50-32-8	Benzo(a)pyrene	ND		2640	1840	70	1680	64	9	40-140/30
205-99-2	Benzo(b)fluoranthene	ND		2640	2000	76	1810	69	10	40-140/30
191-24-2	Benzo(g,h,i)perylene	ND		2640	2390	90	1920	73	22	40-140/30
207-08-9	Benzo(k)fluoranthene	ND		2640	2130	81	1910	72	11	40-140/30
101-55-3	4-Bromophenyl phenyl ether	ND		2640	2230	84	1710	65	26	40-140/30
85-68-7	Butyl benzyl phthalate	ND		2640	1990	75	1640	62	19	40-140/30
91-58-7	2-Chloronaphthalene	ND		2640	1860	70	1700	64	9	40-140/30
106-47-8	4-Chloroaniline	ND		2640	1410	53	1220	46	14	40-140/30
218-01-9	Chrysene	ND		2640	1960	74	1720	65	13	40-140/30
111-91-1	bis(2-Chloroethoxy)methane	ND		2640	1560	59	1450	55	7	40-140/30
111-44-4	bis(2-Chloroethyl)ether	ND		2640	1380	52	1350	51	2	40-140/30
108-60-1	bis(2-Chloroisopropyl)ether	ND		2640	1540	58	1320	50	15	40-140/30
7005-72-3	4-Chlorophenyl phenyl ether	ND		2640	1820	69	1670	63	9	40-140/30
121-14-2	2,4-Dinitrotoluene	ND		2640	2010	76	1660	63	19	40-140/30
606-20-2	2,6-Dinitrotoluene	ND		2640	1960	74	1620	61	19	40-140/30
91-94-1	3,3'-Dichlorobenzidine	ND		2640	1750	66	1580	60	10	40-140/30

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M99080
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24569-MS	I71647.D	1	04/19/11	KR	04/07/11	OP24569	MSI2553
OP24569-MSD	I71648.D	1	04/19/11	KR	04/07/11	OP24569	MSI2553
M99080-2	I71649.D	1	04/19/11	KR	04/07/11	OP24569	MSI2553

The QC reported here applies to the following samples: Method: SW846 8270C

M99080-2, M99080-3, M99080-4, M99080-6, M99080-7, M99080-8

CAS No.	Compound	M99080-2 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
53-70-3	Dibenzo(a,h)anthracene	ND		2640	2460	93	2050	78	18	40-140/30
132-64-9	Dibenzofuran	ND		2640	1660	63	1550	59	7	40-140/30
84-74-2	Di-n-butyl phthalate	ND		2640	2040	77	1740	66	16	40-140/30
117-84-0	Di-n-octyl phthalate	ND		2640	2300	87	1990	75	14	40-140/30
84-66-2	Diethyl phthalate	ND		2640	1900	72	1730	66	9	40-140/30
131-11-3	Dimethyl phthalate	ND		2640	1940	73	1670	63	15	40-140/30
117-81-7	bis(2-Ethylhexyl)phthalate	ND		2640	2080	79	1780	67	16	40-140/30
206-44-0	Fluoranthene	ND		2640	1990	75	1790	68	11	40-140/30
86-73-7	Fluorene	ND		2640	1850	70	1730	66	7	40-140/30
118-74-1	Hexachlorobenzene	ND		2640	2000	76	1700	64	16	40-140/30
77-47-4	Hexachlorocyclopentadiene	ND		2640	740	28* a	524	20* a	34* b	40-140/30
67-72-1	Hexachloroethane	ND		2640	1440	55	1270	48	13	40-140/30
193-39-5	Indeno(1,2,3-cd)pyrene	ND		2640	2480	94	2010	76	21	40-140/30
78-59-1	Isophorone	ND		2640	1560	59	1400	53	11	40-140/30
91-57-6	2-Methylnaphthalene	ND		2640	1630	62	1500	57	8	40-140/30
88-74-4	2-Nitroaniline	ND		2640	2000	76	1700	64	16	40-140/30
99-09-2	3-Nitroaniline	ND		2640	1600	61	1550	59	3	40-140/30
100-01-6	4-Nitroaniline	ND		2640	1630	62	1620	61	1	40-140/30
91-20-3	Naphthalene	ND		2640	1650	62	1490	56	10	40-140/30
98-95-3	Nitrobenzene	ND		2640	1450	55	1370	52	6	40-140/30
621-64-7	N-Nitroso-di-n-propylamine	ND		2640	1700	64	1480	56	14	40-140/30
86-30-6	N-Nitrosodiphenylamine	ND		2640	1880	71	1670	63	12	40-140/30
85-01-8	Phenanthrene	ND		2640	1910	72	1700	64	12	40-140/30
129-00-0	Pyrene	ND		2640	2050	78	1660	63	21	40-140/30
110-86-1	Pyridine	ND		2640	837	32* a	680	26* a	21	40-140/30

CAS No.	Surrogate Recoveries	MS	MSD	M99080-2	Limits
367-12-4	2-Fluorophenol	56%	55%	59%	30-130%
4165-62-2	Phenol-d5	59%	54%	60%	30-130%
118-79-6	2,4,6-Tribromophenol	77%	62%	61%	30-130%
4165-60-0	Nitrobenzene-d5	59%	56%	54%	30-130%
321-60-8	2-Fluorobiphenyl	75%	68%	66%	30-130%
1718-51-0	Terphenyl-d14	81%	70%	77%	30-130%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M99080
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24569-MS	I71647.D	1	04/19/11	KR	04/07/11	OP24569	MSI2553
OP24569-MSD	I71648.D	1	04/19/11	KR	04/07/11	OP24569	MSI2553
M99080-2	I71649.D	1	04/19/11	KR	04/07/11	OP24569	MSI2553

The QC reported here applies to the following samples: Method: SW846 8270C

M99080-2, M99080-3, M99080-4, M99080-6, M99080-7, M99080-8

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.
(b) High RPD due to possible matrix interference and/or sample non-homogeneity.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M99080
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Not Sample from this SDG

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24605-MS	S23148.D	1	04/19/11	PR	04/11/11	OP24605	MSS979
OP24605-MSD	S23149.D	1	04/19/11	PR	04/11/11	OP24605	MSS979
M99246-2	S23150.D	1	04/19/11	PR	04/11/11	OP24605	MSS979

The QC reported here applies to the following samples: Method: SW846 8270C

M99080-5

CAS No.	Compound	M99246-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
65-85-0	Benzoic Acid	ND		100	8.1	8* a	8.0	8* a	1	30-130/20
95-57-8	2-Chlorophenol	ND		100	73.7	74	76.7	77	4	30-130/20
59-50-7	4-Chloro-3-methyl phenol	ND		100	71.6	72	76.9	77	7	30-130/20
120-83-2	2,4-Dichlorophenol	ND		100	77.5	78	81.3	81	5	30-130/20
105-67-9	2,4-Dimethylphenol	ND		100	64.0	64	67.9	68	6	30-130/20
51-28-5	2,4-Dinitrophenol	ND		100	35.3	35	39.9	40	12	30-130/20
534-52-1	4,6-Dinitro-o-cresol	ND		100	47.6	48	52.0	52	9	30-130/20
95-48-7	2-Methylphenol	ND		100	66.0	66	68.2	68	3	30-130/20
	3&4-Methylphenol	ND		200	165	83	174	87	5	30-130/20
88-75-5	2-Nitrophenol	ND		100	82.9	83	85.8	86	3	30-130/20
100-02-7	4-Nitrophenol	ND		100	39.2	39	42.9	43	9	30-130/20
87-86-5	Pentachlorophenol	ND		100	62.8	63	67.0	67	6	30-130/20
108-95-2	Phenol	ND		100	33.8	34	36.4	36	7	30-130/20
95-95-4	2,4,5-Trichlorophenol	ND		100	66.9	67	70.4	70	5	30-130/20
88-06-2	2,4,6-Trichlorophenol	ND		100	72.2	72	76.4	76	6	30-130/20
83-32-9	Acenaphthene	ND		50	36.6	73	38.2	76	4	40-140/20
208-96-8	Acenaphthylene	ND		50	28.0	56	28.8	58	3	40-140/20
62-53-3	Aniline	ND		50	26.3	53	24.9	50	5	40-140/20
120-12-7	Anthracene	ND		50	35.4	71	36.4	73	3	40-140/20
56-55-3	Benzo(a)anthracene	ND		50	38.9	78	40.5	81	4	40-140/20
50-32-8	Benzo(a)pyrene	ND		50	32.6	65	34.2	68	5	40-140/20
205-99-2	Benzo(b)fluoranthene	ND		50	33.2	66	35.3	71	6	40-140/20
191-24-2	Benzo(g,h,i)perylene	ND		50	40.2	80	43.2	86	7	40-140/20
207-08-9	Benzo(k)fluoranthene	ND		50	36.4	73	37.9	76	4	40-140/20
101-55-3	4-Bromophenyl phenyl ether	ND		50	41.4	83	41.6	83	0	40-140/20
85-68-7	Butyl benzyl phthalate	ND		50	41.7	83	41.9	84	0	40-140/20
91-58-7	2-Chloronaphthalene	ND		50	37.3	75	38.3	77	3	40-140/20
106-47-8	4-Chloroaniline	ND		50	18.4	37* a	19.2	38* a	4	40-140/20
218-01-9	Chrysene	ND		50	36.3	73	37.8	76	4	40-140/20
111-91-1	bis(2-Chloroethoxy)methane	ND		50	35.9	72	37.1	74	3	40-140/20
111-44-4	bis(2-Chloroethyl)ether	ND		50	23.2	46	24.6	49	6	40-140/20
108-60-1	bis(2-Chloroisopropyl)ether	ND		50	39.2	78	40.5	81	3	40-140/20
7005-72-3	4-Chlorophenyl phenyl ether	ND		50	37.3	75	38.2	76	2	40-140/20
121-14-2	2,4-Dinitrotoluene	ND		50	39.5	79	40.9	82	3	40-140/20
606-20-2	2,6-Dinitrotoluene	ND		50	38.8	78	40.5	81	4	40-140/20
91-94-1	3,3'-Dichlorobenzidine	ND		50	33.8	68	34.6	69	2	40-140/20

6.3.2

6

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M99080
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, 1L

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24605-MS	S23148.D	1	04/19/11	PR	04/11/11	OP24605	MSS979
OP24605-MSD	S23149.D	1	04/19/11	PR	04/11/11	OP24605	MSS979
M99246-2	S23150.D	1	04/19/11	PR	04/11/11	OP24605	MSS979

The QC reported here applies to the following samples: Method: SW846 8270C

M99080-5

CAS No.	Compound	M99246-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
53-70-3	Dibenzo(a,h)anthracene	ND		50	41.6	83	43.6	87	5	40-140/20
132-64-9	Dibenzofuran	ND		50	35.3	71	36.5	73	3	40-140/20
84-74-2	Di-n-butyl phthalate	4.9		50	40.6	71	40.7	72	0	40-140/20
117-84-0	Di-n-octyl phthalate	ND		50	39.0	78	41.3	83	6	40-140/20
84-66-2	Diethyl phthalate	ND		50	40.5	81	41.8	84	3	40-140/20
131-11-3	Dimethyl phthalate	ND		50	39.2	78	40.9	82	4	40-140/20
117-81-7	bis(2-Ethylhexyl)phthalate	5.3	B	50	41.3	72	55.3	100	29* [b]	40-140/20
206-44-0	Fluoranthene	ND		50	35.8	72	37.9	76	6	40-140/20
86-73-7	Fluorene	ND		50	37.0	74	38.3	77	3	40-140/20
118-74-1	Hexachlorobenzene	ND		50	39.8	80	40.5	81	2	40-140/20
77-47-4	Hexachlorocyclopentadiene	ND		50	12.5	25* [a]	13.4	27* [a]	7	40-140/20
67-72-1	Hexachloroethane	ND		50	35.1	70	35.7	71	2	40-140/20
193-39-5	Indeno(1,2,3-cd)pyrene	ND		50	43.4	87	45.6	91	5	40-140/20
78-59-1	Isophorone	ND		50	37.0	74	38.4	77	4	40-140/20
91-57-6	2-Methylnaphthalene	ND		50	34.7	69	36.1	72	4	40-140/20
88-74-4	2-Nitroaniline	ND		50	39.5	79	41.4	83	5	40-140/20
99-09-2	3-Nitroaniline	ND		50	21.0	42	22.0	44	5	40-140/20
100-01-6	4-Nitroaniline	ND		50	29.7	59	31.6	63	6	40-140/20
91-20-3	Naphthalene	ND		50	36.5	73	37.8	76	3	40-140/20
98-95-3	Nitrobenzene	ND		50	35.8	72	37.4	75	4	40-140/20
621-64-7	N-Nitroso-di-n-propylamine	ND		50	42.1	84	43.5	87	3	40-140/20
86-30-6	N-Nitrosodiphenylamine	ND		50	40.1	80	40.4	81	1	40-140/20
85-01-8	Phenanthrene	ND		50	36.7	73	37.3	75	2	40-140/20
129-00-0	Pyrene	ND		50	36.5	73	37.4	75	2	40-140/20
110-86-1	Pyridine	ND		50	17.2	34* [a]	15.4	31* [a]	11	40-140/20

CAS No.	Surrogate Recoveries	MS	MSD	M99246-2	Limits
367-12-4	2-Fluorophenol	48%	50%	45%	15-110%
4165-62-2	Phenol-d5	32%	35%	30%	15-110%
118-79-6	2,4,6-Tribromophenol	74%	76%	60%	15-110%
4165-60-0	Nitrobenzene-d5	76%	78%	72%	30-130%
321-60-8	2-Fluorobiphenyl	72%	74%	69%	30-130%
1718-51-0	Terphenyl-d14	73%	75%	75%	30-130%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M99080
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24605-MS	S23148.D	1	04/19/11	PR	04/11/11	OP24605	MSS979
OP24605-MSD	S23149.D	1	04/19/11	PR	04/11/11	OP24605	MSS979
M99246-2	S23150.D	1	04/19/11	PR	04/11/11	OP24605	MSS979

The QC reported here applies to the following samples: Method: SW846 8270C

M99080-5

(a) Outside control limits. Blank Spike meets program technical requirements.
(b) High RPD due to possible matrix interference and/or sample non-homogeneity.

Semivolatile Internal Standard Area Summary

Job Number: M99080
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Check Std:	MSI2553-CC2552	Injection Date:	04/18/11
Lab File ID:	I71637.D	Injection Time:	21:22
Instrument ID:	GCMSI	Method:	SW846 8270C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	133716	5.47	468690	6.78	256224	9.24	413693	11.76	361737	16.72	339372	19.26
Upper Limit [a]	267432	5.97	937380	7.28	512448	9.74	827386	12.26	723474	17.22	678744	19.76
Lower Limit [b]	66858	4.97	234345	6.28	128112	8.74	206847	11.26	180869	16.22	169686	18.76
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP24627-BS	134602	5.47	470045	6.77	262750	9.24	439404	11.76	390605	16.72	332997	19.26
OP24627-MS	121537	5.47	431846	6.77	235134	9.24	379013	11.76	320407	16.72	282888	19.26
OP24627-MSD	127263	5.47	450650	6.77	248042	9.24	402684	11.76	366092	16.72	344940	19.26
M99189-6	104141	5.47	378094	6.77	205735	9.23	342620	11.76	297432	16.72	283069	19.25
ZZZZZZ	127657	5.47	462595	6.77	248915	9.23	414340	11.76	341017	16.72	330431	19.25
ZZZZZZ	104083	5.46	375617	6.77	203436	9.23	333956	11.76	267656	16.72	261899	19.25
OP24569-MB	113174	5.47	401961	6.77	209551	9.23	329098	11.75	250712	16.72	224881	19.25
OP24569-BS	145539	5.47	440368	6.77	249072	9.24	369145	11.76	289036	16.72	271358	19.25
OP24569-MS	153455	5.48	559729	6.78	278661	9.24	404958	11.76	313426	16.72	281430	19.25
OP24569-MSD	138481	5.48	483033	6.78	242602	9.23	393503	11.76	334220	16.72	299963	19.25
M99080-2	138863	5.48	519242	6.77	269276	9.23	404212	11.76	318100	16.72	294668	19.25
ZZZZZZ	146213	5.47	520205	6.77	267906	9.23	408094	11.76	315692	16.72	292699	19.25
ZZZZZZ	151514	5.48	528622	6.77	277351	9.23	416588	11.76	312411	16.72	275485	19.25
ZZZZZZ	174201	5.48	619548	6.78	321667	9.23	473877	11.76	338615	16.72	288578	19.25
ZZZZZZ	137238	5.47	484376	6.77	264699	9.23	377274	11.76	281465	16.71	236156	19.25
ZZZZZZ	143275	5.47	543886	6.77	276932	9.23	413239	11.75	310327	16.72	278298	19.25
M99080-3	128401	5.49	302874	6.80	262741	9.33	348229	11.85	443916	16.76	555614	19.28
M99080-4	152716	5.48	540663	6.77	279888	9.23	426275	11.75	343288	16.71	318240	19.25
M99080-6	169108	5.48	599396	6.77	307675	9.23	477357	11.75	379258	16.72	356093	19.25

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

6.4.1

6

Semivolatile Internal Standard Area Summary

Job Number: M99080
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Check Std:	MSS979-CC973	Injection Date:	04/18/11
Lab File ID:	S23131.D	Injection Time:	17:37
Instrument ID:	GCMSS	Method:	SW846 8270C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	453006	6.78	1686832	8.22	941773	10.54	1643694	12.79	1806243	17.16	1655278	19.42
Upper Limit [a]	906012	7.28	3373664	8.72	1883546	11.04	3287388	13.29	3612486	17.66	3310556	19.92
Lower Limit [b]	226503	6.28	843416	7.72	470887	10.04	821847	12.29	903122	16.66	827639	18.92
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP24634-MB	606206	6.78	2412621	8.22	1335711	10.54	2344776	12.78	2348258	17.15	2137229	19.42
OP24634-BS	615271	6.78	2304472	8.22	1239673	10.54	2070936	12.79	2064342	17.15	1729752	19.42
OP24634-MS	503165	6.78	1881898	8.22	1011241	10.54	1671292	12.78	1633628	17.15	1426238	19.42
OP24634-MSD	558383	6.78	2068479	8.22	1109787	10.54	1854907	12.78	1818271	17.15	1570889	19.42
M99277-6	542011	6.78	2120316	8.22	1186955	10.54	2072356	12.78	1927506	17.15	1766642	19.42
ZZZZZZ	514349	6.78	1993516	8.22	1091378	10.54	1893091	12.78	1727933	17.15	1588882	19.42
ZZZZZZ	577170	6.77	2271879	8.22	1213654	10.54	1996584	12.78	1800094	17.15	1836103	19.42
ZZZZZZ	478589	6.78	1918885	8.22	1057019	10.54	1859134	12.78	1811686	17.15	1763143	19.42
ZZZZZZ	621144	6.78	2413709	8.22	1324984	10.54	2241081	12.78	1909015	17.15	1746701	19.42
ZZZZZZ	604806	6.78	2387829	8.22	1290125	10.54	2133103	12.78	1850557	17.15	1682999	19.42
ZZZZZZ	595540	6.78	2331862	8.22	1237703	10.54	2117300	12.78	2080751	17.15	2285654	19.43
ZZZZZZ	578346	6.78	2257359	8.22	1209585	10.54	2032604	12.78	1919393	17.15	2108218	19.43
ZZZZZZ	491814	6.78	1987645	8.22	1095818	10.54	1938309	12.79	1864065	17.15	2081218	19.43
ZZZZZZ	638706	6.78	2507180	8.22	1354498	10.54	2280426	12.79	2093842	17.15	2421112	19.43
OP24605-MB	559618	6.78	2263216	8.22	1231621	10.54	2180843	12.78	2020830	17.15	2322362	19.43
OP24605-BS	555024	6.78	2063519	8.22	1114017	10.55	1870882	12.79	1934052	17.16	2032455	19.43
OP24605-MS	587145	6.78	2225823	8.22	1184851	10.55	1914392	12.79	1881391	17.16	2180610	19.43
OP24605-MSD	549378	6.78	2044988	8.22	1099875	10.55	1839898	12.79	1893678	17.16	2080900	19.43
M99246-2	543683	6.78	2155685	8.22	1182742	10.54	2087980	12.78	1978640	17.15	2089153	19.43
ZZZZZZ	481098	6.78	1889242	8.22	1042920	10.54	1841477	12.78	1791956	17.15	1789976	19.42
ZZZZZZ	546109	6.78	2156058	8.22	1188561	10.54	2065683	12.78	1950992	17.15	1886511	19.42
M99080-5	474559	6.78	1889611	8.22	1047577	10.54	1849816	12.78	1805368	17.15	1862771	19.42

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Internal Standard Area Summary

Job Number: M99080
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Check Std:	MSS980-CC973	Injection Date:	04/19/11
Lab File ID:	S23156.D	Injection Time:	11:14
Instrument ID:	GCMSS	Method:	SW846 8270C

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	445725	6.77	1630436	8.21	862041	10.54	1468127	12.78	1506501	17.15	1371863	19.42
Upper Limit [a]	891450	7.27	3260872	8.71	1724082	11.04	2936254	13.28	3013002	17.65	2743726	19.92
Lower Limit [b]	222863	6.27	815218	7.71	431021	10.04	734064	12.28	753251	16.65	685932	18.92
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
M99080-3	368240	6.77	1373570	8.21	665765	10.54	1103381	12.78	1196460	17.14	1179493	19.41
OP24645-MB	485394	6.77	1882371	8.21	995472	10.53	1725373	12.77	1592455	17.14	1489358	19.41
ZZZZZZ	626099	6.77	2401166	8.21	1273775	10.53	2163554	12.78	2156419	17.15	1906505	19.42
OP24645-BS	515806	6.77	1916096	8.21	1039878	10.54	1783399	12.78	1666540	17.15	1433182	19.42
OP24645-MS	501744	6.77	1910563	8.21	1030646	10.54	1780504	12.78	1752103	17.15	1490193	19.42
OP24645-MSD	497061	6.77	1860463	8.21	1001741	10.54	1724503	12.78	1664052	17.15	1403029	19.42
M99314-4	490791	6.77	1903444	8.21	1022949	10.53	1785510	12.77	1690894	17.14	1509774	19.41

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Internal Standard Area Summary

Job Number: M99080
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Check Std:	MSS981-CC973	Injection Date:	04/19/11
Lab File ID:	S23171.D	Injection Time:	19:55
Instrument ID:	GCMSS	Method:	SW846 8270C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	449761	6.76	1612997	8.21	832922	10.53	1369263	12.77	1340905	17.14	1247087	19.41
Upper Limit [a]	899522	7.26	3225994	8.71	1665844	11.03	2738526	13.27	2681810	17.64	2494174	19.91
Lower Limit [b]	224881	6.26	806499	7.71	416461	10.03	684632	12.27	670453	16.64	623544	18.91
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
ZZZZZZ	492490	6.77	1911625	8.21	1015868	10.52	1700726	12.77	1565325	17.14	1404767	19.41
ZZZZZZ	506081	6.77	1990785	8.21	1040008	10.52	1714179	12.77	1593240	17.14	1441572	19.41
ZZZZZZ	488572	6.77	1898328	8.21	1011884	10.52	1680637	12.77	1554398	17.14	1282964	19.41
ZZZZZZ	484313	6.77	1870847	8.21	981807	10.52	1677490	12.77	1474035	17.14	1354720	19.41
ZZZZZZ	497058	6.77	1902590	8.21	1014206	10.52	1655179	12.77	1511867	17.14	1405558	19.41
ZZZZZZ	506307	6.77	1967195	8.21	1043875	10.52	1739421	12.77	1518052	17.14	1426340	19.41
ZZZZZZ	493964	6.77	1923543	8.21	1011937	10.52	1677359	12.77	1520350	17.14	1398599	19.41
M99080-7	462510	6.77	1839920	8.21	1028857	10.52	1642764	12.77	1658239	17.14	1393721	19.41
M99080-8	556792	6.77	2206523	8.21	1181227	10.52	1924113	12.77	1773960	17.14	1479861	19.41
OP24627-MB	632778	6.77	2447627	8.21	1321603	10.52	2185047	12.77	1923560	17.14	1665522	19.41
OP24650-MB	478123	6.77	1874165	8.21	1003067	10.52	1621764	12.77	1435411	17.14	1244649	19.41
OP24650-BS	508866	6.77	1865810	8.21	992725	10.53	1654245	12.77	1513672	17.14	1244648	19.41
OP24650-MS	495067	6.77	1819525	8.21	975113	10.53	1612340	12.77	1484154	17.14	1273646	19.41
OP24650-MSD	496103	6.77	1831010	8.21	974249	10.53	1619992	12.78	1519241	17.14	1301522	19.41
M99307-8	473238	6.77	1844190	8.21	997951	10.53	1628867	12.77	1482099	17.14	1365404	19.41
ZZZZZZ	472133	6.77	1848852	8.21	997383	10.53	1650095	12.77	1486334	17.14	1284797	19.41
OP24661-MB	538465	6.77	2136192	8.21	1147867	10.53	1862652	12.77	1623195	17.14	1261061	19.41
OP24661-BS	602055	6.77	2169823	8.21	1158894	10.53	1943361	12.78	1767778	17.15	1436241	19.41
OP24661-MS	529087	6.77	1904775	8.21	1008704	10.53	1702458	12.78	1513207	17.15	1247590	19.41
OP24661-MSD	572044	6.77	2113404	8.21	1110021	10.53	1859424	12.78	1658247	17.15	1320274	19.41
M99321-14	523629	6.77	2040507	8.21	1070610	10.53	1719472	12.77	1529568	17.14	1314545	19.41
ZZZZZZ	580208	6.77	2233840	8.21	1172346	10.53	1890984	12.77	1595250	17.14	1326881	19.41
ZZZZZZ	578533	6.77	2239795	8.21	1200762	10.53	1909309	12.77	1646379	17.14	1358718	19.41

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Surrogate Recovery Summary

Job Number: M99080
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 I70 East Rand Avenue Hartford, IL

Method: SW846 8270C Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
M99080-5	S23153.D	39.0	27.0	59.0	66.0	59.0	64.0
OP24605-BS	S23147.D	49.0	34.0	75.0	77.0	74.0	75.0
OP24605-MB	S23146.D	40.0	27.0	57.0	67.0	65.0	76.0
OP24605-MS	S23148.D	48.0	32.0	74.0	76.0	72.0	73.0
OP24605-MSD	S23149.D	50.0	35.0	76.0	78.0	74.0	75.0

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	15-110%
S2 = Phenol-d5	15-110%
S3 = 2,4,6-Tribromophenol	15-110%
S4 = Nitrobenzene-d5	30-130%
S5 = 2-Fluorobiphenyl	30-130%
S6 = Terphenyl-d14	30-130%

Semivolatile Surrogate Recovery Summary

Job Number: M99080
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Method: SW846 8270C Matrix: SO

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
M99080-2	I71649.D	59.0	60.0	61.0	54.0	66.0	77.0
M99080-3	S23158.D	74.0	67.0	251.0* [a]	39.0	99.0	79.0
M99080-3	I71655.D	47.0	69.0	78.0	56.0	69.0	68.0
M99080-4	I71656.D	60.0	60.0	58.0	59.0	68.0	80.0
M99080-6	I71657.D	66.0	65.0	71.0	64.0	72.0	80.0
M99080-7	S23179.D	58.0	62.0	59.0	65.0	64.0	79.0
M99080-8	S23180.D	65.0	66.0	64.0	65.0	66.0	80.0
OP24569-BS	I71646.D	72.0	74.0	90.0	84.0	83.0	95.0
OP24569-MB	I71645.D	76.0	76.0	58.0	77.0	86.0	96.0
OP24569-MS	I71647.D	56.0	59.0	77.0	59.0	75.0	81.0
OP24569-MSD	I71648.D	55.0	54.0	62.0	56.0	68.0	70.0

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	30-130%
S2 = Phenol-d5	30-130%
S3 = 2,4,6-Tribromophenol	30-130%
S4 = Nitrobenzene-d5	30-130%
S5 = 2-Fluorohiphenyl	30-130%
S6 = Terphenyl-d14	30-130%

(a) Outside control limits due to dilution.

6.5.2

6

New England ACCUTEST LABORATORIES

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Percent Solids Raw Data Summary

Percent Solids Raw Data Summary

Job Number: M99080
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample: M99080-2 **Analyzed:** 07-APR-11 by CF **Method:** SM21 2540 B MOD.
ClientID: ROST-4PZ(F) 11-12

Wet Weight (Total)	29.553	g
Tare Weight	21.078	g
Dry Weight (Total)	29.026	g
Solids, Percent	93.8	%

Sample: M99080-3 **Analyzed:** 07-APR-11 by CF **Method:** SM21 2540 B MOD.
ClientID: ROST-4PZ(F) 21-22

Wet Weight (Total)	33.823	g
Tare Weight	22.456	g
Dry Weight (Total)	31.715	g
Solids, Percent	81.5	%

Sample: M99080-4 **Analyzed:** 07-APR-11 by CF **Method:** SM21 2540 B MOD.
ClientID: ROST-4PZ(F) 36.5-37.5

Wet Weight (Total)	38.139	g
Tare Weight	28.503	g
Dry Weight (Total)	37.761	g
Solids, Percent	96.1	%

Sample: M99080-6 **Analyzed:** 07-APR-11 by CF **Method:** SM21 2540 B MOD.
ClientID: ROST-4PZ(A) 11.5-12.5

Wet Weight (Total)	34.192	g
Tare Weight	24.371	g
Dry Weight (Total)	33.923	g
Solids, Percent	97.3	%

Sample: M99080-7 **Analyzed:** 07-APR-11 by CF **Method:** SM21 2540 B MOD.
ClientID: ROST-4PZ(A) 27-28

Wet Weight (Total)	30.54	g
Tare Weight	21.463	g
Dry Weight (Total)	30.107	g
Solids, Percent	95.2	%

Sample: M99080-8 **Analyzed:** 07-APR-11 by CF **Method:** SM21 2540 B MOD.
ClientID: ROST-4PZ(A) 36-37

Wet Weight (Total)	30.109	g
Tare Weight	19.388	g
Dry Weight (Total)	28.095	g
Solids, Percent	81.2	%

Roxana ROST 4-PZ

Laboratory SDG: M99163

Data Reviewer: Tony Sedlacek

Peer Reviewer: Jeff Aust

Date Reviewed: 6/8/2011

Guidance: USEPA National Functional Guidelines for Superfund Organic Methods Data Review 2008

Sample Identification	Sample Identification
TB-040611	ROST-4PZ(B)10-11
ROST-4PZ(B)28-29	ROST-4PZ(B)36-37
ROST-4PZ(D)10-11 EB	ROST-4PZ(D)10-11
ROST-4PZ(D)28-29	ROST-4PZ(D)36-37
ROST-4PZ(D)36-37(D)	

1.0 Data Package Completeness

Were all items delivered as specified in the QAPP and COC as appropriate?

No, the COC requested TPH-DRO,TPH-ORO and TPH-GRO analyses for all samples except the trip blank but samples were analyzed for SVOCs. A pre-populated COC with TPH analyses was used for this SDG, and the TPH was not crossed out and replaced with SVOC analysis. URS contacted the laboratory and indicated that the samples required SVOC analysis instead of TPH analyses. Samples were analyzed for SVOCs. No qualification of data was required.

2.0 Laboratory Case Narrative \ Cooler Receipt Form

Were problems noted in the laboratory case narrative or cooler receipt form?

Yes, the laboratory case narrative indicated samples were received by the laboratory at 1.6° C which is outside temperature criteria 4°C ± 2°C. All samples were received in good condition; no qualification of data was required. VOC LCS recoveries were outside evaluation criteria. Although not indicated in the laboratory case narrative, analytes were detected in the method blank, trip blank and equipment blank. Samples were evaluated and qualified using professional judgment. These issues are addressed further in the appropriate sections below.

No problems were indicated in the cooler receipt form.

3.0 Holding Times

Were samples extracted/analyzed within applicable limits?

Yes

4.0 Blank Contamination

Were any analytes detected in the Method Blanks, Field Blanks or Trip Blanks?

Yes

Blank ID	Parameter	Analyte	Concentration/Amount
TB-040611	VOCs	Chloroform	1.9 µg/L
OP24605-MB	SVOCs	Di-n-butyl phthalate	5.4 µg/L
OP24605-MB	SVOCs	Bis(2-Ethylhexyl)phthalate	8.0 µg/L
OP24621-MB	SVOCs	Bis(2-Ethylhexyl)phthalate	253 µg/kg
ROST-4PZ(D)10-11 EB	SVOCs	Di-n-butyl phthalate	4.7 µg/L
ROST-4PZ(D)10-11 EB	SVOCs	Bis(2-Ethylhexyl)phthalate	5.3 µg/L

Qualifications due to blank contamination are included in the table below. Analytical data that were reported non-detect or at concentrations greater than five times (5X) the associated blank concentration (10X for common laboratory contaminants) did not require qualification.

Sample ID	Parameter	Analyte	New Reporting Limit (RL)	Qualification
ROST-4PZ(B)10-11	SVOCs	Bis(2-Ethylhexyl)phthalate	0.311	**U**
ROST-4PZ(B)28-29	SVOCs	Bis(2-Ethylhexyl)phthalate	0.302	**U**
ROST-4PZ(B)36-37	SVOCs	Bis(2-Ethylhexyl)phthalate	0.306	**U**
ROST-4PZ(D)10-11	SVOCs	Bis(2-Ethylhexyl)phthalate	0.262	**U**
ROST-4PZ(D)28-29	SVOCs	Bis(2-Ethylhexyl)phthalate	0.267	**U**
ROST-4PZ(D)36-37	SVOCs	Bis(2-Ethylhexyl)phthalate	0.254	**U**
ROST-4PZ(D)36-37(D)	SVOCs	Bis(2-Ethylhexyl)phthalate	0.258	**U**

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

No

LCS/ LCSD ID	Parameter	Analyte	LCS/LCSD Recovery	RPD	LCS/LCSD/ RPD Criteria
MSG4238-BS	VOCs	Acrolein	**1624**	N/A	70-130
MSG4238-BS	VOCs	2-Chloroethyl vinyl ether	**26**	N/A	70-130
MSG4238-BS	VOCs	Dichlorodifluoromethane	**61**	N/A	70-130
MSP1733-BS	VOCs	Acrolein	**1876**	N/A	70-130
MSP1733-BS	VOCs	Dichlorodifluoromethane	**61**	N/A	70-130

LCS/ LCSD ID	Parameter	Analyte	LCS/LCSD Recovery	RPD	LCS/LCSD/ RPD Criteria
MSP1733-BS	VOCs	2,2-Dichloropropane	**48**	N/A	70-130
MSP1733-BS	VOCs	Methylene Chloride	**137**	N/A	70-130
MSP1733-BS	VOCs	1,2,3-Trichlorobenzene	**61**	N/A	70-130
MSP1733-BS	VOCs	Vinyl acetate	**139**	N/A	70-130
MSP1733-BS	VOCs	Vinyl chloride	**67**	N/A	70-130
MSP1734-BS	VOCs	Acetone	**157**	N/A	70-130
MSP1734-BS	VOCs	Acrolein	**2216**	N/A	70-130
MSP1734-BS	VOCs	2-Butanone	**147**	N/A	70-130
MSP1734-BS	VOCs	2,2-Dichloropropane	**52**	N/A	70-130
MSP1734-BS	VOCs	Isopropylbenzene	**134**	N/A	70-130
MSP1734-BS	VOCs	Vinyl acetate	**160**	N/A	70-130
OP24605-BS	SVOCs	Benzoic acid	**8**	N/A	30-130
OP24605-BS	SVOCs	4-Chloroaniline	**37**	N/A	40-140
OP24605-BS	SVOCs	Hexachlorocyclopentadiene	**29**	N/A	40-140
OP24605-BS	SVOCs	Pyridine	**39**	N/A	40-140

Analytical data that required qualification based on LCS data are included in the table below. Analytical data reported as non-detect and associated with LCS recoveries above evaluation criteria, indicating a possible high bias, did not require qualification. LCS/LSCD MSG4238 was associated with trip blank TB-040611 and equipment blank ROST-4PZ(D)10-11 EB. Trip blank and equipment blank samples are quality control samples and are not qualified. LCS OP24605 was associated with equipment blank ROST-4PZ(D)10-11 EB. Equipment blank samples are quality control samples and are not qualified.

Field ID	Parameter	Analyte	Qualification
ROST-4PZ(B)10-11	VOCs	2,2-Dichloropropane	**UJ**
ROST-4PZ(B)10-11	VOCs	1,2,3-Trichlorobenzene	**UJ**
ROST-4PZ(B)10-11	VOCs	Vinyl chloride	**UJ**
ROST-4PZ(B)28-29	VOCs	2,2-Dichloropropane	**UJ**
ROST-4PZ(B)28-29	VOCs	1,2,3-Trichlorobenzene	**UJ**
ROST-4PZ(B)28-29	VOCs	Vinyl chloride	**UJ**
ROST-4PZ(B)36-37	VOCs	2,2-Dichloropropane	**UJ**

Field ID	Parameter	Analyte	Qualification
ROST-4PZ(B)36-37	VOCs	1,2,3-Trichlorobenzene	**UJ**
ROST-4PZ(B)36-37	VOCs	Vinyl chloride	**UJ**
ROST-4PZ(D)28-29	VOCs	2,2-Dichloropropane	**UJ**
ROST-4PZ(D)28-29	VOCs	1,2,3-Trichlorobenzene	**UJ**
ROST-4PZ(D)28-29	VOCs	Vinyl chloride	**UJ**
ROST-4PZ(D)10-11	VOCs	2,2-Dichloropropane	**UJ**
ROST-4PZ(D)36-37	VOCs	2,2-Dichloropropane	**UJ**
ROST-4PZ(D)36-37(D)	VOCs	2,2-Dichloropropane	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

Yes

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

Were MS/MSD samples analyzed as part of this SDG?

No

8.0 Internal Standard (IS) Recoveries

Were internal standard area recoveries within evaluation criteria?

Yes

9.0 Laboratory Duplicate Results

Were laboratory duplicate samples collected as part of this SDG?

No

10.0 Field Duplicate Results

Were field duplicate samples collected as part of this SDG?

Field ID	Field Duplicate ID
ROST-4PZ(C)36-37	ROST-4PZ(C)36-37 DUP

Were field duplicates within evaluation criteria?

Yes

11.0 Sample Dilutions

For samples that were diluted and nondetect, were undiluted results also reported?

Not applicable; samples analyzed did not require dilution.

12.0 Additional Qualifications

Were additional qualifications applied?

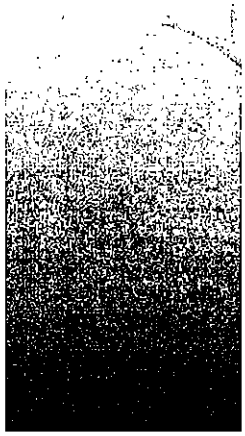
Yes

Professional judgment was used to qualify the common laboratory contaminants acetone, 2-butanone and methylene chloride reported at concentrations less than two times (2X) the RL. Additionally, USEPA Method 5035A states that acidification of certain soils with sodium bisulfate may produce a false positive acetone artifact of 100-200 ppb, or more. Acetone reported at concentrations less than 200 ppb (ug/kg) were qualified.

Field ID	Analyte	New RL	Qualification	Comments
ROST-4PZ(B)10-11	Acetone	0.0497	**U**	Professional Judgment
ROST-4PZ(B)28-29	Acetone	0.0247	**U**	Professional Judgment
ROST-4PZ(B)36-37	Acetone	0.100	**U**	Professional Judgment
ROST-4PZ(B)36-37	2-Butanone	0.0065	**U**	Professional Judgment
ROST-4PZ(D)28-29	Acetone	0.108	**U**	Professional Judgment
ROST-4PZ(D)28-29	2-Butanone	0.0066	**U**	Professional Judgment
ROST-4PZ(D)36-37	Methylene chloride	0.0080	**U**	Professional Judgment

New England ACCUTEST LABORATORIES

05/03/11



Technical Report for

Shell Oil

URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Roxana - ROST-4-PZ SAP#340061

Accutest Job Number: M99163

Sampling Dates: 04/06/11 - 04/07/11

Report to:

URS Corporation

Elizabeth_Kunkel@URSCorp.com

ATTN: Elizabeth Kunkel

Reviewed on 6/8/11

Total number of pages in report: **117**

ACCREDITED IN ACCORDANCE WITH nelac

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

Reza Tand
Lab Director

Client Service contact: Kristen Blanchard 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) ISO 17025:2005 (L2235)

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Test results relate only to samples analyzed.

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Table of Contents

Sample Summary

Shell Oil

Job No: M99163

URSMOSTL:97216640 170 East Rand Avenue Hartford, IL
Project No: Roxana - ROST-4-PZ SAP#340061

Sample Number	Collected Date	Time By	Received	Matrix Code	Matrix Type	Client Sample ID
M99163-1	04/06/11	00:00 NS	04/08/11	AQ	Trip Blank Water	TB-040611
M99163-2	04/06/11	09:30 NS	04/08/11	SO	Soil	ROST-4PZ(B) 10-11
M99163-3	04/06/11	10:00 NS	04/08/11	SO	Soil	ROST-4PZ(B) 28-29
M99163-4	04/06/11	10:30 NS	04/08/11	SO	Soil	ROST-4PZ(B) 36-37
M99163-5	04/07/11	08:30 NS	04/08/11	AQ	Equipment Blank	ROST-4PZ(D) 10-11 EB
M99163-6	04/07/11	09:00 NS	04/08/11	SO	Soil	ROST-4PZ(D) 10-11
M99163-7	04/07/11	10:00 NS	04/08/11	SO	Soil	ROST-4PZ(D) 28-29
M99163-8	04/07/11	10:30 NS	04/08/11	SO	Soil	ROST-4PZ(D) 36-37
M99163-9	04/07/11	10:30 NS	04/08/11	SO	Soil	ROST-4PZ(D) 36-37 (D)

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

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	Shell Oil	Job No	M99163
Site:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL	Report Date	4/26/2011 11:14:37 AM

8 Sample(s), 1 Trip Blank were collected on between 04/06/2011 and 04/07/2011 and were received at Accutest on 04/08/2011 properly preserved, at 1.6 Deg. C and intact. These Samples received an Accutest job number of M99163. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

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

Volatiles by GCMS By Method SW846 8260B

Matrix AQ	Batch ID: MSG4238

- All samples were analyzed within the recommended method holding time.
- Sample(s) M99200-2MS, M99200-2MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Blank Spike Recovery(s) for 2-Chloroethyl vinyl ether, Dichlorodifluoromethane are outside control limits. Blank Spike meets program technical requirements.
- MS/MSD Recovery(s) for 2-Chloroethyl vinyl ether are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- MSG4238-BS/MS/MSD for Acrolein: Outside control limits. Associated samples are non-detect for this compound.

Matrix SO	Batch ID: MSP1733

- All samples were analyzed within the recommended method holding time.
- Sample(s) M99124-9MS, M99124-9MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Blank Spike Recovery(s) for 1,2,3-Trichlorobenzene, 2,2-Dichloropropane, Dichlorodifluoromethane, Methylene chloride, Vinyl Acetate, Vinyl chloride are outside control limits. Blank Spike meets program technical requirements.
- Matrix Spike Recovery(s) for 1,1,2,2-Tetrachloroethane, 1,2,3-Trichlorobenzene, 1,2,4-Trichlorobenzene, 1,2-Dibromo-3-chloropropane, 2,2-Dichloropropane, 2-Chloroethyl vinyl ether, 2-Hexanone, Acetone, Dichlorodifluoromethane, Hexachlorobutadiene, Isopropylbenzene, n-Butylbenzene, Trichloroethene, Vinyl Acetate are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Matrix Spike Duplicate Recovery(s) for 1,1,2,2-Tetrachloroethane, 1,2,3-Trichlorobenzene, 1,2,4-Trichlorobenzene, 2,2-Dichloropropane, 2-Butanone (MEK), 2-Chloroethyl vinyl ether, Acetone, Dichlorodifluoromethane, Hexachlorobutadiene, Isopropylbenzene, Trichloroethene, Vinyl Acetate are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- M99124-9MS/MSD for Dibromofluoromethane: Outside control limits due to possible matrix interference. Confirmed by MS/MSD.
- MSP1733-BS/MS/MSD for Acrolein: Outside control limits. Associated samples are non-detect for this compound.

Matrix SO	Batch ID: MSP1734

- All samples were analyzed within the recommended method holding time.
- Sample(s) M99232-12MS, M99232-12MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Blank Spike Recovery(s) for 2,2-Dichloropropane, 2-Butanone (MEK), Acetone, Isopropylbenzene, Vinyl Acetate are outside control limits. Blank Spike meets program technical requirements.
- MS Recovery(s) for all copounds are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Matrix Spike Duplicate Recovery(s) for most of compounds are outside control limits. Outside control limits due to possible matrix interferenee. Refer to Blank Spike.

Volatiles by GCMS By Method SW846 8260B

Matrix SO	Batch ID: MSP1734

- RPD(s) for MSD for most of compounds are outside control limits. High RPD due to possible matrix interference and/or sample non-homogeneity.
- MSP1734-BS for Acrolein: Outside control limits. Associated samples are non-detect for this compound.

Extractables by GCMS By Method SW846 8270C

Matrix AQ	Batch ID: OP24605

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) M99246-2MS, M99246-2MSD were used as the QC samples indicated.
- Sample(s) M99163-5 have compound(s) reported with a "B" qualifier, indicating analyte is found in the associated method blank.
- Blank Spike Recovery(s) for 4-Chloroaniline, Benzoic Acid, Hexachloroeyclopentadiene, Pyridine are outside control limits. Blank Spike meets program technical requirements.
- MS/MSD Recovery(s) for 4-Chloroaniline, Benzoic Acid, Hexaehlorocyclopentadiene, Pyridine are outside control limits. Blank Spike meets program technical requirements.
- RPD(s) for MSD for bis(2-Ethylhexyl)phthalate are outside control limits for sample OP24605-MSD. High RPD due to possible matrix interference and/or sample non-homogeneity.

Matrix SO	Batch ID: OP24621

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) M99208-6MS, M99208-6MSD were used as the QC samples indicated.
- Sample(s) M99163-3, M99163-4, M99163-6, M99163-7, M99163-8, M99163-9 have compound(s) reported with a "B" qualifier, indicating analyte is found in the associated method blank.
- MS/MSD Recovery(s) for Benzoic acid, Hexachlorocyelopentadiene are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.

Wet Chemistry By Method SM21 2540 B MOD.

Matrix SO	Batch ID: GN34605

- Sample(s) M99158-1DUP were used as the QC samples for Solids, Percent.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety.The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(M99163).

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	TB-040611		
Lab Sample ID:	M99163-1	Date Sampled:	04/06/11
Matrix:	AQ - Trip Blank Water	Date Received:	04/08/11
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	G105074.D	1	04/18/11	EL	n/a	n/a	MSG4238
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	4.6	ug/l	
107-02-8	Acrolein	ND	25	17	ug/l	
107-13-1	Acrylonitrile	ND	5.0	3.0	ug/l	
71-43-2	Benzene	ND	0.50	0.35	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.52	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.91	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.62	ug/l	
75-25-2	Bromoform	ND	1.0	0.73	ug/l	
74-83-9	Bromomethane	ND	2.0	0.95	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.1	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.49	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.37	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.53	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.35	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.42	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.61	ug/l	
75-00-3	Chloroethane	ND	2.0	0.76	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	0.83	ug/l	
67-66-3	Chloroform	1.9	1.0	0.72	ug/l	
74-87-3	Chloromethane	ND	2.0	0.81	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.58	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.67	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.3	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.86	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.76	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.74	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.77	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.81	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.61	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.63	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.74	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.70	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB-040611		
Lab Sample ID:	M99163-1	**Date Sampled:**	04/06/11
Matrix:	AQ - Trip Blank Water	**Date Received:**	04/08/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.66	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.74	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.83	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.73	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	0.44	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.23	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.23	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.90	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.61	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.56	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.5	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.51	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.45	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.54	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.3	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.94	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.75	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.43	ug/l	
100-42-5	Styrene	ND	5.0	0.68	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.64	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.89	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.39	ug/l	
108-88-3	Toluene	ND	1.0	0.74	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.57	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.35	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.72	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.49	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.61	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.62	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.51	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	0.51	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.86	ug/l	
	m,p-Xylene	ND	1.0	0.62	ug/l	
95-47-6	o-Xylene	ND	1.0	0.56	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.56	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB-040611		
Lab Sample ID:	M99163-1	**Date Sampled:**	04/06/11
Matrix:	AQ - Trip Blank Water	**Date Received:**	04/08/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	117%		70-130%
2037-26-5	Toluene-D8	114%		70-130%
460-00-4	4-Bromofluorobenzene	109%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(B) 10-11		
Lab Sample ID:	M99163-2	Date Sampled:	04/06/11
Matrix:	SO - Soil	Date Received:	04/08/11
Method:	SW846 8260B	Percent Solids:	90.5
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P52338.D	1	04/19/11	AMY	n/a	n/a	MSP1733
Run #2							

	Initial Weight	Final Volume
Run #1	4.08 g	5.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND ~~0.0497~~	00497 ~~0.0068~~	0.0068	mg/kg	U
107-02-8	Acrolein	ND	0.034	0.023	mg/kg	
107-13-1	Acrylonitrile	ND	0.0068	0.0011	mg/kg	
71-43-2	Benzene	0.0019	0.00068	0.00015	mg/kg	
108-86-1	Bromobenzene	ND	0.0068	0.00020	mg/kg	
74-97-5	Bromochloromethane	ND	0.0068	0.00065	mg/kg	
75-27-4	Bromodichloromethane	ND	0.0027	0.00025	mg/kg	
75-25-2	Bromoform	ND	0.0027	0.0014	mg/kg	
74-83-9	Bromomethane	ND	0.0027	0.00047	mg/kg	
78-93-3	2-Butanone (MEK)	ND	0.0068	0.0020	mg/kg	
104-51-8	n-Butylbenzene	ND	0.0068	0.00057	mg/kg	
135-98-8	sec-Butylbenzene	ND	0.0068	0.00049	mg/kg	
98-06-6	tert-Butylbenzene	ND	0.0068	0.00030	mg/kg	
75-15-0	Carbon disulfide	ND	0.0068	0.00025	mg/kg	
56-23-5	Carbon tetrachloride	ND	0.0027	0.00026	mg/kg	
108-90-7	Chlorobenzene	ND	0.0027	0.00030	mg/kg	
75-00-3	Chloroethane	ND	0.0068	0.00043	mg/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	0.0068	0.0068	mg/kg	
67-66-3	Chloroform	ND	0.0027	0.00022	mg/kg	
74-87-3	Chloromethane	ND	0.0068	0.00017	mg/kg	
95-49-8	o-Chlorotoluene	ND	0.0068	0.00025	mg/kg	
106-43-4	p-Chlorotoluene	ND	0.0068	0.00029	mg/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0068	0.00096	mg/kg	
124-48-1	Dibromochloromethane	ND	0.0027	0.0014	mg/kg	
106-93-4	1,2-Dibromoethane	ND	0.0027	0.00020	mg/kg	
95-50-1	1,2-Dichlorobenzene	ND	0.0027	0.00042	mg/kg	
541-73-1	1,3-Dichlorobenzene	ND	0.0027	0.00041	mg/kg	
106-46-7	1,4-Dichlorobenzene	ND	0.0027	0.00040	mg/kg	
75-71-8	Dichlorodifluoromethane	ND	0.0027	0.00027	mg/kg	
75-34-3	1,1-Dichloroethane	ND	0.0027	0.00023	mg/kg	
107-06-2	1,2-Dichloroethane	ND	0.0027	0.00016	mg/kg	
75-35-4	1,1-Dichloroethene	ND	0.0027	0.00018	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(B) 10-11		
Lab Sample ID:	M99163-2	Date Sampled:	04/06/11
Matrix:	SO - Soil	Date Received:	04/08/11
Method:	SW846 8260B	Percent Solids:	90.5
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-59-2	cis-1,2-Dichloroethene	ND	0.0027	0.00027	mg/kg	
156-60-5	trans-1,2-Dichloroethene	ND	0.0027	0.00025	mg/kg	
78-87-5	1,2-Dichloropropane	ND	0.0027	0.00023	mg/kg	
142-28-9	1,3-Dichloropropane	ND	0.0068	0.00015	mg/kg	
594-20-7	2,2-Dichloropropane	ND	0.0068	0.00026	mg/kg	uJ
563-58-6	1,1-Dichloropropene	ND	0.0068	0.00028	mg/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0027	0.00068	mg/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0027	0.0014	mg/kg	
97-63-2	Ethyl methacrylate	ND	0.0068	0.00017	mg/kg	
100-41-4	Ethylbenzene	0.0079	0.0027	0.00015	mg/kg	
87-68-3	Hexachlorobutadiene	ND	0.0068	0.00098	mg/kg	
591-78-6	2-Hexanone	ND	0.0068	0.0012	mg/kg	
98-82-8	Isopropylbenzene	ND	0.0068	0.00033	mg/kg	
99-87-6	p-Isopropyltoluene	ND	0.0068	0.00052	mg/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	0.0027	0.00018	mg/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	0.0068	0.0014	mg/kg	
74-95-3	Methylene bromide	ND	0.0068	0.0014	mg/kg	
75-09-2	Methylene chloride	ND	0.0027	0.00022	mg/kg	
103-65-1	n-Propylbenzene	ND	0.0068	0.00038	mg/kg	
100-42-5	Styrene	ND	0.0068	0.00022	mg/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0068	0.00023	mg/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.0027	0.00024	mg/kg	
127-18-4	Tetrachloroethene	ND	0.0027	0.00023	mg/kg	
108-88-3	Toluene	0.0074	0.0068	0.00024	mg/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	0.0068	0.0010	mg/kg	uJ
120-82-1	1,2,4-Trichlorobenzene	ND	0.0068	0.00069	mg/kg	
71-55-6	1,1,1-Trichloroethane	ND	0.0027	0.00018	mg/kg	
79-00-5	1,1,2-Trichloroethane	ND	0.0027	0.00017	mg/kg	
79-01-6	Trichloroethene	ND	0.0027	0.00028	mg/kg	
75-69-4	Trichlorofluoromethane	ND	0.0027	0.00021	mg/kg	
96-18-4	1,2,3-Trichloropropane	ND	0.0068	0.00022	mg/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	0.0068	0.00035	mg/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	0.0068	0.00029	mg/kg	
108-05-4	Vinyl Acetate	ND	0.0068	0.0037	mg/kg	
75-01-4	Vinyl chloride	ND	0.0027	0.00036	mg/kg	uJ
	m,p-Xylene	0.0014	0.0027	0.00047	mg/kg	J
95-47-6	o-Xylene	ND	0.0027	0.00018	mg/kg	
1330-20-7	Xylene (total)	0.0014	0.0027	0.00018	mg/kg	J

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(B) 10-11		
Lab Sample ID:	M99163-2	**Date Sampled:**	04/06/11
Matrix:	SO - Soil	**Date Received:**	04/08/11
Method:	SW846 8260B	**Percent Solids:**	90.5
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	111%		70-130%
2037-26-5	Toluene-D8	118%		70-130%
460-00-4	4-Bromofluorobenzene	124%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(B) 10-11		
Lab Sample ID:	M99163-2	Date Sampled:	04/06/11
Matrix:	SO - Soil	Date Received:	04/08/11
Method:	SW846 8270C SW846 3545	Percent Solids:	90.5
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	S23219.D	1	04/20/11	KR	04/13/11	OP24621	MSS982
Run #2							

	Initial Weight	Final Volume
Run #1	20.6 g	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic acid	ND	0.54	0.042	mg/kg	
95-57-8	2-Chlorophenol	ND	0.27	0.014	mg/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	0.54	0.019	mg/kg	
120-83-2	2,4-Dichlorophenol	ND	0.54	0.031	mg/kg	
105-67-9	2,4-Dimethylphenol	ND	0.54	0.054	mg/kg	
51-28-5	2,4-Dinitrophenol	ND	1.1	0.27	mg/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	0.54	0.27	mg/kg	
95-48-7	2-Methylphenol	ND	0.54	0.015	mg/kg	
	3&4-Methylphenol	ND	0.54	0.028	mg/kg	
88-75-5	2-Nitrophenol	ND	0.54	0.032	mg/kg	
100-02-7	4-Nitrophenol	ND	1.1	0.27	mg/kg	
87-86-5	Pentachlorophenol	ND	0.54	0.050	mg/kg	
108-95-2	Phenol	ND	0.27	0.044	mg/kg	
95-95-4	2,4,5-Trichlorophenol	ND	0.54	0.040	mg/kg	
88-06-2	2,4,6-Trichlorophenol	ND	0.54	0.037	mg/kg	
83-32-9	Acenaphthene	ND	0.27	0.023	mg/kg	
208-96-8	Acenaphthylene	ND	0.27	0.020	mg/kg	
62-53-3	Aniline	ND	0.54	0.54	mg/kg	
120-12-7	Anthracene	ND	0.27	0.021	mg/kg	
56-55-3	Benzo(a)anthracene	ND	0.27	0.0099	mg/kg	
50-32-8	Benzo(a)pyrene	ND	0.27	0.016	mg/kg	
205-99-2	Benzo(b)fluoranthene	ND	0.27	0.031	mg/kg	
191-24-2	Benzo(g,h,i)perylene	ND	0.27	0.017	mg/kg	
207-08-9	Benzo(k)fluoranthene	ND	0.27	0.0079	mg/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	0.27	0.022	mg/kg	
85-68-7	Butyl benzyl phthalate	0.0390	0.27	0.011	mg/kg	J
91-58-7	2-Chloronaphthalene	ND	0.27	0.022	mg/kg	
106-47-8	4-Chloroaniline	ND	0.54	0.13	mg/kg	
218-01-9	Chrysene	ND	0.27	0.0087	mg/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	0.27	0.021	mg/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	0.27	0.0057	mg/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	0.27	0.025	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(B) 10-11		
Lab Sample ID:	M99163-2	Date Sampled:	04/06/11
Matrix:	SO - Soil	Date Received:	04/08/11
Method:	SW846 8270C SW846 3545	Percent Solids:	90.5
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	0.27	0.024	mg/kg	
121-14-2	2,4-Dinitrotoluene	ND	0.54	0.13	mg/kg	
606-20-2	2,6-Dinitrotoluene	ND	0.54	0.026	mg/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	0.27	0.0064	mg/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	0.27	0.017	mg/kg	
132-64-9	Dibenzofuran	ND	0.27	0.023	mg/kg	
84-74-2	Di-n-butyl phthalate	0.255	0.27	0.024	mg/kg	J
117-84-0	Di-n-octyl phthalate	ND	0.27	0.014	mg/kg	
84-66-2	Diethyl phthalate	0.0387	0.27	0.023	mg/kg	J
131-11-3	Dimethyl phthalate	ND	0.27	0.019	mg/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	~~0.311~~ ND	~~0.27~~ 0.31	0.018	mg/kg	U
206-44-0	Fluoranthene	ND	0.27	0.0091	mg/kg	
86-73-7	Fluorene	ND	0.27	0.0059	mg/kg	
118-74-1	Hexachlorobenzene	ND	0.27	0.023	mg/kg	
77-47-4	Hexachlorocyclopentadiene	ND	0.54	0.0036	mg/kg	
67-72-1	Hexachloroethane	ND	0.27	0.022	mg/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.27	0.016	mg/kg	
78-59-1	Isophorone	0.0331	0.27	0.027	mg/kg	J
91-57-6	2-Methylnapbthalene	ND	0.27	0.022	mg/kg	
88-74-4	2-Nitroaniline	ND	0.54	0.13	mg/kg	
99-09-2	3-Nitroaniline	ND	0.54	0.13	mg/kg	
100-01-6	4-Nitroaniline	ND	0.54	0.020	mg/kg	
91-20-3	Naphthalene	ND	0.27	0.0062	mg/kg	
98-95-3	Nitrobenzene	ND	0.27	0.0079	mg/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	0.27	0.017	mg/kg	
86-30-6	N-Nitrosodiphenylamine	ND	0.27	0.014	mg/kg	
85-01-8	Phenanthrene	ND	0.27	0.0069	mg/kg	
129-00-0	Pyrene	ND	0.27	0.0086	mg/kg	
110-86-1	Pyridine	ND	0.54	0.54	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	69%		30-130%
4165-62-2	Phenol-d5	70%		30-130%
118-79-6	2,4,6-Tribromophenol	67%		30-130%
4165-60-0	Nitrobenzene-d5	76%		30-130%
321-60-8	2-Fluorobiphenyl	73%		30-130%
1718-51-0	Terphenyl-d14	90%		30-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(B) 28-29		
Lab Sample ID:	M99163-3	**Date Sampled:**	04/06/11
Matrix:	SO - Soil	**Date Received:**	04/08/11
Method:	SW846 8260B	**Percent Solids:**	95.5
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P52339.D	1	04/19/11	AMY	n/a	n/a	MSP1733
Run #2							

	Initial Weight	Final Volume
Run #1	4.32 g	5.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND ~~0.0247~~	0.0247 ~~0.0061~~	0.0061	mg/kg	U
107-02-8	Acrolein	~~ND~~	0.030	0.020	mg/kg	
107-13-1	Acrylonitrile	ND	0.0061	0.00096	mg/kg	
71-43-2	Benzene	0.0012	0.00061	0.00014	mg/kg	
108-86-1	Bromobenzene	ND	0.0061	0.00018	mg/kg	
74-97-5	Bromochloromethane	ND	0.0061	0.00058	mg/kg	
75-27-4	Bromodichloromethane	ND	0.0024	0.00023	mg/kg	
75-25-2	Bromoform	ND	0.0024	0.0012	mg/kg	
74-83-9	Bromomethane	ND	0.0024	0.00042	mg/kg	
78-93-3	2-Butanone (MEK)	ND	0.0061	0.0018	mg/kg	
104-51-8	n-Butylbenzene	ND	0.0061	0.00051	mg/kg	
135-98-8	sec-Butylbenzene	ND	0.0061	0.00044	mg/kg	
98-06-6	tert-Butylbenzene	ND	0.0061	0.00027	mg/kg	
75-15-0	Carbon disulfide	ND	0.0061	0.00023	mg/kg	
56-23-5	Carbon tetrachloride	ND	0.0024	0.00023	mg/kg	
108-90-7	Chlorobenzene	ND	0.0024	0.00026	mg/kg	
75-00-3	Chloroethane	ND	0.0061	0.00039	mg/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	0.0061	0.0061	mg/kg	
67-66-3	Chloroform	ND	0.0024	0.00019	mg/kg	
74-87-3	Chloromethane	ND	0.0061	0.00016	mg/kg	
95-49-8	o-Chlorotoluene	ND	0.0061	0.00023	mg/kg	
106-43-4	p-Chlorotoluene	ND	0.0061	0.00026	mg/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0061	0.00086	mg/kg	
124-48-1	Dibromochloromethane	ND	0.0024	0.0012	mg/kg	
106-93-4	1,2-Dibromoethane	ND	0.0024	0.00018	mg/kg	
95-50-1	1,2-Dichlorobenzene	ND	0.0024	0.00038	mg/kg	
541-73-1	1,3-Dichlorobenzene	ND	0.0024	0.00037	mg/kg	
106-46-7	1,4-Dichlorobenzene	ND	0.0024	0.00036	mg/kg	
75-71-8	Dichlorodifluoromethane	ND	0.0024	0.00024	mg/kg	
75-34-3	1,1-Dichloroethane	ND	0.0024	0.00020	mg/kg	
107-06-2	1,2-Dichloroethane	ND	0.0024	0.00014	mg/kg	
75-35-4	1,1-Dichloroethene	ND	0.0024	0.00016	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(B) 28-29		
Lab Sample ID:	M99163-3	**Date Sampled:**	04/06/11
Matrix:	SO - Soil	**Date Received:**	04/08/11
Method:	SW846 8260B	**Percent Solids:**	95.5
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-59-2	cis-1,2-Dichloroethene	ND	0.0024	0.00024	mg/kg	
156-60-5	trans-1,2-Dichloroethene	ND	0.0024	0.00023	mg/kg	
78-87-5	1,2-Dichloropropane	ND	0.0024	0.00021	mg/kg	
142-28-9	1,3-Dichloropropane	ND	0.0061	0.00013	mg/kg	
594-20-7	2,2-Dichloropropane	ND	0.0061	0.00024	mg/kg	uJ
563-58-6	1,1-Dichloropropene	ND	0.0061	0.00025	mg/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0024	0.00061	mg/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0024	0.0012	mg/kg	
97-63-2	Ethyl methacrylate	ND	0.0061	0.00015	mg/kg	
100-41-4	Ethylbenzene	0.0035	0.0024	0.00013	mg/kg	
87-68-3	Hexachlorobutadiene	ND	0.0061	0.00088	mg/kg	
591-78-6	2-Hexanone	ND	0.0061	0.0010	mg/kg	
98-82-8	Isopropylbenzene	ND	0.0061	0.00030	mg/kg	
99-87-6	p-Isopropyltoluene	ND	0.0061	0.00047	mg/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	0.0024	0.00016	mg/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	0.0061	0.0012	mg/kg	
74-95-3	Methylene bromide	ND	0.0061	0.0012	mg/kg	
75-09-2	Methylene chloride	ND	0.0024	0.00020	mg/kg	
103-65-1	n-Propylbenzene	ND	0.0061	0.00034	mg/kg	
100-42-5	Styrene	ND	0.0061	0.00020	mg/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0061	0.00020	mg/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.0024	0.00021	mg/kg	
127-18-4	Tetrachloroethene	ND	0.0024	0.00020	mg/kg	
108-88-3	Toluene	0.0036	0.0061	0.00021	mg/kg	J
87-61-6	1,2,3-Trichlorobenzene	ND	0.0061	0.00093	mg/kg	uJ
120-82-1	1,2,4-Trichlorobenzene	ND	0.0061	0.00062	mg/kg	
71-55-6	1,1,1-Trichloroethane	ND	0.0024	0.00016	mg/kg	
79-00-5	1,1,2-Trichloroethane	ND	0.0024	0.00015	mg/kg	
79-01-6	Trichloroethene	ND	0.0024	0.00025	mg/kg	
75-69-4	Trichlorofluoromethane	ND	0.0024	0.00019	mg/kg	
96-18-4	1,2,3-Trichloropropane	ND	0.0061	0.00020	mg/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	0.0061	0.00031	mg/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	0.0061	0.00026	mg/kg	
108-05-4	Vinyl Acetate	ND	0.0061	0.0033	mg/kg	
75-01-4	Vinyl chloride	ND	0.0024	0.00032	mg/kg	uJ
	m,p-Xylene	0.0012	0.0024	0.00042	mg/kg	J
95-47-6	o-Xylene	ND	0.0024	0.00016	mg/kg	
1330-20-7	Xylene (total)	0.0012	0.0024	0.00016	mg/kg	J

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(B) 28-29		
Lab Sample ID:	M99163-3	**Date Sampled:**	04/06/11
Matrix:	SO - Soil	**Date Received:**	04/08/11
Method:	SW846 8260B	**Percent Solids:**	95.5
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	112%		70-130%
2037-26-5	Toluene-D8	117%		70-130%
460-00-4	4-Bromofluorobenzene	124%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(B) 28-29		
Lab Sample ID:	M99163-3	Date Sampled:	04/06/11
Matrix:	SO - Soil	Date Received:	04/08/11
Method:	SW846 8270C SW846 3545	Percent Solids:	95.5
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	S23238.D	1	04/21/11	KR	04/13/11	OP24621	MSS983
Run #2							

	Initial Weight	Final Volume
Run #1	20.2 g	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic acid	ND	0.52	0.040	mg/kg	
95-57-8	2-Chlorophenol	ND	0.26	0.014	mg/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	0.52	0.018	mg/kg	
120-83-2	2,4-Dichlorophenol	ND	0.52	0.031	mg/kg	
105-67-9	2,4-Dimethylphenol	ND	0.52	0.052	mg/kg	
51-28-5	2,4-Dinitrophenol	ND	1.0	0.26	mg/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	0.52	0.26	mg/kg	
95-48-7	2-Methylphenol	ND	0.52	0.015	mg/kg	
	3&4-Methylphenol	ND	0.52	0.027	mg/kg	
88-75-5	2-Nitrophenol	ND	0.52	0.031	mg/kg	
100-02-7	4-Nitrophenol	ND	1.0	0.26	mg/kg	
87-86-5	Pentachlorophenol	ND	0.52	0.048	mg/kg	
108-95-2	Phenol	ND	0.26	0.043	mg/kg	
95-95-4	2,4,5-Trichlorophenol	ND	0.52	0.039	mg/kg	
88-06-2	2,4,6-Trichlorophenol	ND	0.52	0.036	mg/kg	
83-32-9	Acenaphthene	ND	0.26	0.022	mg/kg	
208-96-8	Acenaphthylene	ND	0.26	0.019	mg/kg	
62-53-3	Aniline	ND	0.52	0.52	mg/kg	
120-12-7	Anthracene	ND	0.26	0.020	mg/kg	
56-55-3	Benzo(a)anthracene	ND	0.26	0.0096	mg/kg	
50-32-8	Benzo(a)pyrene	ND	0.26	0.016	mg/kg	
205-99-2	Benzo(b)fluoranthene	ND	0.26	0.030	mg/kg	
191-24-2	Benzo(g,h,i)perylene	ND	0.26	0.017	mg/kg	
207-08-9	Benzo(k)fluoranthene	ND	0.26	0.0077	mg/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	0.26	0.021	mg/kg	
85-68-7	Butyl benzyl phthalate	0.0276	0.26	0.011	mg/kg	J
91-58-7	2-Chloronaphthalene	ND	0.26	0.022	mg/kg	
106-47-8	4-Chloroaniline	ND	0.52	0.13	mg/kg	
218-01-9	Chrysene	ND	0.26	0.0085	mg/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	0.26	0.020	mg/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	0.26	0.0056	mg/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	0.26	0.025	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(B) 28-29		
Lab Sample ID:	M99163-3	Date Sampled:	04/06/11
Matrix:	SO - Soil	Date Received:	04/08/11
Method:	SW846 8270C SW846 3545	Percent Solids:	95.5
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	0.26	0.023	mg/kg	
121-14-2	2,4-Dinitrotoluene	ND	0.52	0.13	mg/kg	
606-20-2	2,6-Dinitrotoluene	ND	0.52	0.025	mg/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	0.26	0.0062	mg/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	0.26	0.017	mg/kg	
132-64-9	Dibenzofuran	ND	0.26	0.022	mg/kg	
84-74-2	Di-n-butyl phthalate	0.243	0.26	0.024	mg/kg	J
117-84-0	Di-n-octyl phthalate	ND	0.26	0.014	mg/kg	
84-66-2	Diethyl phthalate	0.0350	0.26	0.023	mg/kg	J
131-11-3	Dimethyl phthalate	ND	0.26	0.018	mg/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	~~0.302~~ ND	~~0.26~~ 0.302	0.018	mg/kg	~~B~~ U
206-44-0	Fluoranthene	ND	0.26	0.0088	mg/kg	
86-73-7	Fluorene	ND	0.26	0.0057	mg/kg	
118-74-1	Hexachlorobenzene	ND	0.26	0.022	mg/kg	
77-47-4	Hexachlorocyclopentadiene	ND	0.52	0.0035	mg/kg	
67-72-1	Hexachloroethane	ND	0.26	0.021	mg/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.26	0.016	mg/kg	
78-59-1	Isophorone	ND	0.26	0.026	mg/kg	
91-57-6	2-Methylnaphthalene	ND	0.26	0.022	mg/kg	
88-74-4	2-Nitroaniline	ND	0.52	0.13	mg/kg	
99-09-2	3-Nitroaniline	ND	0.52	0.13	mg/kg	
100-01-6	4-Nitroaniline	ND	0.52	0.019	mg/kg	
91-20-3	Naphthalene	ND	0.26	0.0060	mg/kg	
98-95-3	Nitrobenzene	ND	0.26	0.0077	mg/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	0.26	0.016	mg/kg	
86-30-6	N-Nitrosodiphenylamine	ND	0.26	0.014	mg/kg	
85-01-8	Phenanthrene	ND	0.26	0.0067	mg/kg	
129-00-0	Pyrene	ND	0.26	0.0084	mg/kg	
110-86-1	Pyridine	ND	0.52	0.52	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	74%		30-130%
4165-62-2	Phenol-d5	75%		30-130%
118-79-6	2,4,6-Tribromophenol	70%		30-130%
4165-60-0	Nitrobenzene-d5	79%		30-130%
321-60-8	2-Fluorobiphenyl	77%		30-130%
1718-51-0	Terphenyl-d14	92%		30-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(B) 36-37		
Lab Sample ID:	M99163-4	Date Sampled:	04/06/11
Matrix:	SO - Soil	Date Received:	04/08/11
Method:	SW846 8260B	Percent Solids:	94.0
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P52340.D	1	04/19/11	AMY	n/a	n/a	MSP1733
Run #2							

	Initial Weight	Final Volume
Run #1	4.64 g	5.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND ~~0.100~~	0.100 ~~0.0057~~	0.0057	mg/kg	U
107-02-8	Acrolein	ND	0.029	0.019	mg/kg	
107-13-1	Acrylonitrile	ND	0.0057	0.00091	mg/kg	
71-43-2	Benzene	0.0022	0.00057	0.00013	mg/kg	
108-86-1	Bromobenzene	ND	0.0057	0.00017	mg/kg	
74-97-5	Bromochloromethane	ND	0.0057	0.00055	mg/kg	
75-27-4	Bromodichloromethane	ND	0.0023	0.00021	mg/kg	
75-25-2	Bromoform	ND	0.0023	0.0011	mg/kg	
74-83-9	Bromomethane	ND	0.0023	0.00040	mg/kg	
78-93-3	2-Butanone (MEK)	ND ~~0.0065~~	~~0.0057~~	0.0017	mg/kg	U
104-51-8	n-Butylbenzene	ND	0.0057	0.00048	mg/kg	
135-98-8	sec-Butylbenzene	ND	0.0057	0.00041	mg/kg	
98-06-6	tert-Butylbenzene	ND	0.0057	0.00026	mg/kg	
75-15-0	Carbon disulfide	ND	0.0057	0.00021	mg/kg	
56-23-5	Carbon tetrachloride	ND	0.0023	0.00022	mg/kg	
108-90-7	Chlorobenzene	ND	0.0023	0.00025	mg/kg	
75-00-3	Chloroethane	ND	0.0057	0.00037	mg/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	0.0057	0.0057	mg/kg	
67-66-3	Chloroform	ND	0.0023	0.00018	mg/kg	
74-87-3	Chloromethane	ND	0.0057	0.00015	mg/kg	
95-49-8	o-Chlorotoluene	ND	0.0057	0.00022	mg/kg	
106-43-4	p-Chlorotoluene	ND	0.0057	0.00025	mg/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0057	0.00081	mg/kg	
124-48-1	Dibromochloromethane	ND	0.0023	0.0011	mg/kg	
106-93-4	1,2-Dibromoethane	ND	0.0023	0.00017	mg/kg	
95-50-1	1,2-Dichlorobenzene	ND	0.0023	0.00036	mg/kg	
541-73-1	1,3-Dichlorobenzene	ND	0.0023	0.00035	mg/kg	
106-46-7	1,4-Dichlorobenzene	ND	0.0023	0.00034	mg/kg	
75-71-8	Dichlorodifluoromethane	ND	0.0023	0.00023	mg/kg	
75-34-3	1,1-Dichloroethane	ND	0.0023	0.00019	mg/kg	
107-06-2	1,2-Dichloroethane	ND	0.0023	0.00013	mg/kg	
75-35-4	1,1-Dichloroethene	ND	0.0023	0.00015	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(B) 36-37		
Lab Sample ID:	M99163-4	Date Sampled:	04/06/11
Matrix:	SO - Soil	Date Received:	04/08/11
Method:	SW846 8260B	Percent Solids:	94.0
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-59-2	cis-1,2-Dichloroethene	ND	0.0023	0.00023	mg/kg	
156-60-5	trans-1,2-Dichloroethene	ND	0.0023	0.00022	mg/kg	
78-87-5	1,2-Dichloropropane	ND	0.0023	0.00020	mg/kg	
142-28-9	1,3-Dichloropropane	ND	0.0057	0.00012	mg/kg	
594-20-7	2,2-Dichloropropane	ND	0.0057	0.00022	mg/kg	uJ
563-58-6	1,1-Dichloropropene	ND	0.0057	0.00024	mg/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0023	0.00057	mg/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0023	0.0011	mg/kg	
97-63-2	Ethyl methacrylate	ND	0.0057	0.00014	mg/kg	
100-41-4	Ethylbenzene	0.0059	0.0023	0.00012	mg/kg	
87-68-3	Hexachlorobutadiene	ND	0.0057	0.00083	mg/kg	
591-78-6	2-Hexanone	ND	0.0057	0.00099	mg/kg	
98-82-8	Isopropylbenzene	ND	0.0057	0.00028	mg/kg	
99-87-6	p-Isopropyltoluene	ND	0.0057	0.00044	mg/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	0.0023	0.00015	mg/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	0.0057	0.0011	mg/kg	
74-95-3	Methylene bromide	ND	0.0057	0.0011	mg/kg	
75-09-2	Methylene chloride	ND	0.0023	0.00019	mg/kg	
103-65-1	n-Propylbenzene	ND	0.0057	0.00032	mg/kg	
100-42-5	Styrene	ND	0.0057	0.00019	mg/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0057	0.00019	mg/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.0023	0.00020	mg/kg	
127-18-4	Tetrachloroethene	ND	0.0023	0.00019	mg/kg	
108-88-3	Toluene	0.0060	0.0057	0.00020	mg/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	0.0057	0.00088	mg/kg	uJ
120-82-1	1,2,4-Trichlorobenzene	ND	0.0057	0.00059	mg/kg	
71-55-6	1,1,1-Trichloroethane	ND	0.0023	0.00015	mg/kg	
79-00-5	1,1,2-Trichloroethane	ND	0.0023	0.00014	mg/kg	
79-01-6	Trichloroethene	ND	0.0023	0.00024	mg/kg	
75-69-4	Trichlorofluoromethane	ND	0.0023	0.00018	mg/kg	
96-18-4	1,2,3-Trichloropropane	ND	0.0057	0.00019	mg/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	0.0057	0.00030	mg/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	0.0057	0.00025	mg/kg	
108-05-4	Vinyl Acetate	ND	0.0057	0.0031	mg/kg	
75-01-4	Vinyl chloride	ND	0.0023	0.00030	mg/kg	uJ
	m,p-Xylene	0.0018	0.0023	0.00040	mg/kg	J
95-47-6	o-Xylene	ND	0.0023	0.00015	mg/kg	
1330-20-7	Xylene (total)	0.0018	0.0023	0.00015	mg/kg	J

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(B) 36-37		
Lab Sample ID:	M99163-4	Date Sampled:	04/06/11
Matrix:	SO - Soil	Date Received:	04/08/11
Method:	SW846 8260B	Percent Solids:	94.0
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	110%		70-130%
2037-26-5	Toluene-D8	121%		70-130%
460-00-4	4-Bromofluorobenzene	130%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(B) 36-37		
Lab Sample ID:	M99163-4	Date Sampled:	04/06/11
Matrix:	SO - Soil	Date Received:	04/08/11
Method:	SW846 8270C SW846 3545	Percent Solids:	94.0
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	S23290.D	1	04/23/11	PR	04/13/11	OP24621	MSS985
Run #2							

	Initial Weight	Final Volume
Run #1	20.4 g	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic acid	ND	0.52	0.040	mg/kg	
95-57-8	2-Chlorophenol	ND	0.26	0.014	mg/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	0.52	0.018	mg/kg	
120-83-2	2,4-Dichlorophenol	ND	0.52	0.031	mg/kg	
105-67-9	2,4-Dimethylphenol	ND	0.52	0.052	mg/kg	
51-28-5	2,4-Dinitrophenol	ND	1.0	0.26	mg/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	0.52	0.26	mg/kg	
95-48-7	2-Methylphenol	ND	0.52	0.015	mg/kg	
	3&4-Methylphenol	ND	0.52	0.028	mg/kg	
88-75-5	2-Nitrophenol	ND	0.52	0.031	mg/kg	
100-02-7	4-Nitrophenol	ND	1.0	0.26	mg/kg	
87-86-5	Pentachlorophenol	ND	0.52	0.048	mg/kg	
108-95-2	Phenol	ND	0.26	0.043	mg/kg	
95-95-4	2,4,5-Trichlorophenol	ND	0.52	0.039	mg/kg	
88-06-2	2,4,6-Trichlorophenol	ND	0.52	0.036	mg/kg	
83-32-9	Acenaphthene	ND	0.26	0.022	mg/kg	
208-96-8	Acenaphthylene	ND	0.26	0.020	mg/kg	
62-53-3	Aniline	ND	0.52	0.52	mg/kg	
120-12-7	Anthracene	ND	0.26	0.021	mg/kg	
56-55-3	Benzo(a)anthracene	ND	0.26	0.0096	mg/kg	
50-32-8	Benzo(a)pyrene	ND	0.26	0.016	mg/kg	
205-99-2	Benzo(b)fluoranthene	ND	0.26	0.030	mg/kg	
191-24-2	Benzo(g,h,i)perylene	ND	0.26	0.017	mg/kg	
207-08-9	Benzo(k)fluoranthene	ND	0.26	0.0077	mg/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	0.26	0.021	mg/kg	
85-68-7	Butyl benzyl phthalate	ND	0.26	0.011	mg/kg	
91-58-7	2-Chloronaphthalene	ND	0.26	0.022	mg/kg	
106-47-8	4-Chloroaniline	ND	0.52	0.13	mg/kg	
218-01-9	Chrysene	ND	0.26	0.0085	mg/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	0.26	0.020	mg/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	0.26	0.0056	mg/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	0.26	0.025	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(B) 36-37		
Lab Sample ID:	M99163-4	Date Sampled:	04/06/11
Matrix:	SO - Soil	Date Received:	04/08/11
Method:	SW846 8270C SW846 3545	Percent Solids:	94.0
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	0.26	0.023	mg/kg	
121-14-2	2,4-Dinitrotoluene	ND	0.52	0.13	mg/kg	
606-20-2	2,6-Dinitrotoluene	ND	0.52	0.025	mg/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	0.26	0.0062	mg/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	0.26	0.017	mg/kg	
132-64-9	Dibenzofuran	ND	0.26	0.022	mg/kg	
84-74-2	Di-n-butyl phthalate	0.243	0.26	0.024	mg/kg	J
117-84-0	Di-n-octyl phthalate	ND	0.26	0.014	mg/kg	
84-66-2	Diethyl phthalate	0.0283	0.26	0.023	mg/kg	J
131-11-3	Dimethyl phthalate	ND	0.26	0.018	mg/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	~~0.306~~ ND	~~0.26~~ 0.306	0.018	mg/kg	~~B~~ U
206-44-0	Fluoranthene	ND	0.26	0.0089	mg/kg	
86-73-7	Fluorene	ND	0.26	0.0057	mg/kg	
118-74-1	Hexachlorobenzene	ND	0.26	0.022	mg/kg	
77-47-4	Hexachlorocyclopentadiene	ND	0.52	0.0035	mg/kg	
67-72-1	Hexachloroethane	ND	0.26	0.021	mg/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.26	0.016	mg/kg	
78-59-1	Isophorone	ND	0.26	0.026	mg/kg	
91-57-6	2-Methylnaphthalene	ND	0.26	0.022	mg/kg	
88-74-4	2-Nitroaniline	ND	0.52	0.13	mg/kg	
99-09-2	3-Nitroaniline	ND	0.52	0.13	mg/kg	
100-01-6	4-Nitroaniline	ND	0.52	0.019	mg/kg	
91-20-3	Naphthalene	ND	0.26	0.0060	mg/kg	
98-95-3	Nitrobenzene	ND	0.26	0.0077	mg/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	0.26	0.017	mg/kg	
86-30-6	N-Nitrosodiphenylamine	ND	0.26	0.014	mg/kg	
85-01-8	Phenanthrene	ND	0.26	0.0067	mg/kg	
129-00-0	Pyrene	ND	0.26	0.0084	mg/kg	
110-86-1	Pyridine	ND	0.52	0.52	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	71%		30-130%
4165-62-2	Phenol-d5	71%		30-130%
118-79-6	2,4,6-Tribromophenol	66%		30-130%
4165-60-0	Nitrobenzene-d5	79%		30-130%
321-60-8	2-Fluorobiphenyl	76%		30-130%
1718-51-0	Terphenyl-d14	82%		30-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(D) 10-11 EB		
Lab Sample ID:	M99163-5	**Date Sampled:**	04/07/11
Matrix:	AQ - Equipment Blank	**Date Received:**	04/08/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	G105075.D	1	04/18/11	EL	n/a	n/a	MSG4238
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	4.6	ug/l	
107-02-8	Acrolein	ND	25	17	ug/l	
107-13-1	Acrylonitrile	ND	5.0	3.0	ug/l	
71-43-2	Benzene	ND	0.50	0.35	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.52	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.91	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.62	ug/l	
75-25-2	Bromoform	ND	1.0	0.73	ug/l	
74-83-9	Bromomethane	ND	2.0	0.95	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.1	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.49	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.37	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.53	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.35	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.42	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.61	ug/l	
75-00-3	Chloroethane	ND	2.0	0.76	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	0.83	ug/l	
67-66-3	Chloroform	ND	1.0	0.72	ug/l	
74-87-3	Chloromethane	ND	2.0	0.81	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.58	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.67	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.3	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.86	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.76	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.74	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.77	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.81	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.61	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.63	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.74	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.70	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(D) 10-11 EB		
Lab Sample ID:	M99163-5	Date Sampled:	04/07/11
Matrix:	AQ - Equipment Blank	Date Received:	04/08/11
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.66	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.74	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.83	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.73	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	0.44	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.23	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.23	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.90	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.61	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.56	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.5	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.51	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.45	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.54	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.3	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.94	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.75	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.43	ug/l	
100-42-5	Styrene	ND	5.0	0.68	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.64	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.89	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.39	ug/l	
108-88-3	Toluene	ND	1.0	0.74	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.57	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.35	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.72	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.49	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.61	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.62	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.51	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	0.51	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.86	ug/l	
	m,p-Xylene	ND	1.0	0.62	ug/l	
95-47-6	o-Xylene	ND	1.0	0.56	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.56	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(D) 10-11 EB		
Lab Sample ID:	M99163-5	**Date Sampled:**	04/07/11
Matrix:	AQ - Equipment Blank	**Date Received:**	04/08/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	117%		70-130%
2037-26-5	Toluene-D8	114%		70-130%
460-00-4	4-Bromofluorobenzene	109%		70-130%

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

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

Report of Analysis

Client Sample ID:	ROST-4PZ(D) 10-11 EB		
Lab Sample ID:	M99163-5	Date Sampled:	04/07/11
Matrix:	AQ - Equipment Blank	Date Received:	04/08/11
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	S23209.D	1	04/20/11	KR	04/11/11	OP24605	MSS982
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	0.77	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	0.68	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.57	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.69	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	2.2	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	5.0	ug/l	
95-48-7	2-Methylphenol	ND	10	0.48	ug/l	
	3&4-Methylphenol	ND	10	0.63	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.66	ug/l	
100-02-7	4-Nitrophenol	ND	20	5.0	ug/l	
87-86-5	Pentachlorophenol	ND	10	3.3	ug/l	
108-95-2	Phenol	ND	5.0	2.1	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	0.40	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.38	ug/l	
83-32-9	Acenaphthene	ND	5.0	0.34	ug/l	
208-96-8	Acenaphthylene	ND	5.0	1.3	ug/l	
62-53-3	Aniline	ND	10	0.46	ug/l	
120-12-7	Anthracene	ND	5.0	0.27	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	0.27	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	0.23	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	0.27	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	0.61	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.0	0.29	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	0.32	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	0.41	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	0.31	ug/l	
106-47-8	4-Chloroaniline	ND	10	0.58	ug/l	
218-01-9	Chrysene	ND	5.0	0.22	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	0.35	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	0.23	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	0.21	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(D) 10-11 EB		
Lab Sample ID:	M99163-5	Date Sampled:	04/07/11
Matrix:	AQ - Equipment Blank	Date Received:	04/08/11
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	0.61	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	1.3	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.34	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	2.5	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	0.25	ug/l	
132-64-9	Dibenzofuran	ND	5.0	0.32	ug/l	
84-74-2	Di-n-butyl phthalate	4.7	5.0	0.34	ug/l	JB
117-84-0	Di-n-octyl phthalate	ND	5.0	0.34	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	0.61	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	1.3	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	5.3	2.0	0.49	ug/l	B
206-44-0	Fluoranthene	ND	5.0	0.22	ug/l	
86-73-7	Fluorene	ND	5.0	0.29	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	0.16	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	2.5	ug/l	
67-72-1	Hexachloroethane	ND	5.0	0.43	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	0.29	ug/l	
78-59-1	Isophorone	ND	5.0	0.47	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	0.31	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.33	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.32	ug/l	
100-01-6	4-Nitroaniline	ND	10	0.33	ug/l	
91-20-3	Naphthalene	ND	5.0	0.33	ug/l	
98-95-3	Nitrobenzene	ND	5.0	0.31	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.0	0.41	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.61	ug/l	
85-01-8	Phenanthrene	ND	5.0	0.26	ug/l	
129-00-0	Pyrene	ND	5.0	0.25	ug/l	
110-86-1	Pyridine	ND	10	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	39%		15-110%
4165-62-2	Phenol-d5	26%		15-110%
118-79-6	2,4,6-Tribromophenol	65%		15-110%
4165-60-0	Nitrobenzene-d5	76%		30-130%
321-60-8	2-Fluorobiphenyl	68%		30-130%
1718-51-0	Terphenyl-d14	82%		30-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(D) 10-11		
Lab Sample ID:	M99163-6	**Date Sampled:**	04/07/11
Matrix:	SO - Soil	**Date Received:**	04/08/11
Method:	SW846 8260B	**Percent Solids:**	94.8
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P52392.D	1	04/20/11	AMY	n/a	n/a	MSP1734
Run #2							

	Initial Weight	Final Volume
Run #1	3.78 g	5.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	0.0070	0.0070	mg/kg	
107-02-8	Acrolein	ND	0.035	0.024	mg/kg	
107-13-1	Acrylonitrile	ND	0.0070	0.0011	mg/kg	
71-43-2	Benzene	0.0029	0.00070	0.00016	mg/kg	
108-86-1	Bromobenzene	ND	0.0070	0.00020	mg/kg	
74-97-5	Bromochloromethane	ND	0.0070	0.00067	mg/kg	
75-27-4	Bromodichloromethane	ND	0.0028	0.00026	mg/kg	
75-25-2	Bromoform	ND	0.0028	0.0014	mg/kg	
74-83-9	Bromomethane	ND	0.0028	0.00048	mg/kg	
78-93-3	2-Butanone (MEK)	ND	0.0070	0.0021	mg/kg	
104-51-8	n-Butylbenzene	ND	0.0070	0.00059	mg/kg	
135-98-8	sec-Butylbenzene	ND	0.0070	0.00051	mg/kg	
98-06-6	tert-Butylbenzene	ND	0.0070	0.00031	mg/kg	
75-15-0	Carbon disulfide	ND	0.0070	0.00026	mg/kg	
56-23-5	Carbon tetrachloride	ND	0.0028	0.00026	mg/kg	
108-90-7	Chlorobenzene	ND	0.0028	0.00030	mg/kg	
75-00-3	Chloroethane	ND	0.0070	0.00045	mg/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	0.0070	0.0070	mg/kg	
67-66-3	Chloroform	ND	0.0028	0.00022	mg/kg	
74-87-3	Chloromethane	ND	0.0070	0.00018	mg/kg	
95-49-8	o-Chlorotoluene	ND	0.0070	0.00026	mg/kg	
106-43-4	p-Chlorotoluene	ND	0.0070	0.00030	mg/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0070	0.00099	mg/kg	
124-48-1	Dibromochloromethane	ND	0.0028	0.0014	mg/kg	
106-93-4	1,2-Dibromoethane	ND	0.0028	0.00021	mg/kg	
95-50-1	1,2-Dichlorobenzene	ND	0.0028	0.00044	mg/kg	
541-73-1	1,3-Dichlorobenzene	ND	0.0028	0.00042	mg/kg	
106-46-7	1,4-Dichlorobenzene	ND	0.0028	0.00041	mg/kg	
75-71-8	Dichlorodifluoromethane	ND	0.0028	0.00028	mg/kg	
75-34-3	1,1-Dichloroethane	ND	0.0028	0.00023	mg/kg	
107-06-2	1,2-Dichloroethane	ND	0.0028	0.00016	mg/kg	
75-35-4	1,1-Dichloroethene	ND	0.0028	0.00019	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(D) 10-11		
Lab Sample ID:	M99163-6	Date Sampled:	04/07/11
Matrix:	SO - Soil	Date Received:	04/08/11
Method:	SW846 8260B	Percent Solids:	94.8
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-59-2	cis-1,2-Dichloroethene	ND	0.0028	0.00028	mg/kg	
156-60-5	trans-1,2-Dichloroethene	ND	0.0028	0.00026	mg/kg	
78-87-5	1,2-Dichloropropane	ND	0.0028	0.00024	mg/kg	
142-28-9	1,3-Dichloropropane	ND	0.0070	0.00015	mg/kg	
594-20-7	2,2-Dichloropropane	ND	0.0070	0.00027	mg/kg	uJ
563-58-6	1,1-Dichloropropene	ND	0.0070	0.00029	mg/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0028	0.00070	mg/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0028	0.0014	mg/kg	
97-63-2	Ethyl methacrylate	ND	0.0070	0.00018	mg/kg	
100-41-4	Ethylbenzene	0.0121	0.0028	0.00015	mg/kg	
87-68-3	Hexachlorobutadiene	ND	0.0070	0.0010	mg/kg	
591-78-6	2-Hexanone	ND	0.0070	0.0012	mg/kg	
98-82-8	Isopropylbenzene	ND	0.0070	0.00034	mg/kg	
99-87-6	p-Isopropyltoluene	ND	0.0070	0.00054	mg/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	0.0028	0.00018	mg/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	0.0070	0.0014	mg/kg	
74-95-3	Methylene bromide	ND	0.0070	0.0014	mg/kg	
75-09-2	Methylene chloride	ND	0.0028	0.00023	mg/kg	
103-65-1	n-Propylbenzene	ND	0.0070	0.00039	mg/kg	
100-42-5	Styrene	ND	0.0070	0.00023	mg/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0070	0.00023	mg/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.0028	0.00025	mg/kg	
127-18-4	Tetrachloroethene	ND	0.0028	0.00023	mg/kg	
108-88-3	Toluene	0.0112	0.0070	0.00025	mg/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	0.0070	0.0011	mg/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0070	0.00071	mg/kg	
71-55-6	1,1,1-Trichloroethane	ND	0.0028	0.00018	mg/kg	
79-00-5	1,1,2-Trichloroethane	ND	0.0028	0.00018	mg/kg	
79-01-6	Trichloroethene	ND	0.0028	0.00029	mg/kg	
75-69-4	Trichlorofluoromethane	ND	0.0028	0.00021	mg/kg	
96-18-4	1,2,3-Trichloropropane	ND	0.0070	0.00023	mg/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	0.0070	0.00036	mg/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	0.0070	0.00030	mg/kg	
108-05-4	Vinyl Acetate	ND	0.0070	0.0038	mg/kg	
75-01-4	Vinyl chloride	ND	0.0028	0.00037	mg/kg	
	m,p-Xylene	0.0020	0.0028	0.00049	mg/kg	J
95-47-6	o-Xylene	0.00090	0.0028	0.00018	mg/kg	J
1330-20-7	Xylene (total)	0.0029	0.0028	0.00018	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(D) 10-11		
Lab Sample ID:	M99163-6	Date Sampled:	04/07/11
Matrix:	SO - Soil	Date Received:	04/08/11
Method:	SW846 8260B	Percent Solids:	94.8
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		70-130%
2037-26-5	Toluene-D8	116%		70-130%
460-00-4	4-Bromofluorobenzene	124%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(D) 10-11		
Lab Sample ID:	M99163-6	Date Sampled:	04/07/11
Matrix:	SO - Soil	Date Received:	04/08/11
Method:	SW846 8270C SW846 3545	Percent Solids:	94.8
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	S23291.D	1	04/23/11	PR	04/13/11	OP24621	MSS985
Run #2							

	Initial Weight	Final Volume
Run #1	20.9 g	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic acid	ND	0.51	0.039	mg/kg	
95-57-8	2-Chlorophenol	ND	0.25	0.014	mg/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	0.51	0.018	mg/kg	
120-83-2	2,4-Dichlorophenol	ND	0.51	0.030	mg/kg	
105-67-9	2,4-Dimethylphenol	ND	0.51	0.051	mg/kg	
51-28-5	2,4-Dinitrophenol	ND	1.0	0.25	mg/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	0.51	0.25	mg/kg	
95-48-7	2-Methylphenol	ND	0.51	0.014	mg/kg	
	3&4-Methylphenol	ND	0.51	0.027	mg/kg	
88-75-5	2-Nitrophenol	ND	0.51	0.030	mg/kg	
100-02-7	4-Nitrophenol	ND	1.0	0.25	mg/kg	
87-86-5	Pentachlorophenol	ND	0.51	0.047	mg/kg	
108-95-2	Phenol	ND	0.25	0.042	mg/kg	
95-95-4	2,4,5-Trichlorophenol	ND	0.51	0.038	mg/kg	
88-06-2	2,4,6-Trichlorophenol	ND	0.51	0.035	mg/kg	
83-32-9	Acenaphthene	ND	0.25	0.021	mg/kg	
208-96-8	Acenaphthylene	ND	0.25	0.019	mg/kg	
62-53-3	Aniline	ND	0.51	0.51	mg/kg	
120-12-7	Anthracene	ND	0.25	0.020	mg/kg	
56-55-3	Benzo(a)anthracene	ND	0.25	0.0093	mg/kg	
50-32-8	Benzo(a)pyrene	ND	0.25	0.015	mg/kg	
205-99-2	Benzo(b)fluoranthene	ND	0.25	0.030	mg/kg	
191-24-2	Benzo(g,h,i)perylene	ND	0.25	0.016	mg/kg	
207-08-9	Benzo(k)fluoranthene	ND	0.25	0.0075	mg/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	0.25	0.021	mg/kg	
85-68-7	Butyl benzyl phthalate	ND	0.25	0.011	mg/kg	
91-58-7	2-Chloronaphthalene	ND	0.25	0.021	mg/kg	
106-47-8	4-Chloroaniline	ND	0.51	0.13	mg/kg	
218-01-9	Chrysene	ND	0.25	0.0082	mg/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	0.25	0.020	mg/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	0.25	0.0054	mg/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	0.25	0.024	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(D) I0-11		
Lab Sample ID:	M99163-6	Date Sampled:	04/07/11
Matrix:	SO - Soil	Date Received:	04/08/11
Method:	SW846 8270C SW846 3545	Percent Solids:	94.8
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	0.25	0.023	mg/kg	
121-14-2	2,4-Dinitrotoluene	ND	0.51	0.13	mg/kg	
606-20-2	2,6-Dinitrotoluene	ND	0.51	0.024	mg/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	0.25	0.0061	mg/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	0.25	0.016	mg/kg	
132-64-9	Dibenzofuran	ND	0.25	0.021	mg/kg	
84-74-2	Di-n-butyl phthalate	0.229	0.25	0.023	mg/kg	J
117-84-0	Di-n-octyl phthalate	ND	0.25	0.013	mg/kg	
84-66-2	Diethyl phthalate	ND	0.25	0.022	mg/kg	
131-11-3	Dimethyl phthalate	ND	0.25	0.018	mg/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	~~0.262~~ ND	~~0.25~~ .262	0.017	mg/kg	B U
206-44-0	Fluoranthene	ND	0.25	0.0086	mg/kg	
86-73-7	Fluorene	ND	0.25	0.0056	mg/kg	
118-74-1	Hexachlorobenzene	ND	0.25	0.022	mg/kg	
77-47-4	Hexachlorocyclopentadiene	ND	0.51	0.0034	mg/kg	
67-72-1	Hexachloroethane	ND	0.25	0.021	mg/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.25	0.016	mg/kg	
78-59-1	Isophorone	ND	0.25	0.025	mg/kg	
91-57-6	2-Methylnaphthalene	ND	0.25	0.021	mg/kg	
88-74-4	2-Nitroaniline	ND	0.51	0.13	mg/kg	
99-09-2	3-Nitroaniline	ND	0.51	0.13	mg/kg	
100-01-6	4-Nitroaniline	ND	0.51	0.019	mg/kg	
91-20-3	Naphthalene	ND	0.25	0.0059	mg/kg	
98-95-3	Nitrobenzene	ND	0.25	0.0075	mg/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	0.25	0.016	mg/kg	
86-30-6	N-Nitrosodiphenylamine	ND	0.25	0.013	mg/kg	
85-01-8	Phenanthrene	ND	0.25	0.0065	mg/kg	
129-00-0	Pyrene	ND	0.25	0.0081	mg/kg	
110-86-1	Pyridine	ND	0.51	0.51	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	70%		30-130%
4165-62-2	Phenol-d5	69%		30-130%
118-79-6	2,4,6-Tribromophenol	64%		30-130%
4165-60-0	Nitrobenzene-d5	77%		30-130%
321-60-8	2-Fluorobiphenyl	70%		30-130%
1718-51-0	Terphenyl-d14	82%		30-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(D) 28-29		
Lab Sample ID:	M99163-7	Date Sampled:	04/07/11
Matrix:	SO - Soil	Date Received:	04/08/11
Method:	SW846 8260B	Percent Solids:	92.1
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P52342.D	1	04/19/11	AMY	n/a	n/a	MSP1733
Run #2							

	Initial Weight	Final Volume
Run #1	4.01 g	5.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
			0.108			
67-64-1	Acetone	0.108	~~0.0068~~	0.0068	mg/kg	U
107-02-8	Acrolein	~~ND~~	0.034	0.023	mg/kg	
107-13-1	Acrylonitrile	ND	0.0068	0.0011	mg/kg	
71-43-2	Benzene	0.0028	0.00068	0.00015	mg/kg	
108-86-1	Bromobenzene	ND	0.0068	0.00020	mg/kg	
74-97-5	Bromochloromethane	ND	0.0068	0.00065	mg/kg	
75-27-4	Bromodichloromethane	ND	0.0027	0.00025	mg/kg	
75-25-2	Bromoform	ND	0.0027	0.0014	mg/kg	
74-83-9	Bromomethane	~~ND~~	0.0027	0.00047	mg/kg	
78-93-3	2-Butanone (MEK)	0.0066	0.0068	0.0020	mg/kg	J U
104-51-8	n-Butylbenzene	~~ND~~	0.0068	0.00057	mg/kg	
135-98-8	sec-Butylbenzene	ND	0.0068	0.00049	mg/kg	
98-06-6	tert-Butylbenzene	ND	0.0068	0.00030	mg/kg	
75-15-0	Carbon disulfide	ND	0.0068	0.00025	mg/kg	
56-23-5	Carbon tetrachloride	ND	0.0027	0.00026	mg/kg	
108-90-7	Chlorobenzene	ND	0.0027	0.00030	mg/kg	
75-00-3	Chloroethane	ND	0.0068	0.00043	mg/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	0.0068	0.0068	mg/kg	
67-66-3	Chloroform	ND	0.0027	0.00022	mg/kg	
74-87-3	Chloromethane	ND	0.0068	0.00017	mg/kg	
95-49-8	o-Chlorotoluene	ND	0.0068	0.00025	mg/kg	
106-43-4	p-Chlorotoluene	ND	0.0068	0.00029	mg/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0068	0.00096	mg/kg	
124-48-1	Dibromochloromethane	ND	0.0027	0.0014	mg/kg	
106-93-4	1,2-Dibromoethane	ND	0.0027	0.00020	mg/kg	
95-50-1	1,2-Dichlorobenzene	ND	0.0027	0.00042	mg/kg	
541-73-1	1,3-Dichlorobenzene	ND	0.0027	0.00041	mg/kg	
106-46-7	1,4-Dichlorobenzene	ND	0.0027	0.00040	mg/kg	
75-71-8	Dichlorodifluoromethane	ND	0.0027	0.00027	mg/kg	
75-34-3	1,1-Dichloroethane	ND	0.0027	0.00023	mg/kg	
107-06-2	1,2-Dichloroethane	ND	0.0027	0.00016	mg/kg	
75-35-4	1,1-Dichloroethene	ND	0.0027	0.00018	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(D) 28-29		
Lab Sample ID:	M99163-7	Date Sampled:	04/07/11
Matrix:	SO - Soil	Date Received:	04/08/11
Method:	SW846 8260B	Percent Solids:	92.1
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-59-2	cis-1,2-Dichloroethene	ND	0.0027	0.00027	mg/kg	
156-60-5	trans-1,2-Dichloroethene	ND	0.0027	0.00025	mg/kg	
78-87-5	1,2-Dichloropropane	ND	0.0027	0.00023	mg/kg	
142-28-9	1,3-Dichloropropane	ND	0.0068	0.00015	mg/kg	
594-20-7	2,2-Dichloropropane	ND	0.0068	0.00026	mg/kg	UJ
563-58-6	1,1-Dichloropropene	ND	0.0068	0.00028	mg/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0027	0.00068	mg/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0027	0.0014	mg/kg	
97-63-2	Ethyl methacrylate	ND	0.0068	0.00017	mg/kg	
100-41-4	Ethylbenzene	0.0116	0.0027	0.00015	mg/kg	
87-68-3	Hexachlorobutadiene	ND	0.0068	0.00098	mg/kg	
591-78-6	2-Hexanone	ND	0.0068	0.0012	mg/kg	
98-82-8	Isopropylbenzene	ND	0.0068	0.00033	mg/kg	
99-87-6	p-Isopropyltoluene	ND	0.0068	0.00052	mg/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	0.0027	0.00018	mg/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	0.0068	0.0014	mg/kg	
74-95-3	Methylene bromide	ND	0.0068	0.0014	mg/kg	
75-09-2	Methylene chloride	ND	0.0027	0.00022	mg/kg	
103-65-1	n-Propylbenzene	ND	0.0068	0.00038	mg/kg	
100-42-5	Styrene	ND	0.0068	0.00022	mg/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0068	0.00023	mg/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.0027	0.00024	mg/kg	
127-18-4	Tetrachloroethene	ND	0.0027	0.00023	mg/kg	
108-88-3	Toluene	0.0101	0.0068	0.00024	mg/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	0.0068	0.0010	mg/kg	UJ
120-82-1	1,2,4-Trichlorobenzene	ND	0.0068	0.00069	mg/kg	
71-55-6	1,1,1-Trichloroethane	ND	0.0027	0.00018	mg/kg	
79-00-5	1,1,2-Trichloroethane	ND	0.0027	0.00017	mg/kg	
79-01-6	Trichloroethene	ND	0.0027	0.00028	mg/kg	
75-69-4	Trichlorofluoromethane	ND	0.0027	0.00021	mg/kg	
96-18-4	1,2,3-Trichloropropane	ND	0.0068	0.00022	mg/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	0.0068	0.00035	mg/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	0.0068	0.00029	mg/kg	
108-05-4	Vinyl Acetate	ND	0.0068	0.0037	mg/kg	
75-01-4	Vinyl chloride	ND	0.0027	0.00036	mg/kg	UJ
	m,p-Xylene	0.0023	0.0027	0.00047	mg/kg	J
95-47-6	o-Xylene	0.00087	0.0027	0.00018	mg/kg	J
1330-20-7	Xylene (total)	0.0031	0.0027	0.00018	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(D) 28-29		
Lab Sample ID:	M99163-7	**Date Sampled:**	04/07/11
Matrix:	SO - Soil	**Date Received:**	04/08/11
Method:	SW846 8260B	**Percent Solids:**	92.1
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	110%		70-130%
2037-26-5	Toluene-D8	121%		70-130%
460-00-4	4-Bromofluorobenzene	123%		70-130%

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

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

Report of Analysis

Client Sample ID:	ROST-4PZ(D) 28-29		
Lab Sample ID:	M99163-7	Date Sampled:	04/07/11
Matrix:	SO - Soil	Date Received:	04/08/11
Method:	SW846 8270C SW846 3545	Percent Solids:	92.1
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	S23292.D	1	04/23/11	PR	04/13/11	OP24621	MSS985
Run #2							

	Initial Weight	Final Volume
Run #1	21.0 g	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic acid	ND	0.52	0.040	mg/kg	
95-57-8	2-Chlorophenol	ND	0.26	0.014	mg/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	0.52	0.018	mg/kg	
120-83-2	2,4-Dichlorophenol	ND	0.52	0.030	mg/kg	
105-67-9	2,4-Dimethylphenol	ND	0.52	0.052	mg/kg	
51-28-5	2,4-Dinitrophenol	ND	1.0	0.26	mg/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	0.52	0.26	mg/kg	
95-48-7	2-Methylphenol	ND	0.52	0.015	mg/kg	
	3&4-Methylphenol	ND	0.52	0.027	mg/kg	
88-75-5	2-Nitrophenol	ND	0.52	0.031	mg/kg	
100-02-7	4-Nitrophenol	ND	1.0	0.26	mg/kg	
87-86-5	Pentachlorophenol	ND	0.52	0.048	mg/kg	
108-95-2	Phenol	ND	0.26	0.043	mg/kg	
95-95-4	2,4,5-Trichlorophenol	ND	0.52	0.039	mg/kg	
88-06-2	2,4,6-Trichlorophenol	ND	0.52	0.036	mg/kg	
83-32-9	Acenaphthene	ND	0.26	0.022	mg/kg	
208-96-8	Acenaphthylene	ND	0.26	0.019	mg/kg	
62-53-3	Aniline	ND	0.52	0.52	mg/kg	
120-12-7	Anthracene	ND	0.26	0.020	mg/kg	
56-55-3	Benzo(a)anthracene	ND	0.26	0.0095	mg/kg	
50-32-8	Benzo(a)pyrene	ND	0.26	0.015	mg/kg	
205-99-2	Benzo(b)fluoranthene	ND	0.26	0.030	mg/kg	
191-24-2	Benzo(g,h,i)perylene	ND	0.26	0.017	mg/kg	
207-08-9	Benzo(k)fluoranthene	ND	0.26	0.0077	mg/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	0.26	0.021	mg/kg	
85-68-7	Butyl benzyl phthalate	ND	0.26	0.011	mg/kg	
91-58-7	2-Chloronaphthalene	ND	0.26	0.022	mg/kg	
106-47-8	4-Chloroaniline	ND	0.52	0.13	mg/kg	
218-01-9	Chrysene	ND	0.26	0.0084	mg/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	0.26	0.020	mg/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	0.26	0.0055	mg/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	0.26	0.025	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(D) 28-29		
Lab Sample ID:	M99163-7	Date Sampled:	04/07/11
Matrix:	SO - Soil	Date Received:	04/08/11
Method:	SW846 8270C SW846 3545	Percent Solids:	92.1
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	0.26	0.023	mg/kg	
121-14-2	2,4-Dinitrotoluene	ND	0.52	0.13	mg/kg	
606-20-2	2,6-Dinitrotoluene	ND	0.52	0.025	mg/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	0.26	0.0062	mg/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	0.26	0.017	mg/kg	
132-64-9	Dibenzofuran	ND	0.26	0.022	mg/kg	
84-74-2	Di-n-butyl phthalate	ND	0.26	0.024	mg/kg	
117-84-0	Di-n-octyl phthalate	ND	0.26	0.014	mg/kg	
84-66-2	Diethyl phthalate	ND	0.26	0.023	mg/kg	
131-11-3	Dimethyl phthalate	ND	0.26	0.018	mg/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	~~0.267~~ ND	0.267	0.018	mg/kg	B U
206-44-0	Fluoranthene	ND	0.26	0.0088	mg/kg	
86-73-7	Fluorene	ND	0.26	0.0057	mg/kg	
118-74-1	Hexachlorobenzene	ND	0.26	0.022	mg/kg	
77-47-4	Hexachlorocyclopentadiene	ND	0.52	0.0035	mg/kg	
67-72-1	Hexachloroethane	ND	0.26	0.021	mg/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.26	0.016	mg/kg	
78-59-1	Isophorone	ND	0.26	0.026	mg/kg	
91-57-6	2-Methylnaphthalene	ND	0.26	0.022	mg/kg	
88-74-4	2-Nitroaniline	ND	0.52	0.13	mg/kg	
99-09-2	3-Nitroaniline	ND	0.52	0.13	mg/kg	
100-01-6	4-Nitroaniline	ND	0.52	0.019	mg/kg	
91-20-3	Naphthalene	ND	0.26	0.0060	mg/kg	
98-95-3	Nitrobenzene	ND	0.26	0.0077	mg/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	0.26	0.016	mg/kg	
86-30-6	N-Nitrosodiphenylamine	ND	0.26	0.014	mg/kg	
85-01-8	Phenanthrene	ND	0.26	0.0067	mg/kg	
129-00-0	Pyrene	ND	0.26	0.0083	mg/kg	
110-86-1	Pyridine	ND	0.52	0.52	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	71%		30-130%
4165-62-2	Phenol-d5	70%		30-130%
118-79-6	2,4,6-Tribromophenol	67%		30-130%
4165-60-0	Nitrobenzene-d5	78%		30-130%
321-60-8	2-Fluorobiphenyl	72%		30-130%
1718-51-0	Terphenyl-d14	91%		30-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(D) 36-37		
Lab Sample ID:	M99163-8	Date Sampled:	04/07/11
Matrix:	SO - Soil	Date Received:	04/08/11
Method:	SW846 8260B	Percent Solids:	95.7
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P52391.D	1	04/20/11	AMY	n/a	n/a	MSP1734
Run #2							

	Initial Weight	Final Volume
Run #1	4.10 g	5.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	0.0064	0.0064	mg/kg	
107-02-8	Acrolein	ND	0.032	0.022	mg/kg	
107-13-1	Acrylonitrile	ND	0.0064	0.0010	mg/kg	
71-43-2	Benzene	ND	0.00064	0.00014	mg/kg	
108-86-1	Bromobenzene	ND	0.0064	0.00019	mg/kg	
74-97-5	Bromochloromethane	ND	0.0064	0.00061	mg/kg	
75-27-4	Bromodichloromethane	ND	0.0025	0.00024	mg/kg	
75-25-2	Bromoform	ND	0.0025	0.0013	mg/kg	
74-83-9	Bromomethane	ND	0.0025	0.00044	mg/kg	
78-93-3	2-Butanone (MEK)	ND	0.0064	0.0019	mg/kg	
104-51-8	n-Butylbenzene	ND	0.0064	0.00054	mg/kg	
135-98-8	sec-Butylbenzene	ND	0.0064	0.00046	mg/kg	
98-06-6	tert-Butylbenzene	ND	0.0064	0.00029	mg/kg	
75-15-0	Carbon disulfide	ND	0.0064	0.00024	mg/kg	
56-23-5	Carbon tetrachloride	ND	0.0025	0.00024	mg/kg	
108-90-7	Chlorobenzene	ND	0.0025	0.00028	mg/kg	
75-00-3	Chloroethane	ND	0.0064	0.00041	mg/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	0.0064	0.0064	mg/kg	
67-66-3	Chloroform	ND	0.0025	0.00020	mg/kg	
74-87-3	Chloromethane	ND	0.0064	0.00016	mg/kg	
95-49-8	o-Chlorotoluene	ND	0.0064	0.00024	mg/kg	
106-43-4	p-Chlorotoluene	ND	0.0064	0.00028	mg/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0064	0.00090	mg/kg	
124-48-1	Dibromochloromethane	ND	0.0025	0.0013	mg/kg	
106-93-4	1,2-Dibromoethane	ND	0.0025	0.00019	mg/kg	
95-50-1	1,2-Dichlorobenzene	ND	0.0025	0.00040	mg/kg	
541-73-1	1,3-Dichlorobenzene	ND	0.0025	0.00039	mg/kg	
106-46-7	1,4-Dichlorobenzene	ND	0.0025	0.00037	mg/kg	
75-71-8	Dichlorodifluoromethane	ND	0.0025	0.00026	mg/kg	
75-34-3	1,1-Dichloroethane	ND	0.0025	0.00021	mg/kg	
107-06-2	1,2-Dichloroethane	ND	0.0025	0.00015	mg/kg	
75-35-4	1,1-Dichloroethene	ND	0.0025	0.00017	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(D) 36-37		
Lab Sample ID:	M99163-8	Date Sampled:	04/07/11
Matrix:	SO - Soil	Date Received:	04/08/11
Method:	SW846 8260B	Percent Solids:	95.7
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-59-2	cis-1,2-Dichloroethene	ND	0.0025	0.00025	mg/kg	
156-60-5	trans-1,2-Dichloroethene	ND	0.0025	0.00024	mg/kg	
78-87-5	1,2-Dichloropropane	ND	0.0025	0.00022	mg/kg	
142-28-9	1,3-Dichloropropane	ND	0.0064	0.00014	mg/kg	
594-20-7	2,2-Dichloropropane	ND	0.0064	0.00025	mg/kg	UJ
563-58-6	1,1-Dichloropropene	ND	0.0064	0.00027	mg/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0025	0.00064	mg/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0025	0.0013	mg/kg	
97-63-2	Ethyl methacrylate	ND	0.0064	0.00016	mg/kg	
100-41-4	Ethylbenzene	ND	0.0025	0.00014	mg/kg	
87-68-3	Hexachlorobutadiene	ND	0.0064	0.00092	mg/kg	
591-78-6	2-Hexanone	ND	0.0064	0.0011	mg/kg	
98-82-8	Isopropylbenzene	ND	0.0064	0.00031	mg/kg	
99-87-6	p-Isopropyltoluene	ND	0.0064	0.00049	mg/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	0.0025	0.00017	mg/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	0.0064	0.0013	mg/kg	
74-95-3	Methylene bromide	ND	0.0064	0.0013	mg/kg	
75-09-2	Methylene chloride	~~0.0080~~ ND	~~0.0025~~ 0.0064	0.00021	mg/kg	U
103-65-1	n-Propylbenzene	ND	0.0064	0.00036	mg/kg	
100-42-5	Styrene	ND	0.0064	0.00021	mg/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0064	0.00021	mg/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.0025	0.00023	mg/kg	
127-18-4	Tetrachloroethene	ND	0.0025	0.00021	mg/kg	
108-88-3	Toluene	ND	0.0064	0.00022	mg/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	0.0064	0.00097	mg/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0064	0.00065	mg/kg	
71-55-6	1,1,1-Trichloroethane	ND	0.0025	0.00017	mg/kg	
79-00-5	1,1,2-Trichloroethane	ND	0.0025	0.00016	mg/kg	
79-01-6	Trichloroethene	ND	0.0025	0.00027	mg/kg	
75-69-4	Trichlorofluoromethane	ND	0.0025	0.00020	mg/kg	
96-18-4	1,2,3-Trichloropropane	ND	0.0064	0.00021	mg/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	0.0064	0.00033	mg/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	0.0064	0.00028	mg/kg	
108-05-4	Vinyl Acetate	ND	0.0064	0.0035	mg/kg	
75-01-4	Vinyl chloride	ND	0.0025	0.00034	mg/kg	
	m,p-Xylene	ND	0.0025	0.00044	mg/kg	
95-47-6	o-Xylene	ND	0.0025	0.00017	mg/kg	
1330-20-7	Xylene (total)	ND	0.0025	0.00017	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(D) 36-37		
Lab Sample ID:	M99163-8	**Date Sampled:**	04/07/11
Matrix:	SO - Soil	**Date Received:**	04/08/11
Method:	SW846 8260B	**Percent Solids:**	95.7
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		70-130%
2037-26-5	Toluene-D8	111%		70-130%
460-00-4	4-Bromofluorobenzene	121%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(D) 36-37		
Lab Sample ID:	M99163-8	**Date Sampled:**	04/07/11
Matrix:	SO - Soil	**Date Received:**	04/08/11
Method:	SW846 8270C SW846 3545	**Percent Solids:**	95.7
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	S23293.D	1	04/23/11	PR	04/13/11	OP24621	MSS985
Run #2							

	Initial Weight	Final Volume
Run #1	21.0 g	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic acid	ND	0.50	0.039	mg/kg	
95-57-8	2-Chlorophenol	ND	0.25	0.013	mg/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	0.50	0.017	mg/kg	
120-83-2	2,4-Dichlorophenol	ND	0.50	0.029	mg/kg	
105-67-9	2,4-Dimethylphenol	ND	0.50	0.050	mg/kg	
51-28-5	2,4-Dinitrophenol	ND	1.0	0.25	mg/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	0.50	0.25	mg/kg	
95-48-7	2-Methylphenol	ND	0.50	0.014	mg/kg	
	3&4-Methylphenol	ND	0.50	0.026	mg/kg	
88-75-5	2-Nitrophenol	ND	0.50	0.030	mg/kg	
100-02-7	4-Nitrophenol	ND	1.0	0.25	mg/kg	
87-86-5	Pentachlorophenol	ND	0.50	0.046	mg/kg	
108-95-2	Phenol	ND	0.25	0.041	mg/kg	
95-95-4	2,4,5-Trichlorophenol	ND	0.50	0.037	mg/kg	
88-06-2	2,4,6-Trichlorophenol	ND	0.50	0.034	mg/kg	
83-32-9	Acenaphthene	ND	0.25	0.021	mg/kg	
208-96-8	Acenaphthylene	ND	0.25	0.019	mg/kg	
62-53-3	Aniline	ND	0.50	0.50	mg/kg	
120-12-7	Anthracene	ND	0.25	0.020	mg/kg	
56-55-3	Benzo(a)anthracene	ND	0.25	0.0092	mg/kg	
50-32-8	Benzo(a)pyrene	ND	0.25	0.015	mg/kg	
205-99-2	Benzo(b)fluoranthene	ND	0.25	0.029	mg/kg	
191-24-2	Benzo(g,h,i)perylene	ND	0.25	0.016	mg/kg	
207-08-9	Benzo(k)fluoranthene	ND	0.25	0.0074	mg/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	0.25	0.020	mg/kg	
85-68-7	Butyl benzyl phthalate	ND	0.25	0.011	mg/kg	
91-58-7	2-Chloronaphthalene	ND	0.25	0.021	mg/kg	
106-47-8	4-Chloroaniline	ND	0.50	0.12	mg/kg	
218-01-9	Chrysene	ND	0.25	0.0081	mg/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	0.25	0.019	mg/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	0.25	0.0053	mg/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	0.25	0.024	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(D) 36-37		
Lab Sample ID:	M99163-8	Date Sampled:	04/07/11
Matrix:	SO - Soil	Date Received:	04/08/11
Method:	SW846 8270C SW846 3545	Percent Solids:	95.7
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	0.25	0.022	mg/kg	
121-14-2	2,4-Dinitrotoluene	ND	0.50	0.12	mg/kg	
606-20-2	2,6-Dinitrotoluene	ND	0.50	0.024	mg/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	0.25	0.0060	mg/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	0.25	0.016	mg/kg	
132-64-9	Dibenzofuran	ND	0.25	0.021	mg/kg	
84-74-2	Di-n-butyl phthalate	0.228	0.25	0.023	mg/kg	J
117-84-0	Di-n-octyl phthalate	ND	0.25	0.013	mg/kg	
84-66-2	Diethyl phthalate	ND	0.25	0.022	mg/kg	
131-11-3	Dimethyl phthalate	ND	0.25	0.018	mg/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	~~0.254~~ ND	0.254	0.017	mg/kg	B U
206-44-0	Fluoranthene	ND	0.25	0.0085	mg/kg	
86-73-7	Fluorene	ND	0.25	0.0055	mg/kg	
118-74-1	Hexachlorobenzene	ND	0.25	0.021	mg/kg	
77-47-4	Hexachlorocyclopentadiene	ND	0.50	0.0034	mg/kg	
67-72-1	Hexachloroethane	ND	0.25	0.020	mg/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.25	0.015	mg/kg	
78-59-1	Isophorone	ND	0.25	0.025	mg/kg	
91-57-6	2-Methylnaphthalene	ND	0.25	0.021	mg/kg	
88-74-4	2-Nitroaniline	ND	0.50	0.12	mg/kg	
99-09-2	3-Nitroaniline	ND	0.50	0.12	mg/kg	
100-01-6	4-Nitroaniline	ND	0.50	0.019	mg/kg	
91-20-3	Naphthalene	ND	0.25	0.0058	mg/kg	
98-95-3	Nitrobenzene	ND	0.25	0.0074	mg/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	0.25	0.016	mg/kg	
86-30-6	N-Nitrosodiphenylamine	ND	0.25	0.013	mg/kg	
85-01-8	Phenanthrene	ND	0.25	0.0064	mg/kg	
129-00-0	Pyrene	ND	0.25	0.0080	mg/kg	
110-86-1	Pyridine	ND	0.50	0.50	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	68%		30-130%
4165-62-2	Phenol-d5	67%		30-130%
118-79-6	2,4,6-Tribromophenol	63%		30-130%
4165-60-0	Nitrobenzene-d5	75%		30-130%
321-60-8	2-Fluorobiphenyl	69%		30-130%
1718-51-0	Terphenyl-d14	84%		30-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(D) 36-37 (D)		
Lab Sample ID:	M99163-9	Date Sampled:	04/07/11
Matrix:	SO - Soil	Date Received:	04/08/11
Method:	SW846 8260B	Percent Solids:	95.5
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P52389.D	1	04/20/11	AMY	n/a	n/a	MSP1734
Run #2							

	Initial Weight	Final Volume
Run #1	3.41 g	5.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	0.0602	~~0.0077~~ 0.0602	0.0077	mg/kg	U
107-02-8	Acrolein	~~ND~~	0.038	0.026	mg/kg	
107-13-1	Acrylonitrile	ND	0.0077	0.0012	mg/kg	
71-43-2	Benzene	0.0013	0.00077	0.00017	mg/kg	
108-86-1	Bromobenzene	ND	0.0077	0.00022	mg/kg	
74-97-5	Bromochloromethane	ND	0.0077	0.00073	mg/kg	
75-27-4	Bromodichloromethane	ND	0.0031	0.00029	mg/kg	
75-25-2	Bromoform	ND	0.0031	0.0015	mg/kg	
74-83-9	Bromomethane	ND	0.0031	0.00053	mg/kg	
78-93-3	2-Butanone (MEK)	ND	0.0077	0.0023	mg/kg	
104-51-8	n-Butylbenzene	ND	0.0077	0.00065	mg/kg	
135-98-8	sec-Butylbenzene	ND	0.0077	0.00056	mg/kg	
98-06-6	tert-Butylbenzene	ND	0.0077	0.00035	mg/kg	
75-15-0	Carbon disulfide	ND	0.0077	0.00029	mg/kg	
56-23-5	Carbon tetrachloride	ND	0.0031	0.00029	mg/kg	
108-90-7	Chlorobenzene	ND	0.0031	0.00033	mg/kg	
75-00-3	Chloroethane	ND	0.0077	0.00049	mg/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	0.0077	0.0077	mg/kg	
67-66-3	Chloroform	ND	0.0031	0.00025	mg/kg	
74-87-3	Chloromethane	ND	0.0077	0.00020	mg/kg	
95-49-8	o-Chlorotoluene	ND	0.0077	0.00029	mg/kg	
106-43-4	p-Chlorotoluene	ND	0.0077	0.00033	mg/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0077	0.0011	mg/kg	
124-48-1	Dibromochloromethane	ND	0.0031	0.0015	mg/kg	
106-93-4	1,2-Dibromoethane	ND	0.0031	0.00023	mg/kg	
95-50-1	1,2-Dichlorobenzene	ND	0.0031	0.00048	mg/kg	
541-73-1	1,3-Dichlorobenzene	ND	0.0031	0.00047	mg/kg	
106-46-7	1,4-Dichlorobenzene	ND	0.0031	0.00045	mg/kg	
75-71-8	Dichlorodifluoromethane	ND	0.0031	0.00031	mg/kg	
75-34-3	1,1-Dichloroethane	ND	0.0031	0.00026	mg/kg	
107-06-2	1,2-Dichloroethane	ND	0.0031	0.00018	mg/kg	
75-35-4	1,1-Dichloroethene	ND	0.0031	0.00021	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

3.9

3

Client Sample ID:	ROST-4PZ(D) 36-37 (D)		
Lab Sample ID:	M99163-9	Date Sampled:	04/07/11
Matrix:	SO - Soil	Date Received:	04/08/11
Method:	SW846 8260B	Percent Solids:	95.5
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-59-2	cis-1,2-Dichloroethene	ND	0.0031	0.00031	mg/kg	
156-60-5	trans-1,2-Dichloroethene	ND	0.0031	0.00029	mg/kg	
78-87-5	1,2-Dichloropropane	ND	0.0031	0.00026	mg/kg	
142-28-9	1,3-Dichloropropane	ND	0.0077	0.00017	mg/kg	
594-20-7	2,2-Dichloropropane	ND	0.0077	0.00030	mg/kg	uJ
563-58-6	1,1-Dichloropropene	ND	0.0077	0.00032	mg/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0031	0.00077	mg/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0031	0.0015	mg/kg	
97-63-2	Ethyl methacrylate	ND	0.0077	0.00019	mg/kg	
100-41-4	Ethylbenzene	0.0036	0.0031	0.00017	mg/kg	
87-68-3	Hexachlorobutadiene	ND	0.0077	0.0011	mg/kg	
591-78-6	2-Hexanone	ND	0.0077	0.0013	mg/kg	
98-82-8	Isopropylbenzene	ND	0.0077	0.00038	mg/kg	
99-87-6	p-Isopropyltoluene	ND	0.0077	0.00059	mg/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	0.0031	0.00020	mg/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	0.0077	0.0015	mg/kg	
74-95-3	Methylene bromide	ND	0.0077	0.0015	mg/kg	
75-09-2	Methylene chloride	ND	0.0031	0.00025	mg/kg	
103-65-1	n-Propylbenzene	ND	0.0077	0.00043	mg/kg	
100-42-5	Styrene	ND	0.0077	0.00025	mg/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0077	0.00026	mg/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.0031	0.00027	mg/kg	
127-18-4	Tetrachloroethene	ND	0.0031	0.00026	mg/kg	
108-88-3	Toluene	0.0038	0.0077	0.00027	mg/kg	J
87-61-6	1,2,3-Trichlorobenzene	ND	0.0077	0.0012	mg/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0077	0.00078	mg/kg	
71-55-6	1,1,1-Trichloroethane	ND	0.0031	0.00020	mg/kg	
79-00-5	1,1,2-Trichloroethane	ND	0.0031	0.00019	mg/kg	
79-01-6	Trichloroethene	ND	0.0031	0.00032	mg/kg	
75-69-4	Trichlorofluoromethane	ND	0.0031	0.00024	mg/kg	
96-18-4	1,2,3-Trichloropropane	ND	0.0077	0.00025	mg/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	0.0077	0.00040	mg/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	0.0077	0.00033	mg/kg	
108-05-4	Vinyl Acetate	ND	0.0077	0.0042	mg/kg	
75-01-4	Vinyl chloride	ND	0.0031	0.00041	mg/kg	
	m,p-Xylene	0.0012	0.0031	0.00053	mg/kg	J
95-47-6	o-Xylene	ND	0.0031	0.00020	mg/kg	
1330-20-7	Xylene (total)	0.0012	0.0031	0.00020	mg/kg	J

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(D) 36-37 (D)		
Lab Sample ID:	M99163-9	**Date Sampled:**	04/07/11
Matrix:	SO - Soil	**Date Received:**	04/08/11
Method:	SW846 8260B	**Percent Solids:**	95.5
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	109%		70-130%
2037-26-5	Toluene-D8	115%		70-130%
460-00-4	4-Bromofluorobenzene	121%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(D) 36-37 (D)		
Lab Sample ID:	M99163-9	**Date Sampled:**	04/07/11
Matrix:	SO - Soil	**Date Received:**	04/08/11
Method:	SW846 8270C SW846 3545	**Percent Solids:**	95.5
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	S23294.D	1	04/23/11	PR	04/13/11	OP24621	MSS985
Run #2							

	Initial Weight	Final Volume
Run #1	20.8 g	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic acid	ND	0.50	0.039	mg/kg	
95-57-8	2-Chlorophenol	ND	0.25	0.013	mg/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	0.50	0.018	mg/kg	
120-83-2	2,4-Dichlorophenol	ND	0.50	0.030	mg/kg	
105-67-9	2,4-Dimethylphenol	ND	0.50	0.050	mg/kg	
51-28-5	2,4-Dinitrophenol	ND	1.0	0.25	mg/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	0.50	0.25	mg/kg	
95-48-7	2-Methylphenol	ND	0.50	0.014	mg/kg	
	3&4-Methylphenol	ND	0.50	0.027	mg/kg	
88-75-5	2-Nitrophenol	ND	0.50	0.030	mg/kg	
100-02-7	4-Nitrophenol	ND	1.0	0.25	mg/kg	
87-86-5	Pentachlorophenol	ND	0.50	0.047	mg/kg	
108-95-2	Phenol	ND	0.25	0.042	mg/kg	
95-95-4	2,4,5-Trichlorophenol	ND	0.50	0.038	mg/kg	
88-06-2	2,4,6-Trichlorophenol	ND	0.50	0.035	mg/kg	
83-32-9	Acenaphthene	ND	0.25	0.021	mg/kg	
208-96-8	Acenaphthylene	ND	0.25	0.019	mg/kg	
62-53-3	Aniline	ND	0.50	0.50	mg/kg	
120-12-7	Anthracene	ND	0.25	0.020	mg/kg	
56-55-3	Benzo(a)anthracene	ND	0.25	0.0093	mg/kg	
50-32-8	Benzo(a)pyrene	ND	0.25	0.015	mg/kg	
205-99-2	Benzo(b)fluoranthene	ND	0.25	0.029	mg/kg	
191-24-2	Benzo(g,h,i)perylene	ND	0.25	0.016	mg/kg	
207-08-9	Benzo(k)fluoranthene	ND	0.25	0.0075	mg/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	0.25	0.020	mg/kg	
85-68-7	Butyl benzyl phthalate	ND	0.25	0.011	mg/kg	
91-58-7	2-Chloronaphthalene	ND	0.25	0.021	mg/kg	
106-47-8	4-Chloroaniline	ND	0.50	0.13	mg/kg	
218-01-9	Chrysene	ND	0.25	0.0082	mg/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	0.25	0.020	mg/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	0.25	0.0054	mg/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	0.25	0.024	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ(D) 36-37 (D)		
Lab Sample ID:	M99163-9	**Date Sampled:**	04/07/11
Matrix:	SO - Soil	**Date Received:**	04/08/11
Method:	SW846 8270C SW846 3545	**Percent Solids:**	95.5
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	0.25	0.023	mg/kg	
121-14-2	2,4-Dinitrotoluene	ND	0.50	0.13	mg/kg	
606-20-2	2,6-Dinitrotoluene	ND	0.50	0.024	mg/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	0.25	0.0060	mg/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	0.25	0.016	mg/kg	
132-64-9	Dibenzofuran	ND	0.25	0.021	mg/kg	
84-74-2	Di-n-butyl phthalate	0.228	0.25	0.023	mg/kg	J
117-84-0	Di-n-octyl phthalate	ND	0.25	0.013	mg/kg	
84-66-2	Diethyl phthalate	ND	0.25	0.022	mg/kg	
131-11-3	Dimethyl phthalate	ND	0.25	0.018	mg/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	~~0.258~~ ND	0.25 B	0.017	mg/kg	BU
206-44-0	Fluoranthene	ND	0.25	0.0086	mg/kg	
86-73-7	Fluorene	ND	0.25	0.0055	mg/kg	
118-74-1	Hexachlorobenzene	ND	0.25	0.022	mg/kg	
77-47-4	Hexachlorocyclopentadiene	ND	0.50	0.0034	mg/kg	
67-72-1	Hexachloroethane	ND	0.25	0.020	mg/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.25	0.015	mg/kg	
78-59-1	Isophorone	ND	0.25	0.025	mg/kg	
91-57-6	2-Methylnaphthalene	ND	0.25	0.021	mg/kg	
88-74-4	2-Nitroaniline	ND	0.50	0.13	mg/kg	
99-09-2	3-Nitroaniline	ND	0.50	0.13	mg/kg	
100-01-6	4-Nitroaniline	ND	0.50	0.019	mg/kg	
91-20-3	Naphthalene	ND	0.25	0.0058	mg/kg	
98-95-3	Nitrobenzene	ND	0.25	0.0075	mg/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	0.25	0.016	mg/kg	
86-30-6	N-Nitrosodiphenylamine	ND	0.25	0.013	mg/kg	
85-01-8	Phenanthrene	ND	0.25	0.0065	mg/kg	
129-00-0	Pyrene	ND	0.25	0.0081	mg/kg	
110-86-1	Pyridine	ND	0.50	0.50	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	65%		30-130%
4165-62-2	Phenol-d5	64%		30-130%
118-79-6	2,4,6-Tribromophenol	62%		30-130%
4165-60-0	Nitrobenzene-d5	73%		30-130%
321-60-8	2-Fluorobiphenyl	68%		30-130%
1718-51-0	Terphenyl-d14	81%		30-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Certification Exceptions
- Certification Exceptions (IL)
- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody

Shell Oil Products Chain Of Custody Record

LAB (LOCATION)
- [ ] XENCO (...)
- [ ] CALSCIENCE (...)
- [x] OTHER: Accutest Labs; 495 Technology Ctr W (Marlborough, MA 01752 (508-481-6200)
- [ ] Lab Vendor # (...)
- [ ] EPA

Lab Vendor #

Please Check Appropriate Box:
- [x] ENV. SERVICES
- [ ] MOTIVA RETAIL
- [ ] SHELL RETAIL
- [ ] MOTIVA SD&CM
- [ ] CONSULTANT
- [ ] LUBES
- [ ] SHELL PIPELINE
- [ ] OTHER ____

Print Bill To Contact Name: WENDY PENNINGTON

PO #

INCIDENT # (ENV SERVICES): 9 7 2 1 4 4 4 0

SAP #: 3 4 0 0 6 1

- [ ] CHECK IF NO INCIDENT # APPLIES

DATE: 4/6/11

PAGE: 1 of 1

URS CORPORATION

1001 HIGHLANDS PLAZA DRIVE WEST - SUITE 300; ST. LOUIS, MO 63110

WENDY PENNINGTON

341-462-8929 | 314-429-0462 | Wendy_Pennington@urscorp.com

170 EAST RAND AVENUE – HARTFORD | IL

Roxana ROST-4-PZ / 21562583.00011

N. Saloom

LAB USE ONLY: M99163

- [x] STANDARD (14 DAY)
- [ ] 5 DAYS
- [ ] 3 DAYS
- [ ] 2 DAYS
- [ ] 24 HOURS
- [ ] RESULTS NEEDED ON WEEKEND
- [ ] LA - RWQCB REPORT FORMAT
- [ ] UST AGENCY:

DELIVERABLES:
- [ ] LEVEL 1
- [x] LEVEL 2
- [ ] LEVEL 3
- [x] LEVEL 4
- [x] OTHER (SPECIFY) EDD

TEMPERATURE ON RECEIPT C° | Cooler #1 | Cooler #2 | Cooler #3

SPECIAL INSTRUCTIONS OR NOTES:
Please include "J" values on Reports
Please provide sample receipt upon log in

- [x] SHELL CONTRACT RATE APPLIES
- [ ] STATE REIMBURSEMENT RATE APPLIES
- [ ] EDD NOT NEEDED
- [x] RECEIPT VERIFICATION REQUESTED
- [ ] PROVIDE LEDD DISK

REQUESTED ANALYSIS

FIELD NOTES:

TEMPERATURE ON RECEIPT C°

LAB USE ONLY	Field Sample Identification	DATE	TIME	MATRIX	HCL	HNO3	H2SO4	[illegible]	[illegible]	NONE	OTHER	# of Cont.	VOC 8260	TPH 8015 GRO/DRO / 8270	PID (ppm)	NOTES / COMMENTS
-1	TB-040611	4/6/11		Water	2								X			Trip Blank
-2	ROST-4PZ(B) 10-11	4/6/11	0930	Soil				1	2	2			✓	✓	0.5	
-3	ROST-4PZ(B) 28-29	4/6/11	1000	↓				1	2	2			✓	✓	4.5	
-4	ROST-4PZ(B) 36-37	4/6/11	1030	↓				1	2	2			✓		3.5	
-5	ROST-4PZ(D) 10-11EB	4/7/11	0830	Water	3					2		5	X	X		Equipment Blank
-6	ROST-4PZ(D)10-11	4/7/11	0900	Soil				1	2	2			✓	✓	49	
-7	ROST-4PZ(D)28-29	4/7/11	1000					1	2	2			✓	✓	12.7	
-8	ROST-4PZ(D) 36-37	4/7/11	1030					1	2	2			✓	✓	12.0	
-9	ROST-4PZ(D)36-37(D)	4/7/11	1030	↓				1	2	2			✓	✓	12.0	15B,16EE,3E6,10B2

Relinquished by: (Signature)	Received by: (Signature)	Date	Time
[signature]	FEDEX	4/7/11	1700
FedEx	[signature]	4/8/11	9:45
			1.6°

M99163: Chain of Custody
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Accutest Laboratories Sample Receipt Summary

Accutest Job Number: M99163 Client: URS Immediate Client Services Action Required: Yes

Date / Time Received: 4/8/2011 Delivery Method: FedEx

Project: 170 EAST RAND AVE HARTFORD No. Coolers: 1 Airbill #'s: N/A

Cooler Security	Y or N		Y or N
1. Custody Seals Present:	☑ ☐	3. COC Present:	☑ ☐
2. Custody Seals Intact:	☑ ☐	4. Smpl Dates/Time OK	☑ ☐

Cooler Temperature	Y or N
1. Temp criteria achieved:	☑ ☐
2. Cooler temp verification:	Infared gun
3. Cooler media:	Ice (bag)

Quality Control Preservation	Y	N	N/A
1. Trip Blank present / cooler:	☑	☐	
2. Trip Blank listed on COC:	☑	☐	
3. Samples preserved properly:	☑	☐	
4. VOCs headspace free:	☑	☐	☐

Sample Integrity - Documentation	Y or N
1. Sample labels present on bottles:	☑ ☐
2. Container labeling complete:	☑ ☐
3. Sample container label / COC agree:	☑ ☐

Sample Integrity - Condition	Y or N
1. Sample rec'd within HT:	☑ ☐
2. All containers accounted for:	☑ ☐
3. Condition of sample:	Intact

Sample Integrity - Instructions	Y	N	N/A
1. Analysis requested is clear:	☑	☐	
2. Bottles received for unspecified tests	☐	☑	
3. Sufficient volume rec'd for analysis:	☑	☐	
4. Compositing instructions clear:	☐	☐	☑
5. Filtering instructions clear:	☐	☐	☑

Comments

No analyses no checked off

Accutest Laboratories
V:508.481.6200

495 Technology Center West, Bldg One
F: 508.481.7753

Marlborough, MA
www/accutest.com

4.1

4

M99163: Chain of Custody
Page 2 of 3

ACCUTEST Laboratories

Sample Receipt Summary - Problem Resolution

Accutest Job Number: M99163

CSR: Jeremy Vienneau Response Date 4/9/2011

Response: Client advised Accutest to analyze all ROST-4-PZ samples and the equipment blank for both VOCs and SVOCs. Also, analyze the trip blank for just VOCs. See email in file.

4.1

4

Accutest Laboratories
V:508.481.6200

495 Technology Center West, Bldg One
F: 508.481.7753

Marlborough, MA
www.accutest.com

M99163: Chain of Custody
Page 3 of 3

Internal Sample Tracking Chronicle

Shell Oil

Job No: M99163

URSMOSTL:97216640 170 East Rand Avenue Hartford, IL
Project No: Roxana - ROST-4-PZ SAP#340061

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
M99163-1	Collected: 06-APR-11 00:00 By: NS		Received: 08-APR-11 By: JB			
TB-040611						
M99163-1	SW846 8260B	18-APR-11 13:23	EL			V8260SL
M99163-2	Collected: 06-APR-11 09:30 By: NS		Received: 08-APR-11 By: JB			
ROST-4PZ(B) 10-11						
M99163-2	SM21 2540 B MOD.	12-APR-11	MC			%SOL
M99163-2	SW846 8260B	19-APR-11 21:01	AMY			V8260SL
M99163-2	SW846 8270C	20-APR-11 20:55	KR	13-APR-11	AJ	AB8270SL
M99163-3	Collected: 06-APR-11 10:00 By: NS		Received: 08-APR-11 By: JB			
ROST-4PZ(B) 28-29						
M99163-3	SM21 2540 B MOD.	12-APR-11	MC			%SOL
M99163-3	SW846 8260B	19-APR-11 21:28	AMY			V8260SL
M99163-3	SW846 8270C	21-APR-11 16:39	KR	13-APR-11	AJ	AB8270SL
M99163-4	Collected: 06-APR-11 10:30 By: NS		Received: 08-APR-11 By: JB			
ROST-4PZ(B) 36-37						
M99163-4	SM21 2540 B MOD.	12-APR-11	MC			%SOL
M99163-4	SW846 8260B	19-APR-11 21:56	AMY			V8260SL
M99163-4	SW846 8270C	23-APR-11 00:39	PR	13-APR-11	AJ	AB8270SL
M99163-5	Collected: 07-APR-11 08:30 By: NS		Received: 08-APR-11 By: JB			
ROST-4PZ(D) 10-11 EB						
M99163-5	SW846 8260B	18-APR-11 13:50	EL			V8260SL
M99163-5	SW846 8270C	20-APR-11 15:52	KR	11-APR-11	AJ	AB8270SL
M99163-6	Collected: 07-APR-11 09:00 By: NS		Received: 08-APR-11 By: JB			
ROST-4PZ(D) 10-11						
M99163-6	SM21 2540 B MOD.	12-APR-11	MC			%SOL
M99163-6	SW846 8260B	20-APR-11 22:48	AMY			V8260SL
M99163-6	SW846 8270C	23-APR-11 01:09	PR	13-APR-11	AJ	AB8270SL

Internal Sample Tracking Chronicle

Shell Oil

Job No: M99163

URSMOSTL:97216640 170 East Rand Avenue Hartford, IL
Project No: Roxana - ROST-4-PZ SAP#340061

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
M99163-7 Collected: 07-APR-11 10:00 By: NS Received: 08-APR-11 By: JB ROST-4PZ(D) 28-29						
M99163-7	SM21 2540 B MOD.	12-APR-11	MC			%SOL
M99163-7	SW846 8260B	19-APR-11 22:52	AMY			V8260SL
M99163-7	SW846 8270C	23-APR-11 01:40	PR	13-APR-11	AJ	AB8270SL
M99163-8 Collected: 07-APR-11 10:30 By: NS Received: 08-APR-11 By: JB ROST-4PZ(D) 36-37						
M99163-8	SM21 2540 B MOD.	12-APR-11	MC			%SOL
M99163-8	SW846 8260B	20-APR-11 22:20	AMY			V8260SL
M99163-8	SW846 8270C	23-APR-11 02:10	PR	13-APR-11	AJ	AB8270SL
M99163-9 Collected: 07-APR-11 10:30 By: NS Received: 08-APR-11 By: JB ROST-4PZ(D) 36-37 (D)						
M99163-9	SM21 2540 B MOD.	12-APR-11	MC			%SOL
M99163-9	SW846 8260B	20-APR-11 21:24	AMY			V8260SL
M99163-9	SW846 8270C	23-APR-11 02:40	PR	13-APR-11	AJ	AB8270SL

Accutest Internal Chain of Custody

Job Number: M99163
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL
Received: 04/08/11

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
M99163-1.1	VOC Ref #3	Elise LeBlanc	04/18/11 10:35	Retrieve from Storage
M99163-1.1	Elise LeBlanc	GCMSG	04/18/11 10:35	Load on Instrument
M99163-1.1	GCMSG	Elise LeBlanc	04/19/11 16:35	Unload from Instrument
M99163-1.1	Elise LeBlanc	VOC Ref #3	04/19/11 16:35	Return to Storage
M99163-2.1	Walk In Ref #9	Mahmoud Afzali	04/13/11 11:32	Retrieve from Storage
M99163-2.1	Mahmoud Afzali	Walk In Ref #9	04/13/11 16:35	Return to Storage
M99163-2.3	Walk In Ref #9	Dana Tyron	04/19/11 17:36	Retrieve from Storage
M99163-2.3	Dana Tyron	GCMSP	04/19/11 17:37	Load on Instrument
M99163-2.3	GCMSP	Dana Tyron	04/20/11 10:14	Unload from Instrument
M99163-2.3	Dana Tyron		04/20/11 10:14	Depleted
M99163-2.4	Walk In Ref #9	Dana Tyron	04/19/11 12:44	Retrieve from Storage
M99163-2.4	Dana Tyron	GCMSP	04/19/11 12:44	Load on Instrument
M99163-2.4	GCMSP	Dana Tyron	04/20/11 10:14	Unload from Instrument
M99163-2.4	Dana Tyron		04/20/11 10:14	Depleted
M99163-2.5	VOC Ref #10	Gary Krasinski	04/12/11 12:58	Retrieve from Storage
M99163-2.5	Gary Krasinski	VOC Ref #10	04/13/11 14:21	Return to Storage
M99163-3.1	Walk In Ref #9	Mahmoud Afzali	04/13/11 11:32	Retrieve from Storage
M99163-3.1	Mahmoud Afzali	Walk In Ref #9	04/13/11 16:35	Return to Storage
M99163-3.3	Walk In Ref #9	Dana Tyron	04/19/11 17:36	Retrieve from Storage
M99163-3.3	Dana Tyron	GCMSP	04/19/11 17:37	Load on Instrument
M99163-3.3	GCMSP	Dana Tyron	04/20/11 10:14	Unload from Instrument
M99163-3.3	Dana Tyron		04/20/11 10:14	Depleted
M99163-3.4	Walk In Ref #9	Dana Tyron	04/19/11 12:44	Retrieve from Storage
M99163-3.4	Dana Tyron	GCMSP	04/19/11 12:44	Load on Instrument
M99163-3.4	GCMSP	Dana Tyron	04/20/11 10:14	Unload from Instrument
M99163-3.4	Dana Tyron		04/20/11 10:14	Depleted
M99163-3.5	VOC Ref #10	Gary Krasinski	04/12/11 12:58	Retrieve from Storage
M99163-3.5	Gary Krasinski	VOC Ref #10	04/13/11 14:21	Return to Storage
M99163-4.2	Walk In Ref #9	Mahmoud Afzali	04/13/11 11:32	Retrieve from Storage
M99163-4.2	Mahmoud Afzali	Walk In Ref #9	04/13/11 16:35	Return to Storage
M99163-4.3	Walk In Ref #9	Dana Tyron	04/19/11 17:36	Retrieve from Storage
M99163-4.3	Dana Tyron	GCMSP	04/19/11 17:37	Load on Instrument
M99163-4.3	GCMSP	Dana Tyron	04/20/11 10:14	Unload from Instrument
M99163-4.3	Dana Tyron		04/20/11 10:14	Depleted

Accutest Internal Chain of Custody

Job Number: M99163
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL
Received: 04/08/11

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
M99163-4.4	Walk In Ref #9	Dana Tyron	04/19/11 12:44	Retrieve from Storage
M99163-4.4	Dana Tyron	GCMSP	04/19/11 12:44	Load on Instrument
M99163-4.4	GCMSP	Dana Tyron	04/20/11 10:14	Unload from Instrument
M99163-4.4	Dana Tyron		04/20/11 10:14	Depleted
M99163-4.5	VOC Ref #10	Gary Krasinski	04/12/11 12:58	Retrieve from Storage
M99163-4.5	Gary Krasinski	VOC Ref #10	04/13/11 14:21	Return to Storage
M99163-5.2	Walk In Ref #22	Corey Aldoupolis	04/12/11 16:56	Retrieve from Storage
M99163-5.2	Corey Aldoupolis		04/13/11 15:27	Depleted
M99163-5.5	VOC Ref #3	Elise LeBlanc	04/18/11 10:35	Retrieve from Storage
M99163-5.5	Elise LeBlanc	GCMSG	04/18/11 10:35	Load on Instrument
M99163-5.5	GCMSG	Elise LeBlanc	04/19/11 16:35	Unload from Instrument
M99163-5.5	Elise LeBlanc	VOC Ref #3	04/19/11 16:35	Return to Storage
M99163-6.1	Walk In Ref #9	Mahmoud Afzali	04/13/11 11:32	Retrieve from Storage
M99163-6.1	Mahmoud Afzali	Walk In Ref #9	04/13/11 16:35	Return to Storage
M99163-6.3	Walk In Ref #9	Dana Tyron	04/19/11 12:44	Retrieve from Storage
M99163-6.3	Dana Tyron	GCMSP	04/19/11 12:44	Load on Instrument
M99163-6.3	GCMSP	Dana Tyron	04/20/11 10:14	Unload from Instrument
M99163-6.3	Dana Tyron		04/20/11 10:14	Depleted
M99163-6.4	Walk In Ref #9	Dana Tyron	04/19/11 17:36	Retrieve from Storage
M99163-6.4	Dana Tyron	GCMSP	04/19/11 17:37	Load on Instrument
M99163-6.4	GCMSP	Amy Min Yang	04/23/11 08:43	Unload from Instrument
M99163-6.4	Amy Min Yang	Walk In Ref #9	04/23/11 08:46	Return to Storage
M99163-6.5	VOC Ref #10	Gary Krasinski	04/12/11 12:58	Retrieve from Storage
M99163-6.5	Gary Krasinski	VOC Ref #10	04/13/11 14:21	Return to Storage
M99163-7.1	Walk In Ref #9	Mahmoud Afzali	04/13/11 11:32	Retrieve from Storage
M99163-7.1	Mahmoud Afzali	Walk In Ref #9	04/13/11 16:35	Return to Storage
M99163-7.3	Walk In Ref #9	Dana Tyron	04/19/11 17:36	Retrieve from Storage
M99163-7.3	Dana Tyron	GCMSP	04/19/11 17:37	Load on Instrument
M99163-7.3	GCMSP	Amy Min Yang	04/23/11 08:43	Unload from Instrument
M99163-7.3	Amy Min Yang	Walk In Ref #9	04/23/11 08:46	Return to Storage
M99163-7.4	Walk In Ref #9	Dana Tyron	04/19/11 12:44	Retrieve from Storage
M99163-7.4	Dana Tyron	GCMSP	04/19/11 12:44	Load on Instrument
M99163-7.4	GCMSP	Dana Tyron	04/20/11 10:14	Unload from Instrument

Accutest Internal Chain of Custody

Job Number: M99163
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL
Received: 04/08/11

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
M99163-7.4	Dana Tyron		04/20/11 10:14	Depleted
M99163-7.5	VOC Ref #10	Gary Krasinski	04/12/11 12:58	Retrieve from Storage
M99163-7.5	Gary Krasinski	VOC Ref #10	04/13/11 14:21	Return to Storage
M99163-8.1	Walk In Ref #9	Mahmoud Afzali	04/13/11 11:32	Retrieve from Storage
M99163-8.1	Mahmoud Afzali	Walk In Ref #9	04/13/11 16:35	Return to Storage
M99163-8.3	Walk In Ref #9	Dana Tyron	04/19/11 12:44	Retrieve from Storage
M99163-8.3	Dana Tyron	GCMSP	04/19/11 12:44	Load on Instrument
M99163-8.3	GCMSP	Dana Tyron	04/20/11 10:14	Unload from Instrument
M99163-8.3	Dana Tyron		04/20/11 10:14	Depleted
M99163-8.5	VOC Ref #10	Tamis Dudo	04/13/11 17:01	Retrieve from Storage
M99163-8.5	Tamis Dudo	GCMSE	04/13/11 17:01	Load on Instrument
M99163-8.5	GCMSE	Tamis Dudo	04/14/11 11:27	Unload from Instrument
M99163-8.5	Tamis Dudo	VOC Ref #10	04/14/11 13:51	Return to Storage
M99163-9.1	Walk In Ref #9	Mahmoud Afzali	04/13/11 11:32	Retrieve from Storage
M99163-9.1	Mahmoud Afzali	Walk In Ref #9	04/13/11 16:35	Return to Storage
M99163-9.3	Walk In Ref #9	Dana Tyron	04/19/11 17:36	Retrieve from Storage
M99163-9.3	Dana Tyron	GCMSP	04/19/11 17:37	Load on Instrument
M99163-9.3	GCMSP	Amy Min Yang	04/23/11 08:43	Unload from Instrument
M99163-9.3	Amy Min Yang	Walk In Ref #9	04/23/11 08:46	Return to Storage
M99163-9.4	Walk In Ref #9	Dana Tyron	04/19/11 12:44	Retrieve from Storage
M99163-9.4	Dana Tyron	GCMSP	04/19/11 12:44	Load on Instrument
M99163-9.4	GCMSP	Dana Tyron	04/20/11 10:14	Unload from Instrument
M99163-9.4	Dana Tyron		04/20/11 10:14	Depleted
M99163-9.5	VOC Ref #10	Tamis Dudo	04/13/11 17:01	Retrieve from Storage
M99163-9.5	Tamis Dudo	GCMSE	04/13/11 17:01	Load on Instrument
M99163-9.5	GCMSE	Tamis Dudo	04/14/11 11:27	Unload from Instrument
M99163-9.5	Tamis Dudo	VOC Ref #10	04/14/11 13:51	Return to Storage

New England ACCUTEST LABORATORIES

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: M99163
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSG4238-MB	G105068.D	1	04/18/11	EL	n/a	n/a	MSG4238

The QC reported here applies to the following samples: Method: SW846 8260B

M99163-1, M99163-5

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	4.6	ug/l	
107-02-8	Acrolein	ND	25	17	ug/l	
107-13-1	Acrylonitrile	ND	5.0	3.0	ug/l	
71-43-2	Benzene	ND	0.50	0.35	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.52	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.91	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.62	ug/l	
75-25-2	Bromoform	ND	1.0	0.73	ug/l	
74-83-9	Bromomethane	ND	2.0	0.95	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.1	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.49	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.37	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.53	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.35	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.42	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.61	ug/l	
75-00-3	Chloroethane	ND	2.0	0.76	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	0.83	ug/l	
67-66-3	Chloroform	ND	1.0	0.72	ug/l	
74-87-3	Chloromethane	ND	2.0	0.81	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.58	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.67	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.3	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.86	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.76	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.74	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.77	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.81	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.61	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.63	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.74	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.70	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.66	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.74	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.83	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.73	ug/l	

Method Blank Summary

Job Number: M99163
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSG4238-MB	G105068.D	1	04/18/11	EL	n/a	n/a	MSG4238

The QC reported here applies to the following samples: Method: SW846 8260B

M99163-1, M99163-5

CAS No.	Compound	Result	RL	MDL	Units	Q
594-20-7	2,2-Dichloropropane	ND	5.0	0.44	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.23	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.23	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.90	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.61	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.56	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.5	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.51	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.45	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.54	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.3	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.94	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.75	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.43	ug/l	
100-42-5	Styrene	ND	5.0	0.68	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.64	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.89	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.39	ug/l	
108-88-3	Toluene	ND	1.0	0.74	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.57	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.35	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.72	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.49	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.61	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.62	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.51	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	0.51	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.86	ug/l	
	m,p-Xylene	ND	1.0	0.62	ug/l	
95-47-6	o-Xylene	ND	1.0	0.56	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.56	ug/l	

Method Blank Summary

Job Number: M99163
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSG4238-MB	G105068.D	1	04/18/11	EL	n/a	n/a	MSG4238

5.1.1

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The QC reported here applies to the following samples: Method: SW846 8260B

M99163-1, M99163-5

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	116%	70-130%
2037-26-5	Toluene-D8	111%	70-130%
460-00-4	4-Bromofluorobenzene	110%	70-130%

Method Blank Summary

Job Number: M99163
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP1733-MB	P52322.D	1	04/19/11	AMY	n/a	n/a	MSP1733

The QC reported here applies to the following samples: Method: SW846 8260B

M99163-2, M99163-3, M99163-4, M99163-7

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	5.0	ug/kg	
107-02-8	Acrolein	ND	25	17	ug/kg	
107-13-1	Acrylonitrile	ND	5.0	0.79	ug/kg	
71-43-2	Benzene	ND	0.50	0.11	ug/kg	
108-86-1	Bromobenzene	ND	5.0	0.15	ug/kg	
74-97-5	Bromochloromethane	ND	5.0	0.48	ug/kg	
75-27-4	Bromodichloromethane	ND	2.0	0.19	ug/kg	
75-25-2	Bromoform	ND	2.0	1.0	ug/kg	
74-83-9	Bromomethane	ND	2.0	0.35	ug/kg	
78-93-3	2-Butanone (MEK)	ND	5.0	1.5	ug/kg	
104-51-8	n-Butylbenzene	ND	5.0	0.42	ug/kg	
135-98-8	sec-Butylbenzene	ND	5.0	0.36	ug/kg	
98-06-6	tert-Butylbenzene	ND	5.0	0.23	ug/kg	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.0	0.19	ug/kg	
108-90-7	Chlorobenzene	ND	2.0	0.22	ug/kg	
75-00-3	Chloroethane	ND	5.0	0.32	ug/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	5.0	ug/kg	
67-66-3	Chloroform	ND	2.0	0.16	ug/kg	
74-87-3	Chloromethane	ND	5.0	0.13	ug/kg	
95-49-8	o-Chlorotoluene	ND	5.0	0.19	ug/kg	
106-43-4	p-Chlorotoluene	ND	5.0	0.22	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	0.71	ug/kg	
124-48-1	Dibromochloromethane	ND	2.0	1.0	ug/kg	
106-93-4	1,2-Dibromoethane	ND	2.0	0.15	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	2.0	0.31	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	2.0	0.30	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	2.0	0.29	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.20	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.0	0.17	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.0	0.12	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.0	0.14	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.0	0.20	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.0	0.19	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.0	0.17	ug/kg	
142-28-9	1,3-Dichloropropane	ND	5.0	0.11	ug/kg	

Method Blank Summary

Job Number: M99163
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP1733-MB	P52322.D	1	04/19/11	AMY	n/a	n/a	MSP1733

The QC reported here applies to the following samples: Method: SW846 8260B

M99163-2, M99163-3, M99163-4, M99163-7

CAS No.	Compound	Result	RL	MDL	Units	Q
594-20-7	2,2-Dichloropropane	ND	5.0	0.20	ug/kg	
563-58-6	1,1-Dichloropropene	ND	5.0	0.21	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.50	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	1.0	ug/kg	
97-63-2	Ethyl methacrylate	ND	5.0	0.13	ug/kg	
100-41-4	Ethylbenzene	ND	2.0	0.11	ug/kg	
87-68-3	Hexachlorobutadiene	ND	5.0	0.72	ug/kg	
591-78-6	2-Hexanone	ND	5.0	0.86	ug/kg	
98-82-8	Isopropylbenzene	ND	5.0	0.25	ug/kg	
99-87-6	p-Isopropyltoluene	ND	5.0	0.39	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.0	0.13	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/kg	
74-95-3	Methylene bromide	ND	5.0	1.0	ug/kg	
75-09-2	Methylene chloride	ND	2.0	0.17	ug/kg	
103-65-1	n-Propylbenzene	ND	5.0	0.28	ug/kg	
100-42-5	Styrene	ND	5.0	0.16	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.17	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	0.18	ug/kg	
127-18-4	Tetrachloroethene	ND	2.0	0.17	ug/kg	
108-88-3	Toluene	ND	5.0	0.18	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.77	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.51	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.0	0.13	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.0	0.13	ug/kg	
79-01-6	Trichloroethene	ND	2.0	0.21	ug/kg	
75-69-4	Trichlorofluoromethane	ND	2.0	0.15	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.17	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.26	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.22	ug/kg	
108-05-4	Vinyl Acetate	ND	5.0	2.7	ug/kg	
75-01-4	Vinyl chloride	ND	2.0	0.27	ug/kg	
	m,p-Xylene	ND	2.0	0.35	ug/kg	
95-47-6	o-Xylene	ND	2.0	0.13	ug/kg	
1330-20-7	Xylene (total)	ND	2.0	0.13	ug/kg	

Method Blank Summary

Job Number: M99163
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP1733-MB	P52322.D	1	04/19/11	AMY	n/a	n/a	MSP1733

The QC reported here applies to the following samples: Method: SW846 8260B

M99163-2, M99163-3, M99163-4, M99163-7

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	97%	70-130%
2037-26-5	Toluene-D8	110%	70-130%
460-00-4	4-Bromofluorobenzene	120%	70-130%

Method Blank Summary

Job Number: M99163
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP1734-MB	P52370.D	1	04/20/11	AMY	n/a	n/a	MSP1734

The QC reported here applies to the following samples: Method: SW846 8260B

M99163-6, M99163-8, M99163-9

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	5.0	ug/kg	
107-02-8	Acrolein	ND	25	17	ug/kg	
107-13-1	Acrylonitrile	ND	5.0	0.79	ug/kg	
71-43-2	Benzene	ND	0.50	0.11	ug/kg	
108-86-1	Bromobenzene	ND	5.0	0.15	ug/kg	
74-97-5	Bromochloromethane	ND	5.0	0.48	ug/kg	
75-27-4	Bromodichloromethane	ND	2.0	0.19	ug/kg	
75-25-2	Bromoform	ND	2.0	1.0	ug/kg	
74-83-9	Bromomethane	ND	2.0	0.35	ug/kg	
78-93-3	2-Butanone (MEK)	ND	5.0	1.5	ug/kg	
104-51-8	n-Butylbenzene	ND	5.0	0.42	ug/kg	
135-98-8	sec-Butylbenzene	ND	5.0	0.36	ug/kg	
98-06-6	tert-Butylbenzene	ND	5.0	0.23	ug/kg	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.0	0.19	ug/kg	
108-90-7	Chlorobenzene	ND	2.0	0.22	ug/kg	
75-00-3	Chloroethane	ND	5.0	0.32	ug/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	5.0	ug/kg	
67-66-3	Chloroform	ND	2.0	0.16	ug/kg	
74-87-3	Chloromethane	ND	5.0	0.13	ug/kg	
95-49-8	o-Chlorotoluene	ND	5.0	0.19	ug/kg	
106-43-4	p-Chlorotoluene	ND	5.0	0.22	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	0.71	ug/kg	
124-48-1	Dibromochloromethane	ND	2.0	1.0	ug/kg	
106-93-4	1,2-Dibromoethane	ND	2.0	0.15	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	2.0	0.31	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	2.0	0.30	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	2.0	0.29	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.20	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.0	0.17	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.0	0.12	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.0	0.14	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.0	0.20	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.0	0.19	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.0	0.17	ug/kg	
142-28-9	1,3-Dichloropropane	ND	5.0	0.11	ug/kg	

Method Blank Summary

Job Number: M99163
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP1734-MB	P52370.D	1	04/20/11	AMY	n/a	n/a	MSP1734

The QC reported here applies to the following samples: Method: SW846 8260B

M99163-6, M99163-8, M99163-9

CAS No.	Compound	Result	RL	MDL	Units	Q
594-20-7	2,2-Dichloropropane	ND	5.0	0.20	ug/kg	
563-58-6	1,1-Dichloropropene	ND	5.0	0.21	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.50	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	1.0	ug/kg	
97-63-2	Ethyl methacrylate	ND	5.0	0.13	ug/kg	
100-41-4	Ethylbenzene	ND	2.0	0.11	ug/kg	
87-68-3	Hexachlorobutadiene	ND	5.0	0.72	ug/kg	
591-78-6	2-Hexanone	ND	5.0	0.86	ug/kg	
98-82-8	Isopropylbenzene	ND	5.0	0.25	ug/kg	
99-87-6	p-Isopropyltoluene	ND	5.0	0.39	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.0	0.13	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/kg	
74-95-3	Methylene bromide	ND	5.0	1.0	ug/kg	
75-09-2	Methylene chloride	ND	2.0	0.17	ug/kg	
103-65-1	n-Propylbenzene	ND	5.0	0.28	ug/kg	
100-42-5	Styrene	ND	5.0	0.16	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.17	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	0.18	ug/kg	
127-18-4	Tetrachloroethene	ND	2.0	0.17	ug/kg	
108-88-3	Toluene	ND	5.0	0.18	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.77	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.51	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.0	0.13	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.0	0.13	ug/kg	
79-01-6	Trichloroethene	ND	2.0	0.21	ug/kg	
75-69-4	Trichlorofluoromethane	ND	2.0	0.15	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.17	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.26	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.22	ug/kg	
108-05-4	Vinyl Acetate	ND	5.0	2.7	ug/kg	
75-01-4	Vinyl chloride	ND	2.0	0.27	ug/kg	
	m,p-Xylene	ND	2.0	0.35	ug/kg	
95-47-6	o-Xylene	ND	2.0	0.13	ug/kg	
1330-20-7	Xylene (total)	ND	2.0	0.13	ug/kg	

Method Blank Summary

Job Number: M99163
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP1734-MB	P52370.D	1	04/20/11	AMY	n/a	n/a	MSP1734

The QC reported here applies to the following samples: Method: SW846 8260B

M99163-6, M99163-8, M99163-9

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	101%	70-130%
2037-26-5	Toluene-D8	111%	70-130%
460-00-4	4-Bromofluorobenzene	119%	70-130%

Blank Spike Summary

Job Number: M99163
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSG4238-BS	G105066A.D	1	04/18/11	EL	n/a	n/a	MSG4238

The QC reported here applies to the following samples: Method: SW846 8260B

M99163-1, M99163-5

TB EB

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	50	38.5	77	70-130
107-02-8	Acrolein	250	4060	1624* a	70-130
107-13-1	Acrylonitrile	50	47.2	94	70-130
71-43-2	Benzene	50	44.9	90	70-130
108-86-1	Bromobenzene	50	41.5	83	70-130
74-97-5	Bromochloromethane	50	48.6	97	70-130
75-27-4	Bromodichloromethane	50	46.6	93	70-130
75-25-2	Bromoform	50	42.0	84	70-130
74-83-9	Bromomethane	50	43.5	87	70-130
78-93-3	2-Butanone (MEK)	50	45.9	92	70-130
104-51-8	n-Butylbenzene	50	40.3	81	70-130
135-98-8	sec-Butylbenzene	50	41.3	83	70-130
98-06-6	tert-Butylbenzene	50	39.8	80	70-130
75-15-0	Carbon disulfide	50	53.2	106	70-130
56-23-5	Carbon tetrachloride	50	46.2	92	70-130
108-90-7	Chlorobenzene	50	42.7	85	70-130
75-00-3	Chloroethane	50	45.6	91	70-130
110-75-8	2-Chloroethyl vinyl ether	50	13.0	26* b	70-130
67-66-3	Chloroform	50	47.4	95	70-130
74-87-3	Chloromethane	50	41.2	82	70-130
95-49-8	o-Chlorotoluene	50	40.1	80	70-130
106-43-4	p-Chlorotoluene	50	40.3	81	70-130
96-12-8	1,2-Dibromo-3-chloropropane	50	38.2	76	70-130
124-48-1	Dibromochloromethane	50	45.4	91	70-130
106-93-4	1,2-Dibromoethane	50	43.7	87	70-130
95-50-1	1,2-Dichlorobenzene	50	41.3	83	70-130
541-73-1	1,3-Dichlorobenzene	50	41.2	82	70-130
106-46-7	1,4-Dichlorobenzene	50	40.7	81	70-130
75-71-8	Dichlorodifluoromethane	50	30.5	61* b	70-130
75-34-3	1,1-Dichloroethane	50	47.7	95	70-130
107-06-2	1,2-Dichloroethane	50	44.6	89	70-130
75-35-4	1,1-Dichloroethene	50	46.9	94	70-130
156-59-2	cis-1,2-Dichloroethene	50	45.9	92	70-130
156-60-5	trans-1,2-Dichloroethene	50	47.2	94	70-130
78-87-5	1,2-Dichloropropane	50	44.9	90	70-130
142-28-9	1,3-Dichloropropane	50	42.5	85	70-130

Blank Spike Summary

Job Number: M99163
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSG4238-BS	G105066A.D	1	04/18/11	EL	n/a	n/a	MSG4238

The QC reported here applies to the following samples: Method: SW846 8260B

M99163-1, M99163-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
594-20-7	2,2-Dichloropropane	50	49.6	99	70-130
563-58-6	1,1-Dichloropropene	50	46.0	92	70-130
10061-01-5	cis-1,3-Dichloropropene	50	46.7	93	70-130
10061-02-6	trans-1,3-Dichloropropene	50	51.9	104	70-130
97-63-2	Ethyl methacrylate	50	42.7	85	77-137
100-41-4	Ethylbenzene	50	42.2	84	70-130
87-68-3	Hexachlorobutadiene	50	40.3	81	70-130
591-78-6	2-Hexanone	50	36.6	73	70-130
98-82-8	Isopropylbenzene	50	46.8	94	70-130
99-87-6	p-Isopropyltoluene	50	41.9	84	70-130
1634-04-4	Methyl Tert Butyl Ether	50	46.3	93	70-130
108-10-1	4-Methyl-2-pentanone (MIBK)	50	43.8	88	70-130
74-95-3	Methylene bromide	50	46.0	92	70-130
75-09-2	Methylene chloride	50	48.5	97	70-130
103-65-1	n-Propylbenzene	50	40.8	82	70-130
100-42-5	Styrene	50	42.7	85	70-130
630-20-6	1,1,1,2-Tetrachloroethane	50	43.8	88	70-130
79-34-5	1,1,2,2-Tetrachloroethane	50	41.0	82	70-130
127-18-4	Tetrachloroethene	50	44.3	89	70-130
108-88-3	Toluene	50	42.8	86	70-130
87-61-6	1,2,3-Trichlorobenzene	50	38.6	77	70-130
120-82-1	1,2,4-Trichlorobenzene	50	39.5	79	70-130
71-55-6	1,1,1-Trichloroethane	50	47.5	95	70-130
79-00-5	1,1,2-Trichloroethane	50	45.9	92	70-130
79-01-6	Trichloroethene	50	45.0	90	70-130
75-69-4	Trichlorofluoromethane	50	51.8	104	70-130
96-18-4	1,2,3-Trichloropropane	50	38.5	77	70-130
95-63-6	1,2,4-Trimethylbenzene	50	40.1	80	70-130
108-67-8	1,3,5-Trimethylbenzene	50	39.3	79	70-130
108-05-4	Vinyl Acetate	50	54.0	108	70-130
75-01-4	Vinyl chloride	50	44.6	89	70-130
	m,p-Xylene	100	85.5	86	70-130
95-47-6	o-Xylene	50	43.1	86	70-130
1330-20-7	Xylene (total)	150	129	86	70-130

Blank Spike Summary

Job Number: M99163
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSG4238-BS	G105066A.D	1	04/18/11	EL	n/a	n/a	MSG4238

The QC reported here applies to the following samples: Method: SW846 8260B

M99163-1, M99163-5

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	117%	70-130%
2037-26-5	Toluene-D8	112%	70-130%
460-00-4	4-Bromofluorobenzene	101%	70-130%

(a) Outside control limits. Associated samples are non-detect for this compound.
(b) Outside control limits. Blank Spike meets program technical requirements.

Blank Spike Summary

Job Number: M99163
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP1733-BS	P52320.D	1	04/19/11	AMY	n/a	n/a	MSP1733

The QC reported here applies to the following samples: Method: SW846 8260B

M99163-2, M99163-3, M99163-4, M99163-7

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
67-64-1	Acetone	50	60.2	120	70-130
107-02-8	Acrolein	250	4690	1876* [a]	70-130
107-13-1	Acrylonitrile	50	51.4	103	70-130
71-43-2	Benzene	50	51.2	102	70-130
108-86-1	Bromobenzene	50	55.2	110	70-130
74-97-5	Bromochloromethane	50	49.3	99	70-130
75-27-4	Bromodichloromethane	50	52.5	105	70-130
75-25-2	Bromoform	50	53.1	106	70-130
74-83-9	Bromomethane	50	35.7	71	70-130
78-93-3	2-Butanone (MEK)	50	60.0	120	70-130
104-51-8	n-Butylbenzene	50	49.6	99	70-130
135-98-8	sec-Butylbenzene	50	53.6	107	70-130
98-06-6	tert-Butylbenzene	50	54.5	109	70-130
75-15-0	Carbon disulfide	50	45.6	91	70-130
56-23-5	Carbon tetrachloride	50	51.9	104	70-130
108-90-7	Chlorobenzene	50	51.0	102	70-130
75-00-3	Chloroethane	50	36.5	73	70-130
110-75-8	2-Chloroethyl vinyl ether	50	40.7	81	10-160
67-66-3	Chloroform	50	46.6	93	70-130
74-87-3	Chloromethane	50	42.2	84	70-130
95-49-8	o-Chlorotoluene	50	54.2	108	70-130
106-43-4	p-Chlorotoluene	50	56.3	113	70-130
96-12-8	1,2-Dibromo-3-chloropropane	50	50.5	101	70-130
124-48-1	Dibromochloromethane	50	52.4	105	70-130
106-93-4	1,2-Dibromoethane	50	52.7	105	70-130
95-50-1	1,2-Dichlorobenzene	50	52.9	106	70-130
541-73-1	1,3-Dichlorobenzene	50	55.1	110	70-130
106-46-7	1,4-Dichlorobenzene	50	52.5	105	70-130
75-71-8	Dichlorodifluoromethane	50	30.6	61* [b]	70-130
75-34-3	1,1-Dichloroethane	50	46.4	93	70-130
107-06-2	1,2-Dichloroethane	50	49.0	98	70-130
75-35-4	1,1-Dichloroethene	50	49.1	98	70-130
156-59-2	cis-1,2-Dichloroethene	50	48.8	98	70-130
156-60-5	trans-1,2-Dichloroethene	50	48.3	97	70-130
78-87-5	1,2-Dichloropropane	50	49.4	99	70-130
142-28-9	1,3-Dichloropropane	50	50.5	101	70-130

Blank Spike Summary

Job Number: M99163
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP1733-BS	P52320.D	1	04/19/11	AMY	n/a	n/a	MSP1733

The QC reported here applies to the following samples: Method: SW846 8260B

M99163-2, M99163-3, M99163-4, M99163-7

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
594-20-7	2,2-Dichloropropane	50	23.9	48* b	70-130
563-58-6	1,1-Dichloropropene	50	52.9	106	70-130
10061-01-5	cis-1,3-Dichloropropene	50	55.8	112	70-130
10061-02-6	trans-1,3-Dichloropropene	50	58.6	117	70-130
97-63-2	Ethyl methacrylate	50	50.2	100	76-141
100-41-4	Ethylbenzene	50	52.6	105	70-130
87-68-3	Hexachlorobutadiene	50	44.6	89	70-130
591-78-6	2-Hexanone	50	43.8	88	70-130
98-82-8	Isopropylbenzene	50	64.0	128	70-130
99-87-6	p-Isopropyltoluene	50	52.0	104	70-130
1634-04-4	Methyl Tert Butyl Ether	50	48.7	97	70-130
108-10-1	4-Methyl-2-pentanone (MIBK)	50	54.9	110	70-130
74-95-3	Methylene bromide	50	52.2	104	70-130
75-09-2	Methylene chloride	50	68.5	137* b	70-130
103-65-1	n-Propylbenzene	50	56.5	113	70-130
100-42-5	Styrene	50	54.2	108	70-130
630-20-6	1,1,1,2-Tetrachloroethane	50	53.1	106	70-130
79-34-5	1,1,2,2-Tetrachloroethane	50	49.1	98	70-130
127-18-4	Tetrachloroethene	50	55.5	111	70-130
108-88-3	Toluene	50	52.8	106	70-130
87-61-6	1,2,3-Trichlorobenzene	50	30.7	61* b	70-130
120-82-1	1,2,4-Trichlorobenzene	50	38.3	77	70-130
71-55-6	1,1,1-Trichloroethane	50	47.7	95	70-130
79-00-5	1,1,2-Trichloroethane	50	50.7	101	70-130
79-01-6	Trichloroethene	50	53.8	108	70-130
75-69-4	Trichlorofluoromethane	50	39.9	80	70-130
96-18-4	1,2,3-Trichloropropane	50	48.6	97	70-130
95-63-6	1,2,4-Trimethylbenzene	50	54.0	108	70-130
108-67-8	1,3,5-Trimethylbenzene	50	53.8	108	70-130
108-05-4	Vinyl Acetate	50	69.7	139* b	70-130
75-01-4	Vinyl chloride	50	33.3	67* b	70-130
	m,p-Xylene	100	105	105	70-130
95-47-6	o-Xylene	50	52.7	105	70-130
1330-20-7	Xylene (total)	150	158	105	70-130

Blank Spike Summary

Job Number: M99163
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP1733-BS	P52320.D	1	04/19/11	AMY	n/a	n/a	MSP1733

The QC reported here applies to the following samples: Method: SW846 8260B

M99163-2, M99163-3, M99163-4, M99163-7

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	99%	70-130%
2037-26-5	Toluene-D8	115%	70-130%
460-00-4	4-Bromofluorobenzene	104%	70-130%

(a) Outside control limits. Associated samples are non-detect for this compound.
(b) Outside control limits. Blank Spike meets program technical requirements.

Blank Spike Summary

Job Number: M99163
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP1734-BS	P52368.D	1	04/20/11	AMY	n/a	n/a	MSP1734

The QC reported here applies to the following samples: Method: SW846 8260B

M99163-6, M99163-8, M99163-9

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
67-64-1	Acetone	50	78.7	157* [a]	70-130
107-02-8	Acrolein	250	5540	2216* [b]	70-130
107-13-1	Acrylonitrile	50	59.8	120	70-130
71-43-2	Benzene	50	55.5	111	70-130
108-86-1	Bromobenzene	50	57.4	115	70-130
74-97-5	Bromochloromethane	50	55.0	110	70-130
75-27-4	Bromodichloromethane	50	55.5	111	70-130
75-25-2	Bromoform	50	55.7	111	70-130
74-83-9	Bromomethane	50	48.5	97	70-130
78-93-3	2-Butanone (MEK)	50	73.6	147* [a]	70-130
104-51-8	n-Butylbenzene	50	57.4	115	70-130
135-98-8	sec-Butylbenzene	50	57.6	115	70-130
98-06-6	tert-Butylbenzene	50	58.2	116	70-130
75-15-0	Carbon disulfide	50	55.4	111	70-130
56-23-5	Carbon tetrachloride	50	55.1	110	70-130
108-90-7	Chlorobenzene	50	53.7	107	70-130
75-00-3	Chloroethane	50	49.2	98	70-130
110-75-8	2-Chloroethyl vinyl ether	50	48.4	97	10-160
67-66-3	Chloroform	50	52.1	104	70-130
74-87-3	Chloromethane	50	56.8	114	70-130
95-49-8	o-Chlorotoluene	50	57.4	115	70-130
106-43-4	p-Chlorotoluene	50	59.2	118	70-130
96-12-8	1,2-Dibromo-3-chloropropane	50	57.1	114	70-130
124-48-1	Dibromochloromethane	50	55.2	110	70-130
106-93-4	1,2-Dibromoethane	50	56.0	112	70-130
95-50-1	1,2-Dichlorobenzene	50	56.7	113	70-130
541-73-1	1,3-Dichlorobenzene	50	57.9	116	70-130
106-46-7	1,4-Dichlorobenzene	50	55.1	110	70-130
75-71-8	Dichlorodifluoromethane	50	49.3	99	70-130
75-34-3	1,1-Dichloroethane	50	53.2	106	70-130
107-06-2	1,2-Dichloroethane	50	53.0	106	70-130
75-35-4	1,1-Dichloroethene	50	58.8	118	70-130
156-59-2	cis-1,2-Dichloroethene	50	55.2	110	70-130
156-60-5	trans-1,2-Dichloroethene	50	56.0	112	70-130
78-87-5	1,2-Dichloropropane	50	52.5	105	70-130
142-28-9	1,3-Dichloropropane	50	53.6	107	70-130

Blank Spike Summary

Job Number: M99163
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP1734-BS	P52368.D	1	04/20/11	AMY	n/a	n/a	MSP1734

The QC reported here applies to the following samples: Method: SW846 8260B

M99163-6, M99163-8, M99163-9

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
594-20-7	2,2-Dichloropropane	50	25.8	52* a	70-130
563-58-6	1,1-Dichloropropene	50	56.9	114	70-130
10061-01-5	cis-1,3-Dichloropropene	50	57.2	114	70-130
10061-02-6	trans-1,3-Dichloropropene	50	60.6	121	70-130
97-63-2	Ethyl methacrylate	50	54.8	110	76-141
100-41-4	Ethylbenzene	50	55.6	111	70-130
87-68-3	Hexachlorobutadiene	50	52.4	105	70-130
591-78-6	2-Hexanone	50	55.8	112	70-130
98-82-8	Isopropylbenzene	50	67.0	134* a	70-130
99-87-6	p-Isopropyltoluene	50	57.1	114	70-130
1634-04-4	Methyl Tert Butyl Ether	50	55.6	111	70-130
108-10-1	4-Methyl-2-pentanone (MIBK)	50	63.0	126	70-130
74-95-3	Methylene bromide	50	56.7	113	70-130
75-09-2	Methylene chloride	50	55.5	111	70-130
103-65-1	n-Propylbenzene	50	59.5	119	70-130
100-42-5	Styrene	50	58.1	116	70-130
630-20-6	1,1,1,2-Tetrachloroethane	50	55.2	110	70-130
79-34-5	1,1,2,2-Tetrachloroethane	50	54.0	108	70-130
127-18-4	Tetrachloroethene	50	57.1	114	70-130
108-88-3	Toluene	50	55.6	111	70-130
87-61-6	1,2,3-Trichlorobenzene	50	34.9	70	70-130
120-82-1	1,2,4-Trichlorobenzene	50	44.9	90	70-130
71-55-6	1,1,1-Trichloroethane	50	55.0	110	70-130
79-00-5	1,1,2-Trichloroethane	50	55.0	110	70-130
79-01-6	Trichloroethene	50	57.1	114	70-130
75-69-4	Trichlorofluoromethane	50	48.1	96	70-130
96-18-4	1,2,3-Trichloropropane	50	52.2	104	70-130
95-63-6	1,2,4-Trimethylbenzene	50	57.7	115	70-130
108-67-8	1,3,5-Trimethylbenzene	50	57.0	114	70-130
108-05-4	Vinyl Acetate	50	79.8	160* a	70-130
75-01-4	Vinyl chloride	50	45.8	92	70-130
	m,p-Xylene	100	112	112	70-130
95-47-6	o-Xylene	50	55.5	111	70-130
1330-20-7	Xylene (total)	150	167	111	70-130

Blank Spike Summary

Job Number: M99163
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP1734-BS	P52368.D	1	04/20/11	AMY	n/a	n/a	MSP1734

The QC reported here applies to the following samples: Method: SW846 8260B

M99163-6, M99163-8, M99163-9

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	104%	70-130%
2037-26-5	Toluene-D8	114%	70-130%
460-00-4	4-Bromofluorobenzene	105%	70-130%

(a) Outside control limits. Blank Spike meets program technical requirements.
(b) Outside control limits. Associated samples are non-detect for this compound.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M99163
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M99200-2MS	G105088.D	5	04/18/11	EL	n/a	n/a	MSG4238
M99200-2MSD	G105089.D	5	04/18/11	EL	n/a	n/a	MSG4238
M99200-2	G105087.D	1	04/18/11	EL	n/a	n/a	MSG4238

Not Sample for this SDG.

5.3.1

5

The QC reported here applies to the following samples: Method: SW846 8260B

M99163-1, M99163-5

CAS No.	Compound	M99200-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		250	222	89	232	93	4	70-130/30
107-02-8	Acrolein	ND		1250	22400	1792* a	23000	1840* a	3	70-130/30
107-13-1	Acrylonitrile	ND		250	258	103	264	106	2	70-130/30
71-43-2	Benzene	ND		250	249	100	254	102	2	70-130/30
108-86-1	Bromobenzene	ND		250	219	88	224	90	2	70-130/30
74-97-5	Bromochloromethane	ND		250	273	109	277	111	1	70-130/30
75-27-4	Bromodichloromethane	ND		250	250	100	254	102	2	70-130/30
75-25-2	Bromoform	ND		250	209	84	216	86	3	70-130/30
74-83-9	Bromomethane	ND		250	263	105	267	107	2	70-130/30
78-93-3	2-Butanone (MEK)	ND		250	263	105	279	112	6	70-130/30
104-51-8	n-Butylbenzene	ND		250	211	84	217	87	3	70-130/30
135-98-8	sec-Butylbenzene	ND		250	219	88	225	90	3	70-130/30
98-06-6	tert-Butylbenzene	ND		250	211	84	215	86	2	70-130/30
75-15-0	Carbon disulfide	ND		250	293	117	291	116	1	70-130/30
56-23-5	Carbon tetrachloride	ND		250	252	101	257	103	2	70-130/30
108-90-7	Chlorobenzene	ND		250	229	92	231	92	1	70-130/30
75-00-3	Chloroethane	ND		250	274	110	275	110	0	70-130/30
110-75-8	2-Chloroethyl vinyl ether	ND		250	71.4	29* b	70.7	28* b	1	70-130/30
67-66-3	Chloroform	ND		250	265	106	269	108	1	70-130/30
74-87-3	Chloromethane	ND		250	267	107	268	107	0	70-130/30
95-49-8	o-Chlorotoluene	ND		250	211	84	217	87	3	70-130/30
106-43-4	p-Chlorotoluene	ND		250	214	86	222	89	4	70-130/30
96-12-8	1,2-Dibromo-3-chloropropane	ND		250	190	76	204	82	7	70-130/30
124-48-1	Dibromochloromethane	ND		250	231	92	238	95	3	70-130/30
106-93-4	1,2-Dibromoethane	ND		250	231	92	233	93	1	70-130/30
95-50-1	1,2-Dichlorobenzene	ND		250	211	84	219	88	4	70-130/30
541-73-1	1,3-Dichlorobenzene	ND		250	214	86	219	88	2	70-130/30
106-46-7	1,4-Dichlorobenzene	ND		250	209	84	217	87	4	70-130/30
75-71-8	Dichlorodifluoromethane	ND		250	267	107	268	107	0	70-130/30
75-34-3	1,1-Dichloroethane	ND		250	269	108	273	109	1	70-130/30
107-06-2	1,2-Dichloroethane	ND		250	242	97	250	100	3	70-130/30
75-35-4	1,1-Dichloroethene	ND		250	280	112	275	110	2	70-130/30
156-59-2	cis-1,2-Dichloroethene	ND		250	261	104	267	107	2	70-130/30
156-60-5	trans-1,2-Dichloroethene	ND		250	266	106	271	108	2	70-130/30
78-87-5	1,2-Dichloropropane	ND		250	243	97	251	100	3	70-130/30
142-28-9	1,3-Dichloropropane	ND		250	226	90	228	91	1	70-130/30

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M99163
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M99200-2MS	G105088.D	5	04/18/11	EL	n/a	n/a	MSG4238
M99200-2MSD	G105089.D	5	04/18/11	EL	n/a	n/a	MSG4238
M99200-2	G105087.D	1	04/18/11	EL	n/a	n/a	MSG4238

The QC reported here applies to the following samples: Method: SW846 8260B

M99163-1, M99163-5

CAS No.	Compound	M99200-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
594-20-7	2,2-Dichloropropane	ND		250	267	107	268	107	0	70-130/30
563-58-6	1,1-Dichloropropene	ND		250	255	102	263	105	3	70-130/30
10061-01-5	cis-1,3-Dichloropropene	ND		250	246	98	255	102	4	70-130/30
10061-02-6	trans-1,3-Dichloropropene	ND		250	269	108	274	110	2	70-130/30
97-63-2	Ethyl methacrylate	ND		250	228	91	236	94	3	72-139/30
100-41-4	Ethylbenzene	ND		250	228	91	231	92	1	70-130/30
87-68-3	Hexachlorobutadiene	ND		250	209	84	214	86	2	70-130/30
591-78-6	2-Hexanone	ND		250	191	76	206	82	8	70-130/30
98-82-8	Isopropylbenzene	ND		250	249	100	257	103	3	70-130/30
99-87-6	p-Isopropyltoluene	ND		250	222	89	227	91	2	70-130/30
1634-04-4	Methyl Tert Butyl Ether	ND		250	257	103	264	106	3	70-130/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		250	227	91	234	94	3	70-130/30
74-95-3	Methylene bromide	ND		250	251	100	256	102	2	70-130/30
75-09-2	Methylene chloride	ND		250	284	114	280	112	1	70-130/30
103-65-1	n-Propylbenzene	ND		250	216	86	224	90	4	70-130/30
100-42-5	Styrene	ND		250	228	91	230	92	1	70-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		250	231	92	233	93	1	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		250	209	84	216	86	3	70-130/30
127-18-4	Tetrachloroethene	ND		250	238	95	242	97	2	70-130/30
108-88-3	Toluene	ND		250	239	96	241	96	1	70-130/30
87-61-6	1,2,3-Trichlorobenzene	ND		250	190	76	200	80	5	70-130/30
120-82-1	1,2,4-Trichlorobenzene	ND		250	195	78	205	82	5	70-130/30
71-55-6	1,1,1-Trichloroethane	ND		250	269	108	281	112	4	70-130/30
79-00-5	1,1,2-Trichloroethane	ND		250	248	99	258	103	4	70-130/30
79-01-6	Trichloroethene	ND		250	247	99	251	100	2	70-130/30
75-69-4	Trichlorofluoromethane	ND		250	311	124	308	123	1	70-130/30
96-18-4	1,2,3-Trichloropropane	ND		250	198	79	210	84	6	70-130/30
95-63-6	1,2,4-Trimethylbenzene	ND		250	211	84	218	87	3	70-130/30
108-67-8	1,3,5-Trimethylbenzene	ND		250	209	84	219	88	5	70-130/30
108-05-4	Vinyl Acetate	ND		250	305	122	311	124	2	70-130/30
75-01-4	Vinyl chloride	ND		250	282	113	283	113	0	70-130/30
	m,p-Xylene	ND		500	460	92	465	93	1	70-130/30
95-47-6	o-Xylene	ND		250	228	91	231	92	1	70-130/30
1330-20-7	Xylene (total)	ND		750	687	92	696	93	1	70-130/30

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M99163
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M99200-2MS	G105088.D	5	04/18/11	EL	n/a	n/a	MSG4238
M99200-2MSD	G105089.D	5	04/18/11	EL	n/a	n/a	MSG4238
M99200-2	G105087.D	1	04/18/11	EL	n/a	n/a	MSG4238

The QC reported here applies to the following samples: Method: SW846 8260B

M99163-1, M99163-5

CAS No.	Surrogate Recoveries	MS	MSD	M99200-2	Limits
1868-53-7	Dibromofluoromethane	121%	121%	119%	70-130%
2037-26-5	Toluene-D8	114%	115%	113%	70-130%
460-00-4	4-Bromofluorobenzene	101%	102%	110%	70-130%

(a) Outside control limits. Associated samples are non-detect for this compound.
(b) Outside control limits due to possible matrix interference. Refer to Blank Spike.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M99163
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M99124-9MS	P52324.D	1	04/19/11	AMY	n/a	n/a	MSP1733
M99124-9MSD	P52325.D	1	04/19/11	AMY	n/a	n/a	MSP1733
M99124-9	P52323.D	1	04/19/11	AMY	n/a	n/a	MSP1733

The QC reported here applies to the following samples: Method: SW846 8260B

M99163-2, M99163-3, M99163-4, M99163-7

CAS No.	Compound	M99124-9 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		82.9	122	147* [a]	103	147* [a]	17	70-130/30
107-02-8	Acrolein	ND		415	9190	2217* [b]	8030	2296* [b]	13	70-130/30
107-13-1	Acrylonitrile	ND		82.9	90.8	110	75.7	108	18	70-130/30
71-43-2	Benzene	ND		82.9	87.1	105	82.0	117	6	70-130/30
108-86-1	Bromobenzene	ND		82.9	87.8	106	87.3	125	1	70-130/30
74-97-5	Bromochloromethane	ND		82.9	85.7	103	77.1	110	11	70-130/30
75-27-4	Bromodichloromethane	ND		82.9	85.9	104	82.7	118	4	70-130/30
75-25-2	Bromoform	ND		82.9	82.2	99	83.4	119	1	70-130/30
74-83-9	Bromomethane	ND		82.9	65.8	79	60.3	86	9	70-130/30
78-93-3	2-Butanone (MEK)	ND		82.9	105	127	98.2	140* [a]	7	70-130/30
104-51-8	n-Butylbenzene	ND		82.9	49.4	60* [a]	61.9	89	22	70-130/30
135-98-8	sec-Butylbenzene	ND		82.9	75.4	91	80.3	115	6	70-130/30
98-06-6	tert-Butylbenzene	ND		82.9	86.6	104	86.6	124	0	70-130/30
75-15-0	Carbon disulfide	ND		82.9	72.8	88	67.2	96	8	70-130/30
56-23-5	Carbon tetrachloride	ND		82.9	88.1	106	85.5	122	3	70-130/30
108-90-7	Chlorobenzene	ND		82.9	81.2	98	79.2	113	2	70-130/30
75-00-3	Chloroethane	ND		82.9	69.2	83	60.7	87	13	70-130/30
110-75-8	2-Chloroethyl vinyl ether	ND		82.9	ND	0* [a]	ND	0* [a]	nc	10-160/30
67-66-3	Chloroform	ND		82.9	82.5	100	75.9	109	8	70-130/30
74-87-3	Chloromethane	ND		82.9	67.0	81	62.8	90	6	70-130/30
95-49-8	o-Chlorotoluene	ND		82.9	88.9	107	87.4	125	2	70-130/30
106-43-4	p-Chlorotoluene	ND		82.9	85.0	103	85.4	122	0	70-130/30
96-12-8	1,2-Dibromo-3-chloropropane	ND		82.9	54.6	66* [a]	71.2	102	26	70-130/30
124-48-1	Dibromochloromethane	ND		82.9	87.0	105	82.8	118	5	70-130/30
106-93-4	1,2-Dibromoethane	ND		82.9	88.9	107	81.7	117	8	70-130/30
95-50-1	1,2-Dichlorobenzene	ND		82.9	62.8	76	74.8	107	17	70-130/30
541-73-1	1,3-Dichlorobenzene	ND		82.9	72.5	87	78.8	113	8	70-130/30
106-46-7	1,4-Dichlorobenzene	ND		82.9	67.0	81	73.9	106	10	70-130/30
75-71-8	Dichlorodifluoromethane	ND		82.9	49.5	60* [a]	44.9	64* [a]	10	70-130/30
75-34-3	1,1-Dichloroethane	ND		82.9	81.7	99	74.1	106	10	70-130/30
107-06-2	1,2-Dichloroethane	ND		82.9	82.8	100	88.3	126	6	70-130/30
75-35-4	1,1-Dichloroethene	ND		82.9	95.0	115	81.0	116	16	70-130/30
156-59-2	cis-1,2-Dichloroethene	ND		82.9	83.0	100	76.0	109	9	70-130/30
156-60-5	trans-1,2-Dichloroethene	ND		82.9	88.3	107	75.3	108	16	70-130/30
78-87-5	1,2-Dichloropropane	ND		82.9	82.6	100	80.0	114	3	70-130/30
142-28-9	1,3-Dichloropropane	ND		82.9	85.5	103	79.7	114	7	70-130/30

5.3.2

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Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M99163
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M99124-9MS	P52324.D	1	04/19/11	AMY	n/a	n/a	MSP1733
M99124-9MSD	P52325.D	1	04/19/11	AMY	n/a	n/a	MSP1733
M99124-9	P52323.D	1	04/19/11	AMY	n/a	n/a	MSP1733

The QC reported here applies to the following samples: Method: SW846 8260B

M99163-2, M99163-3, M99163-4, M99163-7

CAS No.	Compound	M99124-9 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
594-20-7	2,2-Dichloropropane	ND		82.9	36.8	44* [a]	33.2	47* [a]	10	70-130/30
563-58-6	1,1-Dichloropropene	ND		82.9	86.9	105	83.0	119	5	70-130/30
10061-01-5	cis-1,3-Dichloropropene	ND		82.9	86.3	104	82.5	118	5	70-130/30
10061-02-6	trans-1,3-Dichloropropene	ND		82.9	88.8	107	85.7	123	4	70-130/30
97-63-2	Ethyl methacrylate	ND		82.9	40.4	49	52.8	75	27	41-160/30
100-41-4	Ethylbenzene	ND		82.9	84.3	102	82.3	118	2	70-130/30
87-68-3	Hexachlorobutadiene	ND		82.9	35.1	42* [a]	46.9	67* [a]	29	70-130/30
591-78-6	2-Hexanone	ND		82.9	47.9	58* [a]	56.0	80	16	70-130/30
98-82-8	Isopropylbenzene	ND		82.9	114	137* [a]	107	153* [a]	6	70-130/30
99-87-6	p-Isopropyltoluene	ND		82.9	69.8	84	76.4	109	9	70-130/30
1634-04-4	Methyl Tert Butyl Ether	ND		82.9	85.3	103	77.8	111	9	70-130/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		82.9	65.1	79	83.1	119	24	70-130/30
74-95-3	Methylene bromide	ND		82.9	87.0	105	81.4	116	7	70-130/30
75-09-2	Methylene chloride	ND		82.9	85.1	103	76.5	109	11	70-130/30
103-65-1	n-Propylbenzene	ND		82.9	91.7	111	89.1	127	3	70-130/30
100-42-5	Styrene	ND		82.9	79.1	95	81.2	116	3	70-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		82.9	90.2	109	85.8	123	5	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		82.9	1.6	2* [a]	1.4	2* [a]	13	70-130/30
127-18-4	Tetrachloroethene	ND		82.9	88.2	106	86.5	124	2	70-130/30
108-88-3	Toluene	ND		82.9	85.1	103	83.9	120	1	70-130/30
87-61-6	1,2,3-Trichlorobenzene	ND		82.9	26.1	31* [a]	32.4	46* [a]	22	70-130/30
120-82-1	1,2,4-Trichlorobenzene	ND		82.9	27.8	34* [a]	37.7	54* [a]	30	70-130/30
71-55-6	1,1,1-Trichloroethane	ND		82.9	85.5	103	78.9	113	8	70-130/30
79-00-5	1,1,2-Trichloroethane	ND		82.9	77.4	93	77.8	111	1	70-130/30
79-01-6	Trichloroethene	ND		82.9	157	189* [a]	156	223* [a]	1	70-130/30
75-69-4	Trichlorofluoromethane	ND		82.9	70.8	85	65.3	93	8	70-130/30
96-18-4	1,2,3-Trichloropropane	ND		82.9	87.8	106	79.4	114	10	70-130/30
95-63-6	1,2,4-Trimethylbenzene	ND		82.9	82.0	99	84.8	121	3	70-130/30
108-67-8	1,3,5-Trimethylbenzene	ND		82.9	85.6	103	85.6	122	0	70-130/30
108-05-4	Vinyl Acetate	ND		82.9	ND	0* [a]	ND	0* [a]	nc	70-130/30
75-01-4	Vinyl chloride	ND		82.9	60.0	72	54.2	77	10	70-130/30
	m,p-Xylene	ND		166	167	101	165	118	1	70-130/30
95-47-6	o-Xylene	ND		82.9	82.8	100	81.9	117	1	70-130/30
1330-20-7	Xylene (total)	ND		249	250	101	247	118	1	70-130/30

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M99163
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M99124-9MS	P52324.D	1	04/19/11	AMY	n/a	n/a	MSP1733
M99124-9MSD	P52325.D	1	04/19/11	AMY	n/a	n/a	MSP1733
M99124-9	P52323.D	1	04/19/11	AMY	n/a	n/a	MSP1733

The QC reported here applies to the following samples: Method: SW846 8260B

M99163-2, M99163-3, M99163-4, M99163-7

CAS No.	Surrogate Recoveries	MS	MSD	M99124-9	Limits
1868-53-7	Dibromofluoromethane	38%* [c]	68%* [c]	45%* [c]	70-130%
2037-26-5	Toluene-D8	114%	114%	112%	70-130%
460-00-4	4-Bromofluorobenzene	118%	110%	130%	70-130%

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.
(b) Outside control limits. Associated samples are non-detect for this compound.
(c) Outside control limits due to possible matrix interference. Confirmed by MS/MSD.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M99163
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Not Sample from this SDG.

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M99232-12MS	P52386.D	1	04/20/11	AMY	n/a	n/a	MSP1734
M99232-12MSD	P52387.D	1	04/20/11	AMY	n/a	n/a	MSP1734
M99232-12	P52374.D	1	04/20/11	AMY	n/a	n/a	MSP1734

The QC reported here applies to the following samples: Method: SW846 8260B

M99163-6, M99163-8, M99163-9

CAS No.	Compound	M99232-12 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	52.5		59.4	40.9	-20* [a]	64.6	20* [a]	45* [b]	70-130/30
107-02-8	Acrolein	ND		297	1090	367* [a]	4010	1335* [a]	115* [b]	70-130/30
107-13-1	Acrylonitrile	ND		59.4	12.9	22* [a]	41.9	70	106* [b]	70-130/30
71-43-2	Benzene	ND		59.4	12.9	22* [a]	28.3	47* [a]	75* [b]	70-130/30
108-86-1	Bromobenzene	ND		59.4	7.1	12* [a]	32.8	55* [a]	129* [b]	70-130/30
74-97-5	Bromochloromethane	ND		59.4	14.6	25* [a]	33.0	55* [a]	77* [b]	70-130/30
75-27-4	Bromodichloromethane	ND		59.4	12.1	20* [a]	38.2	64* [a]	104* [b]	70-130/30
75-25-2	Bromoform	ND		59.4	10.1	17* [a]	38.3	64* [a]	117* [b]	70-130/30
74-83-9	Bromomethane	ND		59.4	15.2	26* [a]	22.1	37* [a]	37* [b]	70-130/30
78-93-3	2-Butanone (MEK)	ND		59.4	10.7	18* [a]	37.7	63* [a]	112* [b]	70-130/30
104-51-8	n-Butylbenzene	ND		59.4	0.93	2* [a]	15.9	26* [a]	178* [b]	70-130/30
135-98-8	sec-Butylbenzene	ND		59.4	1.6	3* [a]	20.7	34* [a]	171* [b]	70-130/30
98-06-6	tert-Butylbenzene	ND		59.4	1.9	3* [a]	4.2	7* [a]	75* [b]	70-130/30
75-15-0	Carbon disulfide	ND		59.4	15.5	26* [a]	24.4	41* [a]	45* [b]	70-130/30
56-23-5	Carbon tetrachloride	ND		59.4	7.9	13* [a]	19.8	33* [a]	86* [b]	70-130/30
108-90-7	Chlorobenzene	ND		59.4	8.1	14* [a]	32.2	54* [a]	120* [b]	70-130/30
75-00-3	Chloroethane	ND		59.4	16.6	28* [a]	29.2	49* [a]	55* [b]	70-130/30
110-75-8	2-Chloroethyl vinyl ether	ND		59.4	ND	0* [a]	ND	0* [a]	nc	10-160/30
67-66-3	Chloroform	ND		59.4	13.9	23* [a]	31.1	52* [a]	76* [b]	70-130/30
74-87-3	Chloromethane	ND		59.4	19.2	32* [a]	27.8	46* [a]	37* [b]	70-130/30
95-49-8	o-Chlorotoluene	ND		59.4	4.6	8* [a]	27.5	46* [a]	143* [b]	70-130/30
106-43-4	p-Chlorotoluene	ND		59.4	4.6	8* [a]	3.0	5* [a]	42* [b]	70-130/30
96-12-8	1,2-Dibromo-3-chloropropane	ND		59.4	ND	0* [a]	25.7	43* [a]	200* [b]	70-130/30
124-48-1	Dibromochloromethane	ND		59.4	11.6	20* [a]	40.6	68* [a]	111* [b]	70-130/30
106-93-4	1,2-Dibromoethane	ND		59.4	11.9	20* [a]	40.7	68* [a]	110* [b]	70-130/30
95-50-1	1,2-Dichlorobenzene	ND		59.4	3.6	6* [a]	23.7	39* [a]	147* [b]	70-130/30
541-73-1	1,3-Dichlorobenzene	ND		59.4	3.9	7* [a]	25.4	42* [a]	147* [b]	70-130/30
106-46-7	1,4-Dichlorobenzene	ND		59.4	3.6	6* [a]	23.9	40* [a]	148* [b]	70-130/30
75-71-8	Dichlorodifluoromethane	ND		59.4	10.6	18* [a]	15.6	26* [a]	38* [b]	70-130/30
75-34-3	1,1-Dichloroethane	ND		59.4	13.8	23* [a]	26.8	45* [a]	64* [b]	70-130/30
107-06-2	1,2-Dichloroethane	ND		59.4	15.1	25* [a]	3.3	5* [a]	128* [b]	70-130/30
75-35-4	1,1-Dichloroethene	ND		59.4	15.0	25* [a]	26.1	43* [a]	54* [b]	70-130/30
156-59-2	cis-1,2-Dichloroethene	ND		59.4	14.9	25* [a]	31.3	52* [a]	71* [b]	70-130/30
156-60-5	trans-1,2-Dichloroethene	ND		59.4	16.2	27* [a]	26.9	45* [a]	50* [b]	70-130/30
78-87-5	1,2-Dichloropropane	ND		59.4	11.4	19* [a]	31.1	52* [a]	93* [b]	70-130/30
142-28-9	1,3-Dichloropropane	ND		59.4	11.6	20* [a]	38.4	64* [a]	107* [b]	70-130/30

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M99163
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M99232-12MS	P52386.D	1	04/20/11	AMY	n/a	n/a	MSP1734
M99232-12MSD	P52387.D	1	04/20/11	AMY	n/a	n/a	MSP1734
M99232-12	P52374.D	1	04/20/11	AMY	n/a	n/a	MSP1734

The QC reported here applies to the following samples: **Method: SW846 8260B**

M99163-6, M99163-8, M99163-9

CAS No.	Compound	M99232-12 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
594-20-7	2,2-Dichloropropane	ND		59.4	10.9	18* [a]	14.4	24* [a]	28	70-130/30
563-58-6	1,1-Dichloropropene	ND		59.4	9.7	16* [a]	21.6	36* [a]	76* [b]	70-130/30
10061-01-5	cis-1,3-Dichloropropene	ND		59.4	12.7	21* [a]	38.2	64* [a]	100* [b]	70-130/30
10061-02-6	trans-1,3-Dichloropropene	ND		59.4	15.3	26* [a]	43.5	72	96* [b]	70-130/30
97-63-2	Ethyl methacrylate	ND		59.4	9.0	15* [a]	35.6	59	119* [b]	41-160/30
100-41-4	Ethylbenzene	ND		59.4	5.0	8* [a]	26.3	44* [a]	136* [b]	70-130/30
87-68-3	Hexachlorobutadiene	ND		59.4	ND	0* [a]	15.4	26* [a]	200* [b]	70-130/30
591-78-6	2-Hexanone	ND		59.4	2.9	5* [a]	7.0	12* [a]	83* [b]	70-130/30
98-82-8	Isopropylbenzene	ND		59.4	3.5	6* [a]	28.5	47* [a]	156* [b]	70-130/30
99-87-6	p-Isopropyltoluene	ND		59.4	3.5	6* [a]	22.2	37* [a]	146* [b]	70-130/30
1634-04-4	Methyl Tert Butyl Ether	ND		59.4	12.5	21* [a]	32.2	54* [a]	88* [b]	70-130/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		59.4	ND	0* [a]	36.0	60* [a]	200* [b]	70-130/30
74-95-3	Methylene bromide	ND		59.4	13.2	22* [a]	38.9	65* [a]	99* [b]	70-130/30
75-09-2	Methylene chloride	ND		59.4	129	217* [a]	157	261* [a]	20	70-130/30
103-65-1	n-Propylbenzene	ND		59.4	2.6	4* [a]	16.5	27* [a]	146* [b]	70-130/30
100-42-5	Styrene	ND		59.4	6.0	10* [a]	31.0	52* [a]	135* [b]	70-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		59.4	8.3	14* [a]	35.5	59* [a]	124* [b]	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		59.4	10.3	17* [a]	37.2	62* [a]	113* [b]	70-130/30
127-18-4	Tetrachloroethene	ND		59.4	5.0	8* [a]	21.4	36* [a]	124* [b]	70-130/30
108-88-3	Toluene	ND		59.4	8.8	15* [a]	28.6	48* [a]	106* [b]	70-130/30
87-61-6	1,2,3-Trichlorobenzene	ND		59.4	ND	0* [a]	15.6	26* [a]	200* [b]	70-130/30
120-82-1	1,2,4-Trichlorobenzene	ND		59.4	ND	0* [a]	16.6	28* [a]	200* [b]	70-130/30
71-55-6	1,1,1-Trichloroethane	ND		59.4	9.2	15* [a]	22.7	38* [a]	85* [b]	70-130/30
79-00-5	1,1,2-Trichloroethane	ND		59.4	10.7	18* [a]	39.6	66* [a]	115* [b]	70-130/30
79-01-6	Trichloroethene	ND		59.4	10.9	18* [a]	27.7	46* [a]	87* [b]	70-130/30
75-69-4	Trichlorofluoromethane	ND		59.4	10.2	17* [a]	17.3	29* [a]	52* [b]	70-130/30
96-18-4	1,2,3-Trichloropropane	ND		59.4	10.0	17* [a]	35.0	58* [a]	111* [b]	70-130/30
95-63-6	1,2,4-Trimethylbenzene	1.4		59.4	2.6	2* [a]	23.2	36* [a]	160* [b]	70-130/30
108-67-8	1,3,5-Trimethylbenzene	ND		59.4	2.6	4* [a]	23.2	39* [a]	160* [b]	70-130/30
108-05-4	Vinyl Acetate	ND		59.4	11.6	20* [a]	24.5	41* [a]	71* [b]	70-130/30
75-01-4	Vinyl chloride	ND		59.4	15.7	26* [a]	21.9	36* [a]	33* [b]	70-130/30
	m,p-Xylene	ND		119	9.3	8* [a]	51.8	43* [a]	139* [b]	70-130/30
95-47-6	o-Xylene	ND		59.4	4.9	8* [a]	27.3	45* [a]	139* [b]	70-130/30
1330-20-7	Xylene (total)	ND		178	14.2	8* [a]	79.1	44* [a]	139* [b]	70-130/30

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M99163
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M99232-12MS	P52386.D	1	04/20/11	AMY	n/a	n/a	MSP1734
M99232-12MSD	P52387.D	1	04/20/11	AMY	n/a	n/a	MSP1734
M99232-12	P52374.D	1	04/20/11	AMY	n/a	n/a	MSP1734

The QC reported here applies to the following samples: Method: SW846 8260B

M99163-6, M99163-8, M99163-9

CAS No.	Surrogate Recoveries	MS	MSD	M99232-12	Limits
1868-53-7	Dibromofluoromethane	102%	102%	103%	70-130%
2037-26-5	Toluene-D8	110%	111%	111%	70-130%
460-00-4	4-Bromofluorobenzene	114%	105%	118%	70-130%

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.
(b) High RPD due to possible matrix interference and/or sample non-homogeneity.

Volatile Internal Standard Area Summary

Job Number: M99163
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Check Std:	MSG4238-CC4220	Injection Date:	04/18/11
Lab File ID:	G105066.D	Injection Time:	09:41
Instrument ID:	GCMSG	Method:	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	74665	9.12	115777	10.00	62679	13.28	65805	15.85	31758	6.67
Upper Limit [a]	149330	9.62	231554	10.50	125358	13.78	131610	16.35	63516	7.17
Lower Limit [b]	37333	8.62	57889	9.50	31340	12.78	32903	15.35	15879	6.17
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSG4238-BS	74665	9.12	115777	10.00	62679	13.28	65805	15.85	31758	6.67
MSG4238-MB	73961	9.12	114194	10.00	60364	13.28	56122	15.85	31489	6.67
ZZZZZZ	72829	9.13	112689	10.00	59766	13.28	55012	15.85	27559	6.68
ZZZZZZ	72941	9.13	112746	10.00	59545	13.28	56304	15.85	28557	6.68
ZZZZZZ	73002	9.12	114192	10.00	60775	13.28	56618	15.85	27722	6.67
ZZZZZZ	73473	9.12	113991	10.00	60201	13.28	55906	15.85	29685	6.68
ZZZZZZ	73610	9.12	113558	10.00	59916	13.28	55852	15.85	32065	6.68
M99163-1	73331	9.12	112142	10.00	60399	13.28	55981	15.85	30982	6.67
M99163-5	71393	9.12	111075	10.00	59470	13.28	55069	15.85	31975	6.68
ZZZZZZ	71532	9.13	111156	10.00	58902	13.28	54800	15.85	31238	6.68
ZZZZZZ	72469	9.12	112527	10.00	59730	13.28	55614	15.85	32856	6.68
ZZZZZZ	72107	9.13	112485	10.00	59383	13.28	55466	15.85	33455	6.68
ZZZZZZ	72374	9.13	112870	10.00	59423	13.28	55282	15.85	32228	6.68
ZZZZZZ	73213	9.13	113663	10.00	60627	13.28	58893	15.85	34161	6.68
ZZZZZZ	70866	9.12	109627	10.00	60010	13.28	62091	15.85	27590	6.68
ZZZZZZ	72557	9.13	112943	10.00	60090	13.28	55907	15.85	28319	6.68
ZZZZZZ	72273	9.13	113141	10.00	60192	13.28	55764	15.85	29986	6.68
ZZZZZZ	69639	9.13	108544	10.00	58731	13.28	54012	15.85	29584	6.68
ZZZZZZ	71073	9.12	111156	10.00	60464	13.28	55356	15.85	32113	6.68
ZZZZZZ	70103	9.12	112375	10.00	63358	13.28	66901	15.85	41711	6.68
M99200-2	72253	9.12	114072	10.00	61190	13.28	56293	15.85	32536	6.68
M99200-2MS	72031	9.12	114745	10.00	63262	13.28	67336	15.85	33729	6.68
M99200-2MSD	71693	9.12	114244	10.00	63305	13.28	66158	15.85	34877	6.67

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Internal Standard Area Summary

Job Number: M99163
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Check Std:	MSP1733-CC1729	Injection Date:	04/19/11
Lab File ID:	P52319.D	Injection Time:	11:12
Instrument ID:	GCMSP	Method:	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	94468	8.51	141046	9.37	64948	12.58	61256	15.14	35631	6.27
Upper Limit [a]	188936	9.01	282092	9.87	129896	13.08	122512	15.64	71262	6.77
Lower Limit [b]	47234	8.01	70523	8.87	32474	12.08	30628	14.64	17816	5.77
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSP1733-BS	98934	8.51	143988	9.36	67027	12.58	60962	15.14	32965	6.25
MSP1733-MB	92812	8.52	135026	9.37	57615	12.59	43220	15.15	33579	6.32
M99124-9	90720	8.53	132165	9.38	54398	12.59	37006	15.15	9715[c]	6.51
M99124-9MS	85653	8.51	127306	9.37	55101	12.58	41868	15.14	18247	6.32
M99124-9MSD	92724	8.51	135104	9.37	62190	12.58	51943	15.14	21473	6.28
ZZZZZZ	87049	8.52	127853	9.38	50765	12.59	34222	15.14	27484	6.34
ZZZZZZ	84753	8.52	122233	9.38	46124	12.59	26416[d]	15.15	20672	6.39
ZZZZZZ	84899	8.52	124746	9.38	51913	12.59	31152	15.14	20741	6.44
ZZZZZZ	85013	8.53	121526	9.38	45241	12.59	24187[d]	15.15	20085	6.44
ZZZZZZ	86088	8.52	126192	9.38	51444	12.59	34067	15.15	16738[d]	6.38
ZZZZZZ	80143	8.52	118165	9.38	45428	12.59	28341[d]	15.15	22538	6.35
ZZZZZZ	83255	8.52	118332	9.38	46269	12.59	28755[d]	15.15	11359[d]	6.46
ZZZZZZ	9052[d]	8.54	12165[d]	9.39	4749[d]	12.60	2990[d]	15.15	0[d]	0.00*
ZZZZZZ	69874	8.52	101455	9.38	32652	12.59	16194[d]	15.15	15960[d]	6.37
ZZZZZZ	11348[d]	8.53	14945[d]	9.38	5384[d]	12.60	2923[d]	15.15	0[d]	0.00*
ZZZZZZ	84623	8.53	123565	9.38	50740	12.59	34006	15.15	13091[e]	6.45
M99163-2	82480	8.51	125362	9.37	54688	12.59	43001	15.14	37970	6.34
M99163-3	83621	8.51	128708	9.37	55949	12.59	43651	15.14	42509	6.34
M99163-4	85656	8.52	127510	9.37	56266	12.59	42139	15.14	47030	6.36
M99163-7	87820	8.52	129413	9.38	57319	12.59	45999	15.14	51562	6.36
ZZZZZZ	86660	8.52	126588	9.38	51151	12.59	34866	15.14	27825	6.34
ZZZZZZ	85376	8.52	123342	9.37	48209	12.59	27827[d]	15.15	26729	6.35
ZZZZZZ	86265	8.52	127978	9.38	51807	12.59	35016	15.14	30012	6.34
ZZZZZZ	81752	8.53	120013	9.38	45979	12.59	25460[d]	15.15	30265	6.32
ZZZZZZ	87478	8.53	128291	9.38	53489	12.59	37357	15.15	16701[d]	6.44
ZZZZZZ	82148	8.52	119762	9.38	46049	12.59	32747	15.14	26968	6.32
ZZZZZZ	83690	8.52	123852	9.37	50700	12.59	35791	15.14	25958	6.34
ZZZZZZ	84705	8.52	124506	9.38	50619	12.59	33687	15.15	28851	6.35
ZZZZZZ	78533	8.52	108847	9.37	38170	12.59	19886[d]	15.15	19505	6.37
ZZZZZZ	74969	8.52	108627	9.37	43011	12.59	26634[d]	15.15	25879	6.36
ZZZZZZ	88518	8.52	131012	9.37	55252	12.59	39118	15.14	56347	6.26
ZZZZZZ	86366	8.52	129141	9.37	53810	12.59	36096	15.14	45969	6.34

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene

Volatile Internal Standard Area Summary

Job Number: M99163
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Check Std:	MSP1733-CC1729	Injection Date:	04/19/11
Lab File ID:	P52319.D	Injection Time:	11:12
Instrument ID:	GCMSP	Method:	SW846 8260B

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT

IS 2 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.
(c) Outside control limits due to possible matrix interference. Confirmed by MS/MSD.
(d) Outside control limits due to possible matrix interference. Confirmed by reanalysis.
(e) Outside control limits. Target analytes not associated with this internal standard.

Volatile Internal Standard Area Summary

Job Number: M99163
Account: SHELLW1C Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Check Std:	MSP1734-CC1729	Injection Date:	04/20/11
Lab File ID:	P52368.D	Injection Time:	11:11
Instrument ID:	GCMSP	Method:	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	93610	8.51	143342	9.36	66926	12.58	61044	15.14	33045	6.23
Upper Limit [a]	187220	9.01	286684	9.86	133852	13.08	122088	15.64	66090	6.73
Lower Limit [b]	46805	8.01	71671	8.86	33463	12.08	30522	14.64	16523	5.73
Lab Sample ID	**IS 1 AREA**	**RT**	**IS 2 AREA**	**RT**	**IS 3 AREA**	**RT**	**IS 4 AREA**	**RT**	**IS 5 AREA**	**RT**
MSP1734-BS	93610	8.51	143342	9.36	66926	12.58	61044	15.14	33045	6.23
MSP1734-MB	89333	8.52	133709	9.37	57407	12.59	42485	15.14	32478	6.35
ZZZZZZ	85028	8.52	127544	9.37	57304	12.59	44810	15.14	46478	6.33
ZZZZZZ	82388	8.52	124632	9.37	56141	12.59	42815	15.14	45631	6.31
M99232-12	88254	8.52	130656	9.37	55741	12.59	43445	15.14	44025	6.34
ZZZZZZ	78449	8.52	117410	9.38	41016	12.59	21231[c]	15.14	39179	6.37
ZZZZZZ	7312[c]	8.52	9617[c]	9.38	3580[c]	12.59	2142[c]	15.15	0[c]	0.00*
ZZZZZZ	85722	8.52	125506	9.37	53567	12.59	36886	15.15	28555	6.33
ZZZZZZ	74929	8.51	116039	9.37	45778	12.59	29657[c]	15.15	47517	6.33
ZZZZZZ	85719	8.52	127364	9.37	55358	12.59	40174	15.14	48494	6.32
ZZZZZZ	81171	8.52	124386	9.38	51993	12.59	34090	15.14	50053	6.32
ZZZZZZ	87474	8.52	133262	9.38	56432	12.59	37736	15.14	56256	6.32
ZZZZZZ	73208	8.52	105089	9.37	34408	12.59	15279[c]	15.15	21288	6.39
ZZZZZZ	84106	8.52	127451	9.38	53278	12.59	36456	15.15	47626	6.36
ZZZZZZ	83839	8.52	125446	9.38	51033	12.59	33251	15.15	45378	6.34
ZZZZZZ	85182	8.52	126725	9.37	54387	12.59	37846	15.15	49383	6.33
M99232-12MS	86676	8.52	131608	9.37	55252	12.59	43170	15.14	26653	6.30
M99232-12MSD	88376	8.51	135010	9.37	60357	12.58	53511	15.14	27803	6.30
M99163-9	82593	8.52	126517	9.37	54596	12.59	42062	15.14	49402	6.32
M99163-8	85282	8.52	126222	9.37	53765	12.59	39979	15.15	25881	6.38
M99163-6	84982	8.52	126810	9.37	55665	12.59	41680	15.14	35748	6.33
ZZZZZZ	81118	8.52	120287	9.37	45345	12.59	26063[c]	15.14	45191	6.32
ZZZZZZ	80828	8.52	121360	9.37	50247	12.59	31331	15.14	48952	6.33
ZZZZZZ	7835[c]	8.53	11555[c]	9.38	4649[c]	12.60	3220[c]	15.15	2090[c]	6.32
ZZZZZZ	75432	8.52	110821	9.37	38730	12.59	18323[c]	15.15	43675	6.36

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.
(c) Outside control limits due to possible matrix interference. Confirmed by reanalysis.

Volatile Surrogate Recovery Summary

Job Number: M99163
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Method: SW846 8260B Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
M99163-1	G105074.D	117.0	114.0	109.0
M99163-5	G105075.D	117.0	114.0	109.0
M99200-2MS	G105088.D	121.0	114.0	101.0
M99200-2MSD	G105089.D	121.0	115.0	102.0
MSG4238-BS	G105066A.D	117.0	112.0	101.0
MSG4238-MB	G105068.D	116.0	111.0	110.0

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	70-130%
S2 = Toluene-D8	70-130%
S3 = 4-Bromofluorobenzene	70-130%

Volatile Surrogate Recovery Summary

Job Number: M99163
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Method: SW846 8260B Matrix: SO

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
M99163-2	P52338.D	111.0	118.0	124.0
M99163-3	P52339.D	112.0	117.0	124.0
M99163-4	P52340.D	110.0	121.0	130.0
M99163-6	P52392.D	107.0	116.0	124.0
M99163-7	P52342.D	110.0	121.0	123.0
M99163-8	P52391.D	102.0	111.0	121.0
M99163-9	P52389.D	109.0	115.0	121.0
M99124-9MS	P52324.D	38.0* [a]	114.0	118.0
M99124-9MSD	P52325.D	68.0* [a]	114.0	110.0
M99232-12MS	P52386.D	102.0	110.0	114.0
M99232-12MSD	P52387.D	102.0	111.0	105.0
MSP1733-BS	P52320.D	99.0	115.0	104.0
MSP1733-MB	P52322.D	97.0	110.0	120.0
MSP1734-BS	P52368.D	104.0	114.0	105.0
MSP1734-MB	P52370.D	101.0	111.0	119.0

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	70-130%
S2 = Toluene-D8	70-130%
S3 = 4-Bromofluorobenzene	70-130%

(a) Outside control limits due to possible matrix interference. Confirmed by MS/MSD.

New England ACCUTEST LABORATORIES

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: M99163
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24605-MB	S23146.D	1	04/19/11	PR	04/11/11	OP24605	MSS979

The QC reported here applies to the following samples: Method: SW846 8270C

M99163-5

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	0.77	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	0.68	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.57	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.69	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	2.2	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	5.0	ug/l	
95-48-7	2-Methylphenol	ND	10	0.48	ug/l	
	3&4-Methylphenol	ND	10	0.63	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.66	ug/l	
100-02-7	4-Nitrophenol	ND	20	5.0	ug/l	
87-86-5	Pentachlorophenol	ND	10	3.3	ug/l	
108-95-2	Phenol	ND	5.0	2.1	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	0.40	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.38	ug/l	
83-32-9	Acenaphthene	ND	5.0	0.34	ug/l	
208-96-8	Acenaphthylene	ND	5.0	1.3	ug/l	
62-53-3	Aniline	ND	10	0.46	ug/l	
120-12-7	Anthracene	ND	5.0	0.27	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	0.27	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	0.23	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	0.27	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	0.61	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.0	0.29	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	0.32	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	0.41	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	0.31	ug/l	
106-47-8	4-Chloroaniline	ND	10	0.58	ug/l	
218-01-9	Chrysene	ND	5.0	0.22	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	0.35	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	0.23	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	0.21	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	0.61	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	1.3	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.34	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	2.5	ug/l	

Method Blank Summary

Job Number: M99163
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24605-MB	S23146.D	1	04/19/11	PR	04/11/11	OP24605	MSS979

The QC reported here applies to the following samples: Method: SW846 8270C

M99163-5

CAS No.	Compound	Result	RL	MDL	Units	Q
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	0.25	ug/l	
132-64-9	Dibenzofuran	ND	5.0	0.32	ug/l	
84-74-2	Di-n-butyl phthalate	5.4	5.0	0.34	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	0.34	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	0.61	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	1.3	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	8.0	2.0	0.49	ug/l	
206-44-0	Fluoranthene	ND	5.0	0.22	ug/l	
86-73-7	Fluorene	ND	5.0	0.29	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	0.16	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	2.5	ug/l	
67-72-1	Hexachloroethane	ND	5.0	0.43	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	0.29	ug/l	
78-59-1	Isophorone	ND	5.0	0.47	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	0.31	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.33	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.32	ug/l	
100-01-6	4-Nitroaniline	ND	10	0.33	ug/l	
91-20-3	Napbthalene	ND	5.0	0.33	ug/l	
98-95-3	Nitrobenzene	ND	5.0	0.31	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.0	0.41	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.61	ug/l	
85-01-8	Pbenanthrene	ND	5.0	0.26	ug/l	
129-00-0	Pyrene	ND	5.0	0.25	ug/l	
110-86-1	Pyridine	ND	10	0.50	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	40%	15-110%
4165-62-2	Phenol-d5	27%	15-110%
118-79-6	2,4,6-Tribromophenol	57%	15-110%
4165-60-0	Nitrobenzene-d5	67%	30-130%
321-60-8	2-Fluorobiphenyl	65%	30-130%
1718-51-0	Terphenyl-d14	76%	30-130%

Method Blank Summary

Job Number: M99163
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24621-MB	S23236.D	1	04/21/11	KR	04/13/11	OP24621	MSS983

The QC reported here applies to the following samples: Method: SW846 8270C

M99163-2, M99163-3, M99163-4, M99163-6, M99163-7, M99163-8, M99163-9

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic acid	ND	490	38	ug/kg	
95-57-8	2-Chlorophenol	ND	250	13	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	490	17	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	490	29	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	490	49	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	980	250	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	490	250	ug/kg	
95-48-7	2-Methylphenol	ND	490	14	ug/kg	
	3&4-Methylphenol	ND	490	26	ug/kg	
88-75-5	2-Nitrophenol	ND	490	30	ug/kg	
100-02-7	4-Nitrophenol	ND	980	250	ug/kg	
87-86-5	Pentachlorophenol	ND	490	46	ug/kg	
108-95-2	Phenol	ND	250	41	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	490	37	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	490	34	ug/kg	
83-32-9	Acenaphthene	ND	250	21	ug/kg	
208-96-8	Acenaphthylene	ND	250	18	ug/kg	
62-53-3	Aniline	ND	490	490	ug/kg	
120-12-7	Anthracene	ND	250	19	ug/kg	
56-55-3	Benzo(a)anthracene	ND	250	9.0	ug/kg	
50-32-8	Benzo(a)pyrene	ND	250	15	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	250	29	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	250	16	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	250	7.3	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	250	20	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	250	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	250	21	ug/kg	
106-47-8	4-Chloroaniline	ND	490	120	ug/kg	
218-01-9	Chrysene	ND	250	8.0	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	250	19	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	250	5.3	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	250	23	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	250	22	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	490	120	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	490	24	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	250	5.9	ug/kg	

Method Blank Summary

Job Number: M99163
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24621-MB	S23236.D	1	04/21/11	KR	04/13/11	OP24621	MSS983

The QC reported here applies to the following samples: Method: SW846 8270C

M99163-2, M99163-3, M99163-4, M99163-6, M99163-7, M99163-8, M99163-9

CAS No.	Compound	Result	RL	MDL	Units	Q
53-70-3	Dibenzo(a,h)anthracene	ND	250	16	ug/kg	
132-64-9	Dibenzofuran	ND	250	21	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	250	22	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	250	13	ug/kg	
84-66-2	Diethyl phthalate	ND	250	21	ug/kg	
131-11-3	Dimethyl phthalate	ND	250	17	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	253	250	17	ug/kg	
206-44-0	Fluoranthene	ND	250	8.4	ug/kg	
86-73-7	Fluorene	ND	250	5.4	ug/kg	
118-74-1	Hexachlorobenzene	ND	250	21	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	490	3.3	ug/kg	
67-72-1	Hexachloroethane	ND	250	20	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	250	15	ug/kg	
78-59-1	Isophorone	ND	250	24	ug/kg	
91-57-6	2-Methylnaphthalene	ND	250	21	ug/kg	
88-74-4	2-Nitroaniline	ND	490	120	ug/kg	
99-09-2	3-Nitroaniline	ND	490	120	ug/kg	
100-01-6	4-Nitroaniline	ND	490	18	ug/kg	
91-20-3	Naphthalene	ND	250	5.7	ug/kg	
98-95-3	Nitrobenzene	ND	250	7.3	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	250	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	250	13	ug/kg	
85-01-8	Phenanthrene	ND	250	6.3	ug/kg	
129-00-0	Pyrene	ND	250	7.9	ug/kg	
110-86-1	Pyridine	ND	490	490	ug/kg	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	86%	30-130%
4165-62-2	Phenol-d5	84%	30-130%
118-79-6	2,4,6-Tribromophenol	81%	30-130%
4165-60-0	Nitrobenzene-d5	88%	30-130%
321-60-8	2-Fluorobiphenyl	84%	30-130%
1718-51-0	Terphenyl-d14	108%	30-130%

Blank Spike Summary

Job Number: M99163
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24605-BS	S23147.D	1	04/19/11	PR	04/11/11	OP24605	MSS979

The QC reported here applies to the following samples: Method: SW846 8270C

M99163-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
65-85-0	Benzoic Acid	100	8.1	8* a	30-130
95-57-8	2-Chlorophenol	100	73.4	73	30-130
59-50-7	4-Chloro-3-methyl phenol	100	73.7	74	30-130
120-83-2	2,4-Dichlorophenol	100	78.7	79	30-130
105-67-9	2,4-Dimethylphenol	100	63.7	64	30-130
51-28-5	2,4-Dinitrophenol	100	41.3	41	30-130
534-52-1	4,6-Dinitro-o-cresol	100	52.9	53	30-130
95-48-7	2-Methylphenol	100	66.7	67	30-130
	3&4-Methylphenol	200	169	85	30-130
88-75-5	2-Nitrophenol	100	83.0	83	30-130
100-02-7	4-Nitrophenol	100	41.6	42	30-130
87-86-5	Pentachlorophenol	100	63.0	63	30-130
108-95-2	Phenol	100	35.0	35	30-130
95-95-4	2,4,5-Trichlorophenol	100	65.8	66	30-130
88-06-2	2,4,6-Trichlorophenol	100	71.8	72	30-130
83-32-9	Acenaphthene	50	36.6	73	40-140
208-96-8	Acenaphthylene	50	28.1	56	40-140
62-53-3	Aniline	50	24.8	50	40-140
120-12-7	Anthracene	50	35.8	72	40-140
56-55-3	Benzo(a)anthracene	50	39.3	79	40-140
50-32-8	Benzo(a)pyrene	50	33.4	67	40-140
205-99-2	Benzo(b)fluoranthene	50	35.6	71	40-140
191-24-2	Benzo(g,h,i)perylene	50	44.2	88	40-140
207-08-9	Benzo(k)fluoranthene	50	37.2	74	40-140
101-55-3	4-Bromophenyl phenyl ether	50	39.9	80	40-140
85-68-7	Butyl benzyl phthalate	50	42.0	84	40-140
91-58-7	2-Chloronaphthalene	50	37.0	74	40-140
106-47-8	4-Chloroaniline	50	18.5	37* a	40-140
218-01-9	Chrysene	50	36.9	74	40-140
111-91-1	bis(2-Chloroethoxy)methane	50	36.4	73	40-140
111-44-4	bis(2-Chloroethyl)ether	50	24.1	48	40-140
108-60-1	bis(2-Chloroisopropyl)ether	50	38.4	77	40-140
7005-72-3	4-Chlorophenyl phenyl ether	50	37.4	75	40-140
121-14-2	2,4-Dinitrotoluene	50	39.8	80	40-140
606-20-2	2,6-Dinitrotoluene	50	38.8	78	40-140
91-94-1	3,3'-Dichlorobenzidine	50	34.2	68	40-140

Blank Spike Summary

Job Number: M99163
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24605-BS	S23147.D	1	04/19/11	PR	04/11/11	OP24605	MSS979

The QC reported here applies to the following samples: Method: SW846 8270C

M99163-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
53-70-3	Dibenzo(a,h)anthracene	50	42.8	86	40-140
132-64-9	Dibenzofuran	50	35.6	71	40-140
84-74-2	Di-n-butyl phthalate	50	40.7	81	40-140
117-84-0	Di-n-octyl phthalate	50	43.7	87	40-140
84-66-2	Diethyl phthalate	50	40.9	82	40-140
131-11-3	Dimethyl phthalate	50	39.9	80	40-140
117-81-7	bis(2-Ethylhexyl)phthalate	50	41.9	84	40-140
206-44-0	Fluoranthene	50	38.1	76	40-140
86-73-7	Fluorene	50	37.5	75	40-140
118-74-1	Hexachlorobenzene	50	39.5	79	40-140
77-47-4	Hexachlorocyclopentadiene	50	14.4	29* [a]	40-140
67-72-1	Hexachloroethane	50	33.5	67	40-140
193-39-5	Indeno(1,2,3-cd)pyrene	50	46.0	92	40-140
78-59-1	Isophorone	50	37.1	74	40-140
91-57-6	2-Methylnaphthalene	50	34.7	69	40-140
88-74-4	2-Nitroaniline	50	39.6	79	40-140
99-09-2	3-Nitroaniline	50	20.7	41	40-140
100-01-6	4-Nitroaniline	50	31.0	62	40-140
91-20-3	Naphthalene	50	35.7	71	40-140
98-95-3	Nitrobenzene	50	35.6	71	40-140
621-64-7	N-Nitroso-di-n-propylamine	50	41.7	83	40-140
86-30-6	N-Nitrosodiphenylamine	50	39.2	78	40-140
85-01-8	Phenanthrene	50	37.3	75	40-140
129-00-0	Pyrene	50	37.5	75	40-140
110-86-1	Pyridine	50	19.4	39* [a]	40-140

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	49%	15-110%
4165-62-2	Phenol-d5	34%	15-110%
118-79-6	2,4,6-Tribromophenol	75%	15-110%
4165-60-0	Nitrobenzene-d5	77%	30-130%
321-60-8	2-Fluorobiphenyl	74%	30-130%
1718-51-0	Terphenyl-d14	75%	30-130%

Blank Spike Summary

Job Number: M99163
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24605-BS	S23147.D	1	04/19/11	PR	04/11/11	OP24605	MSS979

The QC reported here applies to the following samples: Method: SW846 8270C

M99163-5

(a) Outside control limits. Blank Spike meets program technical requirements.

Blank Spike Summary

Job Number: M99163
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24621-BS	S23237.D	1	04/21/11	KR	04/13/11	OP24621	MSS983

The QC reported here applies to the following samples: Method: SW846 8270C

M99163-2, M99163-3, M99163-4, M99163-6, M99163-7, M99163-8, M99163-9

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
65-85-0	Benzoic acid	4960	2600	52	30-130
95-57-8	2-Chlorophenol	4960	4160	84	30-130
59-50-7	4-Chloro-3-methyl phenol	4960	4670	94	30-130
120-83-2	2,4-Dichlorophenol	4960	4540	91	30-130
105-67-9	2,4-Dimethylphenol	4960	4190	84	30-130
51-28-5	2,4-Dinitrophenol	4960	3060	62	30-130
534-52-1	4,6-Dinitro-o-cresol	4960	4080	82	30-130
95-48-7	2-Methylphenol	4960	4240	85	30-130
	3&4-Methylphenol	9930	11700	118	30-130
88-75-5	2-Nitrophenol	4960	4590	92	30-130
100-02-7	4-Nitrophenol	4960	4580	92	30-130
87-86-5	Pentachlorophenol	4960	4100	83	30-130
108-95-2	Phenol	4960	3980	80	30-130
95-95-4	2,4,5-Trichlorophenol	4960	4340	87	30-130
88-06-2	2,4,6-Trichlorophenol	4960	4710	95	30-130
83-32-9	Acenaphthene	2480	2160	87	40-140
208-96-8	Acenaphthylene	2480	1660	67	40-140
62-53-3	Aniline	2480	1000	40	40-140
120-12-7	Anthracene	2480	2160	87	40-140
56-55-3	Benzo(a)anthracene	2480	2370	96	40-140
50-32-8	Benzo(a)pyrene	2480	1960	79	40-140
205-99-2	Benzo(b)fluoranthene	2480	2260	91	40-140
191-24-2	Benzo(g,h,i)perylene	2480	2480	100	40-140
207-08-9	Benzo(k)fluoranthene	2480	2180	88	40-140
101-55-3	4-Bromophenyl phenyl ether	2480	2370	96	40-140
85-68-7	Butyl benzyl phthalate	2480	2740	110	40-140
91-58-7	2-Chloronaphthalene	2480	2180	88	40-140
106-47-8	4-Chloroaniline	2480	1610	65	40-140
218-01-9	Chrysene	2480	2180	88	40-140
111-91-1	bis(2-Chloroethoxy)methane	2480	2070	83	40-140
111-44-4	bis(2-Chloroethyl)ether	2480	1760	71	40-140
108-60-1	bis(2-Chloroisopropyl)ether	2480	2250	91	40-140
7005-72-3	4-Chlorophenyl phenyl ether	2480	2140	86	40-140
121-14-2	2,4-Dinitrotoluene	2480	2350	95	40-140
606-20-2	2,6-Dinitrotoluene	2480	2250	91	40-140
91-94-1	3,3'-Dichlorobenzidine	2480	2070	83	40-140

Blank Spike Summary

Job Number: M99163
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24621-BS	S23237.D	1	04/21/11	KR	04/13/11	OP24621	MSS983

The QC reported here applies to the following samples: Method: SW846 8270C

M99163-2, M99163-3, M99163-4, M99163-6, M99163-7, M99163-8, M99163-9

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
53-70-3	Dibenzo(a,h)anthracene	2480	2430	98	40-140
132-64-9	Dibenzofuran	2480	2080	84	40-140
84-74-2	Di-n-butyl phthalate	2480	2320	93	40-140
117-84-0	Di-n-octyl phthalate	2480	3090	125	40-140
84-66-2	Diethyl phthalate	2480	2420	98	40-140
131-11-3	Dimethyl phthalate	2480	2350	95	40-140
117-81-7	bis(2-Ethylhexyl)phthalate	2480	2600	105	40-140
206-44-0	Fluoranthene	2480	2170	87	40-140
86-73-7	Fluorene	2480	2140	86	40-140
118-74-1	Hexachlorobenzene	2480	2340	94	40-140
77-47-4	Hexachlorocyclopentadiene	2480	1200	48	40-140
67-72-1	Hexachloroethane	2480	1930	78	40-140
193-39-5	Indeno(1,2,3-cd)pyrene	2480	2540	102	40-140
78-59-1	Isophorone	2480	2230	90	40-140
91-57-6	2-Methylnaphthalene	2480	1960	79	40-140
88-74-4	2-Nitroaniline	2480	2320	93	40-140
99-09-2	3-Nitroaniline	2480	1890	76	40-140
100-01-6	4-Nitroaniline	2480	1920	77	40-140
91-20-3	Naphthalene	2480	2010	81	40-140
98-95-3	Nitrobenzene	2480	2050	83	40-140
621-64-7	N-Nitroso-di-n-propylamine	2480	2420	98	40-140
86-30-6	N-Nitrosodiphenylamine	2480	2320	93	40-140
85-01-8	Phenanthrene	2480	2170	87	40-140
129-00-0	Pyrene	2480	2440	98	40-140
110-86-1	Pyridine	2480	1310	53	40-140

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	79%	30-130%
4165-62-2	Phenol-d5	80%	30-130%
118-79-6	2,4,6-Tribromophenol	86%	30-130%
4165-60-0	Nitrobenzene-d5	85%	30-130%
321-60-8	2-Fluorobiphenyl	82%	30-130%
1718-51-0	Terphenyl-d14	96%	30-130%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M99163
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24605-MS	S23148.D	1	04/19/11	PR	04/11/11	OP24605	MSS979
OP24605-MSD	S23149.D	1	04/19/11	PR	04/11/11	OP24605	MSS979
M99246-2	S23150.D	1	04/19/11	PR	04/11/11	OP24605	MSS979

The QC reported here applies to the following samples: Method: SW846 8270C

M99163-5

CAS No.	Compound	M99246-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
65-85-0	Benzoic Acid	ND		100	8.1	8* a	8.0	8* a	1	30-130/20
95-57-8	2-Chlorophenol	ND		100	73.7	74	76.7	77	4	30-130/20
59-50-7	4-Chloro-3-methyl phenol	ND		100	71.6	72	76.9	77	7	30-130/20
120-83-2	2,4-Dichlorophenol	ND		100	77.5	78	81.3	81	5	30-130/20
105-67-9	2,4-Dimethylphenol	ND		100	64.0	64	67.9	68	6	30-130/20
51-28-5	2,4-Dinitrophenol	ND		100	35.3	35	39.9	40	12	30-130/20
534-52-1	4,6-Dinitro-o-cresol	ND		100	47.6	48	52.0	52	9	30-130/20
95-48-7	2-Methylphenol	ND		100	66.0	66	68.2	68	3	30-130/20
	3&4-Methylphenol	ND		200	165	83	174	87	5	30-130/20
88-75-5	2-Nitrophenol	ND		100	82.9	83	85.8	86	3	30-130/20
100-02-7	4-Nitrophenol	ND		100	39.2	39	42.9	43	9	30-130/20
87-86-5	Pentachlorophenol	ND		100	62.8	63	67.0	67	6	30-130/20
108-95-2	Phenol	ND		100	33.8	34	36.4	36	7	30-130/20
95-95-4	2,4,5-Trichlorophenol	ND		100	66.9	67	70.4	70	5	30-130/20
88-06-2	2,4,6-Trichlorophenol	ND		100	72.2	72	76.4	76	6	30-130/20
83-32-9	Acenaphthene	ND		50	36.6	73	38.2	76	4	40-140/20
208-96-8	Acenaphthylene	ND		50	28.0	56	28.8	58	3	40-140/20
62-53-3	Aniline	ND		50	26.3	53	24.9	50	5	40-140/20
120-12-7	Anthracene	ND		50	35.4	71	36.4	73	3	40-140/20
56-55-3	Benzo(a)anthracene	ND		50	38.9	78	40.5	81	4	40-140/20
50-32-8	Benzo(a)pyrene	ND		50	32.6	65	34.2	68	5	40-140/20
205-99-2	Benzo(b)fluoranthene	ND		50	33.2	66	35.3	71	6	40-140/20
191-24-2	Benzo(g,h,i)perylene	ND		50	40.2	80	43.2	86	7	40-140/20
207-08-9	Benzo(k)fluoranthene	ND		50	36.4	73	37.9	76	4	40-140/20
101-55-3	4-Bromophenyl phenyl ether	ND		50	41.4	83	41.6	83	0	40-140/20
85-68-7	Butyl benzyl phthalate	ND		50	41.7	83	41.9	84	0	40-140/20
91-58-7	2-Chloronaphthalene	ND		50	37.3	75	38.3	77	3	40-140/20
106-47-8	4-Chloroaniline	ND		50	18.4	37* a	19.2	38* a	4	40-140/20
218-01-9	Chrysene	ND		50	36.3	73	37.8	76	4	40-140/20
111-91-1	bis(2-Chloroethoxy)methane	ND		50	35.9	72	37.1	74	3	40-140/20
111-44-4	bis(2-Chloroethyl)ether	ND		50	23.2	46	24.6	49	6	40-140/20
108-60-1	bis(2-Chloroisopropyl)ether	ND		50	39.2	78	40.5	81	3	40-140/20
7005-72-3	4-Chlorophenyl phenyl ether	ND		50	37.3	75	38.2	76	2	40-140/20
121-14-2	2,4-Dinitrotoluene	ND		50	39.5	79	40.9	82	3	40-140/20
606-20-2	2,6-Dinitrotoluene	ND		50	38.8	78	40.5	81	4	40-140/20
91-94-1	3,3'-Dichlorobenzidine	ND		50	33.8	68	34.6	69	2	40-140/20

6.3.1

6

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M99163
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24605-MS	S23148.D	1	04/19/11	PR	04/11/11	OP24605	MSS979
OP24605-MSD	S23149.D	1	04/19/11	PR	04/11/11	OP24605	MSS979
M99246-2	S23150.D	1	04/19/11	PR	04/11/11	OP24605	MSS979

The QC reported here applies to the following samples: Method: SW846 8270C

M99163-5

CAS No.	Compound	M99246-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
53-70-3	Dibenzo(a,h)anthracene	ND		50	41.6	83	43.6	87	5	40-140/20
132-64-9	Dibenzofuran	ND		50	35.3	71	36.5	73	3	40-140/20
84-74-2	Di-n-butyl phthalate	4.9		50	40.6	71	40.7	72	0	40-140/20
117-84-0	Di-n-octyl phthalate	ND		50	39.0	78	41.3	83	6	40-140/20
84-66-2	Diethyl phthalate	ND		50	40.5	81	41.8	84	3	40-140/20
131-11-3	Dimethyl phthalate	ND		50	39.2	78	40.9	82	4	40-140/20
117-81-7	bis(2-Ethylhexyl)phthalate	5.3	B	50	41.3	72	55.3	100	29* [b]	40-140/20
206-44-0	Fluoranthene	ND		50	35.8	72	37.9	76	6	40-140/20
86-73-7	Fluorene	ND		50	37.0	74	38.3	77	3	40-140/20
118-74-1	Hexachlorobenzene	ND		50	39.8	80	40.5	81	2	40-140/20
77-47-4	Hexachlorocyclopentadiene	ND		50	12.5	25* [a]	13.4	27* [a]	7	40-140/20
67-72-1	Hexachloroethane	ND		50	35.1	70	35.7	71	2	40-140/20
193-39-5	Indeno(1,2,3-cd)pyrene	ND		50	43.4	87	45.6	91	5	40-140/20
78-59-1	Isophorone	ND		50	37.0	74	38.4	77	4	40-140/20
91-57-6	2-Methylnaphthalene	ND		50	34.7	69	36.1	72	4	40-140/20
88-74-4	2-Nitroaniline	ND		50	39.5	79	41.4	83	5	40-140/20
99-09-2	3-Nitroaniline	ND		50	21.0	42	22.0	44	5	40-140/20
100-01-6	4-Nitroaniline	ND		50	29.7	59	31.6	63	6	40-140/20
91-20-3	Naphthalene	ND		50	36.5	73	37.8	76	3	40-140/20
98-95-3	Nitrobenzene	ND		50	35.8	72	37.4	75	4	40-140/20
621-64-7	N-Nitroso-di-n-propylamine	ND		50	42.1	84	43.5	87	3	40-140/20
86-30-6	N-Nitrosodiphenylamine	ND		50	40.1	80	40.4	81	1	40-140/20
85-01-8	Phenanthrene	ND		50	36.7	73	37.3	75	2	40-140/20
129-00-0	Pyrene	ND		50	36.5	73	37.4	75	2	40-140/20
110-86-1	Pyridine	ND		50	17.2	34* [a]	15.4	31* [a]	11	40-140/20

CAS No.	Surrogate Recoveries	MS	MSD	M99246-2	Limits
367-12-4	2-Fluorophenol	48%	50%	45%	15-110%
4165-62-2	Phenol-d5	32%	35%	30%	15-110%
118-79-6	2,4,6-Tribromophenol	74%	76%	60%	15-110%
4165-60-0	Nitrobenzene-d5	76%	78%	72%	30-130%
321-60-8	2-Fluorobiphenyl	72%	74%	69%	30-130%
1718-51-0	Terphenyl-d14	73%	75%	75%	30-130%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M99163
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24605-MS	S23148.D	1	04/19/11	PR	04/11/11	OP24605	MSS979
OP24605-MSD	S23149.D	1	04/19/11	PR	04/11/11	OP24605	MSS979
M99246-2	S23150.D	1	04/19/11	PR	04/11/11	OP24605	MSS979

The QC reported here applies to the following samples: **Method:** SW846 8270C

M99163-5

(a) Outside control limits. Blank Spike meets program technical requirements.
(b) High RPD due to possible matrix interference and/or sample non-homogeneity.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M99163
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Not sample from this SDG.

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24621-MS	S23288.D	1	04/22/11	PR	04/13/11	OP24621	MSS985
OP24621-MSD	S23289.D	1	04/23/11	PR	04/13/11	OP24621	MSS985
M99208-6	S23239.D	1	04/21/11	KR	04/13/11	OP24621	MSS983

6.3.2

6

The QC reported here applies to the following samples: Method: SW846 8270C

M99163-2, M99163-3, M99163-4, M99163-6, M99163-7, M99163-8, M99163-9

CAS No.	Compound	M99208-6 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
65-85-0	Benzoic acid	ND		5500	614	11* [a]	504	9* [a]	20	30-130/30
95-57-8	2-Chlorophenol	ND		5500	4120	75	4420	80	7	30-130/30
59-50-7	4-Chloro-3-methyl phenol	ND		5500	4710	86	5100	93	8	30-130/30
120-83-2	2,4-Dichlorophenol	ND		5500	4450	81	4730	86	6	30-130/30
105-67-9	2,4-Dimethylphenol	ND		5500	4370	79	4780	87	9	30-130/30
51-28-5	2,4-Dinitrophenol	ND		5500	2680	49	2160	39	21	30-130/30
534-52-1	4,6-Dinitro-o-cresol	ND		5500	4060	74	4180	76	3	30-130/30
95-48-7	2-Methylphenol	ND		5500	4180	76	4540	82	8	30-130/30
	3&4-Methylphenol	ND		11000	11800	107	12600	114	7	30-130/30
88-75-5	2-Nitrophenol	ND		5500	4420	80	4860	88	9	30-130/30
100-02-7	4-Nitrophenol	ND		5500	4920	89	5030	91	2	30-130/30
87-86-5	Pentachlorophenol	ND		5500	3410	62	3720	68	9	30-130/30
108-95-2	Phenol	ND		5500	4060	74	4320	78	6	30-130/30
95-95-4	2,4,5-Trichlorophenol	ND		5500	4210	77	4750	86	12	30-130/30
88-06-2	2,4,6-Trichlorophenol	ND		5500	4480	81	4910	89	9	30-130/30
83-32-9	Acenaphthene	ND		2750	2080	76	2330	85	11	40-140/30
208-96-8	Acenaphthylene	ND		2750	1600	58	1780	65	11	40-140/30
62-53-3	Aniline	ND		2750	1310	48	1440	52	9	40-140/30
120-12-7	Anthracene	ND		2750	2060	75	2250	82	9	40-140/30
56-55-3	Benzo(a)anthracene	ND		2750	2290	83	2500	91	9	40-140/30
50-32-8	Benzo(a)pyrene	ND		2750	1930	70	2120	77	9	40-140/30
205-99-2	Benzo(b)fluoranthene	ND		2750	2250	82	2410	87	7	40-140/30
191-24-2	Benzo(g,h,i)perylene	ND		2750	2010	73	2260	82	12	40-140/30
207-08-9	Benzo(k)fluoranthene	ND		2750	2200	80	2380	86	8	40-140/30
101-55-3	4-Bromophenyl phenyl ether	ND		2750	2230	81	2500	91	11	40-140/30
85-68-7	Butyl benzyl phthalate	17.9		2750	2600	94	2860	103	10	40-140/30
91-58-7	2-Chloronaphthalene	ND		2750	2100	76	2350	85	11	40-140/30
106-47-8	4-Chloroaniline	ND		2750	1550	56	1740	63	12	40-140/30
218-01-9	Chrysene	ND		2750	2120	77	2310	84	9	40-140/30
111-91-1	bis(2-Chloroethoxy)methane	ND		2750	2010	73	2260	82	12	40-140/30
111-44-4	bis(2-Chloroethyl)ether	ND		2750	1740	63	1850	67	6	40-140/30
108-60-1	bis(2-Chloroisopropyl)ether	ND		2750	2360	86	2580	94	9	40-140/30
7005-72-3	4-Chlorophenyl phenyl ether	ND		2750	2120	77	2350	85	10	40-140/30
121-14-2	2,4-Dinitrotoluene	ND		2750	2350	85	2550	93	8	40-140/30
606-20-2	2,6-Dinitrotoluene	ND		2750	2190	80	2450	89	11	40-140/30
91-94-1	3,3'-Dichlorobenzidine	ND		2750	2030	74	2260	82	11	40-140/30

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M99163
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24621-MS	S23288.D	1	04/22/11	PR	04/13/11	OP24621	MSS985
OP24621-MSD	S23289.D	1	04/23/11	PR	04/13/11	OP24621	MSS985
M99208-6	S23239.D	1	04/21/11	KR	04/13/11	OP24621	MSS983

The QC reported here applies to the following samples: Method: SW846 8270C

M99163-2, M99163-3, M99163-4, M99163-6, M99163-7, M99163-8, M99163-9

CAS No.	Compound	M99208-6 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
53-70-3	Dibenzo(a,h)anthracene	ND		2750	2030	74	2250	82	10	40-140/30
132-64-9	Dibenzofuran	ND		2750	2010	73	2250	82	11	40-140/30
84-74-2	Di-n-butyl phthalate	257		2750	2300	74	2450	80	6	40-140/30
117-84-0	Di-n-octyl phthalate	ND		2750	3080	112	3340	121	8	40-140/30
84-66-2	Diethyl phthalate	ND		2750	2450	89	2620	95	7	40-140/30
131-11-3	Dimethyl phthalate	ND		2750	2270	83	2520	91	10	40-140/30
117-81-7	bis(2-Ethylhexyl)phthalate	396	B	2750	2450	75	2620	81	7	40-140/30
206-44-0	Fluoranthene	ND		2750	2170	79	2320	84	7	40-140/30
86-73-7	Fluorene	ND		2750	2140	78	2400	87	11	40-140/30
118-74-1	Hexachlorobenzene	ND		2750	2230	81	2430	88	9	40-140/30
77-47-4	Hexachlorocyclopentadiene	ND		2750	917	33* [a]	1050	38* [a]	14	40-140/30
67-72-1	Hexachloroethane	ND		2750	1950	71	2120	77	8	40-140/30
193-39-5	Indeno(1,2,3-cd)pyrene	ND		2750	2150	78	2390	87	11	40-140/30
78-59-1	Isophorone	ND		2750	2120	77	2350	85	10	40-140/30
91-57-6	2-Methylnaphthalene	ND		2750	1930	70	2110	77	9	40-140/30
88-74-4	2-Nitroaniline	ND		2750	2260	82	2480	90	9	40-140/30
99-09-2	3-Nitroaniline	ND		2750	1980	72	2200	80	11	40-140/30
100-01-6	4-Nitroaniline	ND		2750	2010	73	2150	78	7	40-140/30
91-20-3	Naphthalene	ND		2750	1970	72	2180	79	10	40-140/30
98-95-3	Nitrobenzene	ND		2750	2060	75	2280	83	10	40-140/30
621-64-7	N-Nitroso-di-n-propylamine	ND		2750	2510	91	2740	99	9	40-140/30
86-30-6	N-Nitrosodiphenylamine	ND		2750	2240	81	2430	88	8	40-140/30
85-01-8	Phenanthrene	ND		2750	2130	77	2280	83	7	40-140/30
129-00-0	Pyrene	ND		2750	2320	84	2550	93	9	40-140/30
110-86-1	Pyridine	ND		2750	1160	42	1510	55	26	40-140/30

CAS No.	Surrogate Recoveries	MS	MSD	M99208-6	Limits
367-12-4	2-Fluorophenol	72%	77%	31%	30-130%
4165-62-2	Phenol-d5	74%	79%	31%	30-130%
118-79-6	2,4,6-Tribromophenol	77%	82%	92%	30-130%
4165-60-0	Nitrobenzene-d5	79%	85%	33%	30-130%
321-60-8	2-Fluorobiphenyl	75%	82%	41%	30-130%
1718-51-0	Terphenyl-d14	84%	90%	129%	30-130%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M99163
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24621-MS	S23288.D	1	04/22/11	PR	04/13/11	OP24621	MSS985
OP24621-MSD	S23289.D	1	04/23/11	PR	04/13/11	OP24621	MSS985
M99208-6	S23239.D	1	04/21/11	KR	04/13/11	OP24621	MSS983

The QC reported here applies to the following samples: Method: SW846 8270C

M99163-2, M99163-3, M99163-4, M99163-6, M99163-7, M99163-8, M99163-9

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.

Semivolatile Internal Standard Area Summary

Job Number: M99163
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Check Std:	MSS979-CC973	Injection Date:	04/18/11
Lab File ID:	S23131.D	Injection Time:	17:37
Instrument ID:	GCMSS	Method:	SW846 8270C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	453006	6.78	1686832	8.22	941773	10.54	1643694	12.79	1806243	17.16	1655278	19.42
Upper Limit [a]	906012	7.28	3373664	8.72	1883546	11.04	3287388	13.29	3612486	17.66	3310556	19.92
Lower Limit [b]	226503	6.28	843416	7.72	470887	10.04	821847	12.29	903122	16.66	827639	18.92

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP24634-MB	606206	6.78	2412621	8.22	1335711	10.54	2344776	12.78	2348258	17.15	2137229	19.42
OP24634-BS	615271	6.78	2304472	8.22	1239673	10.54	2070936	12.79	2064342	17.15	1729752	19.42
OP24634-MS	503165	6.78	1881898	8.22	1011241	10.54	1671292	12.78	1633628	17.15	1426238	19.42
OP24634-MSD	558383	6.78	2068479	8.22	1109787	10.54	1854907	12.78	1818271	17.15	1570889	19.42
M99277-6	542011	6.78	2120316	8.22	1186955	10.54	2072356	12.78	1927506	17.15	1766642	19.42
ZZZZZZ	514349	6.78	1993516	8.22	1091378	10.54	1893091	12.78	1727933	17.15	1588882	19.42
ZZZZZZ	577170	6.77	2271879	8.22	1213654	10.54	1996584	12.78	1800094	17.15	1836103	19.42
ZZZZZZ	478589	6.78	1918885	8.22	1057019	10.54	1859134	12.78	1811686	17.15	1763143	19.42
ZZZZZZ	621144	6.78	2413709	8.22	1324984	10.54	2241081	12.78	1909015	17.15	1746701	19.42
ZZZZZZ	604806	6.78	2387829	8.22	1290125	10.54	2133103	12.78	1850557	17.15	1682999	19.42
ZZZZZZ	595540	6.78	2331862	8.22	1237703	10.54	2117300	12.78	2080751	17.15	2285654	19.43
ZZZZZZ	578346	6.78	2257359	8.22	1209585	10.54	2032604	12.78	1919393	17.15	2108218	19.43
ZZZZZZ	491814	6.78	1987645	8.22	1095818	10.54	1938309	12.79	1864065	17.15	2081218	19.43
ZZZZZZ	638706	6.78	2507180	8.22	1354498	10.54	2280426	12.79	2093842	17.15	2421112	19.43
OP24605-MB	559618	6.78	2263216	8.22	1231621	10.54	2180843	12.78	2020830	17.15	2322362	19.43
OP24605-BS	555024	6.78	2063519	8.22	1114017	10.55	1870882	12.79	1934052	17.16	2032455	19.43
OP24605-MS	587145	6.78	2225823	8.22	1184851	10.55	1914392	12.79	1881391	17.16	2180610	19.43
OP24605-MSD	549378	6.78	2044988	8.22	1099875	10.55	1839898	12.79	1893678	17.16	2080900	19.43
M99246-2	543683	6.78	2155685	8.22	1182742	10.54	2087980	12.78	1978640	17.15	2089153	19.43
ZZZZZZ	481098	6.78	1889242	8.22	1042920	10.54	1841477	12.78	1791956	17.15	1789976	19.42
ZZZZZZ	546109	6.78	2156058	8.22	1188561	10.54	2065683	12.78	1950992	17.15	1886511	19.42
ZZZZZZ	474559	6.78	1889611	8.22	1047577	10.54	1849816	12.78	1805368	17.15	1862771	19.42

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Internal Standard Area Summary

Job Number: M99163
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Check Std:	MSS982-CC973	Injection Date:	04/20/11
Lab File ID:	S23197.D	Injection Time:	09:39
Instrument ID:	GCMSS	Method:	SW846 8270C

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	420768	6.76	1510937	8.21	789872	10.53	1341858	12.77	1377241	17.15	1251868	19.41
Upper Limit [a]	841536	7.26	3021874	8.71	1579744	11.03	2683716	13.27	2754482	17.65	2503736	19.91
Lower Limit [b]	210384	6.26	755469	7.71	394936	10.03	670929	12.27	688621	16.65	625934	18.91
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
ZZZZZZ	468500	6.77	1753363	8.21	915757	10.52	1570104	12.77	1575573	17.14	1400516	19.41
ZZZZZZ	466394	6.77	1814768	8.21	955388	10.52	1589955	12.77	1506263	17.14	1360134	19.41
ZZZZZZ	416750	6.77	1600749	8.21	851645	10.52	1439132	12.77	1392158	17.14	1316872	19.41
ZZZZZZ	507056	6.77	1968020	8.21	1038449	10.53	1710872	12.77	1553119	17.14	1338462	19.41
ZZZZZZ	524036	6.77	1985215	8.21	1072960	10.53	1797942	12.77	1667732	17.14	1581255	19.41
ZZZZZZ	403541	6.77	1583881	8.21	843574	10.53	1426476	12.77	1383887	17.14	1323435	19.42
ZZZZZZ	409137	6.77	1620280	8.21	870679	10.53	1452040	12.78	1282581	17.15	1351326	19.42
ZZZZZZ	411867	6.77	1605805	8.21	867395	10.53	1443391	12.78	1431438	17.15	1528429	19.42
ZZZZZZ	460172	6.77	1824735	8.21	981944	10.53	1675336	12.78	1506443	17.14	1529146	19.42
ZZZZZZ	457969	6.77	1803584	8.21	968302	10.53	1660722	12.77	1516909	17.14	1426906	19.41
M99163-5	443446	6.77	1737315	8.21	934069	10.53	1602927	12.77	1450714	17.14	1360797	19.42
ZZZZZZ	483285	6.77	1946556	8.21	1058705	10.53	1793750	12.78	1466698	17.15	1229048	19.41
ZZZZZZ	472411	6.77	1832072	8.21	945700	10.53	1563004	12.78	1309727	17.15	1366317	19.42
ZZZZZZ	521656	6.77	2026376	8.21	1080670	10.53	1780499	12.78	1480326	17.14	1379127	19.42
ZZZZZZ	491291	6.77	1946341	8.21	1005822	10.53	1641163	12.78	1334900	17.15	1501200	19.43
ZZZZZZ	508638	6.77	1962480	8.21	1064077	10.54	1751455	12.78	1465137	17.15	1468651	19.42
ZZZZZZ	506137	6.77	1999073	8.21	1078946	10.54	1801322	12.78	1419987	17.15	1400476	19.42
ZZZZZZ	538884	6.77	2106907	8.21	1141849	10.54	1895016	12.78	1439429	17.15	1378314	19.42
ZZZZZZ	539485	6.77	2101973	8.21	1111212	10.54	1829514	12.78	1475350	17.15	1418732	19.42
ZZZZZZ	457252	6.77	1761132	8.21	922928	10.53	1503044	12.78	1215504	17.15	1248111	19.42
M99163-2	454702	6.78	1789298	8.22	961263	10.54	1624069	12.78	1330822	17.15	1310556	19.42

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Internal Standard Area Summary

Job Number: M99163
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Check Std:	MSS983-CC973	Injection Date:	04/21/11
Lab File ID:	S23225.D	Injection Time:	10:03
Instrument ID:	GCMSS	Method:	SW846 8270C

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	419515	6.76	1549140	8.20	838644	10.52	1441601	12.77	1478304	17.14	1347931	19.41
Upper Limit [a]	839030	7.26	3098280	8.70	1677288	11.02	2883202	13.27	2956608	17.64	2695862	19.91
Lower Limit [b]	209758	6.26	774570	7.70	419322	10.02	720801	12.27	739152	16.64	673966	18.91
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP24654-MB	397810	6.76	1586768	8.20	861057	10.52	1475000	12.76	1381069	17.13	1247981	19.40
OP24654-BS	405960	6.76	1522655	8.20	785475	10.52	1309650	12.77	1276581	17.14	1160361	19.40
OP24654-MS	415340	6.76	1561310	8.20	820444	10.52	1363841	12.77	1344765	17.14	1208086	19.40
OP24654-MSD	401100	6.76	1507432	8.20	789240	10.52	1311900	12.77	1249925	17.14	1185744	19.40
M99423-2	408476	6.76	1611699	8.20	865783	10.52	1487437	12.76	1385507	17.13	1289448	19.39
ZZZZZZ	380749	6.76	1522779	8.20	808018	10.51	1385329	12.76	1318783	17.13	1222258	19.39
OP24683-MB	366914	6.76	1466934	8.20	772085	10.51	1342624	12.75	1284047	17.13	1158272	19.39
OP24683-BS	400730	6.75	1493312	8.20	791279	10.52	1334605	12.76	1327917	17.13	1229565	19.40
ZZZZZZ	406302	6.75	1580453	8.20	846542	10.51	1414302	12.75	1332901	17.13	1333338	19.39
ZZZZZZ	378980	6.76	1518843	8.20	799031	10.51	1363406	12.75	1323246	17.13	1356186	19.40
OP24621-MB	484417	6.76	1907976	8.20	1005078	10.51	1622912	12.75	1343474	17.13	1209553	19.39
OP24621-BS	479214	6.76	1781213	8.20	919122	10.52	1520918	12.76	1365909	17.14	1233063	19.40
M99163-3	454768	6.76	1814350	8.20	922809	10.51	1517765	12.75	1306275	17.12	1207274	19.39
M99208-6	451669	6.75	1774623	8.20	917971	10.51	1519744	12.75	1327683	17.12	1315637	19.39

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Internal Standard Area Summary

Job Number: M99163
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Check Std:	MSS985-CC973	Injection Date:	04/22/11
Lab File ID:	S23271.D	Injection Time:	15:05
Instrument ID:	GCMSS	Method:	SW846 8270C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	354391	6.73	1265876	8.17	672910	10.49	1148587	12.74	1160225	17.11	1060494	19.37
Upper Limit [a]	708782	7.23	2531752	8.67	1345820	10.99	2297174	13.24	2320450	17.61	2120988	19.87
Lower Limit [b]	177196	6.23	632938	7.67	336455	9.99	574294	12.24	580113	16.61	530247	18.87
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP24704-MB	358048	6.73	1431768	8.17	750433	10.48	1303311	12.72	1175416	17.10	929777	19.37
OP24704-BS	457492	6.73	1673426	8.17	870227	10.48	1494654	12.73	1395853	17.11	1041779	19.37
ZZZZZZ	356321	6.73	1399415	8.17	746633	10.48	1299954	12.72	1189898	17.10	1136609	19.37
OP24670-MB	478902	6.73	1888594	8.17	974621	10.48	1657691	12.72	1467080	17.10	1268385	19.37
OP24670-BS	425057	6.73	1597404	8.17	827674	10.48	1391703	12.73	1275804	17.10	1113559	19.37
OP24670-MS	452744	6.73	1716876	8.17	846452	10.48	1379683	12.73	1305647	17.10	862838	19.37
OP24670-MSD	435177	6.73	1649388	8.17	830390	10.48	1367857	12.72	1298955	17.10	871669	19.37
M99437-1	389344	6.73	1519370	8.17	775322	10.48	1295628	12.72	1217302	17.09	1186947	19.37
ZZZZZZ	361768	6.73	1430815	8.17	759957	10.48	1290279	12.72	1164427	17.09	795861	19.36
ZZZZZZ	336375	6.73	1307734	8.17	655777	10.48	1080312	12.72	1043862	17.10	1066715	19.37
ZZZZZZ	387127	6.73	1530920	8.17	812211	10.48	1377639	12.72	1208646	17.10	1193509	19.37
ZZZZZZ	401899	6.73	1582464	8.17	844186	10.48	1459578	12.72	1377779	17.09	1322666	19.37
ZZZZZZ	395006	6.73	1530535	8.17	814491	10.48	1405887	12.72	1304903	17.09	1239158	19.37
ZZZZZZ	430544	6.73	1734232	8.17	901655	10.48	1558529	12.72	1456887	17.09	1365740	19.37
ZZZZZZ	425990	6.73	1714121	8.17	902853	10.48	1582153	12.72	1471690	17.10	1400461	19.37
ZZZZZZ	317109	6.73	1236885	8.17	656731	10.48	1187552	12.72	1149262	17.09	1139889	19.37
OP24621-MS	425235	6.73	1602133	8.17	830059	10.48	1427721	12.73	1346062	17.10	1134084	19.37
OP24621-MSD	427071	6.73	1584780	8.17	809103	10.48	1391702	12.73	1275861	17.10	1104353	19.37
M99163-4	423933	6.73	1671353	8.17	850689	10.48	1472067	12.72	1346325	17.10	1165247	19.37
M99163-6	412052	6.73	1672443	8.17	869847	10.48	1521165	12.72	1360626	17.10	1082707	19.37
M99163-7	450547	6.73	1772244	8.17	922788	10.48	1565692	12.72	1399507	17.09	1114710	19.37
M99163-8	415529	6.73	1651527	8.17	860168	10.48	1476371	12.72	1307949	17.10	1058504	19.37
M99163-9	468181	6.73	1856603	8.17	972654	10.48	1656443	12.72	1493748	17.10	1227999	19.37

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Surrogate Recovery Summary

Job Number: M99163
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Method: SW846 8270C Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
M99163-5	S23209.D	39.0	26.0	65.0	76.0	68.0	82.0
OP24605-BS	S23147.D	49.0	34.0	75.0	77.0	74.0	75.0
OP24605-MB	S23146.D	40.0	27.0	57.0	67.0	65.0	76.0
OP24605-MS	S23148.D	48.0	32.0	74.0	76.0	72.0	73.0
OP24605-MSD	S23149.D	50.0	35.0	76.0	78.0	74.0	75.0

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	15-110%
S2 = Pbenol-d5	15-110%
S3 = 2,4,6-Tribromophenol	15-110%
S4 = Nitrobenzene-d5	30-130%
S5 = 2-Fluorobiphenyl	30-130%
S6 = Terphenyl-d14	30-130%

Semivolatile Surrogate Recovery Summary

Job Number: M99163
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Method: SW846 8270C Matrix: SO

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
M99163-2	S23219.D	69.0	70.0	67.0	76.0	73.0	90.0
M99163-3	S23238.D	74.0	75.0	70.0	79.0	77.0	92.0
M99163-4	S23290.D	71.0	71.0	66.0	79.0	76.0	82.0
M99163-6	S23291.D	70.0	69.0	64.0	77.0	70.0	82.0
M99163-7	S23292.D	71.0	70.0	67.0	78.0	72.0	91.0
M99163-8	S23293.D	68.0	67.0	63.0	75.0	69.0	84.0
M99163-9	S23294.D	65.0	64.0	62.0	73.0	68.0	81.0
OP24621-BS	S23237.D	79.0	80.0	86.0	85.0	82.0	96.0
OP24621-MB	S23236.D	86.0	84.0	81.0	88.0	84.0	108.0
OP24621-MS	S23288.D	72.0	74.0	77.0	79.0	75.0	84.0
OP24621-MSD	S23289.D	77.0	79.0	82.0	85.0	82.0	90.0

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	30-130%
S2 = Phenol-d5	30-130%
S3 = 2,4,6-Tribromophenol	30-130%
S4 = Nitrobenzene-d5	30-130%
S5 = 2-Fluorobiphenyl	30-130%
S6 = Terphenyl-d14	30-130%

New England ACCUTEST LABORATORIES

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Percent Solids Raw Data Summary

Percent Solids Raw Data Summary

Job Number: M99163
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample: M99163-2 Analyzed: 12-APR-11 by MC Method: SM21 2540 B MOD.
ClientID: ROST-4PZ(B) 10-11

Wet Weight (Total)	30.629	g
Tare Weight	18.597	g
Dry Weight (Total)	29.483	g
Solids, Percent	90.5	%

Sample: M99163-3 Analyzed: 12-APR-11 by MC Method: SM21 2540 B MOD.
ClientID: ROST-4PZ(B) 28-29

Wet Weight (Total)	35.116	g
Tare Weight	20.744	g
Dry Weight (Total)	34.474	g
Solids, Percent	95.5	%

Sample: M99163-4 Analyzed: 12-APR-11 by MC Method: SM21 2540 B MOD.
ClientID: ROST-4PZ(B) 36-37

Wet Weight (Total)	30.82	g
Tare Weight	20.223	g
Dry Weight (Total)	30.188	g
Solids, Percent	94	%

Sample: M99163-6 Analyzed: 12-APR-11 by MC Method: SM21 2540 B MOD.
ClientID: ROST-4PZ(D) 10-11

Wet Weight (Total)	31.501	g
Tare Weight	21.141	g
Dry Weight (Total)	30.964	g
Solids, Percent	94.8	%

Sample: M99163-7 Analyzed: 12-APR-11 by MC Method: SM21 2540 B MOD.
ClientID: ROST-4PZ(D) 28-29

Wet Weight (Total)	30.402	g
Tare Weight	20.833	g
Dry Weight (Total)	29.646	g
Solids, Percent	92.1	%

Sample: M99163-8 Analyzed: 12-APR-11 by MC Method: SM21 2540 B MOD.
ClientID: ROST-4PZ(D) 36-37

Wet Weight (Total)	38.59	g
Tare Weight	26.633	g
Dry Weight (Total)	38.07	g
Solids, Percent	95.7	%

7.1

7

Percent Solids Raw Data Summary

Job Number: M99163
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample: M99163-9 Analyzed: 12-APR-11 by MC Method: SM21 2540 B MOD.
ClientID: ROST-4PZ(D) 36-37 (D)

Wet Weight (Total)	31.712	g
Tare Weight	21.046	g
Dry Weight (Total)	31.229	g
Solids, Percent	95.5	%

7.1

7

Roxana ROST 4-PZ

Laboratory SDG: M99201

Data Reviewer: Tony Sedlacek

Peer Reviewer: Jeff Aust

Date Reviewed: 6/8/2011

Guidance: USEPA National Functional Guidelines for Superfund Organic Methods Data Review 2008

Sample Identification	Sample Identification
TB-040811	ROST-4PZ(C)11-12
ROST-4PZ(C)25-26	ROST-4PZ(C)36-37
ROST-4PZ(C)36-37 DUP	

1.0 Data Package Completeness

Were all items delivered as specified in the QAPP and COC as appropriate?

Yes

2.0 Laboratory Case Narrative \ Cooler Receipt Form

Were problems noted in the laboratory case narrative or cooler receipt form?

Yes, the laboratory case narrative indicated samples were received by the laboratory at 1.7° C which is outside temperature criteria 4°C ± 2°C. All samples were received in good condition; no qualification of data was required. VOC LCS/LCSD recoveries were outside evaluation criteria. Although not indicated in the laboratory case narrative, analytes were detected in the method blank. Samples were evaluated and qualified using professional judgment. These issues are addressed further in the appropriate sections below.

No problems were indicated in the cooler receipt form.

3.0 Holding Times

Were samples extracted/analyzed within applicable limits?

Yes

4.0 Blank Contamination

Were any analytes detected in the Method Blanks, Field Blanks or Trip Blanks?

Yes

Blank ID	Parameter	Analyte	Concentration/Amount
MSP1735-MB	VOCs	p-Isopropyltoluene	1.1 µg/kg
MSP1736-MB	VOCs	Methylene chloride	1.8 µg/kg
OP24621-MB	SVOCs	Bis(2-Ethylhexyl)phthalate	253 µg/kg

Qualifications due to blank contamination are included in the table below. Analytical data that were reported non-detect or at concentrations greater than five times (5X) the associated blank concentration (10X for common laboratory contaminants) did not require qualification.

Sample ID	Parameter	Analyte	New Reporting Limit (RL)	Qualification
ROST-4PZ(C)11-12	SVOCs	Bis(2-Ethylhexyl)phthalate	-	**U**
ROST-4PZ(C)25-26	SVOCs	Bis(2-Ethylhexyl)phthalate	-	**U**
ROST-4PZ(C)36-37 DUP	SVOCs	Bis(2-Ethylhexyl)phthalate	-	**U**

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

No

LCS/ LCSD ID	Parameter	Analyte	LCS/LCSD Recovery	RPD	LCS/LCSD/ RPD Criteria
MSP1735-BS	VOCs	Acetone	**141**	N/A	70-130
MSP1735-BS	VOCs	Acrolein	**1936**	N/A	70-130
MSP1735-BS	VOCs	2-Butanone	**133**	N/A	70-130
MSP1735-BS	VOCs	2,2-Dichloropropane	**50**	N/A	70-130
MSP1735-BS	VOCs	1,2,3-Trichlorobenzene	**67**	N/A	70-130
MSP1735-BS	VOCs	Vinyl Acetate	**154**	N/A	70-130
MSP1736-BS	VOCs	Acetone	**135**	N/A	70-130
MSP1736-BS	VOCs	Acrolein	**1864**	N/A	70-130
MSP1736-BS	VOCs	2,2-Dichloropropane	**45**	N/A	70-130
MSP1736-BS	VOCs	Hexachlorobutadiene	**64**	N/A	70-130
MSP1736-BS	VOCs	1,2,3-Trichlorobenzene	**46**	N/A	70-130
MSP1736-BS	VOCs	1,2,4-Trichlorobenzene	**54**	N/A	70-130
MSG4245-BS/BSD	VOCs	Acetone	**46/46**	0	70-130/25
MSG4245-BS/BSD	VOCs	Acrolein	**1436/1436**	0	70-130/25
MSG4245-BS/BSD	VOCs	2-Hexanone	**66/66**	0	70-130/25

Analytical data that required qualification based on LCS data are included in the table below. Analytical data reported as non-detect and associated with LCS recoveries above evaluation criteria, indicating a possible high bias, did not require qualification. LCS/LSCD MSG4245 was associated with trip blank TB-040811. Trip blank samples are quality control samples and are not qualified.

Field ID	Parameter	Analyte	Qualification
ROST-4PZ(C)25-26	VOCs	2,2-Dichloropropane	**UJ**
ROST-4PZ(C)25-26	VOCs	1,2,3-Trichlorobenzene	**UJ**
ROST-4PZ(C)36-37	VOCs	2,2-Dichloropropane	**UJ**
ROST-4PZ(C)36-37	VOCs	1,2,3-Trichlorobenzene	**UJ**
ROST-4PZ(C)36-37-DUP	VOCs	2,2-Dichloropropane	**UJ**
ROST-4PZ(C)36-37-DUP	VOCs	1,2,3-Trichlorobenzene	**UJ**
ROST-4PZ(C)11-12	VOCs	2,2-Dichloropropane	**UJ**
ROST-4PZ(C)11-12	VOCs	Hexachlorobutadiene	J
ROST-4PZ(C)11-12	VOCs	1,2,3-Trichlorbenzene	**UJ**
ROST-4PZ(C)11-12	VOCs	1,2,4-Trichlorobenzene	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

Yes

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

Were MS/MSD samples analyzed as part of this SDG?

No

8.0 Internal Standard (IS) Recoveries

Were internal standard area recoveries within evaluation criteria?

Yes

9.0 Laboratory Duplicate Results

Were laboratory duplicate samples collected as part of this SDG?

No

10.0 Field Duplicate Results

Were field duplicate samples collected as part of this SDG?

Field ID	Field Duplicate ID
ROST-4PZ(C)36-37	ROST-4PZ(C)36-37 DUP

Were field duplicates within evaluation criteria?

Yes

11.0 Sample Dilutions

For samples that were diluted and nondetect, were undiluted results also reported?

Not applicable; samples analyzed did not require dilution.

12.0 Additional Qualifications

Were additional qualifications applied?

Yes

Professional judgment was used to qualify the common laboratory contaminant acetone reported at concentrations less than two times (2X) the RL. Additionally, USEPA Method 5035A states that acidification of certain soils with sodium bisulfate may produce a false positive acetone artifact of 100-200 ppb, or more. Acetone reported at concentrations less than 200 ppb (ug/kg) were qualified.

Field ID	Analyte	New RL	Qualification	Comments
ROST-4PZ(C)36-37	Acetone	0.0289	**U**	Professional Judgment
ROST-4PZ(C)36-37 DUP	Acetone	0.0314	**U**	Professional Judgment

New England ACCUTEST LABORATORIES

05/03/11

Technical Report for

Shell Oil

URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Roxana - ROST-4-PZ SAP#340061

Accutest Job Number: M99201

Sampling Date: 04/08/11

Report to:

URS Corporation

Elizabeth_Kunkel@URSCorp.com

ATTN: Elizabeth Kunkel

Reviewed on 6/8/11

Total number of pages in report: 84

ACCREDITED IN ACCORDANCE WITH nelac

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

Reza Tand
Lab Director

Client Service contact: Kristen Blanchard 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) ISO 17025:2005 (L2235)

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Sample Summary

Shell Oil

Job No: M99201

URSMOSTL:97216640 170 East Rand Avenue Hartford, IL
Project No: Roxana - ROST-4-PZ SAP#340061

Sample Number	Collected Date	Time By	Received	Matrix Code	Matrix Type	Client Sample ID
M99201-1	04/08/11	00:00 NS	04/09/11	AQ	Trip Blank Water	TB-040811
M99201-2	04/08/11	08:30 NS	04/09/11	SO	Soil	ROST-4PZ (C) 11-12
M99201-3	04/08/11	09:30 NS	04/09/11	SO	Soil	ROST-4PZ (C) 25-26
M99201-4	04/08/11	10:00 NS	04/09/11	SO	Soil	ROST-4PZ (C) 36-37
M99201-5	04/08/11	10:00 NS	04/09/11	SO	Soil	ROST-4PZ (C) 36-37 DUP

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

ACCUTEST Laboratories

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	Shell Oil	**Job No**	M99201
Site:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL	**Report Date**	4/28/2011 5:19:53 PM

4 Sample(s), 1 Trip Blank were collected on 04/08/2011 and were received at Accutest on 04/09/2011 properly preserved, at 1.7 Deg. C and intact. These Samples received an Accutest job number of M99201. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

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

Volatiles by GCMS By Method SW846 8260B

Matrix AQ **Batch ID:** MSG4245

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) M99441-2MS, M99441-2MSD were used as the QC samples indicated.
- BS/BSD/MS/MSD Recovery(s) for 2-Hexanone, Acetone are outside control limits. Blank Spike meets program technical requirements.
- Matrix Spike Recovery(s) for 2-Butanone (MEK) are outside control limits. Outside control limits due to possible matrix interference. Confirmed by reanalysis.
- MSG4245-BS/BSD/MS/MSD for Aerolein: Outside control limits. Associated samples are non-detect for this compound.

Matrix SO **Batch ID:** MSP1735

- All samples were analyzed within the recommended method holding time.
- Sample(s) M99208-6MS, M99208-6MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Blank Spike Recovery(s) for 1,2,3-Trichlorobenzene, 2,2-Diehloropropane, 2-Butanone (MEK), Acetone, Vinyl Acetate are outside control limits. Blank Spike meets program technical requirements.
- Matrix Spike Recovery(s) for 1,2,3-Trichlorobenzene, 1,2,4-Trichlorobenzene, 2,2-Dichloropropane, 2-Butanone (MEK), Acetone, Hexachlorobutadiene, Vinyl Acetate are outside control limits. Outside control limits due to possible matrix interferenec. Refer to Blank Spike.
- Matrix Spike Duplicate Recovery(s) for 1,2,3-Trichlorobenzene, 2,2-Dichloropropane, 2-Butanone (MEK), Acetone are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- RPD(s) for MSD for 1,2,4-Trichlorobenzene, Hexachlorobutadiene, Vinyl Acetate are outside control limits for sample M99208-6MSD. High RPD due to possible matrix interference and/or sample non-homogeneity.
- MSP1735-BS/MS/MSD for Acrolein: Outside control limits. Associated samples are non-deteet for this eompound.

Matrix SO **Batch ID:** MSP1736

- All samples were analyzed within the recommended method holding time.
- All method blanks for this bateh meet method speeifie criteria.
- MSD for Aeetone, 2,2-Dichloropropane, Hexachlorobutadiene, 1,2,3-Trichlorobenzene, 1,2,4-Trichlorobenzene is outside control limits. Blank Spike meets program technical requirements.
- MSP1736-BS for 1,2,3-Trichlorobenzene, 1,2,4-Trichlorobenzene, 2,2-Dichloropropane, Acetone, Hexachlorobutadiene are outside eontrol limits. Blank Spike meets program technical requirements.
- MSP1736-BS/MS/MSD for Aerolein: Outside control limits. Associated samples are non-detect for this compound.
- MS for 2,2-Dichloropropane, Hexachlorobutadiene, 1,2,3-Trichlorobenzene, 1,2,4-Trichlorobenzene is outside eontrol limits. Blank Spike meets program teehnieal requirements.
- MSD for 2-Butanone, n-Butylbenzene, 1,2-Dichloroethane, Ethyl methaerylate, 1,1,2,2-Tetraehloroethane, Trichloroethene, Vinyl Acetate is outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.

Volatiles by GCMS By Method SW846 8260B

Matrix SO	Batch ID: MSP1736

- MS for n-Butylbenzene, 1,2-Dibromo-3-chloropropane, 1,2-Dichlorobenzene, 1,4-Dichlorobenzene, Ethyl methacrylate, 2-Hexanone, 1,1,2,2-Tetrachloroethane, Trichloroethene, Vinyl Acetate is outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.

Extractables by GCMS By Method SW846 8270C

Matrix SO	Batch ID: OP24621

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) M99208-6MS, M99208-6MSD were used as the QC samples indicated.
- Sample(s) M99201-2, M99201-3, M99201-5 have compound(s) reported with a "B" qualifier, indicating analyte is found in the associated method blank.
- MS/MSD Recovery(s) for Benzoic acid, Hexachlorocyclopentadiene are outside eontrol limits. Outside control limits due to possible matrix interferenee. Refer to Blank Spike.
- Calibration standard MSI2540-ICC2540, MSI2540-ICV2540, MSI2562-CC2540, MSI2547-ICC2547, MSI2547-ICV2547, MSI2563-CC2547 are not associated with this job.
- Continuing calibration standard MSS983-CC973, MSS985-CC973 for Di-n-octylphthalate exceed 20% difference (response bias high). Associated target compounds are within 20% Difference.

Wet Chemistry By Method SM21 2540 B MOD.

Matrix SO	Batch ID: GN34617

- Sample(s) M99208-6DUP were used as the QC samples for Solids, Percent.

The Aecutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety.The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(M99201).

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	TB-040811		
Lab Sample ID:	M99201-1	Date Sampled:	04/08/11
Matrix:	AQ - Trip Blank Water	Date Received:	04/09/11
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	G105231.D	1	04/22/11	EL	n/a	n/a	MSG4245
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	4.6	ug/l	
107-02-8	Acrolein	ND	25	17	ug/l	
107-13-1	Acrylonitrile	ND	5.0	3.0	ug/l	
71-43-2	Benzene	ND	0.50	0.35	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.52	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.91	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.62	ug/l	
75-25-2	Bromoform	ND	1.0	0.73	ug/l	
74-83-9	Bromomethane	ND	2.0	0.95	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.1	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.49	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.37	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.53	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.35	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.42	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.61	ug/l	
75-00-3	Chloroethane	ND	2.0	0.76	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	0.83	ug/l	
67-66-3	Chloroform	ND	1.0	0.72	ug/l	
74-87-3	Chloromethane	ND	2.0	0.81	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.58	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.67	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.3	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.86	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.76	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.74	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.77	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.81	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.61	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.63	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.74	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.70	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB-040811		
Lab Sample ID:	M99201-1	**Date Sampled:**	04/08/11
Matrix:	AQ - Trip Blank Water	**Date Received:**	04/09/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.66	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.74	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.83	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.73	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	0.44	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.23	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.23	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.90	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.61	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.56	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.5	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.51	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.45	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.54	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.3	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.94	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.75	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.43	ug/l	
100-42-5	Styrene	ND	5.0	0.68	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.64	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.89	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.39	ug/l	
108-88-3	Toluene	ND	1.0	0.74	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.57	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.35	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.72	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.49	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.61	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.62	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.51	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	0.51	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.86	ug/l	
	m,p-Xylene	ND	1.0	0.62	ug/l	
95-47-6	o-Xylene	ND	1.0	0.56	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.56	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB-040811		
Lab Sample ID:	M99201-1	**Date Sampled:**	04/08/11
Matrix:	AQ - Trip Blank Water	**Date Received:**	04/09/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	88%		70-130%
2037-26-5	Toluene-D8	95%		70-130%
460-00-4	4-Bromofluorobenzene	124%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ (C) 11-12		
Lab Sample ID:	M99201-2	Date Sampled:	04/08/11
Matrix:	SO - Soil	Date Received:	04/09/11
Method:	SW846 8260B	Percent Solids:	91.7
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P52427.D	1	04/21/11	AMY	n/a	n/a	MSP1736
Run #2							

	Initial Weight	Final Volume
Run #1	4.23 g	5.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	0.0064	0.0064	mg/kg	
107-02-8	Acrolein	ND	0.032	0.022	mg/kg	
107-13-1	Acrylonitrile	ND	0.0064	0.0010	mg/kg	
71-43-2	Benzene	0.0022	0.00064	0.00014	mg/kg	
108-86-1	Bromobenzene	0.0019	0.0064	0.00019	mg/kg	J
74-97-5	Bromochloromethane	ND	0.0064	0.00062	mg/kg	
75-27-4	Bromodichloromethane	ND	0.0026	0.00024	mg/kg	
75-25-2	Bromoform	ND	0.0026	0.0013	mg/kg	
74-83-9	Bromomethane	ND	0.0026	0.00045	mg/kg	
78-93-3	2-Butanone (MEK)	ND	0.0064	0.0019	mg/kg	
104-51-8	n-Butylbenzene	0.0023	0.0064	0.00054	mg/kg	J
135-98-8	sec-Butylbenzene	0.0035	0.0064	0.00047	mg/kg	J
98-06-6	tert-Butylbenzene	0.0029	0.0064	0.00029	mg/kg	J
75-15-0	Carbon disulfide	ND	0.0064	0.00024	mg/kg	
56-23-5	Carbon tetrachloride	ND	0.0026	0.00024	mg/kg	
108-90-7	Chlorobenzene	ND	0.0026	0.00028	mg/kg	
75-00-3	Chloroethane	ND	0.0064	0.00041	mg/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	0.0064	0.0064	mg/kg	
67-66-3	Chloroform	ND	0.0026	0.00021	mg/kg	
74-87-3	Chloromethane	ND	0.0064	0.00016	mg/kg	
95-49-8	o-Chlorotoluene	ND	0.0064	0.00024	mg/kg	
106-43-4	p-Chlorotoluene	ND	0.0064	0.00028	mg/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0064	0.00091	mg/kg	
124-48-1	Dibromochloromethane	ND	0.0026	0.0013	mg/kg	
106-93-4	1,2-Dibromoethane	ND	0.0026	0.00019	mg/kg	
95-50-1	1,2-Dichlorobenzene	0.0035	0.0026	0.00040	mg/kg	
541-73-1	1,3-Dichlorobenzene	ND	0.0026	0.00039	mg/kg	
106-46-7	1,4-Dichlorobenzene	0.0030	0.0026	0.00038	mg/kg	
75-71-8	Dichlorodifluoromethane	ND	0.0026	0.00026	mg/kg	
75-34-3	1,1-Dichloroethane	ND	0.0026	0.00022	mg/kg	
107-06-2	1,2-Dichloroethane	ND	0.0026	0.00015	mg/kg	
75-35-4	1,1-Dichloroethene	ND	0.0026	0.00017	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ (C) 11-12		
Lab Sample ID:	M99201-2	Date Sampled:	04/08/11
Matrix:	SO - Soil	Date Received:	04/09/11
Method:	SW846 8260B	Percent Solids:	91.7
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-59-2	cis-1,2-Dichloroethene	ND	0.0026	0.00026	mg/kg	
156-60-5	trans-1,2-Dichloroethene	ND	0.0026	0.00024	mg/kg	
78-87-5	1,2-Dichloropropane	ND	0.0026	0.00022	mg/kg	
142-28-9	1,3-Dichloropropane	ND	0.0064	0.00014	mg/kg	
594-20-7	2,2-Dichloropropane	ND	0.0064	0.00025	mg/kg	UJ
563-58-6	1,1-Dichloropropene	ND	0.0064	0.00027	mg/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0026	0.00064	mg/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0026	0.0013	mg/kg	
97-63-2	Ethyl methacrylate	ND	0.0064	0.00016	mg/kg	
100-41-4	Ethylbenzene	0.0057	0.0026	0.00014	mg/kg	
87-68-3	Hexachlorobutadiene	0.0036	0.0064	0.00093	mg/kg	J
591-78-6	2-Hexanone	ND	0.0064	0.0011	mg/kg	
98-82-8	Isopropylbenzene	0.0022	0.0064	0.00032	mg/kg	J
99-87-6	p-Isopropyltoluene	0.0039	0.0064	0.00050	mg/kg	J
1634-04-4	Methyl Tert Butyl Ether	ND	0.0026	0.00017	mg/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	0.0064	0.0013	mg/kg	
74-95-3	Methylene bromide	ND	0.0064	0.0013	mg/kg	
75-09-2	Methylene chloride	ND	0.0026	0.00021	mg/kg	
103-65-1	n-Propylbenzene	0.0032	0.0064	0.00036	mg/kg	J
100-42-5	Styrene	0.0016	0.0064	0.00021	mg/kg	J
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0064	0.00022	mg/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.0026	0.00023	mg/kg	
127-18-4	Tetrachloroethene	ND	0.0026	0.00022	mg/kg	
108-88-3	Toluene	0.0062	0.0064	0.00023	mg/kg	J
87-61-6	1,2,3-Trichlorobenzene	ND	0.0064	0.00099	mg/kg	UJ
120-82-1	1,2,4-Trichlorobenzene	ND	0.0064	0.00066	mg/kg	UJ
71-55-6	1,1,1-Trichloroethane	ND	0.0026	0.00017	mg/kg	
79-00-5	1,1,2-Trichloroethane	ND	0.0026	0.00016	mg/kg	
79-01-6	Trichloroethene	0.00081	0.0026	0.00027	mg/kg	J
75-69-4	Trichlorofluoromethane	ND	0.0026	0.00020	mg/kg	
96-18-4	1,2,3-Trichloropropane	ND	0.0064	0.00021	mg/kg	
95-63-6	1,2,4-Trimethylbenzene	0.0033	0.0064	0.00033	mg/kg	J
108-67-8	1,3,5-Trimethylbenzene	0.0026	0.0064	0.00028	mg/kg	J
108-05-4	Vinyl Acetate	ND	0.0064	0.0035	mg/kg	
75-01-4	Vinyl chloride	ND	0.0026	0.00034	mg/kg	
	m,p-Xylene	0.0027	0.0026	0.00045	mg/kg	
95-47-6	o-Xylene	0.0013	0.0026	0.00017	mg/kg	J
1330-20-7	Xylene (total)	0.0041	0.0026	0.00017	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ (C) 11-12		
Lab Sample ID:	M99201-2	**Date Sampled:**	04/08/11
Matrix:	SO - Soil	**Date Received:**	04/09/11
Method:	SW846 8260B	**Percent Solids:**	91.7
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	111%		70-130%
2037-26-5	Toluene-D8	119%		70-130%
460-00-4	4-Bromofluorobenzene	126%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ (C) 11-12		
Lab Sample ID:	M99201-2	Date Sampled:	04/08/11
Matrix:	SO - Soil	Date Received:	04/09/11
Method:	SW846 8270C SW846 3545	Percent Solids:	91.7
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I71810.D	1	04/22/11	KR	04/13/11	OP24621	MSI2561
Run #2							

	Initial Weight	Final Volume
Run #1	20.1 g	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic acid	ND	0.54	0.042	mg/kg	
95-57-8	2-Chlorophenol	ND	0.27	0.015	mg/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	0.54	0.019	mg/kg	
120-83-2	2,4-Dichlorophenol	ND	0.54	0.032	mg/kg	
105-67-9	2,4-Dimethylphenol	ND	0.54	0.054	mg/kg	
51-28-5	2,4-Dinitrophenol	ND	1.1	0.27	mg/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	0.54	0.27	mg/kg	
95-48-7	2-Methylphenol	ND	0.54	0.015	mg/kg	
	3&4-Methylphenol	ND	0.54	0.029	mg/kg	
88-75-5	2-Nitrophenol	ND	0.54	0.033	mg/kg	
100-02-7	4-Nitrophenol	ND	1.1	0.27	mg/kg	
87-86-5	Pentachlorophenol	ND	0.54	0.050	mg/kg	
108-95-2	Phenol	ND	0.27	0.045	mg/kg	
95-95-4	2,4,5-Trichlorophenol	ND	0.54	0.040	mg/kg	
88-06-2	2,4,6-Trichlorophenol	ND	0.54	0.037	mg/kg	
83-32-9	Acenaphthene	ND	0.27	0.023	mg/kg	
208-96-8	Acenaphthylene	ND	0.27	0.020	mg/kg	
62-53-3	Aniline	ND	0.54	0.54	mg/kg	
120-12-7	Anthracene	ND	0.27	0.021	mg/kg	
56-55-3	Benzo(a)anthracene	ND	0.27	0.010	mg/kg	
50-32-8	Benzo(a)pyrene	ND	0.27	0.016	mg/kg	
205-99-2	Benzo(b)fluoranthene	ND	0.27	0.032	mg/kg	
191-24-2	Benzo(g,h,i)perylene	ND	0.27	0.018	mg/kg	
207-08-9	Benzo(k)fluoranthene	ND	0.27	0.0080	mg/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	0.27	0.022	mg/kg	
85-68-7	Butyl benzyl phthalate	ND	0.27	0.012	mg/kg	
91-58-7	2-Chloronaphthalene	ND	0.27	0.023	mg/kg	
106-47-8	4-Chloroaniline	ND	0.54	0.14	mg/kg	
218-01-9	Chrysene	ND	0.27	0.0088	mg/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	0.27	0.021	mg/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	0.27	0.0058	mg/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	0.27	0.026	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ (C) 11-12		
Lab Sample ID:	M99201-2	Date Sampled:	04/08/11
Matrix:	SO - Soil	Date Received:	04/09/11
Method:	SW846 8270C SW846 3545	Percent Solids:	91.7
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	0.27	0.024	mg/kg	
121-14-2	2,4-Dinitrotoluene	ND	0.54	0.14	mg/kg	
606-20-2	2,6-Dinitrotoluene	ND	0.54	0.026	mg/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	0.27	0.0065	mg/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	0.27	0.018	mg/kg	
132-64-9	Dibenzofuran	ND	0.27	0.023	mg/kg	
84-74-2	Di-n-butyl phthalate	ND	0.27	0.025	mg/kg	
117-84-0	Di-n-octyl phthalate	ND	0.27	0.014	mg/kg	
84-66-2	Diethyl phthalate	0.0499	0.27	0.024	mg/kg	J
131-11-3	Dimethyl phthalate	ND	0.27	0.019	mg/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	~~ND 0.0340~~ U	0.27	0.019	mg/kg	~~JB~~ U
206-44-0	Fluoranthene	ND	0.27	0.0092	mg/kg	
86-73-7	Fluorene	ND	0.27	0.0060	mg/kg	
118-74-1	Hexachlorobenzene	ND	0.27	0.023	mg/kg	
77-47-4	Hexachlorocyclopentadiene	ND	0.54	0.0037	mg/kg	
67-72-1	Hexachloroethane	ND	0.27	0.022	mg/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.27	0.017	mg/kg	
78-59-1	Isophorone	ND	0.27	0.027	mg/kg	
91-57-6	2-Methylnaphthalene	ND	0.27	0.023	mg/kg	
88-74-4	2-Nitroaniline	ND	0.54	0.14	mg/kg	
99-09-2	3-Nitroaniline	ND	0.54	0.14	mg/kg	
100-01-6	4-Nitroaniline	ND	0.54	0.020	mg/kg	
91-20-3	Naphthalene	ND	0.27	0.0063	mg/kg	
98-95-3	Nitrobenzene	ND	0.27	0.0080	mg/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	0.27	0.017	mg/kg	
86-30-6	N-Nitrosodiphenylamine	ND	0.27	0.014	mg/kg	
85-01-8	Phenanthrene	ND	0.27	0.0070	mg/kg	
129-00-0	Pyrene	ND	0.27	0.0087	mg/kg	
110-86-1	Pyridine	ND	0.54	0.54	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	80%		30-130%
4165-62-2	Phenol-d5	82%		30-130%
118-79-6	2,4,6-Tribromophenol	70%		30-130%
4165-60-0	Nitrobenzene-d5	83%		30-130%
321-60-8	2-Fluorobiphenyl	87%		30-130%
1718-51-0	Terphenyl-d14	93%		30-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ (C) 25-26		
Lab Sample ID:	M99201-3	Date Sampled:	04/08/11
Matrix:	SO - Soil	Date Received:	04/09/11
Method:	SW846 8260B	Percent Solids:	89.0
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P52403.D	1	04/21/11	AMY	n/a	n/a	MSP1735
Run #2							

	Initial Weight	Final Volume
Run #1	4.61 g	5.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	0.0061	0.0061	mg/kg	
107-02-8	Acrolein	ND	0.030	0.021	mg/kg	
107-13-1	Acrylonitrile	ND	0.0061	0.00097	mg/kg	
71-43-2	Benzene	0.0026	0.00061	0.00014	mg/kg	
108-86-1	Bromobenzene	ND	0.0061	0.00018	mg/kg	
74-97-5	Bromochloromethane	ND	0.0061	0.00058	mg/kg	
75-27-4	Bromodichloromethane	ND	0.0024	0.00023	mg/kg	
75-25-2	Bromoform	ND	0.0024	0.0012	mg/kg	
74-83-9	Bromomethane	ND	0.0024	0.00042	mg/kg	
78-93-3	2-Butanone (MEK)	ND	0.0061	0.0018	mg/kg	
104-51-8	n-Butylbenzene	ND	0.0061	0.00051	mg/kg	
135-98-8	sec-Butylbenzene	ND	0.0061	0.00044	mg/kg	
98-06-6	tert-Butylbenzene	ND	0.0061	0.00027	mg/kg	
75-15-0	Carbon disulfide	ND	0.0061	0.00023	mg/kg	
56-23-5	Carbon tetrachloride	ND	0.0024	0.00023	mg/kg	
108-90-7	Chlorobenzene	ND	0.0024	0.00027	mg/kg	
75-00-3	Chloroethane	ND	0.0061	0.00039	mg/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	0.0061	0.0061	mg/kg	
67-66-3	Chloroform	ND	0.0024	0.00020	mg/kg	
74-87-3	Chloromethane	ND	0.0061	0.00016	mg/kg	
95-49-8	o-Chlorotoluene	ND	0.0061	0.00023	mg/kg	
106-43-4	p-Chlorotoluene	ND	0.0061	0.00026	mg/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0061	0.00086	mg/kg	
124-48-1	Dibromochloromethane	ND	0.0024	0.0012	mg/kg	
106-93-4	1,2-Dibromoethane	ND	0.0024	0.00018	mg/kg	
95-50-1	1,2-Dichlorobenzene	ND	0.0024	0.00038	mg/kg	
541-73-1	1,3-Dichlorobenzene	ND	0.0024	0.00037	mg/kg	
106-46-7	1,4-Dichlorobenzene	ND	0.0024	0.00036	mg/kg	
75-71-8	Dichlorodifluoromethane	ND	0.0024	0.00025	mg/kg	
75-34-3	1,1-Dichloroethane	ND	0.0024	0.00020	mg/kg	
107-06-2	1,2-Dichloroethane	ND	0.0024	0.00014	mg/kg	
75-35-4	1,1-Dichloroethene	ND	0.0024	0.00016	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ (C) 25-26		
Lab Sample ID:	M99201-3	Date Sampled:	04/08/11
Matrix:	SO - Soil	Date Received:	04/09/11
Method:	SW846 8260B	Percent Solids:	89.0
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-59-2	cis-1,2-Dichloroethene	ND	0.0024	0.00024	mg/kg	
156-60-5	trans-1,2-Dichloroethene	ND	0.0024	0.00023	mg/kg	
78-87-5	1,2-Dichloropropane	ND	0.0024	0.00021	mg/kg	
142-28-9	1,3-Dichloropropane	ND	0.0061	0.00013	mg/kg	
594-20-7	2,2-Dichloropropane	ND	0.0061	0.00024	mg/kg	uJ
563-58-6	1,1-Dichloropropene	ND	0.0061	0.00025	mg/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0024	0.00061	mg/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0024	0.0012	mg/kg	
97-63-2	Ethyl methacrylate	ND	0.0061	0.00015	mg/kg	
100-41-4	Ethylbenzene	0.0089	0.0024	0.00013	mg/kg	
87-68-3	Hexachlorobutadiene	ND	0.0061	0.00088	mg/kg	
591-78-6	2-Hexanone	ND	0.0061	0.0010	mg/kg	
98-82-8	Isopropylbenzene	ND	0.0061	0.00030	mg/kg	
99-87-6	p-Isopropyltoluene	ND	0.0061	0.00047	mg/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	0.0024	0.00016	mg/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	0.0061	0.0012	mg/kg	
74-95-3	Methylene bromide	ND	0.0061	0.0012	mg/kg	
75-09-2	Methylene chloride	ND	0.0024	0.00020	mg/kg	
103-65-1	n-Propylbenzene	ND	0.0061	0.00034	mg/kg	
100-42-5	Styrene	ND	0.0061	0.00020	mg/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0061	0.00020	mg/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.0024	0.00022	mg/kg	
127-18-4	Tetrachloroethene	ND	0.0024	0.00020	mg/kg	
108-88-3	Toluene	0.0084	0.0061	0.00021	mg/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	0.0061	0.00093	mg/kg	uJ
120-82-1	1,2,4-Trichlorobenzene	ND	0.0061	0.00062	mg/kg	
71-55-6	1,1,1-Trichloroethane	ND	0.0024	0.00016	mg/kg	
79-00-5	1,1,2-Trichloroethane	ND	0.0024	0.00015	mg/kg	
79-01-6	Trichloroethene	ND	0.0024	0.00025	mg/kg	
75-69-4	Trichlorofluoromethane	ND	0.0024	0.00019	mg/kg	
96-18-4	1,2,3-Trichloropropane	ND	0.0061	0.00020	mg/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	0.0061	0.00032	mg/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	0.0061	0.00026	mg/kg	
108-05-4	Vinyl Acetate	ND	0.0061	0.0033	mg/kg	
75-01-4	Vinyl chloride	ND	0.0024	0.00032	mg/kg	
	m,p-Xylene	0.0020	0.0024	0.00042	mg/kg	J
95-47-6	o-Xylene	0.00065	0.0024	0.00016	mg/kg	J
1330-20-7	Xylene (total)	0.0026	0.0024	0.00016	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ (C) 25-26		
Lab Sample ID:	M99201-3	Date Sampled:	04/08/11
Matrix:	SO - Soil	Date Received:	04/09/11
Method:	SW846 8260B	Percent Solids:	89.0
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	114%		70-130%
2037-26-5	Toluene-D8	122%		70-130%
460-00-4	4-Bromofluorobenzene	128%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ (C) 25-26		
Lab Sample ID:	M99201-3	Date Sampled:	04/08/11
Matrix:	SO - Soil	Date Received:	04/09/11
Method:	SW846 8270C SW846 3545	Percent Solids:	89.0
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I71811.D	1	04/22/11	KR	04/13/11	OP24621	MSI2561
Run #2							

	Initial Weight	Final Volume
Run #1	20.6 g	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic acid	ND	0.54	0.042	mg/kg	
95-57-8	2-Chlorophenol	ND	0.27	0.015	mg/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	0.54	0.019	mg/kg	
120-83-2	2,4-Dichlorophenol	ND	0.54	0.032	mg/kg	
105-67-9	2,4-Dimethylphenol	ND	0.54	0.054	mg/kg	
51-28-5	2,4-Dinitrophenol	ND	1.1	0.27	mg/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	0.54	0.27	mg/kg	
95-48-7	2-Methylphenol	ND	0.54	0.016	mg/kg	
	3&4-Methylphenol	ND	0.54	0.029	mg/kg	
88-75-5	2-Nitrophenol	ND	0.54	0.033	mg/kg	
100-02-7	4-Nitrophenol	ND	1.1	0.27	mg/kg	
87-86-5	Pentachlorophenol	ND	0.54	0.051	mg/kg	
108-95-2	Phenol	ND	0.27	0.045	mg/kg	
95-95-4	2,4,5-Trichlorophenol	ND	0.54	0.041	mg/kg	
88-06-2	2,4,6-Trichlorophenol	ND	0.54	0.038	mg/kg	
83-32-9	Acenaphthene	ND	0.27	0.023	mg/kg	
208-96-8	Acenaphthylene	ND	0.27	0.020	mg/kg	
62-53-3	Aniline	ND	0.54	0.54	mg/kg	
120-12-7	Anthracene	ND	0.27	0.021	mg/kg	
56-55-3	Benzo(a)anthracene	ND	0.27	0.010	mg/kg	
50-32-8	Benzo(a)pyrene	ND	0.27	0.016	mg/kg	
205-99-2	Benzo(b)fluoranthene	ND	0.27	0.032	mg/kg	
191-24-2	Benzo(g,h,i)perylene	ND	0.27	0.018	mg/kg	
207-08-9	Benzo(k)fluoranthene	ND	0.27	0.0081	mg/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	0.27	0.022	mg/kg	
85-68-7	Butyl benzyl phthalate	ND	0.27	0.012	mg/kg	
91-58-7	2-Chloronaphthalene	ND	0.27	0.023	mg/kg	
106-47-8	4-Chloroaniline	ND	0.54	0.14	mg/kg	
218-01-9	Chrysene	ND	0.27	0.0089	mg/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	0.27	0.021	mg/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	0.27	0.0058	mg/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	0.27	0.026	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ (C) 25-26		
Lab Sample ID:	M99201-3	Date Sampled:	04/08/11
Matrix:	SO - Soil	Date Received:	04/09/11
Method:	SW846 8270C SW846 3545	Percent Solids:	89.0
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	0.27	0.024	mg/kg	
121-14-2	2,4-Dinitrotoluene	ND	0.54	0.14	mg/kg	
606-20-2	2,6-Dinitrotoluene	ND	0.54	0.026	mg/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	0.27	0.0065	mg/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	0.27	0.018	mg/kg	
132-64-9	Dibenzofuran	ND	0.27	0.023	mg/kg	
84-74-2	Di-n-butyl phthalate	ND	0.27	0.025	mg/kg	
117-84-0	Di-n-octyl pbthalate	ND	0.27	0.014	mg/kg	
84-66-2	Diethyl phthalate	ND	0.27	0.024	mg/kg	
131-11-3	Dimethyl phthalate	ND	0.27	0.019	mg/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	~~0.0198~~ ND	0.27	0.019	mg/kg	JB
206-44-0	Fluoranthene	~~ND~~	0.27	0.0093	mg/kg	
86-73-7	Fluorene	ND	0.27	0.0060	mg/kg	
118-74-1	Hexachlorobenzene	ND	0.27	0.023	mg/kg	
77-47-4	Hexachlorocyclopentadiene	ND	0.54	0.0037	mg/kg	
67-72-1	Hexachloroethane	ND	0.27	0.022	mg/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.27	0.017	mg/kg	
78-59-1	Isophorone	ND	0.27	0.027	mg/kg	
91-57-6	2-Methylnaphthalene	ND	0.27	0.023	mg/kg	
88-74-4	2-Nitroaniline	ND	0.54	0.14	mg/kg	
99-09-2	3-Nitroaniline	ND	0.54	0.14	mg/kg	
100-01-6	4-Nitroaniline	ND	0.54	0.020	mg/kg	
91-20-3	Naphthalene	ND	0.27	0.0063	mg/kg	
98-95-3	Nitrobenzene	ND	0.27	0.0081	mg/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	0.27	0.017	mg/kg	
86-30-6	N-Nitrosodiphenylamine	ND	0.27	0.014	mg/kg	
85-01-8	Phenanthrene	ND	0.27	0.0070	mg/kg	
129-00-0	Pyrene	ND	0.27	0.0088	mg/kg	
110-86-1	Pyridine	ND	0.54	0.54	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	82%		30-130%
4165-62-2	Phenol-d5	81%		30-130%
118-79-6	2,4,6-Tribromophenol	77%		30-130%
4165-60-0	Nitrobenzene-d5	82%		30-130%
321-60-8	2-Fluorobiphenyl	85%		30-130%
1718-51-0	Terphenyl-d14	92%		30-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ (C) 36-37		
Lab Sample ID:	M99201-4	Date Sampled:	04/08/11
Matrix:	SO - Soil	Date Received:	04/09/11
Method:	SW846 8260B	Percent Solids:	96.7
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P52404.D	1	04/21/11	AMY	n/a	n/a	MSP1735
Run #2							

	Initial Weight	Final Volume
Run #1	4.13 g	5.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	~~0.0289~~ ND	0.0289 ~~0.0063~~	0.0063	mg/kg	U
107-02-8	Acrolein	ND	0.031	0.021	mg/kg	
107-13-1	Acrylonitrile	ND	0.0063	0.00099	mg/kg	
71-43-2	Benzene	0.0010	0.00063	0.00014	mg/kg	
108-86-1	Bromobenzene	ND	0.0063	0.00018	mg/kg	
74-97-5	Bromochloromethane	ND	0.0063	0.00060	mg/kg	
75-27-4	Bromodichloromethane	ND	0.0025	0.00023	mg/kg	
75-25-2	Bromoform	ND	0.0025	0.0013	mg/kg	
74-83-9	Bromomethane	ND	0.0025	0.00043	mg/kg	
78-93-3	2-Butanone (MEK)	ND	0.0063	0.0019	mg/kg	
104-51-8	n-Butylbenzene	ND	0.0063	0.00053	mg/kg	
135-98-8	sec-Butylbenzene	ND	0.0063	0.00045	mg/kg	
98-06-6	tert-Butylbenzene	ND	0.0063	0.00028	mg/kg	
75-15-0	Carbon disulfide	ND	0.0063	0.00023	mg/kg	
56-23-5	Carbon tetrachloride	ND	0.0025	0.00024	mg/kg	
108-90-7	Chlorobenzene	ND	0.0025	0.00027	mg/kg	
75-00-3	Chloroethane	ND	0.0063	0.00040	mg/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	0.0063	0.0063	mg/kg	
67-66-3	Chloroform	ND	0.0025	0.00020	mg/kg	
74-87-3	Chloromethane	ND	0.0063	0.00016	mg/kg	
95-49-8	o-Chlorotoluene	ND	0.0063	0.00024	mg/kg	
106-43-4	p-Chlorotoluene	ND	0.0063	0.00027	mg/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0063	0.00089	mg/kg	
124-48-1	Dibromochloromethane	ND	0.0025	0.0013	mg/kg	
106-93-4	1,2-Dibromoethane	ND	0.0025	0.00019	mg/kg	
95-50-1	1,2-Dichlorobenzene	ND	0.0025	0.00039	mg/kg	
541-73-1	1,3-Dichlorobenzene	ND	0.0025	0.00038	mg/kg	
106-46-7	1,4-Dichlorobenzene	ND	0.0025	0.00037	mg/kg	
75-71-8	Dichlorodifluoromethane	ND	0.0025	0.00025	mg/kg	
75-34-3	1,1-Dichloroethane	ND	0.0025	0.00021	mg/kg	
107-06-2	1,2-Dichloroethane	ND	0.0025	0.00015	mg/kg	
75-35-4	1,1-Dichloroethene	ND	0.0025	0.00017	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ (C) 36-37		
Lab Sample ID:	M99201-4	**Date Sampled:**	04/08/11
Matrix:	SO - Soil	**Date Received:**	04/09/11
Method:	SW846 8260B	**Percent Solids:**	96.7
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-59-2	cis-1,2-Dichloroethene	ND	0.0025	0.00025	mg/kg	
156-60-5	trans-1,2-Dichloroethene	ND	0.0025	0.00024	mg/kg	
78-87-5	1,2-Dichloropropane	ND	0.0025	0.00022	mg/kg	
142-28-9	1,3-Dichloropropane	ND	0.0063	0.00014	mg/kg	
594-20-7	2,2-Dichloropropane	ND	0.0063	0.00024	mg/kg	uT
563-58-6	1,1-Dichloropropene	ND	0.0063	0.00026	mg/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0025	0.00063	mg/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0025	0.0013	mg/kg	
97-63-2	Ethyl methacrylate	ND	0.0063	0.00016	mg/kg	
100-41-4	Ethylbenzene	0.0030	0.0025	0.00014	mg/kg	
87-68-3	Hexachlorobutadiene	ND	0.0063	0.00090	mg/kg	
591-78-6	2-Hexanone	ND	0.0063	0.0011	mg/kg	
98-82-8	Isopropylbenzene	ND	0.0063	0.00031	mg/kg	
99-87-6	p-Isopropyltoluene	ND	0.0063	0.00048	mg/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	0.0025	0.00016	mg/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	0.0063	0.0013	mg/kg	
74-95-3	Methylene bromide	ND	0.0063	0.0013	mg/kg	
75-09-2	Methylene chloride	ND	0.0025	0.00021	mg/kg	
103-65-1	n-Propylbenzene	ND	0.0063	0.00035	mg/kg	
100-42-5	Styrene	ND	0.0063	0.00020	mg/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0063	0.00021	mg/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.0025	0.00022	mg/kg	
127-18-4	Tetrachloroethene	ND	0.0025	0.00021	mg/kg	
108-88-3	Toluene	0.0032	0.0063	0.00022	mg/kg	J
87-61-6	1,2,3-Trichlorobenzene	ND	0.0063	0.00096	mg/kg	uT
120-82-1	1,2,4-Trichlorobenzene	ND	0.0063	0.00064	mg/kg	
71-55-6	1,1,1-Trichloroethane	ND	0.0025	0.00016	mg/kg	
79-00-5	1,1,2-Trichloroethane	ND	0.0025	0.00016	mg/kg	
79-01-6	Trichloroethene	ND	0.0025	0.00026	mg/kg	
75-69-4	Trichlorofluoromethane	ND	0.0025	0.00019	mg/kg	
96-18-4	1,2,3-Trichloropropane	ND	0.0063	0.00021	mg/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	0.0063	0.00032	mg/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	0.0063	0.00027	mg/kg	
108-05-4	Vinyl Acetate	ND	0.0063	0.0034	mg/kg	
75-01-4	Vinyl chloride	ND	0.0025	0.00033	mg/kg	
	m,p-Xylene	0.00099	0.0025	0.00044	mg/kg	J
95-47-6	o-Xylene	ND	0.0025	0.00017	mg/kg	
1330-20-7	Xylene (total)	0.00099	0.0025	0.00017	mg/kg	J

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ (C) 36-37		
Lab Sample ID:	M99201-4	Date Sampled:	04/08/11
Matrix:	SO - Soil	Date Received:	04/09/11
Method:	SW846 8260B	Percent Solids:	96.7
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%		70-130%
2037-26-5	Toluene-D8	115%		70-130%
460-00-4	4-Bromofluorobenzene	126%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ (C) 36-37		
Lab Sample ID:	M99201-4	**Date Sampled:**	04/08/11
Matrix:	SO - Soil	**Date Received:**	04/09/11
Method:	SW846 8270C SW846 3545	**Percent Solids:**	96.7
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I71812.D	1	04/22/11	KR	04/13/11	OP24621	MSI2561
Run #2							

	Initial Weight	Final Volume
Run #1	20.2 g	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic acid	ND	0.51	0.040	mg/kg	
95-57-8	2-Chlorophenol	ND	0.26	0.014	mg/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	0.51	0.018	mg/kg	
120-83-2	2,4-Dichlorophenol	ND	0.51	0.030	mg/kg	
105-67-9	2,4-Dimethylphenol	ND	0.51	0.051	mg/kg	
51-28-5	2,4-Dinitrophenol	ND	1.0	0.26	mg/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	0.51	0.26	mg/kg	
95-48-7	2-Methylphenol	ND	0.51	0.015	mg/kg	
	3&4-Methylphenol	ND	0.51	0.027	mg/kg	
88-75-5	2-Nitrophenol	ND	0.51	0.031	mg/kg	
100-02-7	4-Nitrophenol	ND	1.0	0.26	mg/kg	
87-86-5	Pentachlorophenol	ND	0.51	0.047	mg/kg	
108-95-2	Phenol	ND	0.26	0.042	mg/kg	
95-95-4	2,4,5-Trichlorophenol	ND	0.51	0.038	mg/kg	
88-06-2	2,4,6-Trichlorophenol	ND	0.51	0.035	mg/kg	
83-32-9	Acenaphthene	ND	0.26	0.022	mg/kg	
208-96-8	Acenaphthylene	ND	0.26	0.019	mg/kg	
62-53-3	Aniline	ND	0.51	0.51	mg/kg	
120-12-7	Anthracene	ND	0.26	0.020	mg/kg	
56-55-3	Benzo(a)anthracene	ND	0.26	0.0094	mg/kg	
50-32-8	Benzo(a)pyrene	ND	0.26	0.015	mg/kg	
205-99-2	Benzo(b)fluoranthene	ND	0.26	0.030	mg/kg	
191-24-2	Benzo(g,h,i)perylene	ND	0.26	0.017	mg/kg	
207-08-9	Benzo(k)fluoranthene	ND	0.26	0.0076	mg/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	0.26	0.021	mg/kg	
85-68-7	Butyl benzyl phthalate	ND	0.26	0.011	mg/kg	
91-58-7	2-Chloronaphthalene	ND	0.26	0.021	mg/kg	
106-47-8	4-Chloroaniline	ND	0.51	0.13	mg/kg	
218-01-9	Chrysene	ND	0.26	0.0083	mg/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	0.26	0.020	mg/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	0.26	0.0055	mg/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	0.26	0.024	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ (C) 36-37		
Lab Sample ID:	M99201-4	**Date Sampled:**	04/08/11
Matrix:	SO - Soil	**Date Received:**	04/09/11
Method:	SW846 8270C SW846 3545	**Percent Solids:**	96.7
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	0.26	0.023	mg/kg	
121-14-2	2,4-Dinitrotoluene	ND	0.51	0.13	mg/kg	
606-20-2	2,6-Dinitrotoluene	ND	0.51	0.025	mg/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	0.26	0.0061	mg/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	0.26	0.017	mg/kg	
132-64-9	Dibenzofuran	ND	0.26	0.022	mg/kg	
84-74-2	Di-n-butyl phthalate	ND	0.26	0.023	mg/kg	
117-84-0	Di-n-octyl phthalate	ND	0.26	0.013	mg/kg	
84-66-2	Diethyl phthalate	0.0382	0.26	0.022	mg/kg	J
131-11-3	Dimethyl phthalate	ND	0.26	0.018	mg/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	0.26	0.018	mg/kg	
206-44-0	Fluoranthene	ND	0.26	0.0087	mg/kg	
86-73-7	Fluorene	ND	0.26	0.0056	mg/kg	
118-74-1	Hexachlorobenzene	ND	0.26	0.022	mg/kg	
77-47-4	Hexachlorocyclopentadiene	ND	0.51	0.0034	mg/kg	
67-72-1	Hexachloroethane	ND	0.26	0.021	mg/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.26	0.016	mg/kg	
78-59-1	Isophorone	ND	0.26	0.025	mg/kg	
91-57-6	2-Methylnaphthalene	ND	0.26	0.021	mg/kg	
88-74-4	2-Nitroaniline	ND	0.51	0.13	mg/kg	
99-09-2	3-Nitroaniline	ND	0.51	0.13	mg/kg	
100-01-6	4-Nitroaniline	ND	0.51	0.019	mg/kg	
91-20-3	Naphthalene	ND	0.26	0.0059	mg/kg	
98-95-3	Nitrobenzene	ND	0.26	0.0076	mg/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	0.26	0.016	mg/kg	
86-30-6	N-Nitrosodiphenylamine	ND	0.26	0.014	mg/kg	
85-01-8	Phenanthrene	ND	0.26	0.0066	mg/kg	
129-00-0	Pyrene	ND	0.26	0.0082	mg/kg	
110-86-1	Pyridine	ND	0.51	0.51	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	78%		30-130%
4165-62-2	Phenol-d5	76%		30-130%
118-79-6	2,4,6-Tribromophenol	69%		30-130%
4165-60-0	Nitrobenzene-d5	76%		30-130%
321-60-8	2-Fluorobiphenyl	81%		30-130%
1718-51-0	Terphenyl-d14	83%		30-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ (C) 36-37 DUP		
Lab Sample ID:	M99201-5	Date Sampled:	04/08/11
Matrix:	SO - Soil	Date Received:	04/09/11
Method:	SW846 8260B	Percent Solids:	96.4
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P52405.D	1	04/21/11	AMY	n/a	n/a	MSP1735
Run #2							

	Initial Weight	Final Volume
Run #1	4.59 g	5.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	~~0.0314~~ ND	0.034 ~~0.0056~~	0.0056	mg/kg	U
107-02-8	Acrolein	~~ND~~	0.028	0.019	mg/kg	
107-13-1	Acrylonitrile	ND	0.0056	0.00090	mg/kg	
71-43-2	Benzene	0.0011	0.00056	0.00013	mg/kg	
108-86-1	Bromobenzene	ND	0.0056	0.00016	mg/kg	
74-97-5	Bromochloromethane	ND	0.0056	0.00054	mg/kg	
75-27-4	Bromodichloromethane	ND	0.0023	0.00021	mg/kg	
75-25-2	Bromoform	ND	0.0023	0.0011	mg/kg	
74-83-9	Bromomethane	ND	0.0023	0.00039	mg/kg	
78-93-3	2-Butanone (MEK)	ND	0.0056	0.0017	mg/kg	
104-51-8	n-Butylbenzene	ND	0.0056	0.00048	mg/kg	
135-98-8	sec-Butylbenzene	ND	0.0056	0.00041	mg/kg	
98-06-6	tert-Butylbenzene	ND	0.0056	0.00025	mg/kg	
75-15-0	Carbon disulfide	ND	0.0056	0.00021	mg/kg	
56-23-5	Carbon tetrachloride	ND	0.0023	0.00021	mg/kg	
108-90-7	Chlorobenzene	ND	0.0023	0.00025	mg/kg	
75-00-3	Chloroethane	ND	0.0056	0.00036	mg/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	0.0056	0.0056	mg/kg	
67-66-3	Chloroform	ND	0.0023	0.00018	mg/kg	
74-87-3	Chloromethane	ND	0.0056	0.00014	mg/kg	
95-49-8	o-Chlorotoluene	ND	0.0056	0.00021	mg/kg	
106-43-4	p-Chlorotoluene	ND	0.0056	0.00024	mg/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0056	0.00080	mg/kg	
124-48-1	Dibromochloromethane	ND	0.0023	0.0011	mg/kg	
106-93-4	1,2-Dibromoethane	ND	0.0023	0.00017	mg/kg	
95-50-1	1,2-Dichlorobenzene	ND	0.0023	0.00035	mg/kg	
541-73-1	1,3-Dichlorobenzene	ND	0.0023	0.00034	mg/kg	
106-46-7	1,4-Dichlorobenzene	ND	0.0023	0.00033	mg/kg	
75-71-8	Dichlorodifluoromethane	ND	0.0023	0.00023	mg/kg	
75-34-3	1,1-Dichloroethane	ND	0.0023	0.00019	mg/kg	
107-06-2	1,2-Dichloroethane	ND	0.0023	0.00013	mg/kg	
75-35-4	1,1-Dichloroethene	ND	0.0023	0.00015	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ (C) 36-37 DUP		
Lab Sample ID:	M99201-5	Date Sampled:	04/08/11
Matrix:	SO - Soil	Date Received:	04/09/11
Method:	SW846 8260B	Percent Solids:	96.4
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-59-2	cis-1,2-Dichloroethene	ND	0.0023	0.00023	mg/kg	
156-60-5	trans-1,2-Dichloroethene	ND	0.0023	0.00021	mg/kg	
78-87-5	1,2-Dichloropropane	ND	0.0023	0.00019	mg/kg	
142-28-9	1,3-Dichloropropane	ND	0.0056	0.00012	mg/kg	
594-20-7	2,2-Dichloropropane	ND	0.0056	0.00022	mg/kg	UJ
563-58-6	1,1-Dichloropropene	ND	0.0056	0.00024	mg/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0023	0.00056	mg/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0023	0.0011	mg/kg	
97-63-2	Ethyl methacrylate	ND	0.0056	0.00014	mg/kg	
100-41-4	Ethylbenzene	0.0034	0.0023	0.00012	mg/kg	
87-68-3	Hexachlorobutadiene	ND	0.0056	0.00082	mg/kg	
591-78-6	2-Hexanone	ND	0.0056	0.00097	mg/kg	
98-82-8	Isopropylbenzene	ND	0.0056	0.00028	mg/kg	
99-87-6	p-Isopropyltoluene	ND	0.0056	0.00044	mg/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	0.0023	0.00015	mg/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	0.0056	0.0011	mg/kg	
74-95-3	Methylene bromide	ND	0.0056	0.0011	mg/kg	
75-09-2	Methylene chloride	ND	0.0023	0.00019	mg/kg	
103-65-1	n-Propylbenzene	ND	0.0056	0.00032	mg/kg	
100-42-5	Styrene	ND	0.0056	0.00018	mg/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0056	0.00019	mg/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.0023	0.00020	mg/kg	
127-18-4	Tetrachloroethene	ND	0.0023	0.00019	mg/kg	
108-88-3	Toluene	0.0034	0.0056	0.00020	mg/kg	J
87-61-6	1,2,3-Trichlorobenzene	ND	0.0056	0.00086	mg/kg	UJ
120-82-1	1,2,4-Trichlorobenzene	ND	0.0056	0.00058	mg/kg	
71-55-6	1,1,1-Trichloroethane	ND	0.0023	0.00015	mg/kg	
79-00-5	1,1,2-Trichloroethane	ND	0.0023	0.00014	mg/kg	
79-01-6	Trichloroethene	ND	0.0023	0.00023	mg/kg	
75-69-4	Trichlorofluoromethane	ND	0.0023	0.00017	mg/kg	
96-18-4	1,2,3-Trichloropropane	ND	0.0056	0.00019	mg/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	0.0056	0.00029	mg/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	0.0056	0.00024	mg/kg	
108-05-4	Vinyl Acetate	ND	0.0056	0.0031	mg/kg	
75-01-4	Vinyl chloride	ND	0.0023	0.00030	mg/kg	
	m,p-Xylene	0.0010	0.0023	0.00039	mg/kg	J
95-47-6	o-Xylene	ND	0.0023	0.00015	mg/kg	
1330-20-7	Xylene (total)	0.0010	0.0023	0.00015	mg/kg	J

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ (C) 36-37 DUP		
Lab Sample ID:	M99201-5	Date Sampled:	04/08/11
Matrix:	SO - Soil	Date Received:	04/09/11
Method:	SW846 8260B	Percent Solids:	96.4
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	110%		70-130%
2037-26-5	Toluene-D8	117%		70-130%
460-00-4	4-Bromofluorobenzene	126%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ (C) 36-37 DUP		
Lab Sample ID:	M99201-5	**Date Sampled:**	04/08/11
Matrix:	SO - Soil	**Date Received:**	04/09/11
Method:	SW846 8270C SW846 3545	**Percent Solids:**	96.4
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	S23353.D	1	04/26/11	PR	04/13/11	OP24621	MSS988
Run #2							

	Initial Weight	Final Volume
Run #1	20.8 g	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic acid	ND	0.50	0.039	mg/kg	
95-57-8	2-Chlorophenol	ND	0.25	0.013	mg/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	0.50	0.017	mg/kg	
120-83-2	2,4-Dichlorophenol	ND	0.50	0.029	mg/kg	
105-67-9	2,4-Dimethylphenol	ND	0.50	0.050	mg/kg	
51-28-5	2,4-Dinitrophenol	ND	1.0	0.25	mg/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	0.50	0.25	mg/kg	
95-48-7	2-Methylphenol	ND	0.50	0.014	mg/kg	
	3&4-Methylphenol	ND	0.50	0.026	mg/kg	
88-75-5	2-Nitrophenol	ND	0.50	0.030	mg/kg	
100-02-7	4-Nitrophenol	ND	1.0	0.25	mg/kg	
87-86-5	Pentachlorophenol	ND	0.50	0.046	mg/kg	
108-95-2	Phenol	ND	0.25	0.041	mg/kg	
95-95-4	2,4,5-Trichlorophenol	ND	0.50	0.037	mg/kg	
88-06-2	2,4,6-Trichlorophenol	ND	0.50	0.034	mg/kg	
83-32-9	Acenaphthene	ND	0.25	0.021	mg/kg	
208-96-8	Acenaphthylene	ND	0.25	0.019	mg/kg	
62-53-3	Aniline	ND	0.50	0.50	mg/kg	
120-12-7	Anthracene	ND	0.25	0.020	mg/kg	
56-55-3	Benzo(a)anthracene	ND	0.25	0.0092	mg/kg	
50-32-8	Benzo(a)pyrene	ND	0.25	0.015	mg/kg	
205-99-2	Benzo(b)fluoranthene	ND	0.25	0.029	mg/kg	
191-24-2	Benzo(g,h,i)perylene	ND	0.25	0.016	mg/kg	
207-08-9	Benzo(k)fluoranthene	ND	0.25	0.0074	mg/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	0.25	0.020	mg/kg	
85-68-7	Butyl benzyl phthalate	ND	0.25	0.011	mg/kg	
91-58-7	2-Chloronaphthalene	ND	0.25	0.021	mg/kg	
106-47-8	4-Chloroaniline	ND	0.50	0.12	mg/kg	
218-01-9	Chrysene	ND	0.25	0.0081	mg/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	0.25	0.019	mg/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	0.25	0.0053	mg/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	0.25	0.024	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4PZ (C) 36-37 DUP		
Lab Sample ID:	M99201-5	Date Sampled:	04/08/11
Matrix:	SO - Soil	Date Received:	04/09/11
Method:	SW846 8270C SW846 3545	Percent Solids:	96.4
Project:	URSMOSTL:97216640 170 East Rand Avenue Hartford, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	0.25	0.022	mg/kg	
121-14-2	2,4-Dinitrotoluene	ND	0.50	0.12	mg/kg	
606-20-2	2,6-Dinitrotoluene	ND	0.50	0.024	mg/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	0.25	0.0060	mg/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	0.25	0.016	mg/kg	
132-64-9	Dibenzofuran	ND	0.25	0.021	mg/kg	
84-74-2	Di-n-butyl phthalate	ND	0.25	0.023	mg/kg	
117-84-0	Di-n-octyl phthalate	ND	0.25	0.013	mg/kg	
84-66-2	Diethyl phthalate	ND	0.25	0.022	mg/kg	
131-11-3	Dimethyl phthalate	~~ND~~	0.25	0.017	mg/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	~~0.0199~~ N	0.25	0.017	mg/kg	~~JB~~ U
206-44-0	Fluoranthene	~~ND~~	0.25	0.0085	mg/kg	
86-73-7	Fluorene	ND	0.25	0.0055	mg/kg	
118-74-1	Hexachlorobenzene	ND	0.25	0.021	mg/kg	
77-47-4	Hexachlorocyclopentadiene	ND	0.50	0.0034	mg/kg	
67-72-1	Hexachloroethane	ND	0.25	0.020	mg/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.25	0.015	mg/kg	
78-59-1	Isophorone	ND	0.25	0.025	mg/kg	
91-57-6	2-Methylnaphthalene	ND	0.25	0.021	mg/kg	
88-74-4	2-Nitroaniline	ND	0.50	0.12	mg/kg	
99-09-2	3-Nitroaniline	ND	0.50	0.12	mg/kg	
100-01-6	4-Nitroaniline	ND	0.50	0.018	mg/kg	
91-20-3	Naphthalene	ND	0.25	0.0058	mg/kg	
98-95-3	Nitrobenzene	ND	0.25	0.0074	mg/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	0.25	0.016	mg/kg	
86-30-6	N-Nitrosodiphenylamine	ND	0.25	0.013	mg/kg	
85-01-8	Phenanthrene	ND	0.25	0.0064	mg/kg	
129-00-0	Pyrene	ND	0.25	0.0080	mg/kg	
110-86-1	Pyridine	ND	0.50	0.50	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	71%		30-130%
4165-62-2	Phenol-d5	68%		30-130%
118-79-6	2,4,6-Tribromophenol	65%		30-130%
4165-60-0	Nitrobenzene-d5	72%		30-130%
321-60-8	2-Fluorobiphenyl	71%		30-130%
1718-51-0	Terphenyl-d14	90%		30-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Certification Exceptions
- Certification Exceptions (IL)
- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody

Shell Oil Products Chain Of Custody Record

LAB (LOCATION)

- [ ] XENCO ( )
- [ ] CALSCIENCE ( )
- [x] OTHER (Accutest Labs: 495 Technology Ctr W (Marlborough, MA 01752 (508-481-6200))
- [ ] SPL

Lab Vendor #

Please Check Appropriate Box:

- [x] ENV. SERVICES
- [ ] MOTIVA RETAIL
- [ ] SHELL RETAIL
- [ ] MOTIVA SD&CM
- [ ] CONSULTANT
- [ ] LUBES
- [ ] SHELL PIPELINE
- [ ] OTHER

Print Bill To Contact Name: WENDY PENNINGTON

PO #

INCIDENT # (ENV SERVICES) 9 7 2 1 6 6 4 0

- [ ] CHECK IF NO INCIDENT # APPLIES

SAP # 3 4 0 0 6 1

DATE: 4/8/11

PAGE: 1 of 1

Sampling Company: URS CORPORATION

Site Address: Street and City: 170 EAST RAND AVENUE – HARTFORD | State: IL

Address: 1001 HIGHLANDS PLAZA DRIVE WEST · SUITE 300, ST. LOUIS, MO 63110

Consultant Project No.: Roxana ROST-4-PZ / 21562583.00011

Project Contact: WENDY PENNINGTON

Sampler Name(s) (Print): N. SATAM

Telephone: 341-452-8929 | Fax: 314-429-0462

LAB USE ONLY: M99201

TURNAROUND TIME (CALENDAR DAYS):

- [x] STANDARD (10 DAY)
- [ ] 5 DAYS
- [ ] 3 DAYS
- [ ] 2 DAYS
- [ ] 24 HOURS
- [ ] RESULTS NEEDED ON WEEKEND

- [ ] LA - RWQCB REPORT FORMAT
- [ ] UST AGENCY:

DELIVERABLES:

- [ ] LEVEL 1
- [x] LEVEL 2
- [ ] LEVEL 3
- [x] LEVEL 4
- [x] OTHER (SPECIFY) EDD

TEMPERATURE ON RECEIPT C° Cooler #1 | Cooler #2 | Cooler #3

SPECIAL INSTRUCTIONS OR NOTES :

- [x] SHELL CONTRACT RATE APPLIES
- [ ] STATE REIMBURSEMENT RATE APPLIES
- [ ] EDD NOT NEEDED
- [x] RECEIPT VERIFICATION REQUESTED
- [ ] PROVIDE LEDD DISK

REQUESTED ANALYSIS

FIELD NOTES:

TEMPERATURE ON RECEIPT C°

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	HCL	HNO3	H2SO4	[illegible]	[illegible]	NONE	OTHER	No. of Cont.	VOC 8260	SVOC 8270	PID (ppm)	NOTES / COMMENTS
-1	TB-040811	4/8/11	–		2							2	X			Trip Blank
-2	ROST-4PZ (C) 11-12	4/8/11	0830	Soil				1	2	2		5	X	X	12-6	
-3	ROST-4PZ (C) 25-26	4/8/11	0930	↓				1	2	2		5	X	X	20-4	
-4	ROST-4PZ (C) 36-37	4/8/11	1000	↓				1	2	2		5	X	X	35	
-5	ROST-4PZ (C) 36-37 DUP	4/8/11	1000	↓				1	2	2		5	X	X	35	
																15C,1084,3H4

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
[signature]	FEDEX	4/8/11	1700
FedEx	[signature]	4/9/11	10:30
			1.7°C

M99201: Chain of Custody

Page 1 of 2

ACCUTEST LABORATORIES

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: M99201 Client: URS Immediate Client Services Action Required: No

Date / Time Received: 4/9/2011 Delivery Method: Client Service Action Required at Login: No

Project: 170 EAST RAND AVE HARTFORD IL No. Coolers: 1 Airbill #'s: N/A

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	Infared gun		
3. Cooler media:	Ice (bag)		

Quality Control Preservatio	Y	or	N	N/A
1. Trip Blank present / cooler:	☑		☐	☐
2. Trip Blank listed on COC:	☑		☐	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☑		☐	☐

Sample Integrity - Documentetion	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All conteiners accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Comments

Accutest Laboratories
V.508.481.6200

495 Technology Center West, Bldg One
F: 508.481.7753

Marlborough, MA
www.accutest.com

4.1

4

M99201: Chain of Custody
Page 2 of 2

Internal Sample Tracking Chronicle

Shell Oil

Job No: M99201

URSMOSTL:97216640 170 East Rand Avenue Hartford, IL
Project No: Roxana - ROST-4-PZ SAP#340061

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
M99201-1	Collected: 08-APR-11 00:00 By: NS		Received: 09-APR-11 By: JB			
TB-040811						
M99201-1	SW846 8260B	22-APR-11 16:52	EL			V8260SL
M99201-2	Collected: 08-APR-11 08:30 By: NS		Received: 09-APR-11 By: JB			
ROST-4PZ (C) 11-12						
M99201-2	SM21 2540 B MOD.	12-APR-11	BF			%SOL
M99201-2	SW846 8260B	21-APR-11 22:42	AMY			V8260SL
M99201-2	SW846 8270C	22-APR-11 21:41	KR	13-APR-11	AJ	AB8270SL
M99201-3	Collected: 08-APR-11 09:30 By: NS		Received: 09-APR-11 By: JB			
ROST-4PZ (C) 25-26						
M99201-3	SM21 2540 B MOD.	12-APR-11	BF			%SOL
M99201-3	SW846 8260B	21-APR-11 11:31	AMY			V8260SL
M99201-3	SW846 8270C	22-APR-11 22:13	KR	13-APR-11	AJ	AB8270SL
M99201-4	Collected: 08-APR-11 10:00 By: NS		Received: 09-APR-11 By: JB			
ROST-4PZ (C) 36-37						
M99201-4	SM21 2540 B MOD.	12-APR-11	BF			%SOL
M99201-4	SW846 8260B	21-APR-11 11:59	AMY			V8260SL
M99201-4	SW846 8270C	22-APR-11 22:46	KR	13-APR-11	AJ	AB8270SL
M99201-5	Collected: 08-APR-11 10:00 By: NS		Received: 09-APR-11 By: JB			
ROST-4PZ (C) 36-37 DUP						
M99201-5	SM21 2540 B MOD.	12-APR-11	BF			%SOL
M99201-5	SW846 8260B	21-APR-11 12:27	AMY			V8260SL
M99201-5	SW846 8270C	26-APR-11 10:30	PR	13-APR-11	AJ	AB8270SL

Accutest Internal Chain of Custody

Job Number: M99201
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL
Received: 04/09/11

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
M99201-1.1	VOC Ref #3	Jugal Patel	04/22/11 15:16	Retrieve from Storage
M99201-1.1	Jugal Patel	GCMSN	04/22/11 15:16	Load on Instrument
M99201-2.2	Walk In Ref #9	Bijan Firowznin	04/12/11 14:14	Retrieve from Storage
M99201-2.2	Bijan Firowznin	Walk In Ref #9	04/12/11 16:02	Return to Storage
M99201-2.2	Walk In Ref #9	Mahmoud Afzali	04/13/11 11:32	Retrieve from Storage
M99201-2.2	Mahmoud Afzali	Walk In Ref #9	04/13/11 16:35	Return to Storage
M99201-2.3	VOC Ref #10	Amy Min Yang	04/21/11 17:33	Retrieve from Storage
M99201-2.3	Amy Min Yang	GCMSP	04/21/11 17:35	Load on Instrument
M99201-2.3	GCMSP	Amy Min Yang	04/23/11 08:43	Unload from Instrument
M99201-2.3	Amy Min Yang	VOC Ref #10	04/23/11 08:44	Return to Storage
M99201-2.4	VOC Ref #10	Amy Min Yang	04/21/11 09:50	Retrieve from Storage
M99201-2.4	Amy Min Yang	GCMSP	04/21/11 09:50	Load on Instrument
M99201-2.4	GCMSP	Amy Min Yang	04/23/11 08:43	Unload from Instrument
M99201-2.4	Amy Min Yang	VOC Ref #10	04/23/11 08:44	Return to Storage
M99201-2.5	VOC Ref #10	Gary Krasinski	04/14/11 12:37	Retrieve from Storage
M99201-2.5	Gary Krasinski	VOC Ref #10	04/15/11 13:33	Return to Storage
M99201-3.2	Walk In Ref #9	Bijan Firowznin	04/12/11 14:14	Retrieve from Storage
M99201-3.2	Bijan Firowznin	Walk In Ref #9	04/12/11 16:02	Return to Storage
M99201-3.2	Walk In Ref #9	Mahmoud Afzali	04/13/11 11:32	Retrieve from Storage
M99201-3.2	Mahmoud Afzali	Walk In Ref #9	04/13/11 16:35	Return to Storage
M99201-3.3	VOC Ref #10	Amy Min Yang	04/21/11 09:50	Retrieve from Storage
M99201-3.3	Amy Min Yang	GCMSP	04/21/11 09:50	Load on Instrument
M99201-3.3	GCMSP	Amy Min Yang	04/23/11 08:43	Unload from Instrument
M99201-3.3	Amy Min Yang	VOC Ref #10	04/23/11 08:44	Return to Storage
M99201-3.5	VOC Ref #10	Gary Krasinski	04/14/11 12:37	Retrieve from Storage
M99201-3.5	Gary Krasinski	VOC Ref #10	04/15/11 13:33	Return to Storage
M99201-4.2	Walk In Ref #9	Bijan Firowznin	04/12/11 14:14	Retrieve from Storage
M99201-4.2	Bijan Firowznin	Walk In Ref #9	04/12/11 16:02	Return to Storage
M99201-4.2	Walk In Ref #9	Mahmoud Afzali	04/13/11 11:32	Retrieve from Storage
M99201-4.2	Mahmoud Afzali	Walk In Ref #9	04/13/11 16:35	Return to Storage
M99201-4.3	VOC Ref #10	Amy Min Yang	04/21/11 09:50	Retrieve from Storage
M99201-4.3	Amy Min Yang	GCMSP	04/21/11 09:50	Load on Instrument
M99201-4.3	GCMSP	Amy Min Yang	04/23/11 08:43	Unload from Instrument
M99201-4.3	Amy Min Yang	VOC Ref #10	04/23/11 08:44	Return to Storage

Accutest Internal Chain of Custody

Job Number: M99201
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL
Received: 04/09/11

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
M99201-4.5	VOC Ref #10	Gary Krasinski	04/15/11 15:11	Retrieve from Storage
M99201-4.5	Gary Krasinski	VOC Ref #10	04/18/11 11:58	Return to Storage
M99201-5.2	Walk In Ref #9	Bijan Firowznin	04/12/11 14:14	Retrieve from Storage
M99201-5.2	Bijan Firowznin	Walk In Ref #9	04/12/11 16:02	Return to Storage
M99201-5.2	Walk In Ref #9	Mahmoud Afzali	04/13/11 11:32	Retrieve from Storage
M99201-5.2	Mahmoud Afzali	Walk In Ref #9	04/13/11 16:35	Return to Storage
M99201-5.4	VOC Ref #10	Amy Min Yang	04/21/11 09:50	Retrieve from Storage
M99201-5.4	Amy Min Yang	GCMSP	04/21/11 09:50	Load on Instrument
M99201-5.4	GCMSP	Amy Min Yang	04/23/11 08:43	Unload from Instrument
M99201-5.4	Amy Min Yang	VOC Ref #10	04/23/11 08:44	Return to Storage
M99201-5.5	VOC Ref #10	Gary Krasinski	04/15/11 15:11	Retrieve from Storage
M99201-5.5	Gary Krasinski	VOC Ref #10	04/18/11 11:58	Return to Storage

New England ACCUTEST LABORATORIES

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: M99201
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP1735-MB	P52401.D	1	04/21/11	AMY	n/a	n/a	MSP1735

The QC reported here applies to the following samples: Method: SW846 8260B

M99201-3, M99201-4, M99201-5

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	5.0	ug/kg	
107-02-8	Acrolein	ND	25	17	ug/kg	
107-13-1	Acrylonitrile	ND	5.0	0.79	ug/kg	
71-43-2	Benzene	ND	0.50	0.11	ug/kg	
108-86-1	Bromobenzene	ND	5.0	0.15	ug/kg	
74-97-5	Bromochloromethane	ND	5.0	0.48	ug/kg	
75-27-4	Bromodichloromethane	ND	2.0	0.19	ug/kg	
75-25-2	Bromoform	ND	2.0	1.0	ug/kg	
74-83-9	Bromomethane	ND	2.0	0.35	ug/kg	
78-93-3	2-Butanone (MEK)	ND	5.0	1.5	ug/kg	
104-51-8	n-Butylbenzene	ND	5.0	0.42	ug/kg	
135-98-8	sec-Butylbenzene	ND	5.0	0.36	ug/kg	
98-06-6	tert-Butylbenzene	ND	5.0	0.23	ug/kg	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.0	0.19	ug/kg	
108-90-7	Chlorobenzene	ND	2.0	0.22	ug/kg	
75-00-3	Chloroethane	ND	5.0	0.32	ug/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	5.0	ug/kg	
67-66-3	Chloroform	ND	2.0	0.16	ug/kg	
74-87-3	Chloromethane	ND	5.0	0.13	ug/kg	
95-49-8	o-Chlorotoluene	ND	5.0	0.19	ug/kg	
106-43-4	p-Chlorotoluene	ND	5.0	0.22	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	0.71	ug/kg	
124-48-1	Dibromochloromethane	ND	2.0	1.0	ug/kg	
106-93-4	1,2-Dibromoethane	ND	2.0	0.15	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	2.0	0.31	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	2.0	0.30	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	2.0	0.29	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.20	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.0	0.17	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.0	0.12	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.0	0.14	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.0	0.20	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.0	0.19	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.0	0.17	ug/kg	
142-28-9	1,3-Dichloropropane	ND	5.0	0.11	ug/kg	

Method Blank Summary

Job Number: M99201
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP1735-MB	P52401.D	1	04/21/11	AMY	n/a	n/a	MSP1735

The QC reported here applies to the following samples: Method: SW846 8260B

M99201-3, M99201-4, M99201-5

CAS No.	Compound	Result	RL	MDL	Units	Q
594-20-7	2,2-Dichloropropane	ND	5.0	0.20	ug/kg	
563-58-6	1,1-Dichloropropene	ND	5.0	0.21	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.50	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	1.0	ug/kg	
97-63-2	Ethyl methacrylate	ND	5.0	0.13	ug/kg	
100-41-4	Ethylbenzene	ND	2.0	0.11	ug/kg	
87-68-3	Hexachlorobutadiene	ND	5.0	0.72	ug/kg	
591-78-6	2-Hexanone	ND	5.0	0.86	ug/kg	
98-82-8	Isopropylbenzene	ND	5.0	0.25	ug/kg	
99-87-6	p-Isopropyltoluene	1.1	5.0	0.39	ug/kg	J
1634-04-4	Methyl Tert Butyl Ether	ND	2.0	0.13	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/kg	
74-95-3	Methylene bromide	ND	5.0	1.0	ug/kg	
75-09-2	Methylene chloride	ND	2.0	0.17	ug/kg	
103-65-1	n-Propylbenzene	ND	5.0	0.28	ug/kg	
100-42-5	Styrene	ND	5.0	0.16	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.17	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	0.18	ug/kg	
127-18-4	Tetrachloroethene	ND	2.0	0.17	ug/kg	
108-88-3	Toluene	ND	5.0	0.18	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.77	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.51	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.0	0.13	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.0	0.13	ug/kg	
79-01-6	Trichloroethene	ND	2.0	0.21	ug/kg	
75-69-4	Trichlorofluoromethane	ND	2.0	0.15	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.17	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.26	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.22	ug/kg	
108-05-4	Vinyl Acetate	ND	5.0	2.7	ug/kg	
75-01-4	Vinyl chloride	ND	2.0	0.27	ug/kg	
	m,p-Xylene	ND	2.0	0.35	ug/kg	
95-47-6	o-Xylene	ND	2.0	0.13	ug/kg	
1330-20-7	Xylene (total)	ND	2.0	0.13	ug/kg	

Method Blank Summary

Job Number: M99201
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP1735-MB	P52401.D	1	04/21/11	AMY	n/a	n/a	MSP1735

The QC reported here applies to the following samples: Method: SW846 8260B

M99201-3, M99201-4, M99201-5

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	104%	70-130%
2037-26-5	Toluene-D8	114%	70-130%
460-00-4	4-Bromofluorobenzene	122%	70-130%

Method Blank Summary

Job Number: M99201
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP1736-MB	P52421.D	1	04/21/11	AMY	n/a	n/a	MSP1736

The QC reported here applies to the following samples: Method: SW846 8260B

M99201-2

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	5.0	ug/kg	
107-02-8	Acrolein	ND	25	17	ug/kg	
107-13-1	Acrylonitrile	ND	5.0	0.79	ug/kg	
71-43-2	Benzene	ND	0.50	0.11	ug/kg	
108-86-1	Bromobenzene	ND	5.0	0.15	ug/kg	
74-97-5	Bromochloromethane	ND	5.0	0.48	ug/kg	
75-27-4	Bromodichloromethane	ND	2.0	0.19	ug/kg	
75-25-2	Bromoform	ND	2.0	1.0	ug/kg	
74-83-9	Bromomethane	ND	2.0	0.35	ug/kg	
78-93-3	2-Butanone (MEK)	ND	5.0	1.5	ug/kg	
104-51-8	n-Butylbenzene	ND	5.0	0.42	ug/kg	
135-98-8	sec-Butylbenzene	ND	5.0	0.36	ug/kg	
98-06-6	tert-Butylbenzene	ND	5.0	0.23	ug/kg	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.0	0.19	ug/kg	
108-90-7	Chlorobenzene	ND	2.0	0.22	ug/kg	
75-00-3	Chloroethane	ND	5.0	0.32	ug/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	5.0	ug/kg	
67-66-3	Chloroform	ND	2.0	0.16	ug/kg	
74-87-3	Chloromethane	ND	5.0	0.13	ug/kg	
95-49-8	o-Chlorotoluene	ND	5.0	0.19	ug/kg	
106-43-4	p-Chlorotoluene	ND	5.0	0.22	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	0.71	ug/kg	
124-48-1	Dibromochloromethane	ND	2.0	1.0	ug/kg	
106-93-4	1,2-Dibromoethane	ND	2.0	0.15	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	2.0	0.31	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	2.0	0.30	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	2.0	0.29	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.20	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.0	0.17	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.0	0.12	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.0	0.14	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.0	0.20	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.0	0.19	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.0	0.17	ug/kg	
142-28-9	1,3-Dichloropropane	ND	5.0	0.11	ug/kg	

Method Blank Summary

Job Number: M99201
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP1736-MB	P52421.D	1	04/21/11	AMY	n/a	n/a	MSP1736

The QC reported here applies to the following samples: Method: SW846 8260B

M99201-2

CAS No.	Compound	Result	RL	MDL	Units	Q
594-20-7	2,2-Dichloropropane	ND	5.0	0.20	ug/kg	
563-58-6	1,1-Dichloropropene	ND	5.0	0.21	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.50	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	1.0	ug/kg	
97-63-2	Ethyl methacrylate	ND	5.0	0.13	ug/kg	
100-41-4	Ethylbenzene	ND	2.0	0.11	ug/kg	
87-68-3	Hexachlorobutadiene	ND	5.0	0.72	ug/kg	
591-78-6	2-Hexanone	ND	5.0	0.86	ug/kg	
98-82-8	Isopropylbenzene	ND	5.0	0.25	ug/kg	
99-87-6	p-Isopropyltoluene	ND	5.0	0.39	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.0	0.13	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/kg	
74-95-3	Methylene bromide	ND	5.0	1.0	ug/kg	
75-09-2	Methylene chloride	1.8	2.0	0.17	ug/kg	J
103-65-1	n-Propylbenzene	ND	5.0	0.28	ug/kg	
100-42-5	Styrene	ND	5.0	0.16	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.17	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	0.18	ug/kg	
127-18-4	Tetrachloroethene	ND	2.0	0.17	ug/kg	
108-88-3	Toluene	ND	5.0	0.18	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.77	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.51	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.0	0.13	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.0	0.13	ug/kg	
79-01-6	Trichloroethene	ND	2.0	0.21	ug/kg	
75-69-4	Trichlorofluoromethane	ND	2.0	0.15	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.17	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.26	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.22	ug/kg	
108-05-4	Vinyl Acetate	ND	5.0	2.7	ug/kg	
75-01-4	Vinyl chloride	ND	2.0	0.27	ug/kg	
	m,p-Xylene	ND	2.0	0.35	ug/kg	
95-47-6	o-Xylene	ND	2.0	0.13	ug/kg	
1330-20-7	Xylene (total)	ND	2.0	0.13	ug/kg	

Method Blank Summary

Job Number: M99201
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP1736-MB	P52421.D	1	04/21/11	AMY	n/a	n/a	MSP1736

The QC reported here applies to the following samples: Method: SW846 8260B

M99201-2

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	104%	70-130%
2037-26-5	Toluene-D8	112%	70-130%
460-00-4	4-Bromofluorobenzene	123%	70-130%

Method Blank Summary

Job Number: M99201
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSG4245-MB	G105223.D	1	04/22/11	EL	n/a	n/a	MSG4245

The QC reported here applies to the following samples: Method: SW846 8260B

M99201-1

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	4.6	ug/l	
107-02-8	Acrolein	ND	25	17	ug/l	
107-13-1	Acrylonitrile	ND	5.0	3.0	ug/l	
71-43-2	Benzene	ND	0.50	0.35	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.52	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.91	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.62	ug/l	
75-25-2	Bromoform	ND	1.0	0.73	ug/l	
74-83-9	Bromomethane	ND	2.0	0.95	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.1	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.49	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.37	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.53	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.35	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.42	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.61	ug/l	
75-00-3	Chloroethane	ND	2.0	0.76	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	0.83	ug/l	
67-66-3	Chloroform	ND	1.0	0.72	ug/l	
74-87-3	Chloromethane	ND	2.0	0.81	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.58	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.67	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.3	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.86	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.76	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.74	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.77	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.81	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.61	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.63	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.74	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.70	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.66	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.74	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.83	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.73	ug/l	

Method Blank Summary

Job Number: M99201
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSG4245-MB	G105223.D	1	04/22/11	EL	n/a	n/a	MSG4245

The QC reported here applies to the following samples: Method: SW846 8260B

M99201-1

CAS No.	Compound	Result	RL	MDL	Units	Q
594-20-7	2,2-Dichloropropane	ND	5.0	0.44	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.23	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.23	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.90	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.61	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.56	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.5	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.51	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.45	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.54	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.3	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.94	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.75	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.43	ug/l	
100-42-5	Styrene	ND	5.0	0.68	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.64	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.89	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.39	ug/l	
108-88-3	Toluene	ND	1.0	0.74	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.57	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.35	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.72	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.49	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.61	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.62	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.51	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	0.51	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.86	ug/l	
	m,p-Xylene	ND	1.0	0.62	ug/l	
95-47-6	o-Xylene	ND	1.0	0.56	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.56	ug/l	

Method Blank Summary

Job Number: M99201
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSG4245-MB	G105223.D	1	04/22/11	EL	n/a	n/a	MSG4245

The QC reported here applies to the following samples: Method: SW846 8260B

M99201-1

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	92%	70-130%
2037-26-5	Toluene-D8	99%	70-130%
460-00-4	4-Bromofluorobenzene	123%	70-130%

Blank Spike Summary

Job Number: M99201
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP1735-BS	P52399.D	1	04/21/11	AMY	n/a	n/a	MSP1735

The QC reported here applies to the following samples: Method: SW846 8260B

M99201-3, M99201-4, M99201-5

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
67-64-1	Acetone	50	70.3	141* a	70-130
107-02-8	Acrolein	250	4840	1936* b	70-130
107-13-1	Acrylonitrile	50	60.4	121	70-130
71-43-2	Benzene	50	53.7	107	70-130
108-86-1	Bromobenzene	50	55.0	110	70-130
74-97-5	Bromochloromethane	50	53.6	107	70-130
75-27-4	Bromodichloromethane	50	54.1	108	70-130
75-25-2	Bromoform	50	54.1	108	70-130
74-83-9	Bromomethane	50	46.1	92	70-130
78-93-3	2-Butanone (MEK)	50	66.3	133* a	70-130
104-51-8	n-Butylbenzene	50	54.1	108	70-130
135-98-8	sec-Butylbenzene	50	55.0	110	70-130
98-06-6	tert-Butylbenzene	50	56.1	112	70-130
75-15-0	Carbon disulfide	50	53.2	106	70-130
56-23-5	Carbon tetrachloride	50	52.8	106	70-130
108-90-7	Chlorobenzene	50	51.8	104	70-130
75-00-3	Chloroethane	50	50.0	100	70-130
110-75-8	2-Chloroethyl vinyl ether	50	52.7	105	10-160
67-66-3	Chloroform	50	51.8	104	70-130
74-87-3	Chloromethane	50	52.2	104	70-130
95-49-8	o-Chlorotoluene	50	55.8	112	70-130
106-43-4	p-Chlorotoluene	50	57.0	114	70-130
96-12-8	1,2-Dibromo-3-chloropropane	50	55.8	112	70-130
124-48-1	Dibromochloromethane	50	53.5	107	70-130
106-93-4	1,2-Dibromoethane	50	54.8	110	70-130
95-50-1	1,2-Dichlorobenzene	50	54.5	109	70-130
541-73-1	1,3-Dichlorobenzene	50	55.6	111	70-130
106-46-7	1,4-Dichlorobenzene	50	52.9	106	70-130
75-71-8	Dichlorodifluoromethane	50	43.9	88	70-130
75-34-3	1,1-Dichloroethane	50	52.1	104	70-130
107-06-2	1,2-Dichloroethane	50	51.9	104	70-130
75-35-4	1,1-Dichloroethene	50	56.1	112	70-130
156-59-2	cis-1,2-Dichloroethene	50	54.2	108	70-130
156-60-5	trans-1,2-Dichloroethene	50	56.0	112	70-130
78-87-5	1,2-Dichloropropane	50	52.2	104	70-130
142-28-9	1,3-Dichloropropane	50	52.8	106	70-130

Blank Spike Summary

Job Number: M99201
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP1735-BS	P52399.D	1	04/21/11	AMY	n/a	n/a	MSP1735

The QC reported here applies to the following samples: Method: SW846 8260B

M99201-3, M99201-4, M99201-5

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
594-20-7	2,2-Dichloropropane	50	25.1	50* a	70-130
563-58-6	1,1-Dichloropropene	50	55.0	110	70-130
10061-01-5	cis-1,3-Dichloropropene	50	56.7	113	70-130
10061-02-6	trans-1,3-Dichloropropene	50	58.8	118	70-130
97-63-2	Ethyl methacrylate	50	54.3	109	76-141
100-41-4	Ethylbenzene	50	53.3	107	70-130
87-68-3	Hexachlorobutadiene	50	48.4	97	70-130
591-78-6	2-Hexanone	50	40.3	81	70-130
98-82-8	Isopropylbenzene	50	63.2	126	70-130
99-87-6	p-Isopropyltoluene	50	53.7	107	70-130
1634-04-4	Methyl Tert Butyl Ether	50	54.7	109	70-130
108-10-1	4-Methyl-2-pentanone (MIBK)	50	59.2	118	70-130
74-95-3	Methylene bromide	50	55.6	111	70-130
75-09-2	Methylene chloride	50	61.8	124	70-130
103-65-1	n-Propylbenzene	50	57.4	115	70-130
100-42-5	Styrene	50	56.6	113	70-130
630-20-6	1,1,1,2-Tetrachloroethane	50	54.4	109	70-130
79-34-5	1,1,2,2-Tetrachloroethane	50	53.5	107	70-130
127-18-4	Tetrachloroethene	50	52.7	105	70-130
108-88-3	Toluene	50	54.3	109	70-130
87-61-6	1,2,3-Trichlorobenzene	50	33.4	67* a	70-130
120-82-1	1,2,4-Trichlorobenzene	50	41.8	84	70-130
71-55-6	1,1,1-Trichloroethane	50	51.8	104	70-130
79-00-5	1,1,2-Trichloroethane	50	54.8	110	70-130
79-01-6	Trichloroethene	50	55.4	111	70-130
75-69-4	Trichlorofluoromethane	50	46.7	93	70-130
96-18-4	1,2,3-Trichloropropane	50	52.1	104	70-130
95-63-6	1,2,4-Trimethylbenzene	50	55.4	111	70-130
108-67-8	1,3,5-Trimethylbenzene	50	54.5	109	70-130
108-05-4	Vinyl Acetate	50	77.1	154* a	70-130
75-01-4	Vinyl chloride	50	45.3	91	70-130
	m,p-Xylene	100	107	107	70-130
95-47-6	o-Xylene	50	53.7	107	70-130
1330-20-7	Xylene (total)	150	161	107	70-130

Blank Spike Summary

Job Number: M99201
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP1735-BS	P52399.D	1	04/21/11	AMY	n/a	n/a	MSP1735

The QC reported here applies to the following samples: Method: SW846 8260B

M99201-3, M99201-4, M99201-5

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	101%	70-130%
2037-26-5	Toluene-D8	113%	70-130%
460-00-4	4-Bromofluorobenzene	105%	70-130%

(a) Outside control limits. Blank Spike meets program technical requirements.
(b) Outside control limits. Associated samples are non-detect for this compound.

Blank Spike Summary

Job Number: M99201
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP1736-BS	P52419.D	1	04/21/11	AMY	n/a	n/a	MSP1736

The QC reported here applies to the following samples: Method: SW846 8260B

M99201-2

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
67-64-1	Acetone	50	67.6	135* a	70-130
107-02-8	Acrolein	250	4660	1864*	70-130
107-13-1	Acrylonitrile	50	47.5	95	70-130
71-43-2	Benzene	50	45.6	91	70-130
108-86-1	Bromobenzene	50	44.9	90	70-130
74-97-5	Bromochloromethane	50	45.9	92	70-130
75-27-4	Bromodichloromethane	50	45.3	91	70-130
75-25-2	Bromoform	50	43.5	87	70-130
74-83-9	Bromomethane	50	38.5	77	70-130
78-93-3	2-Butanone (MEK)	50	58.2	116	70-130
104-51-8	n-Butylbenzene	50	37.2	74	70-130
135-98-8	sec-Butylbenzene	50	43.3	87	70-130
98-06-6	tert-Butylbenzene	50	44.3	89	70-130
75-15-0	Carbon disulfide	50	46.5	93	70-130
56-23-5	Carbon tetrachloride	50	44.1	88	70-130
108-90-7	Chlorobenzene	50	43.3	87	70-130
75-00-3	Chloroethane	50	44.3	89	70-130
110-75-8	2-Chloroethyl vinyl ether	50	38.9	78	10-160
67-66-3	Chloroform	50	44.0	88	70-130
74-87-3	Chloromethane	50	47.0	94	70-130
95-49-8	o-Chlorotoluene	50	45.8	92	70-130
106-43-4	p-Chlorotoluene	50	46.5	93	70-130
96-12-8	1,2-Dibromo-3-chloropropane	50	36.5	73	70-130
124-48-1	Dibromochloromethane	50	43.4	87	70-130
106-93-4	1,2-Dibromoethane	50	44.2	88	70-130
95-50-1	1,2-Dichlorobenzene	50	41.2	82	70-130
541-73-1	1,3-Dichlorobenzene	50	43.0	86	70-130
106-46-7	1,4-Dichlorobenzene	50	41.3	83	70-130
75-71-8	Dichlorodifluoromethane	50	38.1	76	70-130
75-34-3	1,1-Dichloroethane	50	44.6	89	70-130
107-06-2	1,2-Dichloroethane	50	49.3	99	70-130
75-35-4	1,1-Dichloroethene	50	48.7	97	70-130
156-59-2	cis-1,2-Dichloroethene	50	46.4	93	70-130
156-60-5	trans-1,2-Dichloroethene	50	47.5	95	70-130
78-87-5	1,2-Dichloropropane	50	43.1	86	70-130
142-28-9	1,3-Dichloropropane	50	44.1	88	70-130

Blank Spike Summary

Job Number: M99201
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP1736-BS	P52419.D	1	04/21/11	AMY	n/a	n/a	MSP1736

The QC reported here applies to the following samples: Method: SW846 8260B

M99201-2

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
594-20-7	2,2-Dichloropropane	50	22.3	45* a	70-130
563-58-6	1,1-Dichloropropene	50	45.8	92	70-130
10061-01-5	cis-1,3-Dichloropropene	50	48.0	96	70-130
10061-02-6	trans-1,3-Dichloropropene	50	50.8	102	70-130
97-63-2	Ethyl methacrylate	50	41.9	84	76-141
100-41-4	Ethylbenzene	50	44.4	89	70-130
87-68-3	Hexachlorobutadiene	50	31.9	64* a	70-130
591-78-6	2-Hexanone	50	36.9	74	70-130
98-82-8	Isopropylbenzene	50	53.3	107	70-130
99-87-6	p-Isopropyltoluene	50	40.9	82	70-130
1634-04-4	Methyl Tert Butyl Ether	50	45.9	92	70-130
108-10-1	4-Methyl-2-pentanone (MIBK)	50	45.2	90	70-130
74-95-3	Methylene bromide	50	47.3	95	70-130
75-09-2	Methylene chloride	50	50.3	101	70-130
103-65-1	n-Propylbenzene	50	46.7	93	70-130
100-42-5	Styrene	50	45.5	91	70-130
630-20-6	1,1,1,2-Tetrachloroethane	50	44.4	89	70-130
79-34-5	1,1,2,2-Tetrachloroethane	50	43.0	86	70-130
127-18-4	Tetrachloroethene	50	44.1	88	70-130
108-88-3	Toluene	50	45.8	92	70-130
87-61-6	1,2,3-Trichlorobenzene	50	23.0	46* a	70-130
120-82-1	1,2,4-Trichlorobenzene	50	26.8	54* a	70-130
71-55-6	1,1,1-Trichloroethane	50	43.4	87	70-130
79-00-5	1,1,2-Trichloroethane	50	45.6	91	70-130
79-01-6	Trichloroethene	50	47.0	94	70-130
75-69-4	Trichlorofluoromethane	50	39.5	79	70-130
96-18-4	1,2,3-Trichloropropane	50	40.0	80	70-130
95-63-6	1,2,4-Trimethylbenzene	50	43.3	87	70-130
108-67-8	1,3,5-Trimethylbenzene	50	43.7	87	70-130
108-05-4	Vinyl Acetate	50	61.2	122	70-130
75-01-4	Vinyl chloride	50	40.3	81	70-130
	m,p-Xylene	100	88.2	88	70-130
95-47-6	o-Xylene	50	43.8	88	70-130
1330-20-7	Xylene (total)	150	132	88	70-130

Blank Spike Summary

Job Number: M99201
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP1736-BS	P52419.D	1	04/21/11	AMY	n/a	n/a	MSP1736

The QC reported here applies to the following samples: Method: SW846 8260B

M99201-2

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	106%	70-130%
2037-26-5	Toluene-D8	116%	70-130%
460-00-4	4-Bromofluorobenzene	106%	70-130%

(a) Outside control limits. Blank Spike meets program technical requirements.
(b) Outside control limits. Associated samples are non-detect for this compound.

Blank Spike/Blank Spike Duplicate Summary

Job Number: M99201
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSG4245-BS	G105220.D	1	04/22/11	EL	n/a	n/a	MSG4245
MSG4245-BSD	G105221.D	1	04/22/11	EL	n/a	n/a	MSG4245

The QC reported here applies to the following samples: Method: SW846 8260B

M99201-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	50	23.2	46* a	23.1	46* a	0	70-130/25
107-02-8	Acrolein	250	3590	1436* b	3590	1436* b	0	70-130/25
107-13-1	Acrylonitrile	50	52.2	104	51.4	103	2	70-130/25
71-43-2	Benzene	50	50.9	102	48.4	97	5	70-130/25
108-86-1	Bromobenzene	50	52.2	104	50.0	100	4	70-130/25
74-97-5	Bromochloromethane	50	55.3	111	53.6	107	3	70-130/25
75-27-4	Bromodichloromethane	50	54.2	108	51.8	104	5	70-130/25
75-25-2	Bromoform	50	51.2	102	51.0	102	0	70-130/25
74-83-9	Bromomethane	50	52.3	105	50.1	100	4	70-130/25
78-93-3	2-Butanone (MEK)	50	36.7	73	35.7	71	3	70-130/25
104-51-8	n-Butylbenzene	50	55.2	110	52.0	104	6	70-130/25
135-98-8	sec-Butylbenzene	50	55.2	110	51.9	104	6	70-130/25
98-06-6	tert-Butylbenzene	50	53.3	107	51.3	103	4	70-130/25
75-15-0	Carbon disulfide	50	44.7	89	41.4	83	8	70-130/25
56-23-5	Carbon tetrachloride	50	54.8	110	51.5	103	6	70-130/25
108-90-7	Chlorobenzene	50	53.1	106	51.2	102	4	70-130/25
75-00-3	Chloroethane	50	56.0	112	53.3	107	5	70-130/25
110-75-8	2-Chloroethyl vinyl ether	50	60.2	120	60.2	120	0	70-130/25
67-66-3	Chloroform	50	54.4	109	51.4	103	6	70-130/25
74-87-3	Chloromethane	50	55.4	111	51.7	103	7	70-130/25
95-49-8	o-Chlorotoluene	50	51.2	102	48.9	98	5	70-130/25
106-43-4	p-Chlorotoluene	50	53.3	107	51.4	103	4	70-130/25
96-12-8	1,2-Dibromo-3-chloropropane	50	53.5	107	51.9	104	3	70-130/25
124-48-1	Dibromochloromethane	50	53.3	107	52.3	105	2	70-130/25
106-93-4	1,2-Dibromoethane	50	56.8	114	55.7	111	2	70-130/25
95-50-1	1,2-Dichlorobenzene	50	53.7	107	52.1	104	3	70-130/25
541-73-1	1,3-Dichlorobenzene	50	54.0	108	51.5	103	5	70-130/25
106-46-7	1,4-Dichlorobenzene	50	53.0	106	51.1	102	4	70-130/25
75-71-8	Dichlorodifluoromethane	50	61.1	122	57.6	115	6	70-130/25
75-34-3	1,1-Dichloroethane	50	52.8	106	50.2	100	5	70-130/25
107-06-2	1,2-Dichloroethane	50	54.4	109	52.1	104	4	70-130/25
75-35-4	1,1-Dichloroethene	50	55.3	111	51.6	103	7	70-130/25
156-59-2	cis-1,2-Dichloroethene	50	50.3	101	48.2	96	4	70-130/25
156-60-5	trans-1,2-Dichloroethene	50	53.0	106	49.9	100	6	70-130/25
78-87-5	1,2-Dichloropropane	50	52.2	104	50.9	102	3	70-130/25
142-28-9	1,3-Dichloropropane	50	53.7	107	52.5	105	2	70-130/25

Blank Spike/Blank Spike Duplicate Summary

Job Number: M99201
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSG4245-BS	G105220.D	1	04/22/11	EL	n/a	n/a	MSG4245
MSG4245-BSD	G105221.D	1	04/22/11	EL	n/a	n/a	MSG4245

The QC reported here applies to the following samples: Method: SW846 8260B

M99201-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
594-20-7	2,2-Dichloropropane	50	56.9	114	53.3	107	7	70-130/25
563-58-6	1,1-Dichloropropene	50	54.6	109	52.4	105	4	70-130/25
10061-01-5	cis-1,3-Dichloropropene	50	53.3	107	52.4	105	2	70-130/25
10061-02-6	trans-1,3-Dichloropropene	50	59.1	118	57.4	115	3	70-130/25
97-63-2	Ethyl methacrylate	50	51.1	102	50.2	100	2	77-137/25
100-41-4	Ethylbenzene	50	54.0	108	52.0	104	4	70-130/25
87-68-3	Hexachlorobutadiene	50	52.8	106	49.0	98	7	70-130/25
591-78-6	2-Hexanone	50	32.9	66* a	33.2	66* a	1	70-130/25
98-82-8	Isopropylbenzene	50	61.4	123	58.3	117	5	70-130/25
99-87-6	p-Isopropyltoluene	50	56.7	113	53.7	107	5	70-130/25
1634-04-4	Methyl Tert Butyl Ether	50	50.9	102	50.2	100	1	70-130/25
108-10-1	4-Methyl-2-pentanone (MIBK)	50	51.7	103	50.8	102	2	70-130/25
74-95-3	Methylene bromide	50	55.2	110	54.8	110	1	70-130/25
75-09-2	Methylene chloride	50	52.2	104	50.7	101	3	70-130/25
103-65-1	n-Propylbenzene	50	54.7	109	52.1	104	5	70-130/25
100-42-5	Styrene	50	56.4	113	54.2	108	4	70-130/25
630-20-6	1,1,1,2-Tetrachloroethane	50	53.8	108	52.0	104	3	70-130/25
79-34-5	1,1,2,2-Tetrachloroethane	50	52.5	105	51.4	103	2	70-130/25
127-18-4	Tetrachloroethene	50	55.6	111	52.4	105	6	70-130/25
108-88-3	Toluene	50	55.0	110	52.1	104	5	70-130/25
87-61-6	1,2,3-Trichlorobenzene	50	49.7	99	47.3	95	5	70-130/25
120-82-1	1,2,4-Trichlorobenzene	50	49.3	99	47.0	94	5	70-130/25
71-55-6	1,1,1-Trichloroethane	50	56.1	112	53.2	106	5	70-130/25
79-00-5	1,1,2-Trichloroethane	50	55.4	111	54.3	109	2	70-130/25
79-01-6	Trichloroethene	50	54.3	109	51.6	103	5	70-130/25
75-69-4	Trichlorofluoromethane	50	56.6	113	52.7	105	7	70-130/25
96-18-4	1,2,3-Trichloropropane	50	50.5	101	50.0	100	1	70-130/25
95-63-6	1,2,4-Trimethylbenzene	50	53.5	107	50.9	102	5	70-130/25
108-67-8	1,3,5-Trimethylbenzene	50	52.1	104	49.9	100	4	70-130/25
108-05-4	Vinyl Acetate	50	54.6	109	53.0	106	3	70-130/25
75-01-4	Vinyl chloride	50	58.2	116	55.0	110	6	70-130/25
	m,p-Xylene	100	110	110	105	105	5	70-130/25
95-47-6	o-Xylene	50	55.2	110	52.6	105	5	70-130/25
1330-20-7	Xylene (total)	150	166	111	158	105	5	70-130/25

Blank Spike/Blank Spike Duplicate Summary

Job Number: M99201
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSG4245-BS	G105220.D	1	04/22/11	EL	n/a	n/a	MSG4245
MSG4245-BSD	G105221.D	1	04/22/11	EL	n/a	n/a	MSG4245

The QC reported here applies to the following samples: Method: SW846 8260B

M99201-1

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	92%	92%	70-130%
2037-26-5	Toluene-D8	99%	99%	70-130%
460-00-4	4-Bromofluorobenzene	111%	111%	70-130%

(a) Outside control limits. Blank Spike meets program technical requirements.
(b) Outside control limits. Associated samples are non-detect for this compound.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M99201
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Not Sample from this SDG

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M99208-6MS	P52414.D	1	04/21/11	AMY	n/a	n/a	MSP1735
M99208-6MSD	P52415.D	1	04/21/11	AMY	n/a	n/a	MSP1735
M99208-6	P52418.D	1	04/21/11	AMY	n/a	n/a	MSP1735

The QC reported here applies to the following samples: Method: SW846 8260B

M99201-3, M99201-4, M99201-5

CAS No.	Compound	M99208-6 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		47.1	77.0	163* [a]	82.6	183* [a]	7	70-130/30
107-02-8	Acrolein	ND		236	5720	2428* [b]	5240	2325* [b]	9	70-130/30
107-13-1	Acrylonitrile	ND		47.1	58.2	124	51.2	114	13	70-130/30
71-43-2	Benzene	ND		47.1	56.6	120	51.4	114	10	70-130/30
108-86-1	Bromobenzene	ND		47.1	49.8	106	47.5	105	5	70-130/30
74-97-5	Bromochloromethane	ND		47.1	55.3	117	49.4	110	11	70-130/30
75-27-4	Bromodichloromethane	ND		47.1	55.9	119	49.0	109	13	70-130/30
75-25-2	Bromoform	ND		47.1	51.8	110	46.2	103	11	70-130/30
74-83-9	Bromomethane	ND		47.1	44.4	94	42.7	95	4	70-130/30
78-93-3	2-Butanone (MEK)	ND		47.1	71.7	152* [a]	59.6	132* [a]	18	70-130/30
104-51-8	n-Butylbenzene	ND		47.1	35.6	76	46.9	104	27	70-130/30
135-98-8	sec-Butylbenzene	ND		47.1	45.8	97	46.8	104	2	70-130/30
98-06-6	tert-Butylbenzene	ND		47.1	50.8	108	48.6	108	4	70-130/30
75-15-0	Carbon disulfide	ND		47.1	56.7	120	51.2	114	10	70-130/30
56-23-5	Carbon tetrachloride	ND		47.1	56.2	119	50.3	112	11	70-130/30
108-90-7	Chlorobenzene	ND		47.1	50.6	107	45.8	102	10	70-130/30
75-00-3	Chloroethane	ND		47.1	51.2	109	52.2	116	2	70-130/30
110-75-8	2-Chloroethyl vinyl ether	ND		47.1	51.1	108	44.6	99	14	10-160/30
67-66-3	Chloroform	ND		47.1	52.8	112	48.7	108	8	70-130/30
74-87-3	Chloromethane	ND		47.1	52.9	112	54.5	121	3	70-130/30
95-49-8	o-Chlorotoluene	ND		47.1	50.7	108	47.4	105	7	70-130/30
106-43-4	p-Chlorotoluene	ND		47.1	49.7	105	48.2	107	3	70-130/30
96-12-8	1,2-Dibromo-3-chloropropane	ND		47.1	42.8	91	50.0	111	16	70-130/30
124-48-1	Dibromochloromethane	ND		47.1	52.9	112	47.5	105	11	70-130/30
106-93-4	1,2-Dibromoethane	ND		47.1	51.7	110	48.7	108	6	70-130/30
95-50-1	1,2-Dichlorobenzene	ND		47.1	44.2	94	44.3	98	0	70-130/30
541-73-1	1,3-Dichlorobenzene	ND		47.1	45.4	96	44.9	100	1	70-130/30
106-46-7	1,4-Dichlorobenzene	ND		47.1	43.0	91	42.8	95	0	70-130/30
75-71-8	Dichlorodifluoromethane	ND		47.1	48.4	103	45.6	101	6	70-130/30
75-34-3	1,1-Dichloroethane	ND		47.1	54.1	115	49.5	110	9	70-130/30
107-06-2	1,2-Dichloroethane	ND		47.1	52.2	111	47.0	104	10	70-130/30
75-35-4	1,1-Dichloroethene	ND		47.1	59.3	126	54.3	120	9	70-130/30
156-59-2	cis-1,2-Dichloroethene	ND		47.1	56.7	120	50.9	113	11	70-130/30
156-60-5	trans-1,2-Dichloroethene	ND		47.1	57.3	122	53.2	118	7	70-130/30
78-87-5	1,2-Dichloropropane	ND		47.1	53.8	114	48.0	107	11	70-130/30
142-28-9	1,3-Dichloropropane	ND		47.1	51.6	110	47.0	104	9	70-130/30

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M99201
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M99208-6MS	P52414.D	1	04/21/11	AMY	n/a	n/a	MSP1735
M99208-6MSD	P52415.D	1	04/21/11	AMY	n/a	n/a	MSP1735
M99208-6	P52418.D	1	04/21/11	AMY	n/a	n/a	MSP1735

The QC reported here applies to the following samples: Method: SW846 8260B

M99201-3, M99201-4, M99201-5

CAS No.	Compound	M99208-6 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
594-20-7	2,2-Dichloropropane	ND		47.1	23.3	49* [a]	22.3	49* [a]	4	70-130/30
563-58-6	1,1-Dichloropropene	ND		47.1	57.3	122	51.7	115	10	70-130/30
10061-01-5	cis-1,3-Dichloropropene	ND		47.1	55.8	118	50.6	112	10	70-130/30
10061-02-6	trans-1,3-Dichloropropene	ND		47.1	57.6	122	50.7	113	13	70-130/30
97-63-2	Ethyl methacrylate	ND		47.1	51.7	110	44.3	98	15	41-160/30
100-41-4	Ethylbenzene	ND		47.1	51.8	110	47.5	105	9	70-130/30
87-68-3	Hexachlorobutadiene	ND		47.1	28.6	61* [a]	38.9	86	31* [c]	70-130/30
591-78-6	2-Hexanone	ND		47.1	46.9	100	35.8	79	27	70-130/30
98-82-8	Isopropylbenzene	ND		47.1	60.8	129	57.7	128	5	70-130/30
99-87-6	p-Isopropyltoluene	ND		47.1	43.3	92	46.3	103	7	70-130/30
1634-04-4	Methyl Tert Butyl Ether	ND		47.1	54.0	115	48.7	108	10	70-130/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		47.1	59.4	126	53.1	118	11	70-130/30
74-95-3	Methylene bromide	ND		47.1	56.1	119	50.2	111	11	70-130/30
75-09-2	Methylene chloride	ND		47.1	56.8	121	51.1	113	11	70-130/30
103-65-1	n-Propylbenzene	ND		47.1	50.3	107	49.2	109	2	70-130/30
100-42-5	Styrene	ND		47.1	52.4	111	48.2	107	8	70-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		47.1	53.6	114	48.7	108	10	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		47.1	50.2	107	46.2	103	8	70-130/30
127-18-4	Tetrachloroethene	ND		47.1	52.6	112	47.8	106	10	70-130/30
108-88-3	Toluene	ND		47.1	55.7	118	55.0	122	1	70-130/30
87-61-6	1,2,3-Trichlorobenzene	ND		47.1	21.9	46* [a]	29.0	64* [a]	28	70-130/30
120-82-1	1,2,4-Trichlorobenzene	ND		47.1	24.3	52* [a]	35.5	79	37* [c]	70-130/30
71-55-6	1,1,1-Trichloroethane	ND		47.1	54.3	115	50.1	111	8	70-130/30
79-00-5	1,1,2-Trichloroethane	ND		47.1	54.4	115	48.3	107	12	70-130/30
79-01-6	Trichloroethene	ND		47.1	58.3	124	51.5	114	12	70-130/30
75-69-4	Trichlorofluoromethane	ND		47.1	49.1	104	45.2	100	8	70-130/30
96-18-4	1,2,3-Trichloropropane	ND		47.1	47.4	101	45.2	100	5	70-130/30
95-63-6	1,2,4-Trimethylbenzene	ND		47.1	48.2	102	47.5	105	1	70-130/30
108-67-8	1,3,5-Trimethylbenzene	ND		47.1	49.1	104	47.5	105	3	70-130/30
108-05-4	Vinyl Acetate	ND		47.1	68.1	145* [a]	45.9	102	39* [c]	70-130/30
75-01-4	Vinyl chloride	ND		47.1	48.2	102	43.9	97	9	70-130/30
	m,p-Xylene	ND		94.2	104	110	95.2	106	9	70-130/30
95-47-6	o-Xylene	ND		47.1	52.7	112	47.8	106	10	70-130/30
1330-20-7	Xylene (total)	ND		141	157	111	143	106	9	70-130/30

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M99201
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M99208-6MS	P52414.D	1	04/21/11	AMY	n/a	n/a	MSP1735
M99208-6MSD	P52415.D	1	04/21/11	AMY	n/a	n/a	MSP1735
M99208-6	P52418.D	1	04/21/11	AMY	n/a	n/a	MSP1735

The QC reported here applies to the following samples: Method: SW846 8260B

M99201-3, M99201-4, M99201-5

CAS No.	Surrogate Recoveries	MS	MSD	M99208-6	Limits
1868-53-7	Dibromofluoromethane	104%	101%	105%	70-130%
2037-26-5	Toluene-D8	116%	113%	115%	70-130%
460-00-4	4-Bromofluorobenzene	105%	105%	125%	70-130%

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.
(b) Outside control limits. Associated samples are non-detect for this compound.
(c) High RPD due to possible matrix interference and/or sample non-homogeneity.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M99201
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Not Sample from this SDG.

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M99208-12MS	P52425.D	1	04/21/11	AMY	n/a	n/a	MSP1736
M99208-12MSD	P52426.D	1	04/21/11	AMY	n/a	n/a	MSP1736
M99208-12	P52424.D	1	04/21/11	AMY	n/a	n/a	MSP1736

The QC reported here applies to the following samples: Method: SW846 8260B

M99201-2

CAS No.	Compound	M99208-12 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	15.6		78.4	114	125	135	155* [a]	17	70-130/30
107-02-8	Acrolein	ND		392	8610	2195* [b]	8280	2154* [b]	4	70-130/30
107-13-1	Acrylonitrile	ND		78.4	83.0	106	81.2	106	2	70-130/30
71-43-2	Benzene	ND		78.4	78.9	101	77.1	100	2	70-130/30
108-86-1	Bromobenzene	ND		78.4	67.9	87	68.9	90	1	70-130/30
74-97-5	Bromochloromethane	ND		78.4	77.0	98	73.1	95	5	70-130/30
75-27-4	Bromodichloromethane	ND		78.4	76.6	98	74.4	97	3	70-130/30
75-25-2	Bromoform	ND		78.4	66.5	85	67.2	87	1	70-130/30
74-83-9	Bromomethane	ND		78.4	62.4	80	62.4	81	0	70-130/30
78-93-3	2-Butanone (MEK)	ND		78.4	102	130	109	142* [c]	7	70-130/30
104-51-8	n-Butylbenzene	ND		78.4	40.7	52* [c]	51.2	67* [c]	23	70-130/30
135-98-8	sec-Butylbenzene	ND		78.4	60.3	77	65.6	85	8	70-130/30
98-06-6	tert-Butylbenzene	ND		78.4	66.8	85	71.3	93	7	70-130/30
75-15-0	Carbon disulfide	ND		78.4	70.5	90	70.8	92	0	70-130/30
56-23-5	Carbon tetrachloride	ND		78.4	75.2	96	76.0	99	1	70-130/30
108-90-7	Chlorobenzene	ND		78.4	66.1	84	65.5	85	1	70-130/30
75-00-3	Chloroethane	ND		78.4	78.0	99	75.3	98	4	70-130/30
110-75-8	2-Chloroethyl vinyl ether	ND		78.4	61.9	79	62.7	82	1	10-160/30
67-66-3	Chloroform	ND		78.4	75.8	97	72.7	95	4	70-130/30
74-87-3	Chloromethane	ND		78.4	80.7	103	81.8	106	1	70-130/30
95-49-8	o-Chlorotoluene	ND		78.4	68.9	88	70.6	92	2	70-130/30
106-43-4	p-Chlorotoluene	ND		78.4	66.0	84	69.1	90	5	70-130/30
96-12-8	1,2-Dibromo-3-chloropropane	ND		78.4	51.9	66* [c]	61.0	79	16	70-130/30
124-48-1	Dibromochloromethane	ND		78.4	70.8	90	68.5	89	3	70-130/30
106-93-4	1,2-Dibromoethane	ND		78.4	70.8	90	70.0	91	1	70-130/30
95-50-1	1,2-Dichlorobenzene	ND		78.4	52.2	67* [c]	57.9	75	10	70-130/30
541-73-1	1,3-Dichlorobenzene	ND		78.4	56.0	71	60.0	78	7	70-130/30
106-46-7	1,4-Dichlorobenzene	ND		78.4	51.6	66* [c]	55.6	72	7	70-130/30
75-71-8	Dichlorodifluoromethane	ND		78.4	68.0	87	68.4	89	1	70-130/30
75-34-3	1,1-Dichloroethane	ND		78.4	77.8	99	74.9	97	4	70-130/30
107-06-2	1,2-Dichloroethane	ND		78.4	73.4	94	11.4	15* [c]	146* [d]	70-130/30
75-35-4	1,1-Dichloroethene	ND		78.4	87.6	112	86.9	113	1	70-130/30
156-59-2	cis-1,2-Dichloroethene	ND		78.4	74.1	94	74.1	96	0	70-130/30
156-60-5	trans-1,2-Dichloroethene	ND		78.4	75.3	96	76.4	99	1	70-130/30
78-87-5	1,2-Dichloropropane	ND		78.4	74.9	95	72.8	95	3	70-130/30
142-28-9	1,3-Dichloropropane	ND		78.4	72.5	92	69.5	90	4	70-130/30

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M99201
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M99208-12MS	P52425.D	1	04/21/11	AMY	n/a	n/a	MSP1736
M99208-12MSD	P52426.D	1	04/21/11	AMY	n/a	n/a	MSP1736
M99208-12	P52424.D	1	04/21/11	AMY	n/a	n/a	MSP1736

The QC reported here applies to the following samples: Method: SW846 8260B

M99201-2

CAS No.	Compound	M99208-12 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
594-20-7	2,2-Dichloropropane	ND		78.4	34.0	43* [a]	33.7	44* [a]	1	70-130/30
563-58-6	1,1-Dichloropropene	ND		78.4	78.3	100	76.9	100	2	70-130/30
10061-01-5	cis-1,3-Dichloropropene	ND		78.4	72.8	93	72.4	94	1	70-130/30
10061-02-6	trans-1,3-Dichloropropene	ND		78.4	74.0	94	72.9	95	1	70-130/30
97-63-2	Ethyl methacrylate	ND		78.4	30.8	39* [c]	26.7	35* [c]	14	41-160/30
100-41-4	Ethylbenzene	ND		78.4	69.3	88	69.6	91	0	70-130/30
87-68-3	Hexachlorobutadiene	ND		78.4	28.8	37* [a]	37.9	49* [a]	27	70-130/30
591-78-6	2-Hexanone	ND		78.4	40.3	51* [c]	57.0	74	34* [d]	70-130/30
98-82-8	Isopropylbenzene	ND		78.4	86.6	110	89.7	117	4	70-130/30
99-87-6	p-Isopropyltoluene	ND		78.4	55.2	70	61.7	80	11	70-130/30
1634-04-4	Methyl Tert Butyl Ether	ND		78.4	80.0	102	78.1	102	2	70-130/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		78.4	82.0	105	88.5	115	8	70-130/30
74-95-3	Methylene bromide	ND		78.4	81.4	104	71.4	93	13	70-130/30
75-09-2	Methylene chloride	3.2		78.4	87.6	108	83.9	105	4	70-130/30
103-65-1	n-Propylbenzene	ND		78.4	70.8	90	74.3	97	5	70-130/30
100-42-5	Styrene	ND		78.4	66.1	84	66.1	86	0	70-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		78.4	73.3	93	71.9	94	2	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		78.4	1.1	1* [c]	1.2	2* [c]	9	70-130/30
127-18-4	Tetrachloroethene	ND		78.4	70.8	90	71.1	92	0	70-130/30
108-88-3	Toluene	ND		78.4	76.3	97	75.3	98	1	70-130/30
87-61-6	1,2,3-Trichlorobenzene	ND		78.4	24.0	31* [a]	25.5	33* [a]	6	70-130/30
120-82-1	1,2,4-Trichlorobenzene	ND		78.4	23.1	29* [a]	27.3	36* [a]	17	70-130/30
71-55-6	1,1,1-Trichloroethane	ND		78.4	76.3	97	74.5	97	2	70-130/30
79-00-5	1,1,2-Trichloroethane	ND		78.4	72.5	92	68.5	89	6	70-130/30
79-01-6	Trichloroethene	ND		78.4	133	170* [c]	130	169* [c]	2	70-130/30
75-69-4	Trichlorofluoromethane	ND		78.4	70.3	90	68.5	89	3	70-130/30
96-18-4	1,2,3-Trichloropropane	ND		78.4	69.2	88	72.2	94	4	70-130/30
95-63-6	1,2,4-Trimethylbenzene	ND		78.4	63.1	80	67.8	88	7	70-130/30
108-67-8	1,3,5-Trimethylbenzene	ND		78.4	65.7	84	68.9	90	5	70-130/30
108-05-4	Vinyl Acetate	ND		78.4	ND	0* [c]	ND	0* [c]	nc	70-130/30
75-01-4	Vinyl chloride	ND		78.4	68.3	87	67.8	88	1	70-130/30
	m,p-Xylene	ND		157	136	87	138	90	1	70-130/30
95-47-6	o-Xylene	ND		78.4	68.3	87	68.8	89	1	70-130/30
1330-20-7	Xylene (total)	ND		235	204	87	207	90	1	70-130/30

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M99201
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M99208-12MS	P52425.D	1	04/21/11	AMY	n/a	n/a	MSP1736
M99208-12MSD	P52426.D	1	04/21/11	AMY	n/a	n/a	MSP1736
M99208-12	P52424.D	1	04/21/11	AMY	n/a	n/a	MSP1736

The QC reported here applies to the following samples: Method: SW846 8260B

M99201-2

CAS No.	Surrogate Recoveries	MS	MSD	M99208-12	Limits
1868-53-7	Dibromofluoromethane	98%	97%	94%	70-130%
2037-26-5	Toluene-D8	115%	116%	113%	70-130%
460-00-4	4-Bromofluorobenzene	113%	116%	131%* e	70-130%

(a) Outside control limits. Blank Spike meets program technical requirements.
(b) Outside control limits. Associated samples are non-detect for this compound.
(c) Outside control limits due to possible matrix interference. Refer to Blank Spike.
(d) High RPD due to possible matrix interference and/or sample non-homogeneity.
(e) Outside control limits due to possible matrix interference. Confirmed by reanalysis.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M99201
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M99441-2MS	G105241.D	5	04/22/11	EL	n/a	n/a	MSG4245
M99441-2MSD	G105242.D	5	04/22/11	EL	n/a	n/a	MSG4245
M99441-2	G105240.D	1	04/22/11	EL	n/a	n/a	MSG4245

Not sample from this SDG.

5.4.3

5

The QC reported here applies to the following samples: Method: SW846 8260B

M99201-1

CAS No.	Compound	M99441-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		250	133	53* [a]	128	51* [a]	4	70-130/30
107-02-8	Acrolein	ND		1250	15800	1264* [b]	15800	1264* [b]	0	70-130/30
107-13-1	Acrylonitrile	ND		250	241	96	235	94	3	70-130/30
71-43-2	Benzene	1.3		250	235	93	230	91	2	70-130/30
108-86-1	Bromobenzene	ND		250	243	97	240	96	1	70-130/30
74-97-5	Bromochloromethane	ND		250	254	102	250	100	2	70-130/30
75-27-4	Bromodichloromethane	ND		250	238	95	237	95	0	70-130/30
75-25-2	Bromoform	ND		250	214	86	219	88	2	70-130/30
74-83-9	Bromomethane	ND		250	247	99	237	95	4	70-130/30
78-93-3	2-Butanone (MEK)	ND		250	168	67* [c]	176	70	5	70-130/30
104-51-8	n-Butylbenzene	24.7		250	271	99	261	95	4	70-130/30
135-98-8	sec-Butylbenzene	9.7		250	263	101	252	97	4	70-130/30
98-06-6	tert-Butylbenzene	ND		250	246	98	239	96	3	70-130/30
75-15-0	Carbon disulfide	ND		250	194	78	181	72	7	70-130/30
56-23-5	Carbon tetrachloride	ND		250	241	96	230	92	5	70-130/30
108-90-7	Chlorobenzene	ND		250	247	99	241	96	2	70-130/30
75-00-3	Chloroethane	ND		250	258	103	254	102	2	70-130/30
110-75-8	2-Chloroethyl vinyl ether	ND		250	307	123	298	119	3	70-130/30
67-66-3	Chloroform	ND		250	248	99	245	98	1	70-130/30
74-87-3	Chloromethane	ND		250	248	99	237	95	5	70-130/30
95-49-8	o-Chlorotoluene	ND		250	281	112	273	109	3	70-130/30
106-43-4	p-Chlorotoluene	ND		250	252	101	242	97	4	70-130/30
96-12-8	1,2-Dibromo-3-chloropropane	ND		250	265	106	263	105	1	70-130/30
124-48-1	Dibromochloromethane	ND		250	237	95	233	93	2	70-130/30
106-93-4	1,2-Dibromoethane	ND		250	258	103	261	104	1	70-130/30
95-50-1	1,2-Dichlorobenzene	ND		250	250	100	242	97	3	70-130/30
541-73-1	1,3-Dichlorobenzene	ND		250	245	98	242	97	1	70-130/30
106-46-7	1,4-Dichlorobenzene	ND		250	246	98	237	95	4	70-130/30
75-71-8	Dichlorodifluoromethane	ND		250	280	112	262	105	7	70-130/30
75-34-3	1,1-Dichloroethane	ND		250	246	98	240	96	2	70-130/30
107-06-2	1,2-Dichloroethane	ND		250	243	97	244	98	0	70-130/30
75-35-4	1,1-Dichloroethene	ND		250	256	102	242	97	6	70-130/30
156-59-2	cis-1,2-Dichloroethene	ND		250	235	94	231	92	2	70-130/30
156-60-5	trans-1,2-Dichloroethene	ND		250	243	97	231	92	5	70-130/30
78-87-5	1,2-Dichloropropane	ND		250	242	97	239	96	1	70-130/30
142-28-9	1,3-Dichloropropane	ND		250	250	100	247	99	1	70-130/30

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M99201
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M99441-2MS	G105241.D	5	04/22/11	EL	n/a	n/a	MSG4245
M99441-2MSD	G105242.D	5	04/22/11	EL	n/a	n/a	MSG4245
M99441-2	G105240.D	1	04/22/11	EL	n/a	n/a	MSG4245

The QC reported here applies to the following samples: Method: SW846 8260B

M99201-1

CAS No.	Compound	M99441-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
594-20-7	2,2-Dichloropropane	ND		250	244	98	234	94	4	70-130/30
563-58-6	1,1-Dichloropropene	ND		250	253	101	243	97	4	70-130/30
10061-01-5	cis-1,3-Dichloropropene	ND		250	240	96	238	95	1	70-130/30
10061-02-6	trans-1,3-Dichloropropene	ND		250	269	108	264	106	2	70-130/30
97-63-2	Ethyl methacrylate	ND		250	240	96	241	96	0	72-139/30
100-41-4	Ethylbenzene	ND		250	256	102	248	99	3	70-130/30
87-68-3	Hexachlorobutadiene	ND		250	236	94	229	92	3	70-130/30
591-78-6	2-Hexanone	ND		250	159	64* [a]	163	65* [a]	2	70-130/30
98-82-8	Isopropylbenzene	18.9		250	302	113	289	108	4	70-130/30
99-87-6	p-Isopropyltoluene	3.2		250	264	104	252	100	5	70-130/30
1634-04-4	Methyl Tert Butyl Ether	ND		250	241	96	239	96	1	70-130/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		250	240	96	241	96	0	70-130/30
74-95-3	Methylene bromide	ND		250	257	103	250	100	3	70-130/30
75-09-2	Methylene chloride	ND		250	242	97	235	94	3	70-130/30
103-65-1	n-Propylbenzene	89.5		250	321	93	307	87	4	70-130/30
100-42-5	Styrene	ND		250	263	105	257	103	2	70-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		250	248	99	246	98	1	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		250	243	97	241	96	1	70-130/30
127-18-4	Tetrachloroethene	ND		250	253	101	242	97	4	70-130/30
108-88-3	Toluene	ND		250	252	101	247	99	2	70-130/30
87-61-6	1,2,3-Trichlorobenzene	ND		250	233	93	228	91	2	70-130/30
120-82-1	1,2,4-Trichlorobenzene	ND		250	235	94	230	92	2	70-130/30
71-55-6	1,1,1-Trichloroethane	ND		250	256	102	248	99	3	70-130/30
79-00-5	1,1,2-Trichloroethane	ND		250	255	102	253	101	1	70-130/30
79-01-6	Trichloroethene	ND		250	252	101	243	97	4	70-130/30
75-69-4	Trichlorofluoromethane	ND		250	261	104	247	99	6	70-130/30
96-18-4	1,2,3-Trichloropropane	ND		250	231	92	227	91	2	70-130/30
95-63-6	1,2,4-Trimethylbenzene	336		250	530	78	515	72	3	70-130/30
108-67-8	1,3,5-Trimethylbenzene	135		250	355	88	341	82	4	70-130/30
108-05-4	Vinyl Acetate	ND		250	259	104	256	102	1	70-130/30
75-01-4	Vinyl chloride	ND		250	266	106	252	101	5	70-130/30
	m,p-Xylene	ND		500	517	103	499	100	4	70-130/30
95-47-6	o-Xylene	ND		250	256	102	249	100	3	70-130/30
1330-20-7	Xylene (total)	ND		750	773	103	748	100	3	70-130/30

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M99201
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M99441-2MS	G105241.D	5	04/22/11	EL	n/a	n/a	MSG4245
M99441-2MSD	G105242.D	5	04/22/11	EL	n/a	n/a	MSG4245
M99441-2	G105240.D	1	04/22/11	EL	n/a	n/a	MSG4245

The QC reported here applies to the following samples: Method: SW846 8260B

M99201-1

CAS No.	Surrogate Recoveries	MS	MSD	M99441-2	Limits
1868-53-7	Dibromofluoromethane	84%	86%	85%	70-130%
2037-26-5	Toluene-D8	95%	95%	96%	70-130%
460-00-4	4-Bromofluorobenzene	114%	114%	117%	70-130%

(a) Outside control limits. Blank Spike meets program technical requirements.
(b) Outside control limits. Associated samples are non-detect for this compound.
(c) Outside control limits due to possible matrix interference. Confirmed by reanalysis.

Volatile Internal Standard Area Summary

Job Number: M99201
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Check Std:	MSG4245-CC4240	Injection Date:	04/22/11
Lab File ID:	G105219.D	Injection Time:	11:19
Instrument ID:	GCMSG	Method:	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	87340	9.12	126831	10.00	62087	13.28	62691	15.85	30698	6.67
Upper Limit [a]	174680	9.62	253662	10.50	124174	13.78	125382	16.35	61396	7.17
Lower Limit [b]	43670	8.62	63416	9.50	31044	12.78	31346	15.35	15349	6.17
Lab Sample ID	**IS 1 AREA**	**RT**	**IS 2 AREA**	**RT**	**IS 3 AREA**	**RT**	**IS 4 AREA**	**RT**	**IS 5 AREA**	**RT**
MSG4245-BS	88454	9.12	126931	10.00	62147	13.28	62604	15.85	31434	6.67
MSG4245-BSD	88346	9.12	126941	10.00	62176	13.28	62712	15.85	31939	6.67
MSG4245-MB	88111	9.12	125453	10.00	59873	13.28	52049	15.85	32178	6.68
ZZZZZZ	85632	9.12	123901	10.00	60337	13.28	60175	15.85	29936	6.67
GP12862-LS1	88279	9.12	127502	10.00	61878	13.28	64355	15.85	33552	6.67
GP12862-LB1	88782	9.12	130217	10.00	61977	13.28	56993	15.85	31710	6.67
ZZZZZZ	87616	9.12	124836	10.00	59770	13.28	55256	15.85	31801	6.67
ZZZZZZ	88201	9.12	126115	10.00	59482	13.28	55455	15.85	31600	6.67
M99201-1	88276	9.12	127979	10.00	59624	13.28	52002	15.85	31067	6.68
ZZZZZZ	85928	9.12	123709	10.00	58423	13.28	51753	15.85	29809	6.67
ZZZZZZ	87698	9.12	124550	10.00	59638	13.28	54135	15.85	30651	6.68
ZZZZZZ	85602	9.12	123353	10.00	59304	13.28	55866	15.85	29525	6.67
ZZZZZZ	86607	9.12	125318	10.00	60190	13.28	57143	15.85	29753	6.67
ZZZZZZ	87025	9.12	123171	10.00	59470	13.28	54595	15.85	30438	6.67
ZZZZZZ	86850	9.12	124068	10.00	60348	13.28	57924	15.85	30050	6.67
ZZZZZZ	86449	9.12	125661	10.00	62103	13.28	62159	15.85	30617	6.67
ZZZZZZ	90147	9.12	129036	10.00	62608	13.28	63631	15.85	30408	6.67
M99441-2	87269	9.12	124688	10.00	61780	13.28	61337	15.85	31375	6.67
M99441-2MS	89988	9.12	130528	10.00	63330	13.28	63984	15.85	31546	6.67
M99441-2MSD	91327	9.12	132799	10.00	64334	13.28	65305	15.85	32278	6.67
ZZZZZZ	88402	9.12	128010	10.00	60958	13.28	53692	15.85	31689	6.67

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Internal Standard Area Summary

Job Number: M99201
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Check Std:	MSP1735-CC1729	Injection Date:	04/21/11
Lab File ID:	P52399.D	Injection Time:	08:52
Instrument ID:	GCMSP	Method:	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	96483	8.51	148777	9.37	70061	12.58	63589	15.14	36721	6.27
Upper Limit [a]	192966	9.01	297554	9.87	140122	13.08	127178	15.64	73442	6.77
Lower Limit [b]	48242	8.01	74389	8.87	35031	12.08	31795	14.64	18361	5.77
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSP1735-BS	96483	8.51	148777	9.37	70061	12.58	63589	15.14	36721	6.27
MSP1735-MB	87447	8.52	131388	9.37	55949	12.59	41642	15.14	34722	6.32
M99201-3	87404	8.52	133027	9.37	59155	12.59	46025	15.14	51837	6.30
M99201-4	88975	8.52	135166	9.37	59023	12.59	44313	15.14	48375	6.31
M99201-5	87556	8.52	132568	9.37	57930	12.59	43637	15.14	49847	6.32
ZZZZZZ	83053	8.52	124220	9.37	51431	12.59	34809	15.14	46020	6.32
ZZZZZZ	82341	8.52	123128	9.38	51824	12.59	35078	15.15	40598	6.37
ZZZZZZ	85256	8.52	128067	9.37	53654	12.59	36202	15.15	30931	6.33
ZZZZZZ	73404	8.52	110424	9.38	46308	12.59	31278[c]	15.15	16945[c]	6.43
ZZZZZZ	80157	8.52	119783	9.37	51594	12.59	36555	15.15	22043	6.40
ZZZZZZ	77065	8.52	117153	9.38	46664	12.59	26644[c]	15.15	22347	6.35
ZZZZZZ	4044[c]	8.53	6121[c]	9.38	2235[c]	12.60	1065[c]	15.14	0[c]	0.00*
M99208-6MS	88813	8.51	134527	9.36	64189	12.58	59317	15.14	28340	6.29
M99208-6MSD	91592	8.51	140650	9.36	65954	12.58	58947	15.14	28481	6.29
ZZZZZZ	85585	8.52	130965	9.37	56104	12.59	41583	15.14	50467	6.31
M99208-6	81098	8.52	121926	9.38	51995	12.59	37325	15.15	29598	6.36

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.
(c) Outside control limits due to possible matrix interference. Confirmed by reanalysis.

Volatile Internal Standard Area Summary

Job Number: M99201
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Check Std:	MSP1736-CC1729	Injection Date:	04/21/11
Lab File ID:	P52419.D	Injection Time:	18:56
Instrument ID:	GCMSP	Method:	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	88926	8.51	138088	9.36	65175	12.58	58615	15.14	33097	6.26
Upper Limit [a]	177852	9.01	276176	9.86	130350	13.08	117230	15.64	66194	6.76
Lower Limit [b]	44463	8.01	69044	8.86	32588	12.08	29308	14.64	16549	5.76
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSP1736-BS	88926	8.51	138088	9.36	65175	12.58	58615	15.14	33097	6.26
MSP1736-MB	85474	8.52	130884	9.37	55929	12.59	40086	15.15	32593	6.33
ZZZZZZ	82442	8.52	123970	9.37	54915	12.59	39326	15.14	50302	6.30
ZZZZZZ	84980	8.52	129040	9.37	56237	12.59	41015	15.14	49908	6.31
M99208-12	77787	8.52	117036	9.37	47837	12.59	30813	15.15	26510	6.33
M99208-12MS	87592	8.51	134319	9.37	62642	12.58	51505	15.14	29702	6.30
M99208-12MSD	87288	8.51	133765	9.37	62672	12.58	51437	15.14	30801	6.26
M99201-2	84873	8.52	128338	9.37	55818	12.59	41290	15.14	47511	6.33
ZZZZZZ	82994	8.52	128561	9.37	55513	12.59	39159	15.14	46250	6.30
ZZZZZZ	63474	8.52	95412	9.37	37015	12.59	22494[c]	15.15	22951	6.30
ZZZZZZ	83572	8.52	126564	9.37	54378	12.59	37000	15.14	29700	6.33
ZZZZZZ	65962	8.52	101278	9.37	39513	12.59	23042[c]	15.15	30957	6.29
ZZZZZZ	80978	8.52	119761	9.37	51697	12.59	35570	15.15	22820	6.34
ZZZZZZ	71700	8.52	105730	9.37	40197	12.59	20561[c]	15.15	26656	6.33
ZZZZZZ	57240	8.52	86985	9.38	37032	12.59	24228[c]	15.15	16255[c]	6.38
ZZZZZZ	9601[c]	8.52	14166[c]	9.37	6433[c]	12.60	3603[c]	15.15	2837[c]	6.41
ZZZZZZ	8258[c]	8.52	12155[c]	9.37	4821[c]	12.60	2313[c]	15.15	1232[c]	6.38
ZZZZZZ	81826	8.52	126691	9.37	53909	12.59	35747	15.14	51224	6.28
ZZZZZZ	79024	8.52	122853	9.37	51888	12.59	34720	15.14	54788	6.29
ZZZZZZ	83251	8.52	128135	9.37	55116	12.59	39944	15.14	58062	6.27
ZZZZZZ	79389	8.52	121312	9.37	51276	12.59	35269	15.14	52155	6.30
ZZZZZZ	81784	8.52	125572	9.37	53113	12.59	38168	15.14	47624	6.30
ZZZZZZ	82324	8.52	124394	9.37	52004	12.59	33230	15.14	51002	6.29
ZZZZZZ	78898	8.52	123616	9.38	51708	12.59	33640	15.14	52436	6.31

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.
(c) Outside control limits due to possible matrix interference. Confirmed by reanalysis.

Volatile Surrogate Recovery Summary

Job Number: M99201
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Method: SW846 8260B Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
M99201-1	G105231.D	88.0	95.0	124.0
M99441-2MS	G105241.D	84.0	95.0	114.0
M99441-2MSD	G105242.D	86.0	95.0	114.0
MSG4245-BS	G105220.D	92.0	99.0	111.0
MSG4245-BSD	G105221.D	92.0	99.0	111.0
MSG4245-MB	G105223.D	92.0	99.0	123.0

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	70-130%
S2 = Toluene-D8	70-130%
S3 = 4-Bromofluorobenzene	70-130%

Volatile Surrogate Recovery Summary

Job Number: M99201
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Method: SW846 8260B Matrix: SO

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
M99201-2	P52427.D	111.0	119.0	126.0
M99201-3	P52403.D	114.0	122.0	128.0
M99201-4	P52404.D	108.0	115.0	126.0
M99201-5	P52405.D	110.0	117.0	126.0
M99208-12MS	P52425.D	98.0	115.0	113.0
M99208-12MSD	P52426.D	97.0	116.0	116.0
M99208-6MS	P52414.D	104.0	116.0	105.0
M99208-6MSD	P52415.D	101.0	113.0	105.0
MSP1735-BS	P52399.D	101.0	113.0	105.0
MSP1735-MB	P52401.D	104.0	114.0	122.0
MSP1736-BS	P52419.D	106.0	116.0	106.0
MSP1736-MB	P52421.D	104.0	112.0	123.0

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	70-130%
S2 = Toluene-D8	70-130%
S3 = 4-Bromofluorobenzene	70-130%

New England ACCUTEST LABORATORIES

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: M99201
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24621-MB	S23236.D	1	04/21/11	KR	04/13/11	OP24621	MSS983

The QC reported here applies to the following samples: Method: SW846 8270C

M99201-2, M99201-3, M99201-4, M99201-5

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic acid	ND	490	38	ug/kg	
95-57-8	2-Chlorophenol	ND	250	13	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	490	17	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	490	29	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	490	49	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	980	250	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	490	250	ug/kg	
95-48-7	2-Methylphenol	ND	490	14	ug/kg	
	3&4-Methylphenol	ND	490	26	ug/kg	
88-75-5	2-Nitrophenol	ND	490	30	ug/kg	
100-02-7	4-Nitrophenol	ND	980	250	ug/kg	
87-86-5	Pentachlorophenol	ND	490	46	ug/kg	
108-95-2	Phenol	ND	250	41	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	490	37	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	490	34	ug/kg	
83-32-9	Acenaphthene	ND	250	21	ug/kg	
208-96-8	Acenaphthylene	ND	250	18	ug/kg	
62-53-3	Aniline	ND	490	490	ug/kg	
120-12-7	Anthracene	ND	250	19	ug/kg	
56-55-3	Benzo(a)anthracene	ND	250	9.0	ug/kg	
50-32-8	Benzo(a)pyrene	ND	250	15	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	250	29	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	250	16	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	250	7.3	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	250	20	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	250	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	250	21	ug/kg	
106-47-8	4-Chloroaniline	ND	490	120	ug/kg	
218-01-9	Chrysene	ND	250	8.0	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	250	19	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	250	5.3	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	250	23	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	250	22	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	490	120	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	490	24	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	250	5.9	ug/kg	

Method Blank Summary

Job Number: M99201
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24621-MB	S23236.D	1	04/21/11	KR	04/13/11	OP24621	MSS983

The QC reported here applies to the following samples: Method: SW846 8270C

M99201-2, M99201-3, M99201-4, M99201-5

CAS No.	Compound	Result	RL	MDL	Units	Q
53-70-3	Dibenzo(a,h)anthracene	ND	250	16	ug/kg	
132-64-9	Dibenzofuran	ND	250	21	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	250	22	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	250	13	ug/kg	
84-66-2	Diethyl phthalate	ND	250	21	ug/kg	
131-11-3	Dimethyl phthalate	ND	250	17	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	253	250	17	ug/kg	
206-44-0	Fluoranthene	ND	250	8.4	ug/kg	
86-73-7	Fluorene	ND	250	5.4	ug/kg	
118-74-1	Hexachlorobenzene	ND	250	21	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	490	3.3	ug/kg	
67-72-1	Hexachloroethane	ND	250	20	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	250	15	ug/kg	
78-59-1	Isophorone	ND	250	24	ug/kg	
91-57-6	2-Methylnaphthalene	ND	250	21	ug/kg	
88-74-4	2-Nitroaniline	ND	490	120	ug/kg	
99-09-2	3-Nitroaniline	ND	490	120	ug/kg	
100-01-6	4-Nitroaniline	ND	490	18	ug/kg	
91-20-3	Naphthalene	ND	250	5.7	ug/kg	
98-95-3	Nitrobenzene	ND	250	7.3	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	250	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	250	13	ug/kg	
85-01-8	Phenanthrene	ND	250	6.3	ug/kg	
129-00-0	Pyrene	ND	250	7.9	ug/kg	
110-86-1	Pyridine	ND	490	490	ug/kg	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	86%	30-130%
4165-62-2	Phenol-d5	84%	30-130%
118-79-6	2,4,6-Tribromophenol	81%	30-130%
4165-60-0	Nitrobenzene-d5	88%	30-130%
321-60-8	2-Fluorobiphenyl	84%	30-130%
1718-51-0	Terphenyl-d14	108%	30-130%

Blank Spike Summary

Job Number: M99201
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24621-BS	S23237.D	1	04/21/11	KR	04/13/11	OP24621	MSS983

The QC reported here applies to the following samples: Method: SW846 8270C

M99201-2, M99201-3, M99201-4, M99201-5

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
65-85-0	Benzoic acid	4960	2600	52	30-130
95-57-8	2-Chlorophenol	4960	4160	84	30-130
59-50-7	4-Chloro-3-methyl phenol	4960	4670	94	30-130
120-83-2	2,4-Dichlorophenol	4960	4540	91	30-130
105-67-9	2,4-Dimethylphenol	4960	4190	84	30-130
51-28-5	2,4-Dinitrophenol	4960	3060	62	30-130
534-52-1	4,6-Dinitro-o-cresol	4960	4080	82	30-130
95-48-7	2-Methylphenol	4960	4240	85	30-130
	3&4-Methylphenol	9930	11700	118	30-130
88-75-5	2-Nitrophenol	4960	4590	92	30-130
100-02-7	4-Nitrophenol	4960	4580	92	30-130
87-86-5	Pentachlorophenol	4960	4100	83	30-130
108-95-2	Phenol	4960	3980	80	30-130
95-95-4	2,4,5-Trichlorophenol	4960	4340	87	30-130
88-06-2	2,4,6-Trichlorophenol	4960	4710	95	30-130
83-32-9	Acenaphthene	2480	2160	87	40-140
208-96-8	Acenaphthylene	2480	1660	67	40-140
62-53-3	Aniline	2480	1000	40	40-140
120-12-7	Anthracene	2480	2160	87	40-140
56-55-3	Benzo(a)anthracene	2480	2370	96	40-140
50-32-8	Benzo(a)pyrene	2480	1960	79	40-140
205-99-2	Benzo(b)fluoranthene	2480	2260	91	40-140
191-24-2	Benzo(g,h,i)perylene	2480	2480	100	40-140
207-08-9	Benzo(k)fluoranthene	2480	2180	88	40-140
101-55-3	4-Bromophenyl phenyl ether	2480	2370	96	40-140
85-68-7	Butyl benzyl phthalate	2480	2740	110	40-140
91-58-7	2-Chloronaphthalene	2480	2180	88	40-140
106-47-8	4-Chloroaniline	2480	1610	65	40-140
218-01-9	Chrysene	2480	2180	88	40-140
111-91-1	bis(2-Chloroethoxy)methane	2480	2070	83	40-140
111-44-4	bis(2-Chloroethyl)ether	2480	1760	71	40-140
108-60-1	bis(2-Chloroisopropyl)ether	2480	2250	91	40-140
7005-72-3	4-Chlorophenyl phenyl ether	2480	2140	86	40-140
121-14-2	2,4-Dinitrotoluene	2480	2350	95	40-140
606-20-2	2,6-Dinitrotoluene	2480	2250	91	40-140
91-94-1	3,3'-Dichlorobenzidine	2480	2070	83	40-140

Blank Spike Summary

Job Number: M99201
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24621-BS	S23237.D	1	04/21/11	KR	04/13/11	OP24621	MSS983

The QC reported here applies to the following samples: Method: SW846 8270C

M99201-2, M99201-3, M99201-4, M99201-5

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
53-70-3	Dibenzo(a,h)anthracene	2480	2430	98	40-140
132-64-9	Dibenzofuran	2480	2080	84	40-140
84-74-2	Di-n-butyl phthalate	2480	2320	93	40-140
117-84-0	Di-n-octyl phthalate	2480	3090	125	40-140
84-66-2	Diethyl phthalate	2480	2420	98	40-140
131-11-3	Dimethyl phthalate	2480	2350	95	40-140
117-81-7	bis(2-Ethylhexyl)phthalate	2480	2600	105	40-140
206-44-0	Fluoranthene	2480	2170	87	40-140
86-73-7	Fluorene	2480	2140	86	40-140
118-74-1	Hexachlorobenzene	2480	2340	94	40-140
77-47-4	Hexachlorocyclopentadiene	2480	1200	48	40-140
67-72-1	Hexachloroethane	2480	1930	78	40-140
193-39-5	Indeno(1,2,3-cd)pyrene	2480	2540	102	40-140
78-59-1	Isophorone	2480	2230	90	40-140
91-57-6	2-Methylnaphthalene	2480	1960	79	40-140
88-74-4	2-Nitroaniline	2480	2320	93	40-140
99-09-2	3-Nitroaniline	2480	1890	76	40-140
100-01-6	4-Nitroaniline	2480	1920	77	40-140
91-20-3	Naphthalene	2480	2010	81	40-140
98-95-3	Nitrobenzene	2480	2050	83	40-140
621-64-7	N-Nitroso-di-n-propylamine	2480	2420	98	40-140
86-30-6	N-Nitrosodiphenylamine	2480	2320	93	40-140
85-01-8	Phenanthrene	2480	2170	87	40-140
129-00-0	Pyrene	2480	2440	98	40-140
110-86-1	Pyridine	2480	1310	53	40-140

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	79%	30-130%
4165-62-2	Phenol-d5	80%	30-130%
118-79-6	2,4,6-Tribromophenol	86%	30-130%
4165-60-0	Nitrobenzene-d5	85%	30-130%
321-60-8	2-Fluorobiphenyl	82%	30-130%
1718-51-0	Terphenyl-d14	96%	30-130%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M99201
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Not Sample from this SDG.

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24621-MS	S23288.D	1	04/22/11	PR	04/13/11	OP24621	MSS985
OP24621-MSD	S23289.D	1	04/23/11	PR	04/13/11	OP24621	MSS985
M99208-6	S23239.D	1	04/21/11	KR	04/13/11	OP24621	MSS983

The QC reported here applies to the following samples: Method: SW846 8270C

M99201-2, M99201-3, M99201-4, M99201-5

CAS No.	Compound	M99208-6 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
65-85-0	Benzoic acid	ND		5500	614	11* [a]	504	9* [a]	20	30-130/30
95-57-8	2-Chlorophenol	ND		5500	4120	75	4420	80	7	30-130/30
59-50-7	4-Chloro-3-methyl phenol	ND		5500	4710	86	5100	93	8	30-130/30
120-83-2	2,4-Dichlorophenol	ND		5500	4450	81	4730	86	6	30-130/30
105-67-9	2,4-Dimethylphenol	ND		5500	4370	79	4780	87	9	30-130/30
51-28-5	2,4-Dinitrophenol	ND		5500	2680	49	2160	39	21	30-130/30
534-52-1	4,6-Dinitro-o-cresol	ND		5500	4060	74	4180	76	3	30-130/30
95-48-7	2-Methylphenol	ND		5500	4180	76	4540	82	8	30-130/30
	3&4-Methylphenol	ND		11000	11800	107	12600	114	7	30-130/30
88-75-5	2-Nitrophenol	ND		5500	4420	80	4860	88	9	30-130/30
100-02-7	4-Nitrophenol	ND		5500	4920	89	5030	91	2	30-130/30
87-86-5	Pentachlorophenol	ND		5500	3410	62	3720	68	9	30-130/30
108-95-2	Phenol	ND		5500	4060	74	4320	78	6	30-130/30
95-95-4	2,4,5-Trichlorophenol	ND		5500	4210	77	4750	86	12	30-130/30
88-06-2	2,4,6-Trichlorophenol	ND		5500	4480	81	4910	89	9	30-130/30
83-32-9	Acenaphthene	ND		2750	2080	76	2330	85	11	40-140/30
208-96-8	Acenaphthylene	ND		2750	1600	58	1780	65	11	40-140/30
62-53-3	Aniline	ND		2750	1310	48	1440	52	9	40-140/30
120-12-7	Anthracene	ND		2750	2060	75	2250	82	9	40-140/30
56-55-3	Benzo(a)anthracene	ND		2750	2290	83	2500	91	9	40-140/30
50-32-8	Benzo(a)pyrene	ND		2750	1930	70	2120	77	9	40-140/30
205-99-2	Benzo(b)fluoranthene	ND		2750	2250	82	2410	87	7	40-140/30
191-24-2	Benzo(g,h,i)perylene	ND		2750	2010	73	2260	82	12	40-140/30
207-08-9	Benzo(k)fluoranthene	ND		2750	2200	80	2380	86	8	40-140/30
101-55-3	4-Bromophenyl phenyl ether	ND		2750	2230	81	2500	91	11	40-140/30
85-68-7	Butyl benzyl phthalate	17.9		2750	2600	94	2860	103	10	40-140/30
91-58-7	2-Chloronaphthalene	ND		2750	2100	76	2350	85	11	40-140/30
106-47-8	4-Chloroaniline	ND		2750	1550	56	1740	63	12	40-140/30
218-01-9	Chrysene	ND		2750	2120	77	2310	84	9	40-140/30
111-91-1	bis(2-Chloroethoxy)methane	ND		2750	2010	73	2260	82	12	40-140/30
111-44-4	bis(2-Chloroethyl)ether	ND		2750	1740	63	1850	67	6	40-140/30
108-60-1	bis(2-Chloroisopropyl)ether	ND		2750	2360	86	2580	94	9	40-140/30
7005-72-3	4-Chlorophenyl phenyl ether	ND		2750	2120	77	2350	85	10	40-140/30
121-14-2	2,4-Dinitrotoluene	ND		2750	2350	85	2550	93	8	40-140/30
606-20-2	2,6-Dinitrotoluene	ND		2750	2190	80	2450	89	11	40-140/30
91-94-1	3,3'-Dichlorobenzidine	ND		2750	2030	74	2260	82	11	40-140/30

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M99201
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24621-MS	S23288.D	1	04/22/11	PR	04/13/11	OP24621	MSS985
OP24621-MSD	S23289.D	1	04/23/11	PR	04/13/11	OP24621	MSS985
M99208-6	S23239.D	1	04/21/11	KR	04/13/11	OP24621	MSS983

The QC reported here applies to the following samples: Method: SW846 8270C

M99201-2, M99201-3, M99201-4, M99201-5

CAS No.	Compound	M99208-6 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
53-70-3	Dibenzo(a,h)anthracene	ND		2750	2030	74	2250	82	10	40-140/30
132-64-9	Dibenzofuran	ND		2750	2010	73	2250	82	11	40-140/30
84-74-2	Di-n-butyl phthalate	257		2750	2300	74	2450	80	6	40-140/30
117-84-0	Di-n-octyl phthalate	ND		2750	3080	112	3340	121	8	40-140/30
84-66-2	Diethyl phthalate	ND		2750	2450	89	2620	95	7	40-140/30
131-11-3	Dimetbyl phthalate	ND		2750	2270	83	2520	91	10	40-140/30
117-81-7	bis(2-Ethylhexyl)phthalate	396	B	2750	2450	75	2620	81	7	40-140/30
206-44-0	Fluoranthene	ND		2750	2170	79	2320	84	7	40-140/30
86-73-7	Fluorene	ND		2750	2140	78	2400	87	11	40-140/30
118-74-1	Hexachlorobenzene	ND		2750	2230	81	2430	88	9	40-140/30
77-47-4	Hexachlorocyclopentadiene	ND		2750	917	33* [a]	1050	38* [a]	14	40-140/30
67-72-1	Hexachloroethane	ND		2750	1950	71	2120	77	8	40-140/30
193-39-5	Indeno(1,2,3-cd)pyrene	ND		2750	2150	78	2390	87	11	40-140/30
78-59-1	Isophorone	ND		2750	2120	77	2350	85	10	40-140/30
91-57-6	2-Methylnaphthalene	ND		2750	1930	70	2110	77	9	40-140/30
88-74-4	2-Nitroaniline	ND		2750	2260	82	2480	90	9	40-140/30
99-09-2	3-Nitroaniline	ND		2750	1980	72	2200	80	11	40-140/30
100-01-6	4-Nitroaniline	ND		2750	2010	73	2150	78	7	40-140/30
91-20-3	Naphthalene	ND		2750	1970	72	2180	79	10	40-140/30
98-95-3	Nitrobenzene	ND		2750	2060	75	2280	83	10	40-140/30
621-64-7	N-Nitroso-di-n-propylamine	ND		2750	2510	91	2740	99	9	40-140/30
86-30-6	N-Nitrosodiphenylamine	ND		2750	2240	81	2430	88	8	40-140/30
85-01-8	Phenanthrene	ND		2750	2130	77	2280	83	7	40-140/30
129-00-0	Pyrene	ND		2750	2320	84	2550	93	9	40-140/30
110-86-1	Pyridine	ND		2750	1160	42	1510	55	26	40-140/30

CAS No.	Surrogate Recoveries	MS	MSD	M99208-6	Limits
367-12-4	2-Fluorophenol	72%	77%	31%	30-130%
4165-62-2	Phenol-d5	74%	79%	31%	30-130%
118-79-6	2,4,6-Tribromophenol	77%	82%	92%	30-130%
4165-60-0	Nitrobenzene-d5	79%	85%	33%	30-130%
321-60-8	2-Fluorobiphenyl	75%	82%	41%	30-130%
1718-51-0	Terphenyl-d14	84%	90%	129%	30-130%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M99201
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24621-MS	S23288.D	1	04/22/11	PR	04/13/11	OP24621	MSS985
OP24621-MSD	S23289.D	1	04/23/11	PR	04/13/11	OP24621	MSS985
M99208-6	S23239.D	1	04/21/11	KR	04/13/11	OP24621	MSS983

The QC reported here applies to the following samples: Method: SW846 8270C

M99201-2, M99201-3, M99201-4, M99201-5

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.

Semivolatile Internal Standard Area Summary

Job Number: M99201
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Check Std:	MSI2561-CC2552	Injection Date:	04/22/11
Lab File ID:	I71790.D	Injection Time:	11:16
Instrument ID:	GCMSI	Method:	SW846 8270C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	110285	5.43	391016	6.73	211501	9.18	341149	11.71	290886	16.67	294581	19.20
Upper Limit [a]	220570	5.93	782032	7.23	423002	9.68	682298	12.21	581772	17.17	589162	19.70
Lower Limit [b]	55143	4.93	195508	6.23	105751	8.68	170575	11.21	145443	16.17	147291	18.70
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
M99373-5	17905[c]	5.43	72063[c]	6.72	38144[c]	9.18	58110[c]	11.70	48971[c]	16.66	35806[c]	19.19
ZZZZZZ	16551[c]	5.43	66909[c]	6.72	35637[c]	9.18	55722[c]	11.70	46229[c]	16.65	32559[c]	19.18
ZZZZZZ	24875[c]	5.43	96896[c]	6.72	51435[c]	9.18	75311[c]	11.70	61468[c]	16.66	42221[c]	19.19
OP24628-MB	18964*	5.43	74427*	6.72	38804*	9.18	60247*	11.70	47702*	16.65	32944*	19.19
ZZZZZZ	150145	5.43	544924	6.73	290038	9.18	461541	11.70	369062	16.66	340370	19.20
OP24628-BS	19118*	5.43	76325*	6.72	39405*	9.18	61421*	11.70	49616*	16.66	36733*	19.19
OP24628-MS	16702*	5.43	65773*	6.72	35115*	9.18	55227*	11.70	48346*	16.66	34163*	19.19
OP24628-MSD	17534*	5.43	69066*	6.72	36759*	9.18	56710*	11.70	47930*	16.66	35968*	19.19
M99280-5	15889*	5.43	63328*	6.72	33571*	9.18	52388*	11.70	44796*	16.65	32924*	19.18
ZZZZZZ	15304*	5.43	60505*	6.72	32466*	9.18	50328*	11.70	43067*	16.65	30324*	19.18
ZZZZZZ	128776	5.43	462357	6.73	247438	9.18	393177	11.70	311470	16.66	349361	19.20
ZZZZZZ	130160	5.43	474508	6.73	250558	9.18	401543	11.70	311666	16.66	311821	19.20
ZZZZZZ	120118	5.43	434366	6.73	227592	9.18	360057	11.70	288694	16.66	335481	19.20
ZZZZZZ	129315	5.43	496776	6.73	245137	9.18	381372	11.70	300147	16.66	321348	19.20
ZZZZZZ	129274	5.43	469559	6.73	250818	9.18	398726	11.70	313348	16.66	316560	19.20
ZZZZZZ	132178	5.43	480331	6.73	252147	9.18	398107	11.70	313790	16.66	378038	19.21
ZZZZZZ	131171	5.43	477142	6.73	252963	9.18	404309	11.70	320977	16.66	336025	19.20
ZZZZZZ	121119	5.43	435708	6.73	229575	9.18	359606	11.70	293028	16.66	337168	19.20
M99201-2	130849	5.43	473764	6.73	252785	9.18	399809	11.70	301174	16.66	317453	19.20
M99201-3	121048	5.43	439975	6.73	234008	9.18	369905	11.70	294047	16.66	302725	19.20
M99201-4	131737	5.43	477981	6.73	252298	9.18	399894	11.70	307969	16.66	321162	19.20
OP24715-BS5	125493	5.43	455794	6.73	244596	9.18	396415	11.70	336831	16.66	361773	19.20
OP24715-BS6	122128	5.43	447429	6.73	238419	9.18	379804	11.70	332687	16.66	355591	19.20
OP24715-BS7	117824	5.43	431165	6.73	230376	9.18	374665	11.70	330362	16.66	349607	19.20
OP24715-BS8	118069	5.43	426534	6.73	227467	9.18	369899	11.70	323833	16.66	349644	19.20

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Internal Standard Area Summary

Job Number: M99201
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Check Std:	MS12561-CC2552	Injection Date:	04/22/11
Lab File ID:	I71790.D	Injection Time:	11:16
Instrument ID:	GCMSI	Method:	SW846 8270C

Lab	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
Sample ID	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT

(c) Internal standard spiked at SIM concentration (4 ppb).

Semivolatile Internal Standard Area Summary

Job Number: M99201
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Check Std:	MSS983-CC973	Injection Date:	04/21/11
Lab File ID:	S23225.D	Injection Time:	10:03
Instrument ID:	GCMSS	Method:	SW846 8270C

	IS 1 AREA	IS 1 RT	IS 2 AREA	IS 2 RT	IS 3 AREA	IS 3 RT	IS 4 AREA	IS 4 RT	IS 5 AREA	IS 5 RT	IS 6 AREA	IS 6 RT
Check Std	419515	6.76	1549140	8.20	838644	10.52	1441601	12.77	1478304	17.14	1347931	19.41
Upper Limit [a]	839030	7.26	3098280	8.70	1677288	11.02	2883202	13.27	2956608	17.64	2695862	19.91
Lower Limit [b]	209758	6.26	774570	7.70	419322	10.02	720801	12.27	739152	16.64	673966	18.91
Lab Sample ID	IS 1 AREA	IS 1 RT	IS 2 AREA	IS 2 RT	IS 3 AREA	IS 3 RT	IS 4 AREA	IS 4 RT	IS 5 AREA	IS 5 RT	IS 6 AREA	IS 6 RT
OP24654-MB	397810	6.76	1586768	8.20	861057	10.52	1475000	12.76	1381069	17.13	1247981	19.40
OP24654-BS	405960	6.76	1522655	8.20	785475	10.52	1309650	12.77	1276581	17.14	1160361	19.40
OP24654-MS	415340	6.76	1561310	8.20	820444	10.52	1363841	12.77	1344765	17.14	1208086	19.40
OP24654-MSD	401100	6.76	1507432	8.20	789240	10.52	1311900	12.77	1249925	17.14	1185744	19.40
M99423-2	408476	6.76	1611699	8.20	865783	10.52	1487437	12.76	1385507	17.13	1289448	19.39
ZZZZZZ	380749	6.76	1522779	8.20	808018	10.51	1385329	12.76	1318783	17.13	1222258	19.39
OP24683-MB	366914	6.76	1466934	8.20	772085	10.51	1342624	12.75	1284047	17.13	1158272	19.39
OP24683-BS	400730	6.75	1493312	8.20	791279	10.52	1334605	12.76	1327917	17.13	1229565	19.40
ZZZZZZ	406302	6.75	1580453	8.20	846542	10.51	1414302	12.75	1332901	17.13	1333338	19.39
ZZZZZZ	378980	6.76	1518843	8.20	799031	10.51	1363406	12.75	1323246	17.13	1356186	19.40
OP24621-MB	484417	6.76	1907976	8.20	1005078	10.51	1622912	12.75	1343474	17.13	1209553	19.39
OP24621-BS	479214	6.76	1781213	8.20	919122	10.52	1520918	12.76	1365909	17.14	1233063	19.40
ZZZZZZ	454768	6.76	1814350	8.20	922809	10.51	1517765	12.75	1306275	17.12	1207274	19.39
M99208-6	451669	6.75	1774623	8.20	917971	10.51	1519744	12.75	1327683	17.12	1315637	19.39

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Internal Standard Area Summary

Job Number: M99201
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Check Std:	MSS985-CC973	Injection Date:	04/22/11
Lab File ID:	S23271.D	Injection Time:	15:05
Instrument ID:	GCMSS	Method:	SW846 8270C

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	354391	6.73	1265876	8.17	672910	10.49	1148587	12.74	1160225	17.11	1060494	19.37
Upper Limit [a]	708782	7.23	2531752	8.67	1345820	10.99	2297174	13.24	2320450	17.61	2120988	19.87
Lower Limit [b]	177196	6.23	632938	7.67	336455	9.99	574294	12.24	580113	16.61	530247	18.87
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP24704-MB	358048	6.73	1431768	8.17	750433	10.48	1303311	12.72	1175416	17.10	929777	19.37
OP24704-BS	457492	6.73	1673426	8.17	870227	10.48	1494654	12.73	1395853	17.11	1041779	19.37
ZZZZZZ	356321	6.73	1399415	8.17	746633	10.48	1299954	12.72	1189898	17.10	1136609	19.37
OP24670-MB	478902	6.73	1888594	8.17	974621	10.48	1657691	12.72	1467080	17.10	1268385	19.37
OP24670-BS	425057	6.73	1597404	8.17	827674	10.48	1391703	12.73	1275804	17.10	1113559	19.37
OP24670-MS	452744	6.73	1716876	8.17	846452	10.48	1379683	12.73	1305647	17.10	862838	19.37
OP24670-MSD	435177	6.73	1649388	8.17	830390	10.48	1367857	12.72	1298955	17.10	871669	19.37
M99437-1	389344	6.73	1519370	8.17	775322	10.48	1295628	12.72	1217302	17.09	1186947	19.37
ZZZZZZ	361768	6.73	1430815	8.17	759957	10.48	1290279	12.72	1164427	17.09	795861	19.36
ZZZZZZ	336375	6.73	1307734	8.17	655777	10.48	1080312	12.72	1043862	17.10	1066715	19.37
ZZZZZZ	387127	6.73	1530920	8.17	812211	10.48	1377639	12.72	1208646	17.10	1193509	19.37
ZZZZZZ	401899	6.73	1582464	8.17	844186	10.48	1459578	12.72	1377779	17.09	1322666	19.37
ZZZZZZ	395006	6.73	1530535	8.17	814491	10.48	1405887	12.72	1304903	17.09	1239158	19.37
ZZZZZZ	430544	6.73	1734232	8.17	901655	10.48	1558529	12.72	1456887	17.09	1365740	19.37
ZZZZZZ	425990	6.73	1714121	8.17	902853	10.48	1582153	12.72	1471690	17.10	1400461	19.37
ZZZZZZ	317109	6.73	1236885	8.17	656731	10.48	1187552	12.72	1149262	17.09	1139889	19.37
OP24621-MS	425235	6.73	1602133	8.17	830059	10.48	1427721	12.73	1346062	17.10	1134084	19.37
OP24621-MSD	427071	6.73	1584780	8.17	809103	10.48	1391702	12.73	1275861	17.10	1104353	19.37
ZZZZZZ	423933	6.73	1671353	8.17	850689	10.48	1472067	12.72	1346325	17.10	1165247	19.37
ZZZZZZ	412052	6.73	1672443	8.17	869847	10.48	1521165	12.72	1360626	17.10	1082707	19.37
ZZZZZZ	450547	6.73	1772244	8.17	922788	10.48	1565692	12.72	1399507	17.09	1114710	19.37
ZZZZZZ	415529	6.73	1651527	8.17	860168	10.48	1476371	12.72	1307949	17.10	1058504	19.37
ZZZZZZ	468181	6.73	1856603	8.17	972654	10.48	1656443	12.72	1493748	17.10	1227999	19.37

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Internal Standard Area Summary

Job Number: M99201
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Check Std:	MSS988-CC987	Injection Date:	04/26/11
Lab File ID:	S23351.D	Injection Time:	09:29
Instrument ID:	GCMSS	Method:	SW846 8270C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	246297	6.70	921009	8.12	491847	10.43	851510	12.68	894701	17.05	786783	19.31
Upper Limit [a]	492594	7.20	1842018	8.62	983694	10.93	1703020	13.18	1789402	17.55	1573566	19.81
Lower Limit [b]	123149	6.20	460505	7.62	245924	9.93	425755	12.18	447351	16.55	393392	18.81
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
ZZZZZZ	340497	6.70	1314196	8.12	668957	10.42	1091672	12.67	1001435	17.05	838685	19.31
M99201-5	310599	6.70	1249551	8.12	684829	10.42	1062383	12.67	930344	17.04	848900	19.31
ZZZZZZ	211458	6.71	841044	8.13	445566	10.43	754272	12.67	746978	17.05	611255	19.31
ZZZZZZ	162430	6.71	663444	8.12	367901	10.42	638455	12.67	649025	17.04	591943	19.31
OP24711-MB	250292	6.70	991205	8.12	523020	10.42	851384	12.67	803910	17.04	662709	19.30
OP24711-BS	251034	6.70	937765	8.12	508501	10.43	866342	12.68	814874	17.05	677327	19.31
ZZZZZZ	255333	6.70	998757	8.12	530984	10.43	857068	12.67	743891	17.04	641983	19.30
ZZZZZZ	266145	6.70	1069882	8.12	580259	10.43	947121	12.67	821707	17.05	659465	19.31
ZZZZZZ	225985	6.70	880720	8.12	472736	10.43	800426	12.67	815502	17.05	775642	19.31
ZZZZZZ	227427	6.70	874335	8.12	446209	10.43	723540	12.67	686045	17.05	708091	19.31
ZZZZZZ	243171	6.71	943235	8.13	492261	10.43	781867	12.67	800101	17.05	834446	19.31
ZZZZZZ	294632	6.71	976214	8.15	349958	10.48	406582[c]	12.69	511479	17.05	573213	19.31
ZZZZZZ	274741	6.71	840947	8.15	325164	10.48	383787[c]	12.69	502722	17.05	559994	19.31
ZZZZZZ	261208	6.71	784743	8.15	308841	10.48	362314[c]	12.69	466011	17.05	513666	19.31

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.
(c) Outside control limits due to possible matrix interference.

Semivolatile Surrogate Recovery Summary

Job Number: M99201
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Method: SW846 8270C Matrix: SO

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
M99201-2	I71810.D	80.0	82.0	70.0	83.0	87.0	93.0
M99201-3	I71811.D	82.0	81.0	77.0	82.0	85.0	92.0
M99201-4	I71812.D	78.0	76.0	69.0	76.0	81.0	83.0
M99201-5	S23353.D	71.0	68.0	65.0	72.0	71.0	90.0
OP24621-BS	S23237.D	79.0	80.0	86.0	85.0	82.0	96.0
OP24621-MB	S23236.D	86.0	84.0	81.0	88.0	84.0	108.0
OP24621-MS	S23288.D	72.0	74.0	77.0	79.0	75.0	84.0
OP24621-MSD	S23289.D	77.0	79.0	82.0	85.0	82.0	90.0

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	30-130%
S2 = Phenol-d5	30-130%
S3 = 2,4,6-Tribromophenol	30-130%
S4 = Nitrobenzene-d5	30-130%
S5 = 2-Fluorobiphenyl	30-130%
S6 = Terphenyl-d14	30-130%

New England ACCUTEST LABORATORIES

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Percent Solids Raw Data Summary

Percent Solids Raw Data Summary

Job Number: M99201
Account: SHELLWIC Shell Oil
Project: URSMOSTL:97216640 170 East Rand Avenue Hartford, IL

Sample: M99201-2 **Analyzed:** 12-APR-11 by BF **Method:** SM21 2540 B MOD.
ClientID: ROST-4PZ (C) 11-12

Wet Weight (Total)	27.153	g
Tare Weight	18.62	g
Dry Weight (Total)	26.442	g
Solids, Percent	91.7	%

Sample: M99201-3 **Analyzed:** 12-APR-11 by BF **Method:** SM21 2540 B MOD.
ClientID: ROST-4PZ (C) 25-26

Wet Weight (Total)	30.148	g
Tare Weight	22.441	g
Dry Weight (Total)	29.297	g
Solids, Percent	89	%

Sample: M99201-4 **Analyzed:** 12-APR-11 by BF **Method:** SM21 2540 B MOD.
ClientID: ROST-4PZ (C) 36-37

Wet Weight (Total)	26.783	g
Tare Weight	18.242	g
Dry Weight (Total)	26.498	g
Solids, Percent	96.7	%

Sample: M99201-5 **Analyzed:** 12-APR-11 by BF **Method:** SM21 2540 B MOD.
ClientID: ROST-4PZ (C) 36-37 DUP

Wet Weight (Total)	32.593	g
Tare Weight	23.025	g
Dry Weight (Total)	32.249	g
Solids, Percent	96.4	%

7.1

7

Roxana ROST 4-PZ

Laboratory SDG: M99605

Data Reviewer: Tony Sedlacek

Peer Reviewer: Jeff Aust

Date Reviewed: 6/8/2011

Guidance: USEPA National Functional Guidelines for Superfund Organic Methods Data Review 2008

Sample Identification	Sample Identification
ROST-4-PZ(G)12-14-EB	ROST-4-PZ(G)12-14
ROST-4-PZ(G)34-36	ROST-4-PZ(G)34-36-D
ROST-4-PZ(G)26-28	TB042211

1.0 Data Package Completeness

Were all items delivered as specified in the QAPP and COC as appropriate?

Yes

2.0 Laboratory Case Narrative \ Cooler Receipt Form

Were problems noted in the laboratory case narrative or cooler receipt form?

Yes, the laboratory case narrative indicated samples were received by the laboratory at 0.4° C which is outside temperature criteria 4°C ± 2°C. All samples were received in good condition; no qualification of data was required. VOC and SVOC LCS recoveries and RPDs were outside evaluation criteria. VOC MS/MSD recoveries and RPDs and SVOC MS/MSD recoveries were outside evaluation criteria. Although not indicated in the laboratory case narrative, analytes were detected in the equipment and method blank. These issues are addressed further in the appropriate sections below.

No problems were indicated in the cooler receipt form.

3.0 Holding Times

Were samples extracted/analyzed within applicable limits?

Yes

4.0 Blank Contamination

Were any analytes detected in the Method Blanks, Field Blanks or Trip Blanks?

Yes

Blank ID	Parameter	Analyte	Concentration/Amount
ROST-4-PZ(G)12-14-EB	SVOCs	Benzyl alcohol	0.86 µg/L
ROST-4-PZ(G)12-14-EB	SVOCs	Di-n-butyl phthalate	0.38 µg/L
ROST-4-PZ(G)12-14-EB	SVOCs	Bis(2-Ethylhexyl) phthalate	0.53 µg/L
OP24769-MB	SVOCs	Di-n-butyl phthalate	0.39 µg/L

Blank ID	Parameter	Analyte	Concentration/Amount
OP24769-MB	SVOCs	Diethyl phthalate	0.79 µg/L

Qualifications due to blank contamination are included in the table below. Analytical data that were reported non-detect or at concentrations greater than five times (5X) the associated blank concentration (10X for common laboratory contaminants) did not require qualification. Method blank OP24769 was associated with equipment blank ROST-4-PZ(G)12-14-EB. Equipment blank samples are quality control samples and are not qualified.

Sample ID	Parameter	Analyte	New Reporting Limit (RL)	Qualification
N/A				

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

No

LCS/ LCSD ID	Parameter	Analyte	LCS/LCSD Recovery	RPD	LCS/LCSD/ RPD Criteria
MSP1750-BS	VOCs	Acrolein	**448**	N/A	70-130
MSG4263-BS	VOCs	Acrolein	**1644**	N/A	70-130
MSG4263-BS	VOCs	2-Chloroethyl vinyl ether	**314**	N/A	70-130
OP24800-BS	SVOCs	Hexachlorocyclopentadiene	**31**	N/A	40-140
OP24769-BS/BSD	SVOCs	3,3'-Dichlorobenzidine	45/59	**27**	40-140/20
OP24769-BS/BSD	SVOCs	Hexachlorocyclopentadiene	**29/28**	4	40-140/20
OP24769-BS/BSD	SVOCs	3-Nitroaniline	49/60	**21**	40-140/20

Analytical data that required qualification based on LCS data are included in the table below. Analytical data reported as non-detect and associated with LCS recoveries above evaluation criteria, indicating a possible high bias, did not require qualification. LCS OP24769 was associated with equipment blank ROST-4-PZ(G)12-14-EB. Equipment blank samples are quality control samples and are not qualified.

Field ID	Parameter	Analyte	Qualification
ROST-4-PZ(G)12-14	SVOCs	Hexachlorocyclopentadiene	**UJ**
ROST-4-PZ(G)34-36	SVOCs	Hexachlorocyclopentadiene	**UJ**
ROST-4-PZ(G)34-36-D	SVOCs	Hexachlorocyclopentadiene	**UJ**
ROST-4-PZ(G)26-28	SVOCs	Hexachlorocyclopentadiene	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

Yes

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

Were MS/MSD samples analyzed as part of this SDG?

Yes, sample ROST-4-PZ(G)26-28 was spiked and analyzed for VOCs and SVOCs.

Were MS/MSD recoveries within evaluation criteria?

No

MS/MSD ID	Parameter	Analyte	MS/MSD Recovery	RPD	MS/MSD/ RPD Criteria
ROST-4-PZ(G)26-28	VOCs	Acetone	**177**/**199**	14	70-130/30
ROST-4-PZ(G)26-28	VOCs	Acrolein	**206**/**514**	**87**	70-130/30
ROST-4-PZ(G)26-28	VOCs	Bromomethane	**54**/78	**39**	70-130/30
ROST-4-PZ(G)26-28	VOCs	Carbon disulfide	**54**/**69**	16	70-130/30
ROST-4-PZ(G)26-28	VOCs	2-Chloroethyl vinyl ether	**0**/117	**200**	70-130/30
ROST-4-PZ(G)26-28	VOCs	Chloromethane	**65**/78	20	70-130/30
ROST-4-PZ(G)26-28	SVOCs	Benzoic acid	**13**/**13**	0	30-130/30
ROST-4-PZ(G)26-28	SVOCs	2,4-Dinitrophenol	**0**/**11**	200	30-130/30
ROST-4-PZ(G)26-28	SVOCs	4,6-Dinitro-o-cresol	**21**/**41**	64	30-130/30
ROST-4-PZ(G)26-28	SVOCs	Hexachlorocyclopentadiene	**16**/**23**	40	30-130/30

USEPA National Functional Guidelines for Organic Data Review indicates that organic data does not require qualification based on MS/MSD data alone and LCS recoveries were within evaluation criteria for these compounds with the exception of acrolein and 2-Chloroethyl vinyl ether and hexachlorocyclopentadiene, therefore no qualification of the data was required. Analytes with LCS and MS/MSD recoveries outside evaluation criteria were previously qualified due to LCS recoveries, no additional qualification of data was required.

8.0 Internal Standard (IS) Recoveries

Were internal standard area recoveries within evaluation criteria?

Yes

9.0 Laboratory Duplicate Results

Were laboratory duplicate samples collected as part of this SDG?

No

10.0 Field Duplicate Results

Were field duplicate samples collected as part of this SDG?

Yes

Field ID	Field Duplicate ID
ROST-4-PZ(G)34-36	ROST-4-PZ(G)34-36-D

Were field duplicates within evaluation criteria?

Yes

11.0 Sample Dilutions

For samples that were diluted and nondetect, were undiluted results also reported?

Not applicable; samples analyzed did not require dilution.

12.0 Additional Qualifications

Were additional qualifications applied?

No

New England ACCUTEST LABORATORIES

05/19/11

Technical Report for

Shell Oil

URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

INC#97216640 SAP#340061

Accutest Job Number: M99605

Sampling Date: 04/22/11

Report to:

URS Corporation

Elizabeth_Kunkel@URSCorp.com

ATTN: Elizabeth Kunkel

Reviewed on 6/8/11

Total number of pages in report: 94

ACCREDITED IN ACCORDANCE WITH nelac

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

Reza Rand
Lab Director

Client Service contact: Kristen Blanchard 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) ISO 17025:2005 (L2235)

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Sample Summary

Shell Oil

Job No: M99605

URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL
Project No: INC#97216640 SAP#340061

Sample Number	Collected Date	Time By	Received	Matrix Code	Matrix Type	Client Sample ID
M99605-1	04/22/11	09:15 MM	04/23/11	AQ	Equipment Blank	ROST-4-PZ(G)12-14-EB
M99605-2	04/22/11	09:40 MM	04/23/11	SO	Soil	ROST-4-PZ(G)12-14
M99605-3	04/22/11	10:40 MM	04/23/11	SO	Soil	ROST-4-PZ(G)34-36
M99605-4	04/22/11	10:40 MM	04/23/11	SO	Soil	ROST-4-PZ(G)34-36-D
M99605-5	04/22/11	10:50 MM	04/23/11	SO	Soil	ROST-4-PZ(G)26-28
M99605-5D	04/22/11	10:50 MM	04/23/11	SO	Soil Dup/MSD	ROST-4-PZ(G)26-28
M99605-5S	04/22/11	10:50 MM	04/23/11	SO	Soil Matrix Spike	ROST-4-PZ(G)26-28
M99605-6	04/22/11	00:00 MM	04/23/11	AQ	Trip Blank Water	TB042211

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

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	Shell Oil	**Job No**	M99605
Site:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand	**Report Date**	5/11/2011 9:09:43 AM

5 Sample(s), 1 Trip Blank were collected on 04/22/2011 and were received at Accutest on 04/23/2011 properly preserved, at 0.4 Deg. C and intact. These Samples received an Accutest job number of M99605. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

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

Volatiles by GCMS By Method SW846 8260B

Matrix AQ **Batch ID:** MSG4263

- All samples were analyzed within the recommended method holding time.
- Sample(s) M99599-3MS, M99599-3MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Blank Spike Recovery(s) for 2-Chloroethyl vinyl ether, Aerolein are outside control limits. Associated samples are non-detect for this compound.
- MS/MSD Recovery(s) for 2-Hexanone, Acetone are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- M99599-3MS/MSD for Acrolein: Outside control limits. Associated samples are non-detect for this compound.

Matrix SO **Batch ID:** MSP1750

- All samples were analyzed within the recommended method holding time.
- Sample(s) M99605-5MS, M99605-5MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Calibration standard MSP1751-ICC1751, MSP1751-ICV1751 not associated with this job.
- Matrix Spike Recovery(s) for 2-Chloroethyl vinyl ether, Acetone, Bromomethane, Carbon disulfide, Chloromethane are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Matrix Spike Duplicate Recovery(s) for Acetone, Carbon disulfide are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- RPD(s) for MSD for 2-Chloroethyl vinyl ether, Bromomethane are outside control limits for sample M99605-5MSD. High RPD due to possible matrix interference and/or sample non-homogeneity.
- MSP1750-BS/MS/MSD for Acrolein: Outside control limits. Associated samples are non-detect for this compound.
- RPD of M99605-5MSD for Acrolein: Outside control limits. Associated samples are non-detect for this compound.

Extractables by GCMS By Method SW846 8270C

Matrix AQ	Batch ID: OP24769

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- BS/BSD Recovery(s) for Hexachlorocyclopentadiene are outside control limits. Blank Spike meets program technical requirements.
- OP24769-BS/BSD for 1-Methylnaphthalene: Analyte not present in spiking solution.
- RPD of OP24769-BSD for 3,3'-Dichlorobenzidine, 3-Nitroaniline: Outside control limits. Individual spike recoverics within acceptance limits.
- Only Trip Blank in this batch. MS/MSD is not extracted.

Matrix SO	Batch ID: OP24800

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) M99605-5MS, M99605-5MSD were used as the QC samples indicated.
- BS/MS/MSD Recovery(s) for Hexachlorocyclopentadiene are outside control limits. Blank Spike meets program technical requirements.
- Matrix Spike Recovery(s) for 2,4-Dinitrophenol, 4,6-Dinitro-o-cresol, Benzoic acid are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Matrix Spike Duplicate Recovery(s) for Benzoic acid, 2,4-Dinitrophenol are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- RPD(s) for MSD for 2,4-Dinitrophenol, 4,6-Dinitro-o-cresol are outside control limits for sample OP24800-MSD. High RPD due to possible matrix interference and/or sample non-homogeneity.
- RPD of OP24800-MSD for Hexachlorocyclopentadiene: Outside control limits. Blank Spike meets program technical requirements.
- Calibration standard MSS986-ICC986, MSS986-ICV986, MSS1001-CC986 are not associated with this job.

Wet Chemistry By Method SM21 2540 B MOD.

Matrix SO	Batch ID: GN34734

- Sample(s) M99605-5DUP were used as the QC samples for Solids, Percent.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety.The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(M99605).

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	ROST-4-PZ(G)12-14-EB		
Lab Sample ID:	M99605-1	Date Sampled:	04/22/11
Matrix:	AQ - Equipment Blank	Date Received:	04/23/11
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	G105654.D	1	05/04/11	EL	n/a	n/a	MSG4263
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	4.6	ug/l	
107-02-8	Acrolein	ND	25	17	ug/l	
107-13-1	Acrylonitrile	ND	5.0	3.0	ug/l	
71-43-2	Benzene	ND	0.50	0.35	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.52	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.91	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.62	ug/l	
75-25-2	Bromoform	ND	1.0	0.73	ug/l	
74-83-9	Bromomethane	ND	2.0	0.95	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.1	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.49	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.37	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.53	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.35	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.42	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.61	ug/l	
75-00-3	Chloroethane	ND	2.0	0.76	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	0.83	ug/l	
67-66-3	Chloroform	ND	1.0	0.72	ug/l	
74-87-3	Chloromethane	ND	2.0	0.81	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.58	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.67	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.3	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.86	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.76	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.74	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.77	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.81	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.61	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.63	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.74	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.70	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4-PZ(G)12-14-EB		
Lab Sample ID:	M99605-1	Date Sampled:	04/22/11
Matrix:	AQ - Equipment Blank	Date Received:	04/23/11
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.66	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.74	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.83	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.73	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	0.44	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.23	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.23	ug/l	
123-91-1	1,4-Dioxane	ND	25	18	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.90	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.61	ug/l	
87-68-3	Hexachlorohutadiene	ND	5.0	0.56	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.5	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.51	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.45	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.54	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.3	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.94	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.75	ug/l	
91-20-3	Naphthalene	ND	5.0	0.37	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.43	ug/l	
100-42-5	Styrene	ND	5.0	0.68	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.64	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.89	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.39	ug/l	
108-88-3	Toluene	ND	1.0	0.74	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.57	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.35	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.72	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.49	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.61	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.62	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.51	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	0.51	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.86	ug/l	
	m,p-Xylene	ND	1.0	0.62	ug/l	
95-47-6	o-Xylene	ND	1.0	0.56	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.56	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4-PZ(G)12-14-EB		
Lab Sample ID:	M99605-1	Date Sampled:	04/22/11
Matrix:	AQ - Equipment Blank	Date Received:	04/23/11
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		70-130%
2037-26-5	Toluene-D8	105%		70-130%
460-00-4	4-Bromofluorobenzene	109%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4-PZ(G)12-14-EB		
Lab Sample ID:	M99605-1	Date Sampled:	04/22/11
Matrix:	AQ - Equipment Blank	Date Received:	04/23/11
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I72194.D	1	05/05/11	KR	04/28/11	OP24769	MSI2582
Run #2							

	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	9.5	0.73	ug/l	
95-57-8	2-Chlorophenol	ND	4.8	0.65	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	9.5	0.54	ug/l	
120-83-2	2,4-Dichlorophenol	ND	9.5	0.66	ug/l	
105-67-9	2,4-Dimethylphenol	ND	9.5	2.0	ug/l	
51-28-5	2,4-Dinitrophenol	ND	19	2.4	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	9.5	4.8	ug/l	
95-48-7	2-Methylphenol	ND	9.5	0.46	ug/l	
	3&4-Methylphenol	ND	9.5	0.60	ug/l	
88-75-5	2-Nitrophenol	ND	9.5	0.63	ug/l	
100-02-7	4-Nitrophenol	ND	19	4.8	ug/l	
87-86-5	Pentachlorophenol	ND	9.5	3.2	ug/l	
108-95-2	Phenol	ND	4.8	2.0	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	9.5	0.38	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	9.5	0.36	ug/l	
83-32-9	Acenaphthene	ND	4.8	0.32	ug/l	
208-96-8	Acenaphthylene	ND	4.8	1.2	ug/l	
62-53-3	Aniline	ND	9.5	0.43	ug/l	
120-12-7	Anthracene	ND	4.8	0.26	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	0.26	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	0.22	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	0.26	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	0.58	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	0.28	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	4.8	0.30	ug/l	
85-68-7	Butyl benzyl phthalate	ND	4.8	0.39	ug/l	
100-51-6	Benzyl Alcohol	0.86	9.5	0.73	ug/l	J
91-58-7	2-Chloronaphthalene	ND	4.8	0.29	ug/l	
106-47-8	4-Chloroaniline	ND	9.5	0.55	ug/l	
218-01-9	Chrysene	ND	4.8	0.21	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	4.8	0.33	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	4.8	0.22	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4-PZ(G)12-14-EB		
Lab Sample ID:	M99605-1	Date Sampled:	04/22/11
Matrix:	AQ - Equipment Blank	Date Received:	04/23/11
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
108-60-1	bis(2-Chloroisopropyl)ether	ND	4.8	0.20	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	4.8	0.58	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	4.8	0.28	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	9.5	1.2	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	9.5	0.32	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	4.8	2.4	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	0.24	ug/l	
132-64-9	Dibenzofuran	ND	4.8	0.30	ug/l	
84-74-2	Di-n-butyl phthalate	0.38	4.8	0.32	ug/l	JB
117-84-0	Di-n-octyl phthalate	ND	4.8	0.32	ug/l	
84-66-2	Diethyl phthalate	ND	4.8	0.58	ug/l	
131-11-3	Dimethyl phthalate	ND	4.8	1.2	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	0.53	1.9	0.47	ug/l	J
206-44-0	Fluoranthene	ND	4.8	0.21	ug/l	
86-73-7	Fluorene	ND	4.8	0.28	ug/l	
118-74-1	Hexachlorobenzene	ND	4.8	0.15	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	9.5	2.4	ug/l	
67-72-1	Hexachloroethane	ND	4.8	0.41	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	0.27	ug/l	
78-59-1	Isophorone	ND	4.8	0.45	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	0.53	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	0.29	ug/l	
88-74-4	2-Nitroaniline	ND	9.5	0.32	ug/l	
99-09-2	3-Nitroaniline	ND	9.5	0.31	ug/l	
100-01-6	4-Nitroaniline	ND	9.5	0.32	ug/l	
91-20-3	Naphthalene	ND	4.8	0.31	ug/l	
98-95-3	Nitrobenzene	ND	4.8	0.29	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	4.8	2.4	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	4.8	0.39	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	4.8	0.58	ug/l	
85-01-8	Phenanthrene	ND	4.8	0.24	ug/l	
129-00-0	Pyrene	ND	4.8	0.24	ug/l	
110-86-1	Pyridine	ND	9.5	0.48	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	53%		15-110%
4165-62-2	Phenol-d5	34%		15-110%
118-79-6	2,4,6-Tribromophenol	77%		15-110%
4165-60-0	Nitrobenzene-d5	80%		30-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4-PZ(G)I2-14-EB		
Lab Sample ID:	M99605-1	**Date Sampled:**	04/22/11
Matrix:	AQ - Equipment Blank	**Date Received:**	04/23/11
Method:	SW846 8270C SW846 3510C	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

ABN Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	83%		30-130%
1718-51-0	Terphenyl-d14	84%		30-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4-PZ(G)12-14		
Lab Sample ID:	M99605-2	Date Sampled:	04/22/11
Matrix:	SO - Soil	Date Received:	04/23/11
Method:	SW846 8260B	Percent Solids:	90.8
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P52873.D	1	05/05/11	AMY	n/a	n/a	MSP1750
Run #2							

	Initial Weight	Final Volume
Run #1	4.68 g	5.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	0.0059	0.0059	mg/kg	
107-02-8	Acrolein	ND	0.029	0.020	mg/kg	
107-13-1	Acrylonitrile	ND	0.0059	0.00093	mg/kg	
71-43-2	Benzene	ND	0.00059	0.00013	mg/kg	
108-86-1	Bromobenzene	ND	0.0059	0.00017	mg/kg	
74-97-5	Bromocbloromethane	ND	0.0059	0.00056	mg/kg	
75-27-4	Bromodichloromethane	ND	0.0024	0.00022	mg/kg	
75-25-2	Bromoform	ND	0.0024	0.0012	mg/kg	
74-83-9	Bromomethane	ND	0.0024	0.00041	mg/kg	
78-93-3	2-Butanone (MEK)	ND	0.0059	0.0017	mg/kg	
104-51-8	n-Butylbenzene	ND	0.0059	0.00050	mg/kg	
135-98-8	sec-Butylbenzene	ND	0.0059	0.00043	mg/kg	
98-06-6	tert-Butylbenzene	ND	0.0059	0.00026	mg/kg	
75-15-0	Carbon disulfide	ND	0.0059	0.00022	mg/kg	
56-23-5	Carbon tetrachloride	ND	0.0024	0.00022	mg/kg	
108-90-7	Chlorobenzene	ND	0.0024	0.00026	mg/kg	
75-00-3	Chloroethane	ND	0.0059	0.00038	mg/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	0.0059	0.0059	mg/kg	
67-66-3	Chloroform	ND	0.0024	0.00019	mg/kg	
74-87-3	Cbloromethane	ND	0.0059	0.00015	mg/kg	
95-49-8	o-Chlorotoluene	ND	0.0059	0.00022	mg/kg	
106-43-4	p-Chlorotoluene	ND	0.0059	0.00025	mg/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0059	0.00083	mg/kg	
124-48-1	Dibromochloromethane	ND	0.0024	0.0012	mg/kg	
106-93-4	1,2-Dibromoethane	ND	0.0024	0.00018	mg/kg	
95-50-1	1,2-Dichlorobenzene	ND	0.0024	0.00037	mg/kg	
541-73-1	1,3-Dichlorobenzene	ND	0.0024	0.00036	mg/kg	
106-46-7	1,4-Dichlorobenzene	ND	0.0024	0.00035	mg/kg	
75-71-8	Dichlorodifluoromethane	ND	0.0024	0.00024	mg/kg	
75-34-3	1,1-Dichloroethane	ND	0.0024	0.00020	mg/kg	
107-06-2	1,2-Dichloroethane	ND	0.0024	0.00014	mg/kg	
75-35-4	1,1-Dichloroethene	ND	0.0024	0.00016	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4-PZ(G)12-14		
Lab Sample ID:	M99605-2	Date Sampled:	04/22/11
Matrix:	SO - Soil	Date Received:	04/23/11
Method:	SW846 8260B	Percent Solids:	90.8
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-59-2	cis-1,2-Dichloroethene	ND	0.0024	0.00024	mg/kg	
156-60-5	trans-1,2-Dichloroethene	ND	0.0024	0.00022	mg/kg	
78-87-5	1,2-Dichloropropane	ND	0.0024	0.00020	mg/kg	
142-28-9	1,3-Dichloropropane	ND	0.0059	0.00013	mg/kg	
594-20-7	2,2-Dichloropropane	ND	0.0059	0.00023	mg/kg	
563-58-6	1,1-Dichloropropene	ND	0.0059	0.00025	mg/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0024	0.00059	mg/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0024	0.0012	mg/kg	
123-91-1	1,4-Dioxane	ND	0.029	0.0091	mg/kg	
97-63-2	Ethyl methacrylate	ND	0.0059	0.00015	mg/kg	
100-41-4	Ethylbenzene	ND	0.0024	0.00013	mg/kg	
87-68-3	Hexachlorobutadiene	ND	0.0059	0.00085	mg/kg	
591-78-6	2-Hexanone	ND	0.0059	0.0010	mg/kg	
98-82-8	Isopropylbenzene	ND	0.0059	0.00029	mg/kg	
99-87-6	p-Isopropyltoluene	ND	0.0059	0.00045	mg/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	0.0024	0.00015	mg/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	0.0059	0.0012	mg/kg	
74-95-3	Methylene bromide	ND	0.0059	0.0012	mg/kg	
75-09-2	Methylene chloride	ND	0.0024	0.00019	mg/kg	
91-20-3	Naphthalene	ND	0.0059	0.00059	mg/kg	
103-65-1	n-Propylbenzene	ND	0.0059	0.00033	mg/kg	
100-42-5	Styrene	ND	0.0059	0.00019	mg/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0059	0.00020	mg/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.0024	0.00021	mg/kg	
127-18-4	Tetrachloroethene	ND	0.0024	0.00020	mg/kg	
108-88-3	Toluene	ND	0.0059	0.00021	mg/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	0.0059	0.00090	mg/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0059	0.00060	mg/kg	
71-55-6	1,1,1-Trichloroethane	ND	0.0024	0.00015	mg/kg	
79-00-5	1,1,2-Trichloroethane	ND	0.0024	0.00015	mg/kg	
79-01-6	Trichloroethene	ND	0.0024	0.00024	mg/kg	
75-69-4	Trichlorofluoromethane	ND	0.0024	0.00018	mg/kg	
96-18-4	1,2,3-Trichloropropane	ND	0.0059	0.00019	mg/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	0.0059	0.00030	mg/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	0.0059	0.00025	mg/kg	
108-05-4	Vinyl Acetate	ND	0.0059	0.0032	mg/kg	
75-01-4	Vinyl chloride	ND	0.0024	0.00031	mg/kg	
	m,p-Xylene	ND	0.0024	0.00041	mg/kg	
95-47-6	o-Xylene	ND	0.0024	0.00016	mg/kg	
1330-20-7	Xylene (total)	ND	0.0024	0.00016	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4-PZ(G)12-14		
Lab Sample ID:	M99605-2	**Date Sampled:**	04/22/11
Matrix:	SO - Soil	**Date Received:**	04/23/11
Method:	SW846 8260B	**Percent Solids:**	90.8
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	115%		70-130%
2037-26-5	Toluene-D8	117%		70-130%
460-00-4	4-Bromofluorobenzene	116%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4-PZ(G)12-14		
Lab Sample ID:	M99605-2	Date Sampled:	04/22/11
Matrix:	SO - Soil	Date Received:	04/23/11
Method:	SW846 8270C SW846 3546	Percent Solids:	90.8
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	S23572.D	1	05/04/11	PR	05/02/11	OP24800	MSS999
Run #2							

	Initial Weight	Final Volume
Run #1	20.6 g	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic acid	ND	0.53	0.042	mg/kg	
95-57-8	2-Chlorophenol	ND	0.27	0.014	mg/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	0.53	0.019	mg/kg	
120-83-2	2,4-Dichlorophenol	ND	0.53	0.031	mg/kg	
105-67-9	2,4-Dimethylphenol	ND	0.53	0.053	mg/kg	
51-28-5	2,4-Dinitrophenol	ND	1.1	0.27	mg/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	0.53	0.27	mg/kg	
95-48-7	2-Methylphenol	ND	0.53	0.015	mg/kg	
	3&4-Methylphenol	ND	0.53	0.028	mg/kg	
88-75-5	2-Nitrophenol	ND	0.53	0.032	mg/kg	
100-02-7	4-Nitrophenol	ND	1.1	0.27	mg/kg	
87-86-5	Pentachlorophenol	ND	0.53	0.050	mg/kg	
108-95-2	Phenol	ND	0.27	0.044	mg/kg	
95-95-4	2,4,5-Trichlorophenol	ND	0.53	0.040	mg/kg	
88-06-2	2,4,6-Trichlorophenol	ND	0.53	0.037	mg/kg	
83-32-9	Acenaphthene	ND	0.27	0.023	mg/kg	
208-96-8	Acenaphthylene	ND	0.27	0.020	mg/kg	
62-53-3	Aniline	ND	0.53	0.53	mg/kg	
120-12-7	Anthracene	ND	0.27	0.021	mg/kg	
56-55-3	Benzo(a)anthracene	ND	0.27	0.0098	mg/kg	
50-32-8	Benzo(a)pyrene	ND	0.27	0.016	mg/kg	
205-99-2	Benzo(b)fluoranthene	ND	0.27	0.031	mg/kg	
191-24-2	Benzo(g,h,i)perylene	ND	0.27	0.017	mg/kg	
207-08-9	Benzo(k)fluoranthene	ND	0.27	0.0079	mg/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	0.27	0.022	mg/kg	
85-68-7	Butyl benzyl phthalate	ND	0.27	0.011	mg/kg	
100-51-6	Benzyl Alcohol	ND	0.53	0.033	mg/kg	
91-58-7	2-Chloronaphthalene	ND	0.27	0.022	mg/kg	
106-47-8	4-Chloroaniline	ND	0.53	0.13	mg/kg	
218-01-9	Chrysene	ND	0.27	0.0087	mg/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	0.27	0.021	mg/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	0.27	0.0057	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4-PZ(G)12-14		
Lab Sample ID:	M99605-2	Date Sampled:	04/22/11
Matrix:	SO - Soil	Date Received:	04/23/11
Method:	SW846 8270C SW846 3546	Percent Solids:	90.8
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
108-60-1	bis(2-Chloroisopropyl)ether	ND	0.27	0.025	mg/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	0.27	0.024	mg/kg	
122-66-7	1,2-Diphenylhydrazine	ND	0.27	0.022	mg/kg	
121-14-2	2,4-Dinitrotoluene	ND	0.53	0.13	mg/kg	
606-20-2	2,6-Dinitrotoluene	ND	0.53	0.026	mg/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	0.27	0.0064	mg/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	0.27	0.017	mg/kg	
132-64-9	Dibenzofuran	ND	0.27	0.023	mg/kg	
84-74-2	Di-n-butyl phthalate	ND	0.27	0.024	mg/kg	
117-84-0	Di-n-octyl phthalate	ND	0.27	0.014	mg/kg	
84-66-2	Diethyl phthalate	ND	0.27	0.023	mg/kg	
131-11-3	Dimethyl phthalate	ND	0.27	0.019	mg/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	0.0291	0.27	0.018	mg/kg	J
206-44-0	Fluoranthene	ND	0.27	0.0091	mg/kg	
86-73-7	Fluorene	ND	0.27	0.0059	mg/kg	
118-74-1	Hexachlorobenzene	ND	0.27	0.023	mg/kg	
77-47-4	Hexachlorocyclopentadiene	ND UJ	0.53	0.0036	mg/kg	UJ
67-72-1	Hexachloroethane	ND	0.27	0.022	mg/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.27	0.016	mg/kg	
78-59-1	Isophorone	ND	0.27	0.026	mg/kg	
90-12-0	1-Methylnaphthalene	ND	0.27	0.27	mg/kg	
91-57-6	2-Methylnaphthalene	ND	0.27	0.022	mg/kg	
88-74-4	2-Nitroaniline	ND	0.53	0.13	mg/kg	
99-09-2	3-Nitroaniline	ND	0.53	0.13	mg/kg	
100-01-6	4-Nitroaniline	ND	0.53	0.020	mg/kg	
91-20-3	Naphthalene	ND	0.27	0.0062	mg/kg	
98-95-3	Nitrobenzene	ND	0.27	0.0079	mg/kg	
62-75-9	n-Nitrosodimethylamine	ND	0.27	0.022	mg/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	0.27	0.017	mg/kg	
86-30-6	N-Nitrosodiphenylamine	ND	0.27	0.014	mg/kg	
85-01-8	Phenanthrene	ND	0.27	0.0069	mg/kg	
129-00-0	Pyrene	ND	0.27	0.0086	mg/kg	
110-86-1	Pyridine	ND	0.53	0.53	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	85%		30-130%
4165-62-2	Phenol-d5	84%		30-130%
118-79-6	2,4,6-Tribromophenol	75%		30-130%
4165-60-0	Nitrobenzene-d5	97%		30-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4-PZ(G)12-14		
Lab Sample ID:	M99605-2	Date Sampled:	04/22/11
Matrix:	SO - Soil	Date Received:	04/23/11
Method:	SW846 8270C SW846 3546	Percent Solids:	90.8
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

ABN Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	79%		30-130%
1718-51-0	Terphenyl-d14	102%		30-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4-PZ(G)34-36		
Lab Sample ID:	M99605-3	**Date Sampled:**	04/22/11
Matrix:	SO - Soil	**Date Received:**	04/23/11
Method:	SW846 8260B	**Percent Solids:**	91.4
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P52874.D	1	05/05/11	AMY	n/a	n/a	MSP1750
Run #2							

	Initial Weight	Final Volume
Run #1	5.06 g	5.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	0.0054	0.0054	mg/kg	
107-02-8	Acrolein	ND	0.027	0.018	mg/kg	
107-13-1	Acrylonitrile	ND	0.0054	0.00086	mg/kg	
71-43-2	Benzene	0.0024	0.00054	0.00012	mg/kg	
108-86-1	Bromobenzene	ND	0.0054	0.00016	mg/kg	
74-97-5	Bromochloromethane	ND	0.0054	0.00052	mg/kg	
75-27-4	Bromodichloromethane	ND	0.0022	0.00020	mg/kg	
75-25-2	Bromoform	ND	0.0022	0.0011	mg/kg	
74-83-9	Bromomethane	ND	0.0022	0.00037	mg/kg	
78-93-3	2-Butanone (MEK)	ND	0.0054	0.0016	mg/kg	
104-51-8	n-Butylbenzene	ND	0.0054	0.00046	mg/kg	
135-98-8	sec-Butylbenzene	ND	0.0054	0.00039	mg/kg	
98-06-6	tert-Butylbenzene	ND	0.0054	0.00024	mg/kg	
75-15-0	Carbon disulfide	ND	0.0054	0.00020	mg/kg	
56-23-5	Carbon tetrachloride	ND	0.0022	0.00020	mg/kg	
108-90-7	Chlorobenzene	ND	0.0022	0.00024	mg/kg	
75-00-3	Chloroethane	ND	0.0054	0.00035	mg/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	0.0054	0.0054	mg/kg	
67-66-3	Chloroform	ND	0.0022	0.00017	mg/kg	
74-87-3	Chloromethane	ND	0.0054	0.00014	mg/kg	
95-49-8	o-Chlorotoluene	ND	0.0054	0.00020	mg/kg	
106-43-4	p-Chlorotoluene	ND	0.0054	0.00023	mg/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0054	0.00076	mg/kg	
124-48-1	Dibromochloromethane	ND	0.0022	0.0011	mg/kg	
106-93-4	1,2-Dibromoethane	ND	0.0022	0.00016	mg/kg	
95-50-1	1,2-Dichlorobenzene	ND	0.0022	0.00034	mg/kg	
541-73-1	1,3-Dichlorobenzene	ND	0.0022	0.00033	mg/kg	
106-46-7	1,4-Dichlorobenzene	ND	0.0022	0.00032	mg/kg	
75-71-8	Dichlorodifluoromethane	ND	0.0022	0.00022	mg/kg	
75-34-3	1,1-Dichloroethane	ND	0.0022	0.00018	mg/kg	
107-06-2	1,2-Dichloroethane	ND	0.0022	0.00013	mg/kg	
75-35-4	1,1-Dichloroethene	ND	0.0022	0.00015	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4-PZ(G)34-36		
Lab Sample ID:	M99605-3	**Date Sampled:**	04/22/11
Matrix:	SO - Soil	**Date Received:**	04/23/11
Method:	SW846 8260B	**Percent Solids:**	91.4
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-59-2	cis-1,2-Dichloroethene	ND	0.0022	0.00022	mg/kg	
156-60-5	trans-1,2-Dichloroethene	ND	0.0022	0.00020	mg/kg	
78-87-5	1,2-Dichloropropane	ND	0.0022	0.00019	mg/kg	
142-28-9	1,3-Dichloropropane	ND	0.0054	0.00012	mg/kg	
594-20-7	2,2-Dichloropropane	ND	0.0054	0.00021	mg/kg	
563-58-6	1,1-Dichloropropene	ND	0.0054	0.00023	mg/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0022	0.00054	mg/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0022	0.0011	mg/kg	
123-91-1	1,4-Dioxane	ND	0.027	0.0084	mg/kg	
97-63-2	Ethyl methacrylate	ND	0.0054	0.00014	mg/kg	
100-41-4	Ethylbenzene	0.0039	0.0022	0.00012	mg/kg	
87-68-3	Hexachlorobutadiene	ND	0.0054	0.00078	mg/kg	
591-78-6	2-Hexanone	ND	0.0054	0.00093	mg/kg	
98-82-8	Isopropylbenzene	ND	0.0054	0.00027	mg/kg	
99-87-6	p-Isopropyltoluene	ND	0.0054	0.00042	mg/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	0.0022	0.00014	mg/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	0.0054	0.0011	mg/kg	
74-95-3	Methylene bromide	ND	0.0054	0.0011	mg/kg	
75-09-2	Methylene chloride	ND	0.0022	0.00018	mg/kg	
91-20-3	Naphthalene	ND	0.0054	0.00054	mg/kg	
103-65-1	n-Propylbenzene	ND	0.0054	0.00030	mg/kg	
100-42-5	Styrene	ND	0.0054	0.00018	mg/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0054	0.00018	mg/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.0022	0.00019	mg/kg	
127-18-4	Tetrachloroethene	ND	0.0022	0.00018	mg/kg	
108-88-3	Toluene	0.0046	0.0054	0.00019	mg/kg	J
87-61-6	1,2,3-Trichlorobenzene	ND	0.0054	0.00083	mg/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0054	0.00055	mg/kg	
71-55-6	1,1,1-Trichloroethane	ND	0.0022	0.00014	mg/kg	
79-00-5	1,1,2-Trichloroethane	ND	0.0022	0.00014	mg/kg	
79-01-6	Trichloroethene	ND	0.0022	0.00022	mg/kg	
75-69-4	Trichlorofluoromethane	ND	0.0022	0.00017	mg/kg	
96-18-4	1,2,3-Trichloropropane	ND	0.0054	0.00018	mg/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	0.0054	0.00028	mg/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	0.0054	0.00023	mg/kg	
108-05-4	Vinyl Acetate	ND	0.0054	0.0029	mg/kg	
75-01-4	Vinyl chloride	ND	0.0022	0.00029	mg/kg	
	m,p-Xylene	0.0021	0.0022	0.00038	mg/kg	J
95-47-6	o-Xylene	0.00064	0.0022	0.00014	mg/kg	J
1330-20-7	Xylene (total)	0.0028	0.0022	0.00014	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4-PZ(G)34-36		
Lab Sample ID:	M99605-3	**Date Sampled:**	04/22/11
Matrix:	SO - Soil	**Date Received:**	04/23/11
Method:	SW846 8260B	**Percent Solids:**	91.4
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	120%		70-130%
2037-26-5	Toluene-D8	126%		70-130%
460-00-4	4-Bromofluorobenzene	122%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4-PZ(G)34-36		
Lab Sample ID:	M99605-3	Date Sampled:	04/22/11
Matrix:	SO - Soil	Date Received:	04/23/11
Method:	SW846 8270C SW846 3546	Percent Solids:	91.4
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	S23573.D	1	05/04/11	PR	05/02/11	OP24800	MSS999
Run #2							

	Initial Weight	Final Volume
Run #1	20.5 g	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic acid	ND	0.53	0.041	mg/kg	
95-57-8	2-Chlorophenol	ND	0.27	0.014	mg/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	0.53	0.019	mg/kg	
120-83-2	2,4-Dichlorophenol	ND	0.53	0.031	mg/kg	
105-67-9	2,4-Dimethylphenol	ND	0.53	0.053	mg/kg	
51-28-5	2,4-Dinitrophenol	ND	1.1	0.27	mg/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	0.53	0.27	mg/kg	
95-48-7	2-Methylphenol	ND	0.53	0.015	mg/kg	
	3&4-Methylphenol	ND	0.53	0.028	mg/kg	
88-75-5	2-Nitrophenol	ND	0.53	0.032	mg/kg	
100-02-7	4-Nitrophenol	ND	1.1	0.27	mg/kg	
87-86-5	Pentachlorophenol	ND	0.53	0.050	mg/kg	
108-95-2	Phenol	ND	0.27	0.044	mg/kg	
95-95-4	2,4,5-Trichlorophenol	ND	0.53	0.040	mg/kg	
88-06-2	2,4,6-Trichlorophenol	ND	0.53	0.037	mg/kg	
83-32-9	Acenaphthene	ND	0.27	0.023	mg/kg	
208-96-8	Acenaphthylene	ND	0.27	0.020	mg/kg	
62-53-3	Aniline	ND	0.53	0.53	mg/kg	
120-12-7	Anthracene	ND	0.27	0.021	mg/kg	
56-55-3	Benzo(a)anthracene	ND	0.27	0.0098	mg/kg	
50-32-8	Benzo(a)pyrene	ND	0.27	0.016	mg/kg	
205-99-2	Benzo(b)fluoranthene	ND	0.27	0.031	mg/kg	
191-24-2	Benzo(g,h,i)perylene	ND	0.27	0.017	mg/kg	
207-08-9	Benzo(k)fluoranthene	ND	0.27	0.0079	mg/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	0.27	0.022	mg/kg	
85-68-7	Butyl benzyl phthalate	ND	0.27	0.011	mg/kg	
100-51-6	Benzyl Alcohol	ND	0.53	0.033	mg/kg	
91-58-7	2-Chloronaphthalene	ND	0.27	0.022	mg/kg	
106-47-8	4-Chloroaniline	ND	0.53	0.13	mg/kg	
218-01-9	Chrysene	ND	0.27	0.0087	mg/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	0.27	0.021	mg/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	0.27	0.0057	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4-PZ(G)34-36		
Lab Sample ID:	M99605-3	Date Sampled:	04/22/11
Matrix:	SO - Soil	Date Received:	04/23/11
Method:	SW846 8270C SW846 3546	Percent Solids:	91.4
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
108-60-1	bis(2-Chloroisopropyl)ether	ND	0.27	0.025	mg/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	0.27	0.024	mg/kg	
122-66-7	1,2-Diphenylhydrazine	ND	0.27	0.022	mg/kg	
121-14-2	2,4-Dinitrotoluene	ND	0.53	0.13	mg/kg	
606-20-2	2,6-Dinitrotoluene	ND	0.53	0.026	mg/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	0.27	0.0064	mg/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	0.27	0.017	mg/kg	
132-64-9	Dibenzofuran	ND	0.27	0.023	mg/kg	
84-74-2	Di-n-butyl phthalate	ND	0.27	0.024	mg/kg	
117-84-0	Di-n-octyl phthalate	ND	0.27	0.014	mg/kg	
84-66-2	Diethyl phthalate	ND	0.27	0.023	mg/kg	
131-11-3	Dimethyl phthalate	~~ND~~	0.27	0.019	mg/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	0.0234	0.27	0.018	mg/kg	J
206-44-0	Fluoranthene	~~ND~~	0.27	0.0091	mg/kg	
86-73-7	Fluorene	ND	0.27	0.0059	mg/kg	
118-74-1	Hexachlorobenzene	ND	0.27	0.023	mg/kg	
77-47-4	Hexachlorocyclopentadiene	ND UJ	0.53	0.0036	mg/kg	UJ
67-72-1	Hexachloroethane	ND	0.27	0.022	mg/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.27	0.016	mg/kg	
78-59-1	Isophorone	ND	0.27	0.026	mg/kg	
90-12-0	1-Methylnaphthalene	ND	0.27	0.27	mg/kg	
91-57-6	2-Methylnaphthalene	ND	0.27	0.022	mg/kg	
88-74-4	2-Nitroaniline	ND	0.53	0.13	mg/kg	
99-09-2	3-Nitroaniline	ND	0.53	0.13	mg/kg	
100-01-6	4-Nitroaniline	ND	0.53	0.020	mg/kg	
91-20-3	Naphthalene	ND	0.27	0.0062	mg/kg	
98-95-3	Nitrobenzene	ND	0.27	0.0079	mg/kg	
62-75-9	n-Nitrosodimethylamine	ND	0.27	0.022	mg/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	0.27	0.017	mg/kg	
86-30-6	N-Nitrosodiphenylamine	ND	0.27	0.014	mg/kg	
85-01-8	Phenanthrene	ND	0.27	0.0069	mg/kg	
129-00-0	Pyrene	ND	0.27	0.0086	mg/kg	
110-86-1	Pyridine	ND	0.53	0.53	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	80%		30-130%
4165-62-2	Phenol-d5	80%		30-130%
118-79-6	2,4,6-Tribromophenol	73%		30-130%
4165-60-0	Nitrobenzene-d5	92%		30-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4-PZ(G)34-36		
Lab Sample ID:	M99605-3	Date Sampled:	04/22/11
Matrix:	SO - Soil	Date Received:	04/23/11
Method:	SW846 8270C SW846 3546	Percent Solids:	91.4
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

ABN Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	74%		30-130%
1718-51-0	Terphenyl-d14	95%		30-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4-PZ(G)34-36-D		
Lab Sample ID:	M99605-4	Date Sampled:	04/22/11
Matrix:	SO - Soil	Date Received:	04/23/11
Method:	SW846 8260B	Percent Solids:	82.8
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P52876.D	1	05/05/11	AMY	n/a	n/a	MSP1750
Run #2							

	Initial Weight	Final Volume
Run #1	5.02 g	5.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	0.0060	0.0060	mg/kg	
107-02-8	Acrolein	ND	0.030	0.020	mg/kg	
107-13-1	Acrylonitrile	ND	0.0060	0.00096	mg/kg	
71-43-2	Benzene	0.0019	0.00060	0.00013	mg/kg	
108-86-1	Bromobenzene	ND	0.0060	0.00018	mg/kg	
74-97-5	Bromochloromethane	ND	0.0060	0.00057	mg/kg	
75-27-4	Bromodichloromethane	ND	0.0024	0.00022	mg/kg	
75-25-2	Bromoform	ND	0.0024	0.0012	mg/kg	
74-83-9	Bromomethane	ND	0.0024	0.00042	mg/kg	
78-93-3	2-Butanone (MEK)	ND	0.0060	0.0018	mg/kg	
104-51-8	n-Butylbenzene	ND	0.0060	0.00051	mg/kg	
135-98-8	sec-Butylbenzene	ND	0.0060	0.00044	mg/kg	
98-06-6	tert-Butylbenzene	ND	0.0060	0.00027	mg/kg	
75-15-0	Carbon disulfide	ND	0.0060	0.00022	mg/kg	
56-23-5	Carbon tetrachloride	ND	0.0024	0.00023	mg/kg	
108-90-7	Chlorobenzene	ND	0.0024	0.00026	mg/kg	
75-00-3	Chloroethane	ND	0.0060	0.00039	mg/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	0.0060	0.0060	mg/kg	
67-66-3	Chloroform	ND	0.0024	0.00019	mg/kg	
74-87-3	Chloromethane	ND	0.0060	0.00015	mg/kg	
95-49-8	o-Chlorotoluene	ND	0.0060	0.00023	mg/kg	
106-43-4	p-Chlorotoluene	ND	0.0060	0.00026	mg/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0060	0.00085	mg/kg	
124-48-1	Dibromochloromethane	ND	0.0024	0.0012	mg/kg	
106-93-4	1,2-Dibromoethane	ND	0.0024	0.00018	mg/kg	
95-50-1	1,2-Dichlorobenzene	ND	0.0024	0.00038	mg/kg	
541-73-1	1,3-Dichlorobenzene	ND	0.0024	0.00037	mg/kg	
106-46-7	1,4-Dichlorobenzene	ND	0.0024	0.00035	mg/kg	
75-71-8	Dichlorodifluoromethane	ND	0.0024	0.00024	mg/kg	
75-34-3	1,1-Dichloroethane	ND	0.0024	0.00020	mg/kg	
107-06-2	1,2-Dichloroethane	ND	0.0024	0.00014	mg/kg	
75-35-4	1,1-Dichloroethene	ND	0.0024	0.00016	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4-PZ(G)34-36-D		
Lab Sample ID:	M99605-4	Date Sampled:	04/22/11
Matrix:	SO - Soil	Date Received:	04/23/11
Method:	SW846 8260B	Percent Solids:	82.8
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-59-2	cis-1,2-Dichloroethene	ND	0.0024	0.00024	mg/kg	
156-60-5	trans-1,2-Dichloroethene	ND	0.0024	0.00023	mg/kg	
78-87-5	1,2-Dichloropropane	ND	0.0024	0.00021	mg/kg	
142-28-9	1,3-Dichloropropane	ND	0.0060	0.00013	mg/kg	
594-20-7	2,2-Dichloropropane	ND	0.0060	0.00023	mg/kg	
563-58-6	1,1-Dichloropropene	ND	0.0060	0.00025	mg/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0024	0.00060	mg/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0024	0.0012	mg/kg	
123-91-1	1,4-Dioxane	ND	0.030	0.0093	mg/kg	
97-63-2	Ethyl methacrylate	ND	0.0060	0.00015	mg/kg	
100-41-4	Ethylbenzene	0.0054	0.0024	0.00013	mg/kg	
87-68-3	Hexachlorobutadiene	ND	0.0060	0.00087	mg/kg	
591-78-6	2-Hexanone	ND	0.0060	0.0010	mg/kg	
98-82-8	Isopropylbenzene	ND	0.0060	0.00030	mg/kg	
99-87-6	p-Isopropyltoluene	ND	0.0060	0.00046	mg/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	0.0024	0.00016	mg/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	0.0060	0.0012	mg/kg	
74-95-3	Methylene bromide	ND	0.0060	0.0012	mg/kg	
75-09-2	Methylene chloride	ND	0.0024	0.00020	mg/kg	
91-20-3	Naphthalene	ND	0.0060	0.00060	mg/kg	
103-65-1	n-Propylbenzene	ND	0.0060	0.00034	mg/kg	
100-42-5	Styrene	ND	0.0060	0.00019	mg/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0060	0.00020	mg/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.0024	0.00021	mg/kg	
127-18-4	Tetrachloroethene	ND	0.0024	0.00020	mg/kg	
108-88-3	Toluene	0.0057	0.0060	0.00021	mg/kg	J
87-61-6	1,2,3-Trichlorobenzene	ND	0.0060	0.00092	mg/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0060	0.00061	mg/kg	
71-55-6	1,1,1-Trichloroethane	ND	0.0024	0.00016	mg/kg	
79-00-5	1,1,2-Trichloroethane	ND	0.0024	0.00015	mg/kg	
79-01-6	Trichloroethene	ND	0.0024	0.00025	mg/kg	
75-69-4	Trichlorofluoromethane	ND	0.0024	0.00019	mg/kg	
96-18-4	1,2,3-Trichloropropane	ND	0.0060	0.00020	mg/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	0.0060	0.00031	mg/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	0.0060	0.00026	mg/kg	
108-05-4	Vinyl Acetate	ND	0.0060	0.0033	mg/kg	
75-01-4	Vinyl chloride	ND	0.0024	0.00032	mg/kg	
	m,p-Xylene	0.0016	0.0024	0.00042	mg/kg	J
95-47-6	o-Xylene	0.00069	0.0024	0.00016	mg/kg	J
1330-20-7	Xylene (total)	0.0023	0.0024	0.00016	mg/kg	J

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4-PZ(G)34-36-D		
Lab Sample ID:	M99605-4	Date Sampled:	04/22/11
Matrix:	SO - Soil	Date Received:	04/23/11
Method:	SW846 8260B	Percent Solids:	82.8
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	123%		70-130%
2037-26-5	Toluene-D8	124%		70-130%
460-00-4	4-Bromofluorobenzene	122%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4-PZ(G)34-36-D		
Lab Sample ID:	M99605-4	Date Sampled:	04/22/11
Matrix:	SO - Soil	Date Received:	04/23/11
Method:	SW846 8270C SW846 3546	Percent Solids:	82.8
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	S23574.D	1	05/04/11	PR	05/02/11	OP24800	MSS999
Run #2							

	Initial Weight	Final Volume
Run #1	20.7 g	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic acid	ND	0.58	0.045	mg/kg	
95-57-8	2-Chlorophenol	ND	0.29	0.016	mg/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	0.58	0.020	mg/kg	
120-83-2	2,4-Dichlorophenol	ND	0.58	0.034	mg/kg	
105-67-9	2,4-Dimethylphenol	ND	0.58	0.058	mg/kg	
51-28-5	2,4-Dinitrophenol	ND	1.2	0.29	mg/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	0.58	0.29	mg/kg	
95-48-7	2-Methylphenol	ND	0.58	0.017	mg/kg	
	3&4-Methylphenol	ND	0.58	0.031	mg/kg	
88-75-5	2-Nitrophenol	ND	0.58	0.035	mg/kg	
100-02-7	4-Nitrophenol	ND	1.2	0.29	mg/kg	
87-86-5	Pentachlorophenol	ND	0.58	0.054	mg/kg	
108-95-2	Phenol	ND	0.29	0.048	mg/kg	
95-95-4	2,4,5-Trichlorophenol	ND	0.58	0.043	mg/kg	
88-06-2	2,4,6-Trichlorophenol	ND	0.58	0.040	mg/kg	
83-32-9	Acenaphthene	ND	0.29	0.025	mg/kg	
208-96-8	Acenaphthylene	ND	0.29	0.022	mg/kg	
62-53-3	Aniline	ND	0.58	0.58	mg/kg	
120-12-7	Anthracene	ND	0.29	0.023	mg/kg	
56-55-3	Benzo(a)anthracene	ND	0.29	0.011	mg/kg	
50-32-8	Benzo(a)pyrene	ND	0.29	0.017	mg/kg	
205-99-2	Benzo(b)fluoranthene	ND	0.29	0.034	mg/kg	
191-24-2	Benzo(g,h,i)perylene	ND	0.29	0.019	mg/kg	
207-08-9	Benzo(k)fluoranthene	ND	0.29	0.0086	mg/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	0.29	0.024	mg/kg	
85-68-7	Butyl benzyl phthalate	ND	0.29	0.012	mg/kg	
100-51-6	Benzyl Alcohol	ND	0.58	0.035	mg/kg	
91-58-7	2-Chloronaphthalene	ND	0.29	0.024	mg/kg	
106-47-8	4-Chloroaniline	ND	0.58	0.15	mg/kg	
218-01-9	Chrysene	ND	0.29	0.0095	mg/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	0.29	0.023	mg/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	0.29	0.0062	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4-PZ(G)34-36-D		
Lab Sample ID:	M99605-4	Date Sampled:	04/22/11
Matrix:	SO - Soil	Date Received:	04/23/11
Method:	SW846 8270C SW846 3546	Percent Solids:	82.8
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
108-60-1	bis(2-Chloroisopropyl)ether	ND	0.29	0.028	mg/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	0.29	0.026	mg/kg	
122-66-7	1,2-Diphenylhydrazine	ND	0.29	0.024	mg/kg	
121-14-2	2,4-Dinitrotoluene	ND	0.58	0.15	mg/kg	
606-20-2	2,6-Dinitrotoluene	ND	0.58	0.028	mg/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	0.29	0.0070	mg/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	0.29	0.019	mg/kg	
132-64-9	Dibenzofuran	ND	0.29	0.025	mg/kg	
84-74-2	Di-n-butyl phthalate	ND	0.29	0.027	mg/kg	
117-84-0	Di-n-octyl phthalate	ND	0.29	0.015	mg/kg	
84-66-2	Diethyl phthalate	ND	0.29	0.025	mg/kg	
131-11-3	Dimethyl phthalate	ND	0.29	0.020	mg/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	0.0237	0.29	0.020	mg/kg	J
206-44-0	Fluoranthene	ND	0.29	0.0099	mg/kg	
86-73-7	Fluorene	ND	0.29	0.0064	mg/kg	
118-74-1	Hexachlorobenzene	ND	0.29	0.025	mg/kg	
77-47-4	Hexachlorocyclopentadiene	ND UJ	0.58	0.0039	mg/kg	UJ
67-72-1	Hexacbloroethane	ND	0.29	0.024	mg/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.29	0.018	mg/kg	
78-59-1	Isophorone	ND	0.29	0.029	mg/kg	
90-12-0	1-Methylnaphthalene	ND	0.29	0.29	mg/kg	
91-57-6	2-Methylnaphthalene	ND	0.29	0.024	mg/kg	
88-74-4	2-Nitroaniline	ND	0.58	0.15	mg/kg	
99-09-2	3-Nitroaniline	ND	0.58	0.15	mg/kg	
100-01-6	4-Nitroaniline	ND	0.58	0.022	mg/kg	
91-20-3	Naphthalene	ND	0.29	0.0068	mg/kg	
98-95-3	Nitrobenzene	ND	0.29	0.0086	mg/kg	
62-75-9	n-Nitrosodimethylamine	ND	0.29	0.024	mg/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	0.29	0.018	mg/kg	
86-30-6	N-Nitrosodiphenylamine	ND	0.29	0.016	mg/kg	
85-01-8	Phenanthrene	ND	0.29	0.0075	mg/kg	
129-00-0	Pyrene	ND	0.29	0.0094	mg/kg	
110-86-1	Pyridine	ND	0.58	0.58	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	80%		30-130%
4165-62-2	Phenol-d5	79%		30-130%
118-79-6	2,4,6-Tribromophenol	72%		30-130%
4165-60-0	Nitrobenzene-d5	92%		30-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4-PZ(G)34-36-D		
Lab Sample ID:	M99605-4	**Date Sampled:**	04/22/11
Matrix:	SO - Soil	**Date Received:**	04/23/11
Method:	SW846 8270C SW846 3546	**Percent Solids:**	82.8
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

ABN Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	75%		30-130%
1718-51-0	Terphenyl-d14	93%		30-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4-PZ(G)26-28		
Lab Sample ID:	M99605-5	Date Sampled:	04/22/11
Matrix:	SO - Soil	Date Received:	04/23/11
Method:	SW846 8260B	Percent Solids:	87.4
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P52877.D	1	05/05/11	AMY	n/a	n/a	MSP1750
Run #2							

	Initial Weight	Final Volume
Run #1	5.40 g	5.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	0.0053	0.0053	mg/kg	
107-02-8	Acrolein	ND	0.026	0.018	mg/kg	
107-13-1	Acrylonitrile	ND	0.0053	0.00084	mg/kg	
71-43-2	Benzene	0.0015	0.00053	0.00012	mg/kg	
108-86-1	Bromobenzene	ND	0.0053	0.00015	mg/kg	
74-97-5	Bromochloromethane	ND	0.0053	0.00051	mg/kg	
75-27-4	Bromodichloromethane	ND	0.0021	0.00020	mg/kg	
75-25-2	Bromoform	ND	0.0021	0.0011	mg/kg	
74-83-9	Bromomethane	ND	0.0021	0.00037	mg/kg	
78-93-3	2-Butanone (MEK)	ND	0.0053	0.0016	mg/kg	
104-51-8	n-Butylbenzene	ND	0.0053	0.00045	mg/kg	
135-98-8	sec-Butylbenzene	ND	0.0053	0.00038	mg/kg	
98-06-6	tert-Butylhenzene	ND	0.0053	0.00024	mg/kg	
75-15-0	Carbon disulfide	0.0199	0.0053	0.00020	mg/kg	
56-23-5	Carbon tetrachloride	ND	0.0021	0.00020	mg/kg	
108-90-7	Chlorohenzene	ND	0.0021	0.00023	mg/kg	
75-00-3	Chloroethane	ND	0.0053	0.00034	mg/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	0.0053	0.0053	mg/kg	
67-66-3	Chloroform	ND	0.0021	0.00017	mg/kg	
74-87-3	Chloromethane	ND	0.0053	0.00014	mg/kg	
95-49-8	o-Chlorotoluene	ND	0.0053	0.00020	mg/kg	
106-43-4	p-Chlorotoluene	ND	0.0053	0.00023	mg/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0053	0.00075	mg/kg	
124-48-1	Dibromochloromethane	ND	0.0021	0.0011	mg/kg	
106-93-4	1,2-Dibromoethane	ND	0.0021	0.00016	mg/kg	
95-50-1	1,2-Dichlorobenzene	ND	0.0021	0.00033	mg/kg	
541-73-1	1,3-Dichlorobenzene	ND	0.0021	0.00032	mg/kg	
106-46-7	1,4-Dichlorobenzene	ND	0.0021	0.00031	mg/kg	
75-71-8	Dichlorodifluoromethane	ND	0.0021	0.00021	mg/kg	
75-34-3	1,1-Dichloroethane	ND	0.0021	0.00018	mg/kg	
107-06-2	1,2-Dichloroethane	ND	0.0021	0.00012	mg/kg	
75-35-4	1,1-Dichloroethene	ND	0.0021	0.00014	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4-PZ(G)26-28		
Lab Sample ID:	M99605-5	Date Sampled:	04/22/11
Matrix:	SO - Soil	Date Received:	04/23/11
Method:	SW846 8260B	Percent Solids:	87.4
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-59-2	cis-1,2-Dichloroethene	ND	0.0021	0.00021	mg/kg	
156-60-5	trans-1,2-Dichloroethene	ND	0.0021	0.00020	mg/kg	
78-87-5	1,2-Dichloropropane	ND	0.0021	0.00018	mg/kg	
142-28-9	1,3-Dichloropropane	ND	0.0053	0.00011	mg/kg	
594-20-7	2,2-Dichloropropane	ND	0.0053	0.00021	mg/kg	
563-58-6	1,1-Dichloropropene	ND	0.0053	0.00022	mg/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0021	0.00053	mg/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0021	0.0011	mg/kg	
123-91-1	1,4-Dioxane	ND	0.026	0.0082	mg/kg	
97-63-2	Ethyl methacrylate	ND	0.0053	0.00013	mg/kg	
100-41-4	Ethylbenzene	0.0050	0.0021	0.00012	mg/kg	
87-68-3	Hexachlorobutadiene	ND	0.0053	0.00076	mg/kg	
591-78-6	2-Hexanone	ND	0.0053	0.00091	mg/kg	
98-82-8	Isopropylbenzene	ND	0.0053	0.00026	mg/kg	
99-87-6	p-Isopropyltoluene	ND	0.0053	0.00041	mg/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	0.0021	0.00014	mg/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	0.0053	0.0011	mg/kg	
74-95-3	Methylene bromide	ND	0.0053	0.0011	mg/kg	
75-09-2	Methylene chloride	ND	0.0021	0.00017	mg/kg	
91-20-3	Naphthalene	ND	0.0053	0.00053	mg/kg	
103-65-1	n-Propylbenzene	ND	0.0053	0.00030	mg/kg	
100-42-5	Styrene	ND	0.0053	0.00017	mg/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0053	0.00018	mg/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.0021	0.00019	mg/kg	
127-18-4	Tetrachloroethene	ND	0.0021	0.00018	mg/kg	
108-88-3	Toluene	0.0051	0.0053	0.00019	mg/kg	J
87-61-6	1,2,3-Trichlorobenzene	ND	0.0053	0.00081	mg/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0053	0.00054	mg/kg	
71-55-6	1,1,1-Trichloroethane	ND	0.0021	0.00014	mg/kg	
79-00-5	1,1,2-Trichloroethane	ND	0.0021	0.00013	mg/kg	
79-01-6	Trichloroethene	ND	0.0021	0.00022	mg/kg	
75-69-4	Trichlorofluoromethane	ND	0.0021	0.00016	mg/kg	
96-18-4	1,2,3-Trichloropropane	ND	0.0053	0.00017	mg/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	0.0053	0.00027	mg/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	0.0053	0.00023	mg/kg	
108-05-4	Vinyl Acetate	ND	0.0053	0.0029	mg/kg	
75-01-4	Vinyl chloride	ND	0.0021	0.00028	mg/kg	
	m,p-Xylene	0.0013	0.0021	0.00037	mg/kg	J
95-47-6	o-Xylene	0.00054	0.0021	0.00014	mg/kg	J
1330-20-7	Xylene (total)	0.0019	0.0021	0.00014	mg/kg	J

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4-PZ(G)26-28		
Lab Sample ID:	M99605-5	**Date Sampled:**	04/22/11
Matrix:	SO - Soil	**Date Received:**	04/23/11
Method:	SW846 8260B	**Percent Solids:**	87.4
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	116%		70-130%
2037-26-5	Toluene-D8	129%		70-130%
460-00-4	4-Bromofluorobenzene	125%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4-PZ(G)26-28		
Lab Sample ID:	M99605-5	Date Sampled:	04/22/11
Matrix:	SO - Soil	Date Received:	04/23/11
Method:	SW846 8270C SW846 3546	Percent Solids:	87.4
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	S23548.D	1	05/03/11	PR	05/02/11	OP24800	MSS997
Run #2							

	Initial Weight	Final Volume
Run #1	20.4 g	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic acid	ND	0.56	0.044	mg/kg	
95-57-8	2-Chlorophenol	ND	0.28	0.015	mg/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	0.56	0.020	mg/kg	
120-83-2	2,4-Dichlorophenol	ND	0.56	0.033	mg/kg	
105-67-9	2,4-Dimethylphenol	ND	0.56	0.056	mg/kg	
51-28-5	2,4-Dinitrophenol	ND	1.1	0.28	mg/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	0.56	0.28	mg/kg	
95-48-7	2-Methylphenol	ND	0.56	0.016	mg/kg	
	3&4-Methylphenol	ND	0.56	0.030	mg/kg	
88-75-5	2-Nitrophenol	ND	0.56	0.034	mg/kg	
100-02-7	4-Nitrophenol	ND	1.1	0.28	mg/kg	
87-86-5	Pentachlorophenol	ND	0.56	0.052	mg/kg	
108-95-2	Phenol	ND	0.28	0.047	mg/kg	
95-95-4	2,4,5-Trichlorophenol	ND	0.56	0.042	mg/kg	
88-06-2	2,4,6-Trichlorophenol	ND	0.56	0.039	mg/kg	
83-32-9	Acenaphthene	ND	0.28	0.024	mg/kg	
208-96-8	Acenaphthylene	ND	0.28	0.021	mg/kg	
62-53-3	Aniline	ND	0.56	0.56	mg/kg	
120-12-7	Anthracene	ND	0.28	0.022	mg/kg	
56-55-3	Benzo(a)anthracene	ND	0.28	0.010	mg/kg	
50-32-8	Benzo(a)pyrene	ND	0.28	0.017	mg/kg	
205-99-2	Benzo(b)fluoranthene	ND	0.28	0.033	mg/kg	
191-24-2	Benzo(g,h,i)perylene	ND	0.28	0.018	mg/kg	
207-08-9	Benzo(k)fluoranthene	ND	0.28	0.0083	mg/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	0.28	0.023	mg/kg	
85-68-7	Butyl benzyl phthalate	ND	0.28	0.012	mg/kg	
100-51-6	Benzyl Alcohol	ND	0.56	0.034	mg/kg	
91-58-7	2-Chloronaphthalene	ND	0.28	0.024	mg/kg	
106-47-8	4-Chloroaniline	ND	0.56	0.14	mg/kg	
218-01-9	Chrysene	ND	0.28	0.0091	mg/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	0.28	0.022	mg/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	0.28	0.0060	mg/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4-PZ(G)26-28		
Lab Sample ID:	M99605-5	Date Sampled:	04/22/11
Matrix:	SO - Soil	Date Received:	04/23/11
Method:	SW846 8270C SW846 3546	Percent Solids:	87.4
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

ABN Special List

CAS No.	Compound	Result		RL	MDL	Units	Q
108-60-1	bis(2-Chloroisopropyl)ether	ND		0.28	0.027	mg/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND		0.28	0.025	mg/kg	
122-66-7	1,2-Diphenylhydrazine	ND		0.28	0.024	mg/kg	
121-14-2	2,4-Dinitrotoluene	ND		0.56	0.14	mg/kg	
606-20-2	2,6-Dinitrotoluene	ND		0.56	0.027	mg/kg	
91-94-1	3,3'-Dichlorobenzidine	ND		0.28	0.0067	mg/kg	
53-70-3	Dibenzo(a,h)anthracene	ND		0.28	0.018	mg/kg	
132-64-9	Dibenzofuran	ND		0.28	0.024	mg/kg	
84-74-2	Di-n-butyl phthalate	ND		0.28	0.026	mg/kg	
117-84-0	Di-n-octyl phthalate	ND		0.28	0.015	mg/kg	
84-66-2	Diethyl phthalate	ND		0.28	0.024	mg/kg	
131-11-3	Dimethyl phthalate	ND		0.28	0.020	mg/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND		0.28	0.019	mg/kg	
206-44-0	Fluoranthene	ND		0.28	0.0095	mg/kg	
86-73-7	Fluorene	ND		0.28	0.0062	mg/kg	
118-74-1	Hexachlorobenzene	ND		0.28	0.024	mg/kg	
77-47-4	Hexachlorocyclopentadiene	ND	UJ	0.56	0.0038	mg/kg	UJ
67-72-1	Hexachloroethane	ND		0.28	0.023	mg/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND		0.28	0.017	mg/kg	
78-59-1	Isophorone	ND		0.28	0.028	mg/kg	
90-12-0	1-Methylnaphthalene	ND		0.28	0.28	mg/kg	
91-57-6	2-Methylnaphthalene	ND		0.28	0.024	mg/kg	
88-74-4	2-Nitroaniline	ND		0.56	0.14	mg/kg	
99-09-2	3-Nitroaniline	ND		0.56	0.14	mg/kg	
100-01-6	4-Nitroaniline	ND		0.56	0.021	mg/kg	
91-20-3	Naphthalene	ND		0.28	0.0065	mg/kg	
98-95-3	Nitrobenzene	ND		0.28	0.0083	mg/kg	
62-75-9	n-Nitrosodimethylamine	ND		0.28	0.023	mg/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND		0.28	0.018	mg/kg	
86-30-6	N-Nitrosodiphenylamine	ND		0.28	0.015	mg/kg	
85-01-8	Phenanthrene	ND		0.28	0.0072	mg/kg	
129-00-0	Pyrene	ND		0.28	0.0090	mg/kg	
110-86-1	Pyridine	ND		0.56	0.56	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-FIuorophenol	77%		30-130%
4165-62-2	Phenol-d5	74%		30-130%
118-79-6	2,4,6-Tribromophenol	65%		30-130%
4165-60-0	Nitrobenzene-d5	83%		30-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST-4-PZ(G)26-28		
Lab Sample ID:	M99605-5	Date Sampled:	04/22/11
Matrix:	SO - Soil	Date Received:	04/23/11
Method:	SW846 8270C SW846 3546	Percent Solids:	87.4
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

ABN Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobipbenyl	74%		30-130%
1718-51-0	TerphenyI-d14	85%		30-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB042211		
Lab Sample ID:	M99605-6	Date Sampled:	04/22/11
Matrix:	AQ - Trip Blank Water	Date Received:	04/23/11
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	G105655.D	1	05/04/11	EL	n/a	n/a	MSG4263
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	4.6	ug/l	
107-02-8	Acrolein	ND	25	17	ug/l	
107-13-1	Acrylonitrile	ND	5.0	3.0	ug/l	
71-43-2	Benzene	ND	0.50	0.35	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.52	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.91	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.62	ug/l	
75-25-2	Bromoform	ND	1.0	0.73	ug/l	
74-83-9	Bromomethane	ND	2.0	0.95	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.1	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.49	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.37	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.53	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.35	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.42	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.61	ug/l	
75-00-3	Chloroethane	ND	2.0	0.76	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	0.83	ug/l	
67-66-3	Chloroform	ND	1.0	0.72	ug/l	
74-87-3	Chloromethane	ND	2.0	0.81	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.58	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.67	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.3	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.86	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.76	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.74	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.77	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.81	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.61	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.63	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.74	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.70	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB042211		
Lab Sample ID:	M99605-6	Date Sampled:	04/22/11
Matrix:	AQ - Trip Blank Water	Date Received:	04/23/11
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.66	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.74	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.83	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.73	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	0.44	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.23	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.23	ug/l	
123-91-1	1,4-Dioxane	ND	25	18	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.90	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.61	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.56	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.5	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.51	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.45	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.54	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.3	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.94	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.75	ug/l	
91-20-3	Naphthalene	ND	5.0	0.37	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.43	ug/l	
100-42-5	Styrene	ND	5.0	0.68	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.64	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.89	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.39	ug/l	
108-88-3	Toluene	ND	1.0	0.74	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.0	ug/l	
120-82-1	1,2,4-Trichlorohenzene	ND	5.0	0.57	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.35	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.72	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.49	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.61	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.62	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.51	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	0.51	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.86	ug/l	
	m,p-Xylene	ND	1.0	0.62	ug/l	
95-47-6	o-Xylene	ND	1.0	0.56	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.56	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB042211		
Lab Sample ID:	M99605-6	Date Sampled:	04/22/11
Matrix:	AQ - Trip Blank Water	Date Received:	04/23/11
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		70-130%
2037-26-5	Toluene-D8	105%		70-130%
460-00-4	4-Bromofluorobenzene	111%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Certification Exceptions
- Certification Exceptions (IL)
- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody

LAB (LOCATION)

☐ XENCO ( )
☐ CALSCIENCE ( )
☑ OTHER (Accutest Labs, 495 Technology Ctr W, Marlborough, MA 01752 (508-481-6200))
☐ SPL ☐ Lab Vendor # ( )

Lab Vendor #

Shell Oil Products Chain Of Custody Record

URS

Please Check Appropriate Box: ☑ ENV. SERVICES ☐ MOTIVA RETAIL ☐ SHELL RETAIL ☐ MOTIVA SD&CM ☐ CONSULTANT ☐ LUBES ☐ SHELL PIPELINE ☐ OTHER ____

Print Bill To Contact Name: WENDY PENNINGTON

PO #

INCIDENT # (ENV SERVICES): 9 7 2 1 8 6 4 0 ☐ CHECK IF NO INCIDENT # APPLIES

SAP #: 3 4 0 0 8 1

DATE: 4/22/11

PAGE: 1 of 1

SAMPLING COMPANY: URS CORPORATION	LOG CODE:
ADDRESS: 1001 HIGHLANDS PLAZA DRIVE WEST - SUITE 300; ST. LOUIS, MO 63110	
PROJECT CONTACT: WENDY PENNINGTON	
TELEPHONE: 341-452-8929	FAX: 314-429-0462
E-MAIL: wendy_pennington@urscorp.com	
SITE ADDRESS: Street and City: 170 EAST RAND AVENUE – HARTFORD	State: IL
CONSULTANT PROJECT NO.: Roxana ROST-4-PZ / 21562563.00011	
SAMPLER NAME(S) (Print): M. Miller	LAB USE ONLY: M99605

TURNAROUND TIME (CALENDAR DAYS): ☑ STANDARD (10 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND

☐ LA - RWQCB REPORT FORMAT ☐ UST AGENCY:

DELIVERABLES: ☐ LEVEL 1 ☑ LEVEL 2 ☐ LEVEL 3 ☑ LEVEL 4 ☑ OTHER (SPECIFY) EDD

TEMPERATURE ON RECEIPT C°: Cooler #1 | Cooler #2 | Cooler #3

SPECIAL INSTRUCTIONS OR NOTES :
* Please include "J" values on Reports.
* Please provide sample receipt upon login

☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD DATA

REQUESTED ANALYSIS

FIELD NOTES:

TEMPERATURE ON RECEIPT C°

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	HCL	HNO3	H2SO4	[illegible]	[illegible]	NONE	OTHER	No. of Cont.	VOC 8260	SVOC 8270	PID (ppm)	NOTES / COMMENTS
1	ROST-4-PZ(G)12-14-EB	4/22/11	0915	water	3					2		5	X	X		
2	ROST-4-PZ(G)12-14		0940	Soil				1	2	2		5	X	X	6.3	
3	ROST-4-PZ(G)34-36		1040	Soil				1	2	2		5	X	X	17.6	
4	ROST-4-PZ(G)34-36-D		1040	Soil				1	2	2		5	X	X	17.6	
-5	ROST-4-PZ(G)26-28		1050	Soil				1	2	2		5	X	X	25.0	
-5	ROST-4-PZ(G)26-28-MS		1050	Soil				1	2	2		5	X	X	25.0	
-5	ROST-4-PZ(G)26-28-MSD		1050	Soil				1	2	2		5	X	X	25.0	
-6	TB042211	4/22/11		water	2								X			
																3C, 10FS, 19cc 4w5

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
[signature]	FEDEX	4/22/11	1800
Fed Ex	[signature]	4/23/11 1045	10:45

COOLER Remarks: 0.4°C

4.1

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M99605: Chain of Custody

Page 1 of 3

ACCUTEST LABORATORIES

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: M99605 Client: URS Immediate Client Services Action Required: No

Date / Time Received: 4/23/2011 Delivery Method: Client Service Action Required at Login: No

Project: 170 E.RAND AVE,HARTFORD,CT. No. Coolers: 1 Airbill #'s: N/A

Cooler Security	Y or N		Y or N
1. Custody Seals Present:	☑ ☐	3. COC Present:	☑ ☐
2. Custody Seals Intact:	☑ ☐	4. Smpl Dates/Time OK	☑ ☐

Cooler Temperature	Y or N
1. Temp criteria achieved:	☑ ☐
2. Cooler temp verification:	Infared gun
3. Cooler media:	Ice (bag)

Quality Control Preservatio	Y or N	N/A
1. Trip Blank present / cooler:	☑ ☐	☐
2. Trip Blank listed on COC:	☑ ☐	☐
3. Samples preserved properly:	☑ ☐	
4. VOCs headspace free:	☑ ☐	☐

Sample Integrity - Documentation	Y or N
1. Sample labels present on bottles:	☑ ☐
2. Container labeling complete:	☑ ☐
3. Sample container label / COC agree:	☑ ☐

Sample Integrity - Condition	Y or N
1. Sample recvd within HT:	☑ ☐
2. All containers accounted for:	☑ ☐
3. Condition of sample:	Intact

Sample Integrity - Instructions	Y or N	N/A
1. Analysis requested is clear:	☑ ☐	
2. Bottles received for unspecified tests	☐ ☑	
3. Sufficient volume recvd for analysis:	☑ ☐	
4. Compositing instructions clear:	☐ ☐	☑
5. Filtering instructions clear:	☐ ☐	☑

Comments

Accutest Laboratories
V.508.481.6200

495 Technology Center West, Bldg One
F. 508.481.7753

Marlborough, MA
www.accutest.com

4.1 4

M99605: Chain of Custody
Page 2 of 3

LAB (LOCATION)

☐ XENCO ( )
☐ CALSCIENCE ( )
☑ OTHER (Accutest Labs, 495 Technology Ctr W (Marlborough, MA 01752 (508-481-6200))
☐ SPL ☐ Lab Vendor # ( )

Lab Vendor #

Shell Oil Products Chain Of Custody Record

URS

Please Check Appropriate Box:
☑ ENV. SERVICES ☐ MOTIVA RETAIL ☐ SHELL RETAIL
☐ MOTIVA SD&CM ☐ CONSULTANT ☐ LUBES
☐ SHELL PIPELINE ☐ OTHER ______

Print Bill To Contact Name: WENDY PENNINGTON
PO #

INCIDENT # (ENV SERVICES) 9 7 2 1 6 6 4 0
SAP # 3 4 0 0 6 1

☐ CHECK IF NO INCIDENT # APPLIES

DATE: 4/22/11
PAGE: 1 of 1

SAMPLING COMPANY	URS CORPORATION
ADDRESS	1001 HIGHLANDS PLAZA DRIVE WEST - SUITE 300; ST. LOUIS, MO 63110
PROJECT CONTACT	WENDY PENNINGTON
TELEPHONE	341-452-8929
FAX	314-429-0462
E-MAIL	wendy_pennington@urscorp.com
SITE ADDRESS: Street and City	170 EAST RAND AVENUE – HARTFORD
State	IL
CONSULTANT PROJECT NO.	Roxana ROST-4-PZ / 21562563.00011
SAMPLER NAME(S) (Print)	M. Miller
LAB USE ONLY	M99605

TURNAROUND TIME (CALENDAR DAYS): ☑ STANDARD (10 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND

☐ LA - RWQCB REPORT FORMAT ☐ UST AGENCY:

DELIVERABLES: ☐ LEVEL 1 ☑ LEVEL 2 ☐ LEVEL 3 ☑ LEVEL 4 ☑ OTHER (SPECIFY) EDD

TEMPERATURE ON RECEIPT C° Cooler #1 Cooler #2 Cooler #3

SPECIAL INSTRUCTIONS OR NOTES :
* Please include "J" values on Reports.
* Please provide sample receipt upon login.

☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD DISK

REQUESTED ANALYSIS

FIELD NOTES:
TEMPERATURE ON RECEIPT C°

LAB USE ONLY	Field Sample Identification	Sampling Date	Sampling Time	Matrix	Preservative: HCL	HNO3	H2SO4	[illegible]	[illegible]	NONE	OTHER	No. of Cont.	VOC 8260	SVOC 8270	PID (ppm)	NOTES / COMMENTS
1	ROST-4-PZ(G)12-14-EB	4/22/11	0915	water	3					2		5	X	X		
2	ROST-4-PZ(G)12-14		0940	Soil				1	2	2		5	X	X	6.3	
3	ROST-4-PZ(G)34-36		1040	Soil				1	2	2		5	X	X	17.6	
4	ROST-4-PZ(G)34-36-D		1040	Soil				1	2	2		5	X	X	17.6	
5	ROST-4-PZ(G)26-28		1050	Soil				1	2	2		5	X	X	25.0	
5	ROST-4-PZ(G)26-28-MS		1050	Soil				1	2	2		5	X	X	25.0	
5	ROST-4-PZ(G)26-28-MSD		1050	Soil				1	2	2		5	X	X	25.0	
6	TB042211	4/22/11		water	2								X			
																3C, 1-F5, 19cc 4/15

Relinquished by: (Signature)	Received by: (Signature)	Date	Time
[signature]	FEDEX	4/22/11	1800
FedEx	[signature]	4/23/11 1045	10:45

0.4°C

M99605: Chain of Custody
Page 3 of 3

4.1
4

Internal Sample Tracking Chronicle

Shell Oil

Job No: M99605

URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL
Project No: INC#97216640 SAP#340061

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
M99605-1 Collected: 22-APR-11 09:15 By: MM Received: 23-APR-11 By: ROST-4-PZ(G)12-14-EB						
M99605-1	SW846 8260B	04-MAY-11 13:18	EL			V8260SL
M99605-1	SW846 8270C	05-MAY-11 15:02	KR	28-APR-11	MEW	AB8270SL
M99605-2 Collected: 22-APR-11 09:40 By: MM Received: 23-APR-11 By: ROST-4-PZ(G)12-14						
M99605-2	SM21 2540 B MOD.	25-APR-11	HS			%SOL
M99605-2	SW846 8270C	04-MAY-11 18:00	PR	02-MAY-11	FC	AB8270SL
M99605-2	SW846 8260B	05-MAY-11 16:09	AMY			V8260SL
M99605-3 Collected: 22-APR-11 10:40 By: MM Received: 23-APR-11 By: ROST-4-PZ(G)34-36						
M99605-3	SM21 2540 B MOD.	25-APR-11	HS			%SOL
M99605-3	SW846 8270C	04-MAY-11 18:30	PR	02-MAY-11	FC	AB8270SL
M99605-3	SW846 8260B	05-MAY-11 16:37	AMY			V8260SL
M99605-4 Collected: 22-APR-11 10:40 By: MM Received: 23-APR-11 By: ROST-4-PZ(G)34-36-D						
M99605-4	SM21 2540 B MOD.	25-APR-11	HS			%SOL
M99605-4	SW846 8270C	04-MAY-11 19:00	PR	02-MAY-11	FC	AB8270SL
M99605-4	SW846 8260B	05-MAY-11 17:36	AMY			V8260SL
M99605-5 Collected: 22-APR-11 10:50 By: MM Received: 23-APR-11 By: ROST-4-PZ(G)26-28						
M99605-5	SM21 2540 B MOD.	25-APR-11	HS			%SOL
M99605-5	SW846 8270C	03-MAY-11 17:48	PR	02-MAY-11	FC	AB8270SL
M99605-5	SW846 8260B	05-MAY-11 18:04	AMY			V8260SL
M99605-6 Collected: 22-APR-11 00:00 By: MM Received: 23-APR-11 By: TB042211						
M99605-6	SW846 8260B	04-MAY-11 13:46	EL			V8260SL

Accutest Internal Chain of Custody

Job Number: M99605
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL
Received: 04/23/11

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
M99605-1.2	Walk In Ref #22	Michael Rolo	04/28/11 09:57	Retrieve from Storage
M99605-1.2	Michael Rolo		05/06/11 19:03	Depleted
M99605-1.4	VOC Ref #4	Elise LeBlanc	05/04/11 12:05	Retrieve from Storage
M99605-1.4	Elise LeBlanc	GCMSG	05/04/11 12:05	Load on Instrument
M99605-1.4	GCMSG	Elise LeBlanc	05/05/11 14:12	Unload from Instrument
M99605-1.4	Elise LeBlanc	VOC Ref #4	05/09/11 16:06	Return to Storage
M99605-2.1	Walk In Ref #5	Corey Aldoupolis	05/02/11 20:56	Retrieve from Storage
M99605-2.1	Corey Aldoupolis	Walk In Ref #5	05/03/11 00:09	Return to Storage
M99605-2.2	Walk In Ref #5	Hamid Siamak	04/25/11 11:24	Retrieve from Storage
M99605-2.2	Hamid Siamak	Walk In Ref #5	04/25/11 12:17	Return to Storage
M99605-2.4	VOC Ref #10	Amy Min Yang	05/05/11 15:26	Retrieve from Storage
M99605-2.4	Amy Min Yang	GCMSP	05/05/11 15:26	Load on Instrument
M99605-2.4	GCMSP	Amy Min Yang	05/09/11 08:31	Unload from Instrument
M99605-2.4	Amy Min Yang	VOC Ref #10	05/09/11 08:31	Return to Storage
M99605-2.5	VOC Ref #10	Gary Krasinski	04/27/11 11:46	Retrieve from Storage
M99605-2.5	Gary Krasinski	VOC Ref #10	04/28/11 11:28	Return to Storage
M99605-3.1	Walk In Ref #5	Corey Aldoupolis	05/02/11 20:56	Retrieve from Storage
M99605-3.1	Corey Aldoupolis	Walk In Ref #5	05/03/11 00:09	Return to Storage
M99605-3.2	Walk In Ref #5	Hamid Siamak	04/25/11 11:24	Retrieve from Storage
M99605-3.2	Hamid Siamak	Walk In Ref #5	04/25/11 12:17	Return to Storage
M99605-3.3	VOC Ref #10	Amy Min Yang	05/05/11 15:26	Retrieve from Storage
M99605-3.3	Amy Min Yang	GCMSP	05/05/11 15:26	Load on Instrument
M99605-3.3	GCMSP	Amy Min Yang	05/09/11 08:31	Unload from Instrument
M99605-3.3	Amy Min Yang	VOC Ref #10	05/09/11 08:31	Return to Storage
M99605-3.5	VOC Ref #10	Gary Krasinski	04/27/11 11:46	Retrieve from Storage
M99605-3.5	Gary Krasinski	VOC Ref #10	04/28/11 11:28	Return to Storage
M99605-4.1	Walk In Ref #5	Corey Aldoupolis	05/02/11 20:56	Retrieve from Storage
M99605-4.1	Corey Aldoupolis	Walk In Ref #5	05/03/11 00:09	Return to Storage
M99605-4.2	Walk In Ref #5	Hamid Siamak	04/25/11 11:24	Retrieve from Storage
M99605-4.2	Hamid Siamak	Walk In Ref #5	04/25/11 12:17	Return to Storage
M99605-4.3	VOC Ref #10	Amy Min Yang	05/05/11 15:26	Retrieve from Storage
M99605-4.3	Amy Min Yang	GCMSP	05/05/11 15:26	Load on Instrument

Accutest Internal Chain of Custody

Job Number: M99605
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL
Received: 04/23/11

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
M99605-4.3	GCMSP	Amy Min Yang	05/09/11 08:31	Unload from Instrument
M99605-4.3	Amy Min Yang	VOC Ref #10	05/09/11 08:31	Return to Storage
M99605-4.5	VOC Ref #10	Gary Krasinski	04/27/11 11:46	Retrieve from Storage
M99605-4.5	Gary Krasinski	VOC Ref #10	04/28/11 11:28	Return to Storage
M99605-5.1	Walk In Ref #5	Corey Aldoupolis	05/02/11 20:56	Retrieve from Storage
M99605-5.1	Corey Aldoupolis	Walk In Ref #5	05/03/11 00:09	Return to Storage
M99605-5.6	Walk In Ref #5	Hamid Siamak	04/25/11 11:24	Retrieve from Storage
M99605-5.6	Hamid Siamak	Walk In Ref #5	04/25/11 12:17	Return to Storage
M99605-5.8	VOC Ref #10	Amy Min Yang	05/05/11 15:26	Retrieve from Storage
M99605-5.8	Amy Min Yang	GCMSP	05/05/11 15:26	Load on Instrument
M99605-5.8	GCMSP	Amy Min Yang	05/09/11 08:31	Unload from Instrument
M99605-5.8	Amy Min Yang	VOC Ref #10	05/09/11 08:31	Return to Storage
M99605-5.10	VOC Ref #10	Amy Min Yang	05/05/11 15:26	Retrieve from Storage
M99605-5.10	Amy Min Yang	GCMSP	05/05/11 15:26	Load on Instrument
M99605-5.10	GCMSP	Amy Min Yang	05/09/11 08:31	Unload from Instrument
M99605-5.10	Amy Min Yang	VOC Ref #10	05/09/11 08:31	Return to Storage
M99605-5.11	VOC Ref #10	Amy Min Yang	05/05/11 15:26	Retrieve from Storage
M99605-5.11	Amy Min Yang	GCMSP	05/05/11 15:26	Load on Instrument
M99605-5.11	GCMSP	Amy Min Yang	05/09/11 08:31	Unload from Instrument
M99605-5.11	Amy Min Yang	VOC Ref #10	05/09/11 08:31	Return to Storage
M99605-5.13	VOC Ref #10	Gary Krasinski	04/27/11 11:46	Retrieve from Storage
M99605-5.13	Gary Krasinski	VOC Ref #10	04/28/11 11:28	Return to Storage
M99605-6.1	VOC Ref #4	Elise LeBlanc	05/04/11 12:05	Retrieve from Storage
M99605-6.1	Elise LeBlanc	GCMSG	05/04/11 12:05	Load on Instrument
M99605-6.1	GCMSG	Elise LeBlanc	05/05/11 14:12	Unload from Instrument
M99605-6.1	Elise LeBlanc	VOC Ref #4	05/09/11 16:06	Return to Storage

New England ACCUTEST LABORATORIES

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: M99605
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSG4263-MB	G105653.D	1	05/04/11	EL	n/a	n/a	MSG4263

The QC reported here applies to the following samples: Method: SW846 8260B

M99605-1, M99605-6

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	4.6	ug/l	
107-02-8	Acrolein	ND	25	17	ug/l	
107-13-1	Acrylonitrile	ND	5.0	3.0	ug/l	
71-43-2	Benzene	ND	0.50	0.35	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.52	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.91	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.62	ug/l	
75-25-2	Bromoform	ND	1.0	0.73	ug/l	
74-83-9	Bromomethane	ND	2.0	0.95	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.1	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.49	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.37	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.53	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.35	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.42	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.61	ug/l	
75-00-3	Chloroethane	ND	2.0	0.76	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	0.83	ug/l	
67-66-3	Chloroform	ND	1.0	0.72	ug/l	
74-87-3	Chloromethane	ND	2.0	0.81	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.58	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.67	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.3	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.86	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.76	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.74	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.77	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.81	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.61	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.63	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.74	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.70	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.66	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.74	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.83	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.73	ug/l	

Method Blank Summary

Job Number: M99605
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSG4263-MB	G105653.D	1	05/04/11	EL	n/a	n/a	MSG4263

The QC reported here applies to the following samples: Method: SW846 8260B

M99605-1, M99605-6

CAS No.	Compound	Result	RL	MDL	Units	Q
594-20-7	2,2-Dichloropropane	ND	5.0	0.44	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.23	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.23	ug/l	
123-91-1	1,4-Dioxane	ND	25	18	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.90	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.61	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.56	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.5	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.51	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.45	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.54	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.3	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.94	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.75	ug/l	
91-20-3	Naphthalene	ND	5.0	0.37	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.43	ug/l	
100-42-5	Styrene	ND	5.0	0.68	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.64	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.89	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.39	ug/l	
108-88-3	Toluene	ND	1.0	0.74	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.57	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.35	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.72	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.49	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.47	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.61	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.62	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.51	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	0.51	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.86	ug/l	
	m,p-Xylene	ND	1.0	0.62	ug/l	
95-47-6	o-Xylene	ND	1.0	0.56	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.56	ug/l	

Method Blank Summary

Job Number: M99605
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSG4263-MB	G105653.D	1	05/04/11	EL	n/a	n/a	MSG4263

The QC reported here applies to the following samples: Method: SW846 8260B

M99605-1, M99605-6

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	99%	70-130%
2037-26-5	Toluene-D8	104%	70-130%
460-00-4	4-Bromofluorobenzene	109%	70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Method Blank Summary

Job Number: M99605
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP1750-MB	P52872.D	1	05/05/11	AMY	n/a	n/a	MSP1750

The QC reported here applies to the following samples: Method: SW846 8260B

M99605-2, M99605-3, M99605-4, M99605-5

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	5.0	ug/kg	
107-02-8	Acrolein	ND	25	17	ug/kg	
107-13-1	Acrylonitrile	ND	5.0	0.79	ug/kg	
71-43-2	Benzene	ND	0.50	0.11	ug/kg	
108-86-1	Bromobenzene	ND	5.0	0.15	ug/kg	
74-97-5	Bromochloromethane	ND	5.0	0.48	ug/kg	
75-27-4	Bromodichloromethane	ND	2.0	0.19	ug/kg	
75-25-2	Bromoform	ND	2.0	1.0	ug/kg	
74-83-9	Bromomethane	ND	2.0	0.35	ug/kg	
78-93-3	2-Butanone (MEK)	ND	5.0	1.5	ug/kg	
104-51-8	n-Butylbenzene	ND	5.0	0.42	ug/kg	
135-98-8	sec-Butylbenzene	ND	5.0	0.36	ug/kg	
98-06-6	tert-Butylbenzene	ND	5.0	0.23	ug/kg	
75-15-0	Carbon disulfide	ND	5.0	0.19	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.0	0.19	ug/kg	
108-90-7	Chlorobenzene	ND	2.0	0.22	ug/kg	
75-00-3	Chloroethane	ND	5.0	0.32	ug/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	5.0	ug/kg	
67-66-3	Chloroform	ND	2.0	0.16	ug/kg	
74-87-3	Chloromethane	ND	5.0	0.13	ug/kg	
95-49-8	o-Chlorotoluene	ND	5.0	0.19	ug/kg	
106-43-4	p-Chlorotoluene	ND	5.0	0.22	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	0.71	ug/kg	
124-48-1	Dibromochloromethane	ND	2.0	1.0	ug/kg	
106-93-4	1,2-Dibromoethane	ND	2.0	0.15	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	2.0	0.31	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	2.0	0.30	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	2.0	0.29	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.20	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.0	0.17	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.0	0.12	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.0	0.14	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.0	0.20	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.0	0.19	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.0	0.17	ug/kg	
142-28-9	1,3-Dichloropropane	ND	5.0	0.11	ug/kg	

Method Blank Summary

Job Number: M99605
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP1750-MB	P52872.D	1	05/05/11	AMY	n/a	n/a	MSP1750

The QC reported here applies to the following samples: Method: SW846 8260B

M99605-2, M99605-3, M99605-4, M99605-5

CAS No.	Compound	Result	RL	MDL	Units	Q
594-20-7	2,2-Dichloropropane	ND	5.0	0.20	ug/kg	
563-58-6	1,1-Dichloropropene	ND	5.0	0.21	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.50	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	1.0	ug/kg	
123-91-1	1,4-Dioxane	ND	25	7.7	ug/kg	
97-63-2	Ethyl methacrylate	ND	5.0	0.13	ug/kg	
100-41-4	Ethylbenzene	ND	2.0	0.11	ug/kg	
87-68-3	Hexachlorobutadiene	ND	5.0	0.72	ug/kg	
591-78-6	2-Hexanone	ND	5.0	0.86	ug/kg	
98-82-8	Isopropylbenzene	ND	5.0	0.25	ug/kg	
99-87-6	p-Isopropyltoluene	ND	5.0	0.39	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.0	0.13	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/kg	
74-95-3	Methylene bromide	ND	5.0	1.0	ug/kg	
75-09-2	Methylene chloride	ND	2.0	0.17	ug/kg	
91-20-3	Naphthalene	ND	5.0	0.50	ug/kg	
103-65-1	n-Propylbenzene	ND	5.0	0.28	ug/kg	
100-42-5	Styrene	ND	5.0	0.16	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.17	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	0.18	ug/kg	
127-18-4	Tetrachloroethene	ND	2.0	0.17	ug/kg	
108-88-3	Toluene	ND	5.0	0.18	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.77	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.51	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.0	0.13	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.0	0.13	ug/kg	
79-01-6	Trichloroethene	ND	2.0	0.21	ug/kg	
75-69-4	Trichlorofluoromethane	ND	2.0	0.15	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.17	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.26	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.22	ug/kg	
108-05-4	Vinyl Acetate	ND	5.0	2.7	ug/kg	
75-01-4	Vinyl chloride	ND	2.0	0.27	ug/kg	
	m,p-Xylene	ND	2.0	0.35	ug/kg	
95-47-6	o-Xylene	ND	2.0	0.13	ug/kg	
1330-20-7	Xylene (total)	ND	2.0	0.13	ug/kg	

Method Blank Summary

Job Number: M99605
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP1750-MB	P52872.D	1	05/05/11	AMY	n/a	n/a	MSP1750

The QC reported here applies to the following samples: Method: SW846 8260B

M99605-2, M99605-3, M99605-4, M99605-5

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	110%	70-130%
2037-26-5	Toluene-D8	115%	70-130%
460-00-4	4-Bromofluorobenzene	112%	70-130%

Blank Spike Summary

Job Number: M99605
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSG4263-BS	G105651.D	1	05/04/11	EL	n/a	n/a	MSG4263

The QC reported here applies to the following samples: Method: SW846 8260B

M99605-1, M99605-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	50	45.4	91	70-130
107-02-8	Acrolein	250	4110	1644* [a]	70-130
107-13-1	Acrylonitrile	50	53.8	108	70-130
71-43-2	Benzene	50	50.3	101	70-130
108-86-1	Bromobenzene	50	51.0	102	70-130
74-97-5	Bromochloromethane	50	56.3	113	70-130
75-27-4	Bromodichloromethane	50	54.7	109	70-130
75-25-2	Bromoform	50	55.1	110	70-130
74-83-9	Bromomethane	50	50.0	100	70-130
78-93-3	2-Butanone (MEK)	50	51.1	102	70-130
104-51-8	n-Butylbenzene	50	53.3	107	70-130
135-98-8	sec-Butylbenzene	50	52.3	105	70-130
98-06-6	tert-Butylbenzene	50	50.8	102	70-130
75-15-0	Carbon disulfide	50	53.9	108	70-130
56-23-5	Carbon tetrachloride	50	53.5	107	70-130
108-90-7	Chlorobenzene	50	52.1	104	70-130
75-00-3	Chloroethane	50	53.7	107	70-130
110-75-8	2-Chloroethyl vinyl ether	50	157	314* [a]	70-130
67-66-3	Chloroform	50	53.1	106	70-130
74-87-3	Chloromethane	50	48.3	97	70-130
95-49-8	o-Chlorotoluene	50	49.5	99	70-130
106-43-4	p-Chlorotoluene	50	51.5	103	70-130
96-12-8	1,2-Dibromo-3-chloropropane	50	54.2	108	70-130
124-48-1	Dibromochloromethane	50	56.4	113	70-130
106-93-4	1,2-Dibromoethane	50	56.9	114	70-130
95-50-1	1,2-Dichlorobenzene	50	53.4	107	70-130
541-73-1	1,3-Dichlorobenzene	50	53.4	107	70-130
106-46-7	1,4-Dichlorobenzene	50	51.1	102	70-130
75-71-8	Dichlorodifluoromethane	50	48.4	97	70-130
75-34-3	1,1-Dichloroethane	50	51.8	104	70-130
107-06-2	1,2-Dichloroethane	50	53.9	108	70-130
75-35-4	1,1-Dichloroethene	50	52.5	105	70-130
156-59-2	cis-1,2-Dichloroethene	50	49.0	98	70-130
156-60-5	trans-1,2-Dichloroethene	50	50.9	102	70-130
78-87-5	1,2-Dichloropropane	50	52.6	105	70-130
142-28-9	1,3-Dichloropropane	50	52.8	106	70-130

Blank Spike Summary

Job Number: M99605
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSG4263-BS	G105651.D	1	05/04/11	EL	n/a	n/a	MSG4263

The QC reported here applies to the following samples: Method: SW846 8260B

M99605-1, M99605-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
594-20-7	2,2-Dichloropropane	50	53.4	107	70-130
563-58-6	1,1-Dichloropropene	50	52.7	105	70-130
10061-01-5	cis-1,3-Dichloropropene	50	54.7	109	70-130
10061-02-6	trans-1,3-Dichloropropene	50	61.7	123	70-130
123-91-1	1,4-Dioxane	250	244	98	70-130
97-63-2	Ethyl methacrylate	50	52.2	104	77-137
100-41-4	Ethylbenzene	50	51.8	104	70-130
87-68-3	Hexachlorobutadiene	50	53.8	108	70-130
591-78-6	2-Hexanone	50	42.9	86	70-130
98-82-8	Isopropylbenzene	50	59.0	118	70-130
99-87-6	p-Isopropyltoluene	50	54.7	109	70-130
1634-04-4	Methyl Tert Butyl Ether	50	52.0	104	70-130
108-10-1	4-Methyl-2-pentanone (MIBK)	50	53.4	107	70-130
74-95-3	Methylene bromide	50	57.3	115	70-130
75-09-2	Methylene chloride	50	51.0	102	70-130
91-20-3	Naphthalene	50	50.2	100	70-130
103-65-1	n-Propylbenzene	50	52.2	104	70-130
100-42-5	Styrene	50	54.0	108	70-130
630-20-6	1,1,1,2-Tetrachloroethane	50	53.2	106	70-130
79-34-5	1,1,2,2-Tetrachloroethane	50	53.0	106	70-130
127-18-4	Tetrachloroethene	50	51.9	104	70-130
108-88-3	Toluene	50	53.3	107	70-130
87-61-6	1,2,3-Trichlorobenzene	50	51.4	103	70-130
120-82-1	1,2,4-Trichlorobenzene	50	50.1	100	70-130
71-55-6	1,1,1-Trichloroethane	50	54.5	109	70-130
79-00-5	1,1,2-Trichloroethane	50	56.6	113	70-130
79-01-6	Trichloroethene	50	53.1	106	70-130
75-69-4	Trichlorofluoromethane	50	54.2	108	70-130
96-18-4	1,2,3-Trichloropropane	50	51.8	104	70-130
95-63-6	1,2,4-Trimethylbenzene	50	51.3	103	70-130
108-67-8	1,3,5-Trimethylbenzene	50	50.0	100	70-130
108-05-4	Vinyl Acetate	50	53.5	107	70-130
75-01-4	Vinyl chloride	50	52.6	105	70-130
	m,p-Xylene	100	106	106	70-130
95-47-6	o-Xylene	50	52.7	105	70-130
1330-20-7	Xylene (total)	150	158	105	70-130

Blank Spike Summary

Job Number: M99605
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSG4263-BS	G105651.D	1	05/04/11	EL	n/a	n/a	MSG4263

The QC reported here applies to the following samples: Method: SW846 8260B

M99605-1, M99605-6

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	100%	70-130%
2037-26-5	Toluene-D8	104%	70-130%
460-00-4	4-Bromofluorobenzene	95%	70-130%

(a) Outside control limits. Associated samples are non-detect for this compound.

Blank Spike Summary

Job Number: M99605
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP1750-BS	P52870.D	1	05/05/11	AMY	n/a	n/a	MSP1750

The QC reported here applies to the following samples: Method: SW846 8260B

M99605-2, M99605-3, M99605-4, M99605-5

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
67-64-1	Acetone	50	40.4	81	70-130
107-02-8	Acrolein	250	1120	448* a	70-130
107-13-1	Acrylonitrile	50	54.0	108	70-130
71-43-2	Benzene	50	52.3	105	70-130
108-86-1	Bromobenzene	50	54.3	109	70-130
74-97-5	Bromochloromethane	50	54.6	109	70-130
75-27-4	Bromodichloromethane	50	53.1	106	70-130
75-25-2	Bromoform	50	52.5	105	70-130
74-83-9	Bromomethane	50	52.2	104	70-130
78-93-3	2-Butanone (MEK)	50	43.0	86	70-130
104-51-8	n-Butylbenzene	50	48.5	97	70-130
135-98-8	sec-Butylbenzene	50	53.3	107	70-130
98-06-6	tert-Butylbenzene	50	55.3	111	70-130
75-15-0	Carhon disulfide	50	50.4	101	70-130
56-23-5	Carbon tetrachloride	50	52.0	104	70-130
108-90-7	Chlorobenzene	50	51.9	104	70-130
75-00-3	Chloroethane	50	53.4	107	70-130
110-75-8	2-Chloroethyl vinyl ether	50	50.7	101	10-160
67-66-3	Chloroform	50	49.7	99	70-130
74-87-3	Chloromethane	50	56.2	112	70-130
95-49-8	o-Chlorotoluene	50	52.0	104	70-130
106-43-4	p-Chlorotoluene	50	54.4	109	70-130
96-12-8	1,2-Dibromo-3-chloropropane	50	54.7	109	70-130
124-48-1	Dibromochloromethane	50	53.8	108	70-130
106-93-4	1,2-Dibromoethane	50	54.1	108	70-130
95-50-1	1,2-Dichlorobenzene	50	52.0	104	70-130
541-73-1	1,3-Dichlorobenzene	50	50.2	100	70-130
106-46-7	1,4-Dichlorobenzene	50	49.6	99	70-130
75-71-8	Dichlorodifluoromethane	50	45.0	90	70-130
75-34-3	1,1-Dichloroethane	50	50.0	100	70-130
107-06-2	1,2-Dichloroethane	50	47.6	95	70-130
75-35-4	1,1-Dichloroethene	50	51.9	104	70-130
156-59-2	cis-1,2-Dichloroethene	50	50.8	102	70-130
156-60-5	trans-1,2-Dichloroethene	50	51.3	103	70-130
78-87-5	1,2-Dichloropropane	50	50.5	101	70-130
142-28-9	1,3-Dichloropropane	50	53.4	107	70-130

Blank Spike Summary

Job Number: M99605
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP1750-BS	P52870.D	1	05/05/11	AMY	n/a	n/a	MSP1750

The QC reported here applies to the following samples: Method: SW846 8260B

M99605-2, M99605-3, M99605-4, M99605-5

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
594-20-7	2,2-Dichloropropane	50	56.2	112	70-130
563-58-6	1,1-Dichloropropene	50	54.5	109	70-130
10061-01-5	cis-1,3-Dichloropropene	50	53.6	107	70-130
10061-02-6	trans-1,3-Dichloropropene	50	59.7	119	70-130
123-91-1	1,4-Dioxane	250	267	107	70-130
97-63-2	Ethyl methacrylate	50	51.7	103	76-141
100-41-4	Ethylbenzene	50	53.5	107	70-130
87-68-3	Hexachlorobutadiene	50	44.7	89	70-130
591-78-6	2-Hexanone	50	43.2	86	70-130
98-82-8	Isopropylbenzene	50	63.6	127	70-130
99-87-6	p-Isopropyltoluene	50	50.5	101	70-130
1634-04-4	Methyl Tert Butyl Ether	50	52.0	104	70-130
108-10-1	4-Methyl-2-pentanone (MIBK)	50	50.2	100	70-130
74-95-3	Methylene bromide	50	53.2	106	70-130
75-09-2	Methylene chloride	50	48.7	97	70-130
91-20-3	Naphthalene	50	62.7	125	70-130
103-65-1	n-Propylbenzene	50	53.0	106	70-130
100-42-5	Styrene	50	59.3	119	70-130
630-20-6	1,1,1,2-Tetrachloroethane	50	51.5	103	70-130
79-34-5	1,1,2,2-Tetrachloroethane	50	51.9	104	70-130
127-18-4	Tetrachloroethene	50	49.5	99	70-130
108-88-3	Toluene	50	55.2	110	70-130
87-61-6	1,2,3-Trichlorobenzene	50	51.7	103	70-130
120-82-1	1,2,4-Trichlorobenzene	50	47.6	95	70-130
71-55-6	1,1,1-Trichloroethane	50	50.9	102	70-130
79-00-5	1,1,2-Trichloroethane	50	53.7	107	70-130
79-01-6	Trichloroethene	50	52.4	105	70-130
75-69-4	Tricblorofluoromethane	50	47.1	94	70-130
96-18-4	1,2,3-Trichloropropane	50	53.4	107	70-130
95-63-6	1,2,4-Trimethylbenzene	50	55.3	111	70-130
108-67-8	1,3,5-Trimethylbenzene	50	52.8	106	70-130
108-05-4	Vinyl Acetate	50	47.8	96	70-130
75-01-4	Vinyl chloride	50	57.6	115	70-130
	m,p-Xylene	100	107	107	70-130
95-47-6	o-Xylene	50	54.9	110	70-130
1330-20-7	Xylene (total)	150	162	108	70-130

Blank Spike Summary

Job Number: M99605
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP1750-BS	P52870.D	1	05/05/11	AMY	n/a	n/a	MSP1750

The QC reported here applies to the following samples: Method: SW846 8260B

M99605-2, M99605-3, M99605-4, M99605-5

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	119%	70-130%
2037-26-5	Toluene-D8	122%	70-130%
460-00-4	4-Bromofluorobenzene	109%	70-130%

(a) Outside control limits. Associated samples are non-detect for this compound.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M99605
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M99599-3MS	G105660.D	1	05/04/11	EL	n/a	n/a	MSG4263
M99599-3MSD	G105661.D	1	05/04/11	EL	n/a	n/a	MSG4263
M99599-3	G105658.D	1	05/04/11	EL	n/a	n/a	MSG4263

Sample not from this SDG

The QC reported here applies to the following samples: Method: SW846 8260B

M99605-1, M99605-6

CAS No.	Compound	M99599-3 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		50	26.6	53* [a]	26.1	52* [a]	2	70-130/30
107-02-8	Acrolein	ND		250	3500	1400* [b]	3470	1388* [b]	1	70-130/30
107-13-1	Acrylonitrile	ND		50	54.6	109	53.6	107	2	70-130/30
71-43-2	Benzene	ND		50	53.9	108	53.5	107	1	70-130/30
108-86-1	Bromobenzene	ND		50	54.1	108	53.8	108	1	70-130/30
74-97-5	Bromochloromethane	ND		50	59.3	119	59.0	118	1	70-130/30
75-27-4	Bromodichloromethane	ND		50	55.4	111	55.9	112	1	70-130/30
75-25-2	Bromoform	ND		50	50.5	101	50.0	100	1	70-130/30
74-83-9	Bromomethane	ND		50	53.7	107	54.2	108	1	70-130/30
78-93-3	2-Butanone (MEK)	ND		50	39.2	78	37.7	75	4	70-130/30
104-51-8	n-Butylbenzene	ND		50	55.3	111	55.2	110	0	70-130/30
135-98-8	sec-Butylbenzene	ND		50	56.5	113	55.5	111	2	70-130/30
98-06-6	tert-Butylbenzene	ND		50	54.3	109	54.8	110	1	70-130/30
75-15-0	Carbon disulfide	ND		50	44.6	89	44.7	89	0	70-130/30
56-23-5	Carbon tetrachloride	ND		50	56.6	113	57.0	114	1	70-130/30
108-90-7	Chlorobenzene	ND		50	55.7	111	55.8	112	0	70-130/30
75-00-3	Chloroethane	ND		50	57.8	116	57.2	114	1	70-130/30
110-75-8	2-Chloroethyl vinyl ether	ND		50	65.1	130	64.7	129	1	70-130/30
67-66-3	Chloroform	ND		50	56.5	113	56.3	113	0	70-130/30
74-87-3	Chloromethane	ND		50	52.8	106	52.2	104	1	70-130/30
95-49-8	o-Chlorotoluene	ND		50	52.8	106	52.7	105	0	70-130/30
106-43-4	p-Chlorotoluene	ND		50	54.7	109	54.6	109	0	70-130/30
96-12-8	1,2-Dibromo-3-chloropropane	ND		50	54.1	108	54.2	108	0	70-130/30
124-48-1	Dibromochloromethane	ND		50	54.3	109	54.6	109	1	70-130/30
106-93-4	1,2-Dibromoethane	ND		50	59.3	119	59.6	119	1	70-130/30
95-50-1	1,2-Dichlorobenzene	ND		50	56.1	112	55.0	110	2	70-130/30
541-73-1	1,3-Dichlorobenzene	ND		50	55.2	110	54.7	109	1	70-130/30
106-46-7	1,4-Dichlorobenzene	ND		50	54.4	109	54.0	108	1	70-130/30
75-71-8	Dichlorodifluoromethane	ND		50	53.5	107	52.7	105	2	70-130/30
75-34-3	1,1-Dichloroethane	ND		50	55.4	111	54.7	109	1	70-130/30
107-06-2	1,2-Dichloroethane	ND		50	56.7	113	56.2	112	1	70-130/30
75-35-4	1,1-Dichloroethene	ND		50	55.7	111	56.6	113	2	70-130/30
156-59-2	cis-1,2-Dichloroethene	ND		50	52.4	105	52.4	105	0	70-130/30
156-60-5	trans-1,2-Dichloroethene	ND		50	53.9	108	54.3	109	1	70-130/30
78-87-5	1,2-Dichloropropane	ND		50	55.5	111	55.6	111	0	70-130/30
142-28-9	1,3-Dichloropropane	ND		50	56.0	112	56.0	112	0	70-130/30

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M99605
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M99599-3MS	G105660.D	1	05/04/11	EL	n/a	n/a	MSG4263
M99599-3MSD	G105661.D	1	05/04/11	EL	n/a	n/a	MSG4263
M99599-3	G105658.D	1	05/04/11	EL	n/a	n/a	MSG4263

The QC reported here applies to the following samples: Method: SW846 8260B

M99605-1, M99605-6

CAS No.	Compound	M99599-3 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
594-20-7	2,2-Dichloropropane	ND		50	57.3	115	55.9	112	2	70-130/30
563-58-6	1,1-Dichloropropene	ND		50	57.7	115	57.0	114	1	70-130/30
10061-01-5	cis-1,3-Dichloropropene	ND		50	56.6	113	55.8	112	1	70-130/30
10061-02-6	trans-1,3-Dichloropropene	ND		50	61.7	123	63.1	126	2	70-130/30
123-91-1	1,4-Dioxane	ND		250	262	105	269	108	3	70-130/30
97-63-2	Ethyl methacrylate	ND		50	53.2	106	52.8	106	1	72-139/30
100-41-4	Ethylbenzene	ND		50	55.6	111	56.1	112	1	70-130/30
87-68-3	Hexachlorobutadiene	ND		50	53.1	106	53.5	107	1	70-130/30
591-78-6	2-Hexanone	ND		50	34.2	68* [a]	33.9	68* [a]	1	70-130/30
98-82-8	Isopropylbenzene	ND		50	63.5	127	63.4	127	0	70-130/30
99-87-6	p-Isopropyltoluene	ND		50	58.3	117	57.5	115	1	70-130/30
1634-04-4	Methyl Tert Butyl Ether	ND		50	53.2	106	54.3	109	2	70-130/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		50	54.8	110	54.3	109	1	70-130/30
74-95-3	Methylene bromide	ND		50	59.9	120	59.1	118	1	70-130/30
75-09-2	Methylene chloride	ND		50	53.5	107	54.3	109	1	70-130/30
91-20-3	Naphthalene	ND		50	48.2	96	48.2	96	0	70-130/30
103-65-1	n-Propylbenzene	ND		50	56.2	112	55.6	111	1	70-130/30
100-42-5	Styrene	ND		50	54.2	108	54.6	109	1	70-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		50	56.6	113	56.9	114	1	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		50	55.3	111	55.3	111	0	70-130/30
127-18-4	Tetrachloroethene	ND		50	56.7	113	57.3	115	1	70-130/30
108-88-3	Toluene	ND		50	57.4	115	56.4	113	2	70-130/30
87-61-6	1,2,3-Trichlorobenzene	ND		50	49.3	99	49.0	98	1	70-130/30
120-82-1	1,2,4-Trichlorobenzene	ND		50	48.8	98	49.3	99	1	70-130/30
71-55-6	1,1,1-Trichloroethane	ND		50	58.3	117	58.0	116	1	70-130/30
79-00-5	1,1,2-Trichloroethane	ND		50	59.8	120	59.6	119	0	70-130/30
79-01-6	Trichloroethene	ND		50	56.6	113	55.8	112	1	70-130/30
75-69-4	Trichlorofluoromethane	ND		50	58.7	117	58.9	118	0	70-130/30
96-18-4	1,2,3-Trichloropropane	ND		50	53.0	106	52.3	105	1	70-130/30
95-63-6	1,2,4-Trimethylbenzene	ND		50	53.6	107	53.4	107	0	70-130/30
108-67-8	1,3,5-Trimethylbenzene	ND		50	52.1	104	51.4	103	1	70-130/30
108-05-4	Vinyl Acetate	ND		50	54.4	109	54.2	108	0	70-130/30
75-01-4	Vinyl chloride	ND		50	57.1	114	56.7	113	1	70-130/30
	m,p-Xylene	ND		100	113	113	113	113	0	70-130/30
95-47-6	o-Xylene	ND		50	56.1	112	56.5	113	1	70-130/30
1330-20-7	Xylene (total)	ND		150	169	113	169	113	0	70-130/30

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M99605
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M99599-3MS	G105660.D	1	05/04/11	EL	n/a	n/a	MSG4263
M99599-3MSD	G105661.D	1	05/04/11	EL	n/a	n/a	MSG4263
M99599-3	G105658.D	1	05/04/11	EL	n/a	n/a	MSG4263

The QC reported here applies to the following samples: Method: SW846 8260B

M99605-1, M99605-6

CAS No.	Surrogate Recoveries	MS	MSD	M99599-3	Limits
1868-53-7	Dibromofluoromethane	101%	101%	100%	70-130%
2037-26-5	Toluene-D8	106%	106%	105%	70-130%
460-00-4	4-Bromofluorobenzene	99%	98%	111%	70-130%

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.
(b) Outside control limits. Associated samples are non-detect for this compound.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M99605
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M99605-5MS	P52878.D	1	05/05/11	AMY	n/a	n/a	MSP1750
M99605-5MSD	P52879.D	1	05/05/11	AMY	n/a	n/a	MSP1750
M99605-5	P52877.D	1	05/05/11	AMY	n/a	n/a	MSP1750

The QC reported here applies to the following samples: Method: SW846 8260B

M99605-2, M99605-3, M99605-4, M99605-5

CAS No.	Compound	M99605-5 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		50.7	89.8	177* a	103	199* a	14	70-130/30
107-02-8	Acrolein	ND		254	522	206* b	1330	514* b	87* b	70-130/30
107-13-1	Acrylonitrile	ND		50.7	47.2	93	60.9	118	25	70-130/30
71-43-2	Benzene	1.5		50.7	44.6	85	52.6	99	16	70-130/30
108-86-1	Bromobenzene	ND		50.7	43.3	85	52.2	101	19	70-130/30
74-97-5	Bromochloromethane	ND		50.7	45.4	90	52.7	102	15	70-130/30
75-27-4	Bromodichloromethane	ND		50.7	43.5	86	53.0	102	20	70-130/30
75-25-2	Bromoform	ND		50.7	42.7	84	54.3	105	24	70-130/30
74-83-9	Bromomethane	ND		50.7	27.3	54* a	40.5	78	39* c	70-130/30
78-93-3	2-Butanone (MEK)	ND		50.7	40.9	81	44.7	86	9	70-130/30
104-51-8	n-Butylbenzene	ND		50.7	43.2	85	52.1	101	19	70-130/30
135-98-8	sec-Butylbenzene	ND		50.7	44.2	87	53.2	103	18	70-130/30
98-06-6	tert-Butylbenzene	ND		50.7	44.3	87	52.9	102	18	70-130/30
75-15-0	Carbon disulfide	19.9		50.7	47.3	54* a	55.5	69* a	16	70-130/30
56-23-5	Carbon tetrachloride	ND		50.7	35.8	71	48.5	94	30	70-130/30
108-90-7	Chlorobenzene	ND		50.7	43.1	85	49.3	95	13	70-130/30
75-00-3	Chloroethane	ND		50.7	46.3	91	61.9	120	29	70-130/30
110-75-8	2-Chloroethyl vinyl ether	ND		50.7	ND	0* a	60.4	117	200* c	10-160/30
67-66-3	Chloroform	ND		50.7	41.6	82	48.3	93	15	70-130/30
74-87-3	Chloromethane	ND		50.7	33.1	65* a	40.5	78	20	70-130/30
95-49-8	o-Chlorotoluene	ND		50.7	42.0	83	49.9	96	17	70-130/30
106-43-4	p-Chlorotoluene	ND		50.7	44.1	87	53.4	103	19	70-130/30
96-12-8	1,2-Dibromo-3-chloropropane	ND		50.7	54.1	107	66.4	128	20	70-130/30
124-48-1	Dibromochloromethane	ND		50.7	43.3	85	53.2	103	21	70-130/30
106-93-4	1,2-Dibromoethane	ND		50.7	50.3	99	56.9	110	12	70-130/30
95-50-1	1,2-Dichlorobenzene	ND		50.7	40.8	80	49.4	96	19	70-130/30
541-73-1	1,3-Dichlorobenzene	ND		50.7	40.5	80	47.9	93	17	70-130/30
106-46-7	1,4-Dichlorobenzene	ND		50.7	39.9	79	48.0	93	18	70-130/30
75-71-8	Dichlorodifluoromethane	ND		50.7	37.4	74	42.6	82	13	70-130/30
75-34-3	1,1-Dichloroethane	ND		50.7	41.6	82	48.1	93	14	70-130/30
107-06-2	1,2-Dichloroethane	ND		50.7	41.8	82	55.4	107	28	70-130/30
75-35-4	1,1-Dichloroethene	ND		50.7	45.7	90	53.7	104	16	70-130/30
156-59-2	cis-1,2-Dichloroethene	ND		50.7	42.8	84	49.1	95	14	70-130/30
156-60-5	trans-1,2-Dichloroethene	ND		50.7	44.5	88	51.2	99	14	70-130/30
78-87-5	1,2-Dichloropropane	ND		50.7	41.5	82	49.9	96	18	70-130/30
142-28-9	1,3-Dichloropropane	ND		50.7	48.9	96	55.5	107	13	70-130/30

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M99605
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M99605-5MS	P52878.D	1	05/05/11	AMY	n/a	n/a	MSP1750
M99605-5MSD	P52879.D	1	05/05/11	AMY	n/a	n/a	MSP1750
M99605-5	P52877.D	1	05/05/11	AMY	n/a	n/a	MSP1750

The QC reported here applies to the following samples: Method: SW846 8260B

M99605-2, M99605-3, M99605-4, M99605-5

CAS No.	Compound	M99605-5 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
594-20-7	2,2-Dichloropropane	ND		50.7	39.0	77	45.6	88	16	70-130/30
563-58-6	1,1-Dichloropropene	ND		50.7	45.0	89	54.4	105	19	70-130/30
10061-01-5	cis-1,3-Dichloropropene	ND		50.7	38.9	77	49.7	96	24	70-130/30
10061-02-6	trans-1,3-Dichloropropene	ND		50.7	45.1	89	57.9	112	25	70-130/30
123-91-1	1,4-Dioxane	ND		254	311	123	291	113	7	70-130/30
97-63-2	Ethyl methacrylate	ND		50.7	50.3	99	60.2	116	18	41-160/30
100-41-4	Ethylbenzene	5.0		50.7	47.2	83	54.6	96	15	70-130/30
87-68-3	Hexachlorobutadiene	ND		50.7	38.1	75	45.8	89	18	70-130/30
591-78-6	2-Hexanone	ND		50.7	41.1	81	46.5	90	12	70-130/30
98-82-8	Isopropylbenzene	ND		50.7	52.3	103	62.6	121	18	70-130/30
99-87-6	p-Isopropyltoluene	ND		50.7	43.4	86	52.3	101	19	70-130/30
1634-04-4	Methyl Tert Butyl Ether	ND		50.7	48.5	96	55.1	107	13	70-130/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		50.7	49.8	98	59.0	114	17	70-130/30
74-95-3	Methylene bromide	ND		50.7	46.7	92	53.7	104	14	70-130/30
75-09-2	Methylene chloride	ND		50.7	40.7	80	43.9	85	8	70-130/30
91-20-3	Naphthalene	ND		50.7	38.5	76	52.0	101	30	70-130/30
103-65-1	n-Propylbenzene	ND		50.7	45.2	89	53.6	104	17	70-130/30
100-42-5	Styrene	ND		50.7	43.1	85	53.8	104	22	70-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		50.7	43.8	86	50.6	98	14	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		50.7	50.0	99	58.0	112	15	70-130/30
127-18-4	Tetrachloroethene	ND		50.7	44.2	87	51.0	99	14	70-130/30
108-88-3	Toluene	5.1	J	50.7	48.9	86	57.9	102	17	70-130/30
87-61-6	1,2,3-Trichlorobenzene	ND		50.7	38.3	76	50.2	97	27	70-130/30
120-82-1	1,2,4-Trichlorobenzene	ND		50.7	38.2	75	47.7	92	22	70-130/30
71-55-6	1,1,1-Trichloroethane	ND		50.7	40.8	80	48.0	93	16	70-130/30
79-00-5	1,1,2-Trichloroethane	ND		50.7	48.3	95	56.2	109	15	70-130/30
79-01-6	Tricbloroethene	ND		50.7	44.3	87	52.0	101	16	70-130/30
75-69-4	Trichlorofluoromethane	ND		50.7	40.1	79	48.0	93	18	70-130/30
96-18-4	1,2,3-Trichloropropane	ND		50.7	49.3	97	58.4	113	17	70-130/30
95-63-6	1,2,4-Trimethylbenzene	ND		50.7	45.1	89	54.4	105	19	70-130/30
108-67-8	1,3,5-Trimethylbenzene	ND		50.7	44.1	87	52.2	101	17	70-130/30
108-05-4	Vinyl Acetate	ND		50.7	56.5	111	61.3	119	8	70-130/30
75-01-4	Vinyl chloride	ND		50.7	43.9	87	54.0	104	21	70-130/30
	m,p-Xylene	1.3	J	101	93.6	91	107	102	13	70-130/30
95-47-6	o-Xylene	0.54	J	50.7	46.5	91	53.6	103	14	70-130/30
1330-20-7	Xylene (total)	1.9	J	152	140	91	161	103	14	70-130/30

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M99605
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M99605-5MS	P52878.D	1	05/05/11	AMY	n/a	n/a	MSP1750
M99605-5MSD	P52879.D	1	05/05/11	AMY	n/a	n/a	MSP1750
M99605-5	P52877.D	1	05/05/11	AMY	n/a	n/a	MSP1750

The QC reported here applies to the following samples: Method: SW846 8260B

M99605-2, M99605-3, M99605-4, M99605-5

CAS No.	Surrogate Recoveries	MS	MSD	M99605-5	Limits
1868-53-7	Dibromofluoromethane	110%	110%	116%	70-130%
2037-26-5	Toluene-D8	118%	121%	129%	70-130%
460-00-4	4-Bromofluorobenzene	108%	111%	125%	70-130%

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.
(b) Outside control limits. Associated samples are non-detect for this compound.
(c) High RPD due to possible matrix interference and/or sample non-homogeneity.

Volatile Internal Standard Area Summary

Job Number: M99605
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Check Std:	MSG4263-CC4240	Injection Date:	05/04/11
Lab File ID:	G105650.D	Injection Time:	11:28
Instrument ID:	GCMSG	Method:	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	78723	9.13	114323	10.01	56671	13.28	57480	15.86	28876	6.68
Upper Limit [a]	157446	9.63	228646	10.51	113342	13.78	114960	16.36	57752	7.18
Lower Limit [b]	39362	8.63	57162	9.51	28336	12.78	28740	15.36	14438	6.18
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSG4263-BS	79580	9.13	114692	10.01	57469	13.28	57591	15.85	29122	6.68
MSG4263-MB	79366	9.13	113002	10.01	54638	13.28	45982	15.86	27844	6.68
M99605-1	79674	9.13	113633	10.01	54162	13.28	45432	15.86	26616	6.68
M99605-6	79458	9.13	113425	10.01	55005	13.28	45448	15.86	26528	6.68
ZZZZZZ	78449	9.13	113650	10.01	54589	13.28	45164	15.86	27278	6.68
ZZZZZZ	79655	9.13	112543	10.01	53535	13.28	44995	15.86	26394	6.68
M99599-3	78551	9.13	111562	10.01	53817	13.28	44489	15.86	27463	6.68
ZZZZZZ	78483	9.13	112158	10.01	54335	13.28	44132	15.86	27639	6.68
M99599-3MS	79936	9.13	114512	10.01	57036	13.28	57099	15.86	28057	6.68
M99599-3MSD	79779	9.13	114802	10.01	56911	13.28	57471	15.86	29064	6.68
ZZZZZZ	79415	9.13	113375	10.01	56215	13.28	54411	15.86	28397	6.68
ZZZZZZ	80405	9.13	115646	10.01	56274	13.28	51356	15.86	26807	6.68
ZZZZZZ	80958	9.13	115806	10.01	56149	13.28	45976	15.86	27718	6.68
ZZZZZZ	80440	9.13	115418	10.01	57267	13.28	56264	15.86	29118	6.68
ZZZZZZ	79859	9.13	116389	10.01	55916	13.28	48014	15.86	26939	6.68
ZZZZZZ	80270	9.13	114467	10.01	55121	13.28	46375	15.86	25915	6.68
ZZZZZZ	80375	9.13	115435	10.01	55520	13.28	46964	15.86	26334	6.68
ZZZZZZ	78754	9.13	113183	10.01	54378	13.28	44852	15.86	26504	6.68
ZZZZZZ	79263	9.13	112266	10.01	54363	13.28	44524	15.86	26664	6.68
ZZZZZZ	78416	9.13	111880	10.01	53650	13.28	44634	15.86	25741	6.68
ZZZZZZ	78785	9.13	112473	10.01	54878	13.28	44618	15.86	26700	6.68
ZZZZZZ	77151	9.13	110724	10.01	53418	13.28	44339	15.86	26969	6.68
ZZZZZZ	77644	9.13	112190	10.01	53213	13.28	43660	15.86	26665	6.68

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Internal Standard Area Summary

Job Number: M99605
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Check Std:	MSP1751-ICC1751	Injection Date:	05/05/11
Lab File ID:	P52864A.D	Injection Time:	12:02
Instrument ID:	GCMSP	Method:	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	92692	8.50	139928	9.36	74925	12.57	68559	15.13	30102	6.19
Upper Limit [a]	185384	9.00	279856	9.86	149850	13.07	137118	15.63	60204	6.69
Lower Limit [b]	46346	8.00	69964	8.86	37463	12.07	34280	14.63	15051	5.69

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSP1750-BS	88188	8.51	132018	9.36	65310	12.58	57589	15.13	28046	6.21

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Internal Standard Area Summary

Job Number: M99605
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Check Std:	MSP1750-CC1750	Injection Date:	05/05/11
Lab File ID:	P52870.D	Injection Time:	14:47
Instrument ID:	GCMSP	Method:	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	88188	8.51	132018	9.36	65310	12.58	57589	15.13	28046	6.21
Upper Limit [a]	176376	9.01	264036	9.86	130620	13.08	115178	15.63	56092	6.71
Lower Limit [b]	44094	8.01	66009	8.86	32655	12.08	28795	14.63	14023	5.71
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSP1750-MB	78210	8.51	113631	9.37	51082	12.58	38784	15.14	24367	6.23
M99605-2	75954	8.51	111370	9.37	50844	12.58	38377	15.14	31683	6.25
M99605-3	77343	8.51	114584	9.37	53508	12.58	42146	15.14	30327	6.25
ZZZZZZ	69680	8.52	102559	9.37	43512	12.58	29142	15.14	24013	6.25
M99605-4	77530	8.51	118783	9.37	54583	12.58	42278	15.14	33859	6.22
M99605-5	86462	8.51	128804	9.37	60937	12.58	49830	15.14	29273	6.25
M99605-5MS	84257	8.51	126320	9.36	62131	12.58	56099	15.13	36803	6.21
M99605-5MSD	89205	8.50	131463	9.36	67384	12.58	59849	15.13	32003	6.21
ZZZZZZ	77547	8.51	112640	9.37	50809	12.58	38870	15.14	20073	6.22
ZZZZZZ	74478	8.51	107375	9.37	49037	12.58	37969	15.14	23910	6.22
ZZZZZZ	74186	8.51	110672	9.37	50768	12.58	39925	15.14	25415	6.22
ZZZZZZ	75125	8.51	111105	9.37	50449	12.58	40386	15.14	22794	6.21
ZZZZZZ	77088	8.51	113351	9.36	52165	12.58	43881	15.14	24543	6.20
ZZZZZZ	83697	8.50	125897	9.36	61351	12.58	57157	15.13	25340	6.18
ZZZZZZ	78696	8.51	115701	9.37	52195	12.58	40262	15.14	26182	6.24
ZZZZZZ	74975	8.51	109800	9.37	50369	12.58	37290	15.14	34419	6.21

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Surrogate Recovery Summary

Job Number: M99605
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Method: SW846 8260B Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
M99605-1	G105654.D	100.0	105.0	109.0
M99605-6	G105655.D	101.0	105.0	111.0
M99599-3MS	G105660.D	101.0	106.0	99.0
M99599-3MSD	G105661.D	101.0	106.0	98.0
MSG4263-BS	G105651.D	100.0	104.0	95.0
MSG4263-MB	G105653.D	99.0	104.0	109.0

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	70-130%
S2 = Toluene-D8	70-130%
S3 = 4-Bromofluorobenzene	70-130%

Volatile Surrogate Recovery Summary

Job Number: M99605
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Method: SW846 8260B Matrix: SO

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
M99605-2	P52873.D	115.0	117.0	116.0
M99605-3	P52874.D	120.0	126.0	122.0
M99605-4	P52876.D	123.0	124.0	122.0
M99605-5	P52877.D	116.0	129.0	125.0
M99605-5MS	P52878.D	110.0	118.0	108.0
M99605-5MSD	P52879.D	110.0	121.0	111.0
MSP1750-BS	P52870.D	119.0	122.0	109.0
MSP1750-MB	P52872.D	110.0	115.0	112.0

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	70-130%
S2 = Toluene-D8	70-130%
S3 = 4-Bromofluorobenzene	70-130%

New England ACCUTEST LABORATORIES

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: M99605
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24769-MB	I72190.D	1	05/05/11	KR	04/28/11	OP24769	MSI2582

The QC reported here applies to the following samples: Method: SW846 8270C

M99605-1

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	0.77	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	0.68	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.57	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.69	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	2.2	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	5.0	ug/l	
95-48-7	2-Methylphenol	ND	10	0.48	ug/l	
	3&4-Methylphenol	ND	10	0.63	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.66	ug/l	
100-02-7	4-Nitrophenol	ND	20	5.0	ug/l	
87-86-5	Pentachlorophenol	ND	10	3.3	ug/l	
108-95-2	Phenol	ND	5.0	2.1	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	0.40	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.38	ug/l	
83-32-9	Acenaphthene	ND	5.0	0.34	ug/l	
208-96-8	Acenaphthylene	ND	5.0	1.3	ug/l	
62-53-3	Aniline	ND	10	0.46	ug/l	
120-12-7	Anthracene	ND	5.0	0.27	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	0.27	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	0.23	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	0.27	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	0.61	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.0	0.29	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	0.32	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	0.41	ug/l	
100-51-6	Benzyl Alcohol	ND	10	0.76	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	0.31	ug/l	
106-47-8	4-Chloroaniline	ND	10	0.58	ug/l	
218-01-9	Chrysene	ND	5.0	0.22	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	0.35	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	0.23	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	0.21	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	0.61	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	0.29	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	1.3	ug/l	

Method Blank Summary

Job Number: M99605
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24769-MB	I72190.D	1	05/05/11	KR	04/28/11	OP24769	MSI2582

The QC reported here applies to the following samples: Method: SW846 8270C

M99605-1

CAS No.	Compound	Result	RL	MDL	Units	Q
606-20-2	2,6-Dinitrotoluene	ND	10	0.34	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	2.5	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	0.25	ug/l	
132-64-9	Dibenzofuran	ND	5.0	0.32	ug/l	
84-74-2	Di-n-butyl phthalate	0.39	5.0	0.34	ug/l	J
117-84-0	Di-n-octyl phthalate	ND	5.0	0.34	ug/l	
84-66-2	Diethyl phthalate	0.79	5.0	0.61	ug/l	J
131-11-3	Dimethyl phthalate	ND	5.0	1.3	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.49	ug/l	
206-44-0	Fluoranthene	ND	5.0	0.22	ug/l	
86-73-7	Fluorene	ND	5.0	0.29	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	0.16	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	2.5	ug/l	
67-72-1	Hexachloroethane	ND	5.0	0.43	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	0.29	ug/l	
78-59-1	Isophorone	ND	5.0	0.47	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.0	0.56	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	0.31	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.33	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.32	ug/l	
100-01-6	4-Nitroaniline	ND	10	0.33	ug/l	
91-20-3	Naphthalene	ND	5.0	0.33	ug/l	
98-95-3	Nitrobenzene	ND	5.0	0.31	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.0	2.5	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.0	0.41	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.61	ug/l	
85-01-8	Phenanthrene	ND	5.0	0.26	ug/l	
129-00-0	Pyrene	ND	5.0	0.25	ug/l	
110-86-1	Pyridine	ND	10	0.50	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	55%	15-110%
4165-62-2	Phenol-d5	36%	15-110%
118-79-6	2,4,6-Tribromophenol	80%	15-110%

6.1.1

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Method Blank Summary

Job Number: M99605
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24769-MB	I72190.D	1	05/05/11	KR	04/28/11	OP24769	MSI2582

The QC reported here applies to the following samples: Method: SW846 8270C

M99605-1

CAS No.	Surrogate Recoveries		Limits
4165-60-0	Nitrobenzene-d5	85%	30-130%
321-60-8	2-Fluorobiphenyl	81%	30-130%
1718-51-0	Terphenyl-d14	88%	30-130%

Method Blank Summary

Job Number: M99605
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24800-MB	S23544.D	1	05/03/11	PR	05/02/11	OP24800	MSS997

The QC reported here applies to the following samples: Method: SW846 8270C

M99605-2, M99605-3, M99605-4, M99605-5

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic acid	ND	490	38	ug/kg	
95-57-8	2-Chlorophenol	ND	250	13	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	490	17	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	490	29	ug/kg	
105-67-9	2,4-Dimethylpbenol	ND	490	49	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	980	250	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	490	250	ug/kg	
95-48-7	2-Methylphenol	ND	490	14	ug/kg	
	3&4-Methylphenol	ND	490	26	ug/kg	
88-75-5	2-Nitrophenol	ND	490	30	ug/kg	
100-02-7	4-Nitrophenol	ND	980	250	ug/kg	
87-86-5	Pentacblorophenol	ND	490	46	ug/kg	
108-95-2	Phenol	ND	250	41	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	490	37	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	490	34	ug/kg	
83-32-9	Acenaphthene	ND	250	21	ug/kg	
208-96-8	Acenaphthylene	ND	250	18	ug/kg	
62-53-3	Aniline	ND	490	490	ug/kg	
120-12-7	Anthracene	ND	250	19	ug/kg	
56-55-3	Benzo(a)anthracene	ND	250	9.0	ug/kg	
50-32-8	Benzo(a)pyrene	ND	250	15	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	250	29	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	250	16	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	250	7.3	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	250	20	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	250	11	ug/kg	
100-51-6	Benzyl Alcohol	ND	490	30	ug/kg	
91-58-7	2-Chloronaphthalene	ND	250	21	ug/kg	
106-47-8	4-Chloroaniline	ND	490	120	ug/kg	
218-01-9	Chrysene	ND	250	8.0	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	250	19	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	250	5.3	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	250	23	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	250	22	ug/kg	
122-66-7	1,2-Diphenylhydrazine	ND	250	21	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	490	120	ug/kg	

Method Blank Summary

Job Number: M99605
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24800-MB	S23544.D	1	05/03/11	PR	05/02/11	OP24800	MSS997

The QC reported here applies to the following samples: Method: SW846 8270C

M99605-2, M99605-3, M99605-4, M99605-5

CAS No.	Compound	Result	RL	MDL	Units	Q
606-20-2	2,6-Dinitrotoluene	ND	490	24	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	250	5.9	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	250	16	ug/kg	
132-64-9	Dibenzofuran	ND	250	21	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	250	22	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	250	13	ug/kg	
84-66-2	Diethyl phthalate	ND	250	21	ug/kg	
131-11-3	Dimethyl phthalate	ND	250	17	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	250	17	ug/kg	
206-44-0	Fluoranthene	ND	250	8.3	ug/kg	
86-73-7	Fluorene	ND	250	5.4	ug/kg	
118-74-1	Hexachlorobenzene	ND	250	21	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	490	3.3	ug/kg	
67-72-1	Hexachloroethane	ND	250	20	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	250	15	ug/kg	
78-59-1	Isophorone	ND	250	24	ug/kg	
90-12-0	1-Methylnaphthalene	ND	250	250	ug/kg	
91-57-6	2-Methylnaphthalene	ND	250	21	ug/kg	
88-74-4	2-Nitroaniline	ND	490	120	ug/kg	
99-09-2	3-Nitroaniline	ND	490	120	ug/kg	
100-01-6	4-Nitroaniline	ND	490	18	ug/kg	
91-20-3	Naphthalene	ND	250	5.7	ug/kg	
98-95-3	Nitrobenzene	ND	250	7.3	ug/kg	
62-75-9	n-Nitrosodimethylamine	ND	250	20	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	250	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	250	13	ug/kg	
85-01-8	Phenanthrene	ND	250	6.3	ug/kg	
129-00-0	Pyrene	ND	250	7.9	ug/kg	
110-86-1	Pyridine	ND	490	490	ug/kg	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	82%	30-130%
4165-62-2	Phenol-d5	80%	30-130%
118-79-6	2,4,6-Tribromophenol	62%	30-130%

Method Blank Summary

Job Number: M99605
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24800-MB	S23544.D	1	05/03/11	PR	05/02/11	OP24800	MSS997

The QC reported here applies to the following samples: Method: SW846 8270C

M99605-2, M99605-3, M99605-4, M99605-5

CAS No.	Surrogate Recoveries		Limits
4165-60-0	Nitrobenzene-d5	88%	30-130%
321-60-8	2-Fluorobiphenyl	77%	30-130%
1718-51-0	Terphenyl-d14	89%	30-130%

Blank Spike Summary

Job Number: M99605
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24800-BS	S23545.D	1	05/03/11	PR	05/02/11	OP24800	MSS997

The QC reported here applies to the following samples: Method: SW846 8270C

M99605-2, M99605-3, M99605-4, M99605-5

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
65-85-0	Benzoic acid	4890	2030	41	30-130
95-57-8	2-Chlorophenol	4890	3310	68	30-130
59-50-7	4-Chloro-3-methyl phenol	4890	3750	77	30-130
120-83-2	2,4-Dichlorophenol	4890	3360	69	30-130
105-67-9	2,4-Dimethylphenol	4890	3970	81	30-130
51-28-5	2,4-Dinitrophenol	4890	2780	57	30-130
534-52-1	4,6-Dinitro-o-cresol	4890	3330	68	30-130
95-48-7	2-Methylphenol	4890	3590	73	30-130
	3&4-Methylphenol	9790	7510	77	30-130
88-75-5	2-Nitrophenol	4890	3440	70	30-130
100-02-7	4-Nitrophenol	4890	4110	84	30-130
87-86-5	Pentachlorophenol	4890	3560	73	30-130
108-95-2	Phenol	4890	3400	69	30-130
95-95-4	2,4,5-Trichlorophenol	4890	3230	66	30-130
88-06-2	2,4,6-Trichlorophenol	4890	3330	68	30-130
83-32-9	Acenaphthene	2450	1750	72	40-140
208-96-8	Acenaphthylene	2450	1270	52	40-140
62-53-3	Aniline	2450	1390	57	40-140
120-12-7	Anthracene	2450	1710	70	40-140
56-55-3	Benzo(a)anthracene	2450	1880	77	40-140
50-32-8	Benzo(a)pyrene	2450	1650	67	40-140
205-99-2	Benzo(b)fluoranthene	2450	1810	74	40-140
191-24-2	Benzo(g,h,i)perylene	2450	1820	74	40-140
207-08-9	Benzo(k)fluoranthene	2450	1850	76	40-140
101-55-3	4-Bromophenyl phenyl ether	2450	1690	69	40-140
85-68-7	Butyl benzyl phthalate	2450	2220	91	40-140
100-51-6	Benzyl Alcohol	2450	1790	73	40-140
91-58-7	2-Chloronaphthalene	2450	1730	71	40-140
106-47-8	4-Chloroaniline	2450	1580	65	40-140
218-01-9	Chrysene	2450	1800	74	40-140
111-91-1	bis(2-Chloroethoxy)methane	2450	1810	74	40-140
111-44-4	bis(2-Chloroethyl)ether	2450	1480	60	40-140
108-60-1	bis(2-Chloroisopropyl)ether	2450	1990	81	40-140
7005-72-3	4-Chlorophenyl phenyl ether	2450	1650	67	40-140
122-66-7	1,2-Diphenylhydrazine	2450	2090	85	40-140
121-14-2	2,4-Dinitrotoluene	2450	1790	73	40-140

Blank Spike Summary

Job Number: M99605
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24800-BS	S23545.D	1	05/03/11	PR	05/02/11	OP24800	MSS997

The QC reported here applies to the following samples: Method: SW846 8270C

M99605-2, M99605-3, M99605-4, M99605-5

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
606-20-2	2,6-Dinitrotoluene	2450	1730	71	40-140
91-94-1	3,3'-Dichlorobenzidine	2450	1710	70	40-140
53-70-3	Dibenzo(a,h)anthracene	2450	1780	73	40-140
132-64-9	Dibenzofuran	2450	1660	68	40-140
84-74-2	Di-n-butyl phthalate	2450	1980	81	40-140
117-84-0	Di-n-octyl phthalate	2450	2440	100	40-140
84-66-2	Diethyl phthalate	2450	1940	79	40-140
131-11-3	Dimethyl phthalate	2450	1830	75	40-140
117-81-7	bis(2-Ethylhexyl)phthalate	2450	2160	88	40-140
206-44-0	Fluoranthene	2450	1760	72	40-140
86-73-7	Fluorene	2450	1750	72	40-140
118-74-1	Hexachlorobenzene	2450	1680	69	40-140
77-47-4	Hexachlorocyclopentadiene	2450	768	31* [a]	40-140
67-72-1	Hexachloroethane	2450	1800	74	40-140
193-39-5	Indeno(1,2,3-cd)pyrene	2450	1860	76	40-140
78-59-1	Isophorone	2450	1940	79	40-140
90-12-0	1-Methylnaphthalene	2450	1610	66	40-140
91-57-6	2-Methylnaphthalene	2450	1630	67	40-140
88-74-4	2-Nitroaniline	2450	1900	78	40-140
99-09-2	3-Nitroaniline	2450	1590	65	40-140
100-01-6	4-Nitroaniline	2450	1650	67	40-140
91-20-3	Naphthalene	2450	1720	70	40-140
98-95-3	Nitrobenzene	2450	1920	78	40-140
62-75-9	n-Nitrosodimethylamine	2450	1760	72	40-140
621-64-7	N-Nitroso-di-n-propylamine	2450	2280	93	40-140
86-30-6	N-Nitrosodiphenylamine	2450	1820	74	40-140
85-01-8	Phenanthrene	2450	1760	72	40-140
129-00-0	Pyrene	2450	1950	80	40-140
110-86-1	Pyridine	2450	1610	66	40-140

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	73%	30-130%
4165-62-2	Phenol-d5	74%	30-130%
118-79-6	2,4,6-Tribromophenol	67%	30-130%

6.2.1

6

Blank Spike Summary

Job Number: M99605
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24800-BS	S23545.D	1	05/03/11	PR	05/02/11	OP24800	MSS997

The QC reported here applies to the following samples: Method: SW846 8270C

M99605-2, M99605-3, M99605-4, M99605-5

CAS No.	Surrogate Recoveries	BSP	Limits
4165-60-0	Nitrobenzene-d5	81%	30-130%
321-60-8	2-Fluorobiphenyl	69%	30-130%
1718-51-0	Terphenyl-d14	79%	30-130%

(a) Outside control limits. Blank Spike meets program technical requirements.

Blank Spike/Blank Spike Duplicate Summary

Job Number: M99605
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24769-BS	I72191.D	1	05/05/11	KR	04/28/11	OP24769	MSI2582
OP24769-BSD	I72192.D	1	05/05/11	KR	04/28/11	OP24769	MSI2582

Sample Not from this SDG
B

6.3.1
6

The QC reported here applies to the following samples: Method: SW846 8270C

M99605-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
65-85-0	Benzoic Acid	100	45.2	45	42.4	42	6	30-130/20
95-57-8	2-Chlorophenol	100	77.3	77	81.4	81	5	30-130/20
59-50-7	4-Chloro-3-methyl phenol	100	84.8	85	86.2	86	2	30-130/20
120-83-2	2,4-Dichlorophenol	100	81.1	81	83.2	83	3	30-130/20
105-67-9	2,4-Dimethylphenol	100	75.3	75	75.8	76	1	30-130/20
51-28-5	2,4-Dinitrophenol	100	80.0	80	87.9	88	9	30-130/20
534-52-1	4,6-Dinitro-o-cresol	100	93.4	93	102	102	9	30-130/20
95-48-7	2-Methylphenol	100	76.9	77	77.8	78	1	30-130/20
	3&4-Methylphenol	200	188	94	191	96	2	30-130/20
88-75-5	2-Nitrophenol	100	81.6	82	83.8	84	3	30-130/20
100-02-7	4-Nitrophenol	100	60.5	61	61.0	61	1	30-130/20
87-86-5	Pentachlorophenol	100	94.3	94	102	102	8	30-130/20
108-95-2	Phenol	100	40.8	41	39.6	40	3	30-130/20
95-95-4	2,4,5-Trichlorophenol	100	83.7	84	86.7	87	4	30-130/20
88-06-2	2,4,6-Trichlorophenol	100	83.1	83	88.3	88	6	30-130/20
83-32-9	Acenaphthene	50	39.6	79	42.1	84	6	40-140/20
208-96-8	Acenaphthylene	50	29.1	58	31.2	62	7	40-140/20
62-53-3	Aniline	50	24.4	49	23.1	46	5	40-140/20
120-12-7	Anthracene	50	38.5	77	41.4	83	7	40-140/20
56-55-3	Benzo(a)anthracene	50	44.1	88	46.3	93	5	40-140/20
50-32-8	Benzo(a)pyrene	50	35.8	72	39.3	79	9	40-140/20
205-99-2	Benzo(b)fluoranthene	50	40.7	81	44.1	88	8	40-140/20
191-24-2	Benzo(g,h,i)perylene	50	41.3	83	44.4	89	7	40-140/20
207-08-9	Benzo(k)fluoranthene	50	39.9	80	42.5	85	6	40-140/20
101-55-3	4-Bromophenyl phenyl ether	50	40.8	82	42.8	86	5	40-140/20
85-68-7	Butyl benzyl phthalate	50	44.7	89	46.6	93	4	40-140/20
100-51-6	Benzyl Alcohol	50	38.4	77	37.4	75	3	40-140/20
91-58-7	2-Chloronaphthalene	50	39.5	79	40.4	81	2	40-140/20
106-47-8	4-Cbloroaniline	50	23.6	47	26.2	52	10	40-140/20
218-01-9	Chrysene	50	40.4	81	43.2	86	7	40-140/20
111-91-1	bis(2-Chloroethoxy)methane	50	40.3	81	40.6	81	1	40-140/20
111-44-4	bis(2-Chloroethyl)ether	50	40.6	81	42.4	85	4	40-140/20
108-60-1	bis(2-Chloroisopropyl)ether	50	45.0	90	43.3	87	4	40-140/20
7005-72-3	4-Chlorophenyl phenyl ether	50	39.6	79	43.0	86	8	40-140/20
122-66-7	1,2-Diphenylhydrazine	50	37.8	76	37.5	75	1	40-140/20
121-14-2	2,4-Dinitrotoluene	50	41.0	82	43.6	87	6	40-140/20

Blank Spike/Blank Spike Duplicate Summary

Job Number: M99605
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24769-BS	I72191.D	1	05/05/11	KR	04/28/11	OP24769	MSI2582
OP24769-BSD	I72192.D	1	05/05/11	KR	04/28/11	OP24769	MSI2582

The QC reported here applies to the following samples: Method: SW846 8270C

M99605-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
606-20-2	2,6-Dinitrotoluene	50	40.0	80	44.3	89	10	40-140/20
91-94-1	3,3'-Dichlorobenzidine	50	22.6	45	29.7	59	27* a	40-140/20
53-70-3	Dibenzo(a,h)anthracene	50	41.2	82	45.0	90	9	40-140/20
132-64-9	Dibenzofuran	50	38.1	76	40.7	81	7	40-140/20
84-74-2	Di-n-butyl phthalate	50	42.0	84	46.3	93	10	40-140/20
117-84-0	Di-n-octyl phthalate	50	52.7	105	55.8	112	6	40-140/20
84-66-2	Diethyl phthalate	50	42.3	85	45.0	90	6	40-140/20
131-11-3	Dimethyl phthalate	50	39.8	80	43.6	87	9	40-140/20
117-81-7	bis(2-Ethylhexyl)phthalate	50	46.4	93	49.2	98	6	40-140/20
206-44-0	Fluoranthene	50	40.6	81	46.0	92	12	40-140/20
86-73-7	Fluorene	50	40.7	81	43.7	87	7	40-140/20
118-74-1	Hexachlorobenzene	50	37.7	75	41.5	83	10	40-140/20
77-47-4	Hexachlorocyclopentadiene	50	14.6	29* b	14.0	28* b	4	40-140/20
67-72-1	Hexachloroethane	50	34.6	69	35.1	70	1	40-140/20
193-39-5	Indeno(1,2,3-cd)pyrene	50	41.7	83	45.3	91	8	40-140/20
78-59-1	Isophorone	50	38.7	77	38.2	76	1	40-140/20
90-12-0	1-Methylnaphthalene	50	ND	0* c	ND	0* c	nc	40-140/20
91-57-6	2-Methylnaphthalene	50	36.6	73	36.8	74	1	40-140/20
88-74-4	2-Nitroaniline	50	41.9	84	45.2	90	8	40-140/20
99-09-2	3-Nitroaniline	50	24.3	49	30.1	60	21* a	40-140/20
100-01-6	4-Nitroaniline	50	36.1	72	40.6	81	12	40-140/20
91-20-3	Naphthalene	50	37.9	76	39.2	78	3	40-140/20
98-95-3	Nitrobenzene	50	38.4	77	39.3	79	2	40-140/20
62-75-9	n-Nitrosodimethylamine	50	29.5	59	27.1	54	8	40-140/20
621-64-7	N-Nitroso-di-n-propylamine	50	44.0	88	44.6	89	1	40-140/20
86-30-6	N-Nitrosodiphenylamine	50	40.2	80	42.7	85	6	40-140/20
85-01-8	Phenanthrene	50	39.2	78	42.7	85	9	40-140/20
129-00-0	Pyrene	50	41.5	83	42.6	85	3	40-140/20
110-86-1	Pyridine	50	29.1	58	25.3	51	14	40-140/20

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
367-12-4	2-Fluorophenol	62%	62%	15-110%
4165-62-2	Phenol-d5	40%	40%	15-110%
118-79-6	2,4,6-Tribromophenol	78%	83%	15-110%

6.3.1

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Blank Spike/Blank Spike Duplicate Summary

Job Number: M99605
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24769-BS	I72191.D	1	05/05/11	KR	04/28/11	OP24769	MSI2582
OP24769-BSD	I72192.D	1	05/05/11	KR	04/28/11	OP24769	MSI2582

The QC reported here applies to the following samples: Method: SW846 8270C

M99605-1

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
4165-60-0	Nitrobenzene-d5	79%	82%	30-130%
321-60-8	2-Fluorobiphenyl	80%	87%	30-130%
1718-51-0	Terphenyl-d14	85%	87%	30-130%

(a) Outside control limits. Individual spike recoveries within acceptance limits.
(b) Outside control limits. Blank Spike meets program technical requirements.
(c) Analyte not present in spiking solution.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M99605
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24800-MS	S23546.D	1	05/03/11	PR	05/02/11	OP24800	MSS997
OP24800-MSD	S23547.D	1	05/03/11	PR	05/02/11	OP24800	MSS997
M99605-5	S23548.D	1	05/03/11	PR	05/02/11	OP24800	MSS997

The QC reported here applies to the following samples: Method: SW846 8270C

M99605-2, M99605-3, M99605-4, M99605-5

CAS No.	Compound	M99605-5 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
65-85-0	Benzoic acid	ND		5540	725	13* a	742	13* a	2	30-130/30
95-57-8	2-Chlorophenol	ND		5540	4000	72	4170	75	4	30-130/30
59-50-7	4-Chloro-3-methyl phenol	ND		5540	4330	78	4480	80	3	30-130/30
120-83-2	2,4-Dichlorophenol	ND		5540	3920	71	4090	73	4	30-130/30
105-67-9	2,4-Dimethylphenol	ND		5540	4790	86	4740	85	1	30-130/30
51-28-5	2,4-Dinitrophenol	ND		5540	ND	0* a	605	11* a	200* b	30-130/30
534-52-1	4,6-Dinitro-o-cresol	ND		5540	1180	21* a	2290	41	64* b	30-130/30
95-48-7	2-Methylphenol	ND		5540	4340	78	4440	80	2	30-130/30
	3&4-Methylphenol	ND		11100	9120	82	9390	84	3	30-130/30
88-75-5	2-Nitrophenol	ND		5540	3390	61	3770	68	11	30-130/30
100-02-7	4-Nitrophenol	ND		5540	4720	85	5110	92	8	30-130/30
87-86-5	Pentachlorophenol	ND		5540	3370	61	4190	75	22	30-130/30
108-95-2	Phenol	ND		5540	4050	73	4250	76	5	30-130/30
95-95-4	2,4,5-Trichlorophenol	ND		5540	3710	67	3870	69	4	30-130/30
88-06-2	2,4,6-Trichlorophenol	ND		5540	3970	72	4150	74	4	30-130/30
83-32-9	Acenaphthene	ND		2770	1930	70	2070	74	7	40-140/30
208-96-8	Acenaphthylene	ND		2770	1410	51	1510	54	7	40-140/30
62-53-3	Aniline	ND		2770	1710	62	1770	63	3	40-140/30
120-12-7	Anthracene	ND		2770	1870	68	2020	72	8	40-140/30
56-55-3	Benzo(a)anthracene	ND		2770	1940	70	2170	78	11	40-140/30
50-32-8	Benzo(a)pyrene	ND		2770	1700	61	1850	66	8	40-140/30
205-99-2	Benzo(b)fluoranthene	ND		2770	1830	66	2030	73	10	40-140/30
191-24-2	Benzo(g,h,i)perylene	ND		2770	2060	74	2210	79	7	40-140/30
207-08-9	Benzo(k)fluoranthene	ND		2770	1880	68	2120	76	12	40-140/30
101-55-3	4-Bromophenyl phenyl ether	ND		2770	1800	65	1960	70	9	40-140/30
85-68-7	Butyl benzyl phthalate	ND		2770	2380	86	2580	92	8	40-140/30
100-51-6	Benzyl Alcohol	ND		2770	2140	77	2290	82	7	40-140/30
91-58-7	2-Chloronaphthalene	ND		2770	1940	70	2060	74	6	40-140/30
106-47-8	4-Chloroaniline	ND		2770	1900	69	1990	71	5	40-140/30
218-01-9	Chrysene	ND		2770	1870	68	2060	74	10	40-140/30
111-91-1	bis(2-Chloroethoxy)methane	ND		2770	2090	75	2220	80	6	40-140/30
111-44-4	bis(2-Chloroethyl)ether	ND		2770	1790	65	1880	67	5	40-140/30
108-60-1	bis(2-Chloroisopropyl)ether	ND		2770	2310	83	2490	89	8	40-140/30
7005-72-3	4-Chlorophenyl phenyl ether	ND		2770	1810	65	1960	70	8	40-140/30
122-66-7	1,2-Diphenylhydrazine	ND		2770	2190	79	2410	86	10	40-140/30
121-14-2	2,4-Dinitrotoluene	ND		2770	1870	68	2040	73	9	40-140/30

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M99605
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24800-MS	S23546.D	1	05/03/11	PR	05/02/11	OP24800	MSS997
OP24800-MSD	S23547.D	1	05/03/11	PR	05/02/11	OP24800	MSS997
M99605-5	S23548.D	1	05/03/11	PR	05/02/11	OP24800	MSS997

The QC reported here applies to the following samples: Method: SW846 8270C

M99605-2, M99605-3, M99605-4, M99605-5

CAS No.	Compound	M99605-5 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
606-20-2	2,6-Dinitrotoluene	ND		2770	1810	65	1990	71	9	40-140/30
91-94-1	3,3'-Dichlorobenzidine	ND		2770	1920	69	2200	79	14	40-140/30
53-70-3	Dibenzo(a,h)anthracene	ND		2770	1960	71	2110	76	7	40-140/30
132-64-9	Dibenzofuran	ND		2770	1850	67	2000	72	8	40-140/30
84-74-2	Di-n-butyl phthalate	ND		2770	2060	74	2330	83	12	40-140/30
117-84-0	Di-n-octyl phthalate	ND		2770	2440	88	2810	101	14	40-140/30
84-66-2	Diethyl phthalate	ND		2770	2100	76	2280	82	8	40-140/30
131-11-3	Dimethyl phthalate	ND		2770	2050	74	2150	77	5	40-140/30
117-81-7	bis(2-Ethylhexyl)phthalate	ND		2770	2310	83	2500	90	8	40-140/30
206-44-0	Fluoranthene	ND		2770	1820	66	2000	72	9	40-140/30
86-73-7	Fluorene	ND		2770	1930	70	2100	75	8	40-140/30
118-74-1	Hexachlorobenzene	ND		2770	1770	64	1960	70	10	40-140/30
77-47-4	Hexachlorocyclopentadiene	ND		2770	430	16* c	646	23* c	40* c	40-140/30
67-72-1	Hexachloroethane	ND		2770	1860	67	2120	76	13	40-140/30
193-39-5	Indeno(1,2,3-cd)pyrene	ND		2770	2060	74	2210	79	7	40-140/30
78-59-1	Isophorone	ND		2770	2190	79	2370	85	8	40-140/30
90-12-0	1-Methylnaphthalene	ND		2770	1800	65	1900	68	5	40-140/30
91-57-6	2-Methylnaphthalene	ND		2770	1810	65	1940	70	7	40-140/30
88-74-4	2-Nitroaniline	ND		2770	2200	79	2310	83	5	40-140/30
99-09-2	3-Nitroaniline	ND		2770	1940	70	2030	73	5	40-140/30
100-01-6	4-Nitroaniline	ND		2770	1930	70	2000	72	4	40-140/30
91-20-3	Naphthalene	ND		2770	1950	70	2070	74	6	40-140/30
98-95-3	Nitrobenzene	ND		2770	2150	78	2330	83	8	40-140/30
62-75-9	n-Nitrosodimethylamine	ND		2770	1960	71	2110	76	7	40-140/30
621-64-7	N-Nitroso-di-n-propylamine	ND		2770	2660	96	2800	100	5	40-140/30
86-30-6	N-Nitrosodiphenylamine	ND		2770	1940	70	2120	76	9	40-140/30
85-01-8	Phenanthrene	ND		2770	1870	68	2060	74	10	40-140/30
129-00-0	Pyrene	ND		2770	2240	81	2290	82	2	40-140/30
110-86-1	Pyridine	ND		2770	1790	65	1930	69	8	40-140/30

CAS No.	Surrogate Recoveries	MS	MSD	M99605-5	Limits
367-12-4	2-Fluorophenol	76%	80%	77%	30-130%
4165-62-2	Phenol-d5	77%	80%	74%	30-130%
118-79-6	2,4,6-Tribromophenol	66%	70%	65%	30-130%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M99605
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24800-MS	S23546.D	1	05/03/11	PR	05/02/11	OP24800	MSS997
OP24800-MSD	S23547.D	1	05/03/11	PR	05/02/11	OP24800	MSS997
M99605-5	S23548.D	1	05/03/11	PR	05/02/11	OP24800	MSS997

The QC reported here applies to the following samples: Method: SW846 8270C

M99605-2, M99605-3, M99605-4, M99605-5

CAS No.	Surrogate Recoveries	MS	MSD	M99605-5	Limits
4165-60-0	Nitrobenzene-d5	80%	86%	83%	30-130%
321-60-8	2-Fluorobiphenyl	66%	70%	74%	30-130%
1718-51-0	Terphenyl-d14	76%	80%	85%	30-130%

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.
(b) High RPD due to possible matrix interference and/or sample non-homogeneity.
(c) Outside control limits. Blank Spike meets program technical requirements.

Semivolatile Internal Standard Area Summary

Job Number: M99605
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Check Std:	MSI2582-CC2552	Injection Date:	05/05/11
Lab File ID:	I72183.D	Injection Time:	09:09
Instrument ID:	GCMSI	Method:	SW846 8270C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	176904	5.39	646830	6.70	350712	9.14	566532	11.67	450656	16.63	442812	19.17
Upper Limit [a]	353808	5.89	1293660	7.20	701424	9.64	1133064	12.17	901312	17.13	885624	19.67
Lower Limit [b]	88452	4.89	323415	6.20	175356	8.64	283266	11.17	225328	16.13	221406	18.67
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP24817-MB	123322	5.39	453890	6.69	241262	9.14	415681	11.66	311066	16.62	289928	19.15
OP24817-BS	135107	5.39	483300	6.69	249496	9.14	387521	11.66	297363	16.62	272476	19.15
OP24817-BSD	136659	5.39	536258	6.69	286815	9.14	458070	11.66	345556	16.62	293427	19.15
ZZZZZZ	138271	5.39	505569	6.69	261315	9.14	408447	11.66	333713	16.62	348186	19.16
ZZZZZZ	131455	5.39	487684	6.69	254699	9.14	394181	11.66	303257	16.62	299633	19.16
ZZZZZZ	133742	5.39	495354	6.69	264050	9.14	429755	11.66	339271	16.62	309417	19.15
OP24769-MB	128775	5.39	442513	6.69	238735	9.14	379125	11.66	313372	16.62	284039	19.15
OP24769-BS	136877	5.39	516116	6.70	272394	9.14	428435	11.66	327408	16.62	291401	19.15
OP24769-BSD	131287	5.39	487182	6.70	252180	9.14	404705	11.66	341348	16.62	303937	19.15
ZZZZZZ	130261	5.39	465992	6.69	243618	9.14	393476	11.65	313015	16.61	284329	19.15
M99605-1	149608	5.39	553879	6.69	287878	9.14	458284	11.66	352818	16.62	319732	19.15
ZZZZZZ	147229	5.39	532948	6.69	286926	9.14	478706	11.66	390900	16.62	343263	19.15
ZZZZZZ	148068	5.39	529512	6.69	284690	9.14	471475	11.66	384408	16.62	328320	19.15
OP24803-MB	124118	5.39	458736	6.69	236320	9.14	387275	11.66	308385	16.62	281130	19.15
OP24803-BS	146673	5.39	539186	6.69	266663	9.14	406470	11.66	328080	16.62	306476	19.15
OP24803-MS	131923	5.39	508783	6.69	263996	9.14	399618	11.66	321889	16.62	287461	19.15
OP24803-MSD	134331	5.39	474097	6.69	246160	9.14	391930	11.66	318049	16.62	292165	19.15
ZZZZZZ	148065	5.39	535231	6.69	287590	9.14	472624	11.66	386688	16.62	361012	19.15
ZZZZZZ	154085	5.39	543733	6.69	283562	9.14	457613	11.66	390519	16.62	370201	19.15
ZZZZZZ	135304	5.39	493551	6.69	260004	9.14	426247	11.66	350562	16.62	301033	19.15
M99761-4	157947	5.39	569460	6.69	294739	9.14	492205	11.66	388347	16.62	350328	19.15
ZZZZZZ	26200*	5.39	100725*	6.69	52895*	9.14	82175*	11.65	64512*	16.61	54471*	19.15

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Internal Standard Area Summary

Job Number: M99605
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Check Std:	MSS997-CC987	Injection Date:	05/03/11
Lab File ID:	S23531.D	Injection Time:	09:18
Instrument ID:	GCMSS	Method:	SW846 8270C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	233183	6.65	852585	8.07	440856	10.37	728720	12.62	768582	16.99	661697	19.24
Upper Limit [a]	466366	7.15	1705170	8.57	881712	10.87	1457440	13.12	1537164	17.49	1323394	19.74
Lower Limit [b]	116592	6.15	426293	7.57	220428	9.87	364360	12.12	384291	16.49	330849	18.74
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP24782-MB	168676	6.65	676586	8.07	361933	10.37	614834	12.61	550412	16.98	431319	19.23
OP24782-BS	184518	6.65	700234	8.07	364702	10.37	596578	12.61	559993	16.98	448352	19.24
ZZZZZZ	164867	6.65	666469	8.07	349815	10.37	591666	12.61	538098	16.98	440127	19.24
ZZZZZZ	172965	6.66	697464	8.07	359856	10.37	606460	12.61	577511	16.98	514229	19.24
ZZZZZZ	171058	6.66	690883	8.07	356033	10.37	587668	12.61	518685	16.98	429142	19.24
ZZZZZZ	207298	6.66	821638	8.07	425823	10.37	683857	12.61	587535	16.98	540994	19.24
ZZZZZZ	191655	6.66	779371	8.07	405663	10.37	680746	12.61	570901	16.98	512328	19.24
ZZZZZZ	210521	6.66	848470	8.07	443451	10.37	715749	12.61	592973	16.98	542467	19.24
ZZZZZZ	205018	6.66	819183	8.07	423470	10.37	677316	12.61	593356	16.98	541515	19.24
ZZZZZZ	214499	6.66	859945	8.07	445663	10.37	729280	12.61	622739	16.98	552667	19.24
ZZZZZZ	190645	6.66	760713	8.07	401657	10.37	662804	12.61	573571	16.98	508485	19.24
ZZZZZZ	204617	6.66	815644	8.07	421914	10.37	675456	12.61	607853	16.98	529874	19.24
OP24800-MB	187813	6.66	752250	8.07	391358	10.37	663103	12.61	553924	16.98	440969	19.24
OP24800-BS	223920	6.66	843199	8.08	437980	10.37	726568	12.62	659559	16.99	513606	19.24
OP24800-MS	211656	6.66	813195	8.08	417766	10.37	710488	12.62	580041	16.99	480521	19.24
OP24800-MSD	203361	6.66	779497	8.08	401476	10.37	672167	12.62	586044	16.99	453448	19.24
M99605-5	200818	6.66	808768	8.08	420182	10.37	706629	12.61	601997	16.98	474583	19.24
ZZZZZZ	189807	6.66	753586	8.08	378277	10.37	600016	12.61	549148	16.99	514013	19.25
ZZZZZZ	187877	6.66	750299	8.08	384926	10.37	597233	12.61	543733	16.99	530465	19.25
ZZZZZZ	187513	6.66	768115	8.08	405009	10.37	663316	12.61	653671	16.99	661900	19.24
ZZZZZZ	208738	6.66	847154	8.08	429530	10.37	673667	12.62	622483	16.99	629503	19.25

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Internal Standard Area Summary

Job Number: M99605
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Check Std:	MSS999-CC987	Injection Date:	05/04/11
Lab File ID:	S23568.D	Injection Time:	15:59
Instrument ID:	GCMSS	Method:	SW846 8270C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	162701	6.65	632536	8.06	324402	10.35	518133	12.60	472245	16.97	413887	19.22
Upper Limit [a]	325402	7.15	1265072	8.56	648804	10.85	1036266	13.10	944490	17.47	827774	19.72
Lower Limit [b]	81351	6.15	316268	7.56	162201	9.85	259067	12.10	236123	16.47	206944	18.72

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
ZZZZZZ	181905	6.65	730656	8.06	376580	10.35	560407	12.59	472336	16.97	453377	19.22
ZZZZZZ	175876	6.65	727650	8.06	377393	10.35	557453	12.60	496543	16.97	451421	19.22
ZZZZZZ	149288	6.65	603220	8.06	306705	10.35	467502	12.59	371255	16.97	349192	19.22
M99605-2	161221	6.65	653873	8.07	344406	10.35	559782	12.59	404644	16.97	303114	19.22
M99605-3	182273	6.65	740463	8.07	392187	10.35	631582	12.60	492628	16.97	344285	19.22
M99605-4	157216	6.65	633922	8.07	328709	10.35	525858	12.60	420664	16.97	296900	19.22
OP24804-MB	168982	6.65	680972	8.06	361581	10.35	561096	12.59	467979	16.97	346806	19.22
OP24804-BS	188762	6.65	724997	8.06	371388	10.35	585777	12.60	479418	16.97	374761	19.22
OP24804-MS	172172	6.65	658366	8.06	334399	10.35	525185	12.60	430438	16.97	338128	19.22
OP24804-MSD	178714	6.65	681793	8.06	342556	10.35	531266	12.60	442984	16.97	352115	19.22
M99753-1A	154217	6.65	613364	8.06	303792	10.35	472712	12.59	395110	16.97	330713	19.22
ZZZZZZ	158842	6.65	650285	8.06	339006	10.35	537126	12.59	404805	16.97	329141	19.22
ZZZZZZ	161360	6.65	624690	8.06	317385	10.35	509386	12.59	417829	16.97	354181	19.22
ZZZZZZ	162356	6.65	624328	8.06	311718	10.35	476494	12.59	378297	16.97	320215	19.22
ZZZZZZ	163568	6.65	641664	8.06	323730	10.35	500250	12.59	412585	16.97	350446	19.22
ZZZZZZ	145146	6.65	573259	8.06	292530	10.35	463016	12.60	398711	16.97	354299	19.22
OP24804-LB	147184	6.65	595910	8.06	307800	10.35	488836	12.59	392268	16.97	324405	19.22
OP24172-MB	195541	6.65	765233	8.06	398170	10.35	626293	12.60	492082	16.97	399078	19.22
ZZZZZZ	169586	6.65	665550	8.06	342113	10.35	532467	12.60	428165	16.97	345324	19.22
ZZZZZZ	173341	6.65	686249	8.06	352695	10.35	540177	12.60	439234	16.97	360290	19.22

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Internal Standard Area Summary

Job Number: M99605
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Check Std:	MSS1001-CC986	Injection Date:	05/04/11
Lab File ID:	S23568A.D	Injection Time:	15:59
Instrument ID:	GCMSS	Method:	SW846 8270C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	162762	6.65	632536	8.06	323989	10.35	518133	12.60	472251	16.97	410206	19.22
Upper Limit [a]	325524	7.15	1265072	8.56	647978	10.85	1036266	13.10	944502	17.47	820412	19.72
Lower Limit [b]	81381	6.15	316268	7.56	161995	9.85	259067	12.10	236126	16.47	205103	18.72
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
ZZZZZZ	181905	6.65	730656	8.06	376580	10.35	560407	12.59	472336	16.97	453377	19.22
ZZZZZZ	175876	6.65	727650	8.06	377393	10.35	557453	12.60	496543	16.97	451421	19.22
ZZZZZZ	149288	6.65	603220	8.06	306705	10.35	467502	12.59	371255	16.97	349192	19.22
M99605-2	161221	6.65	653873	8.07	344406	10.35	559782	12.59	404644	16.97	303114	19.22
M99605-3	182273	6.65	740463	8.07	392187	10.35	631582	12.60	492628	16.97	344285	19.22
M99605-4	157216	6.65	633922	8.07	328709	10.35	525858	12.60	420664	16.97	296900	19.22
OP24804-MB	168982	6.65	680972	8.06	361581	10.35	561096	12.59	467979	16.97	346806	19.22
OP24804-BS	188762	6.65	724997	8.06	371388	10.35	585777	12.60	479418	16.97	374761	19.22
OP24804-MS	172172	6.65	658366	8.06	334399	10.35	525185	12.60	430438	16.97	338128	19.22
OP24804-MSD	178714	6.65	681793	8.06	342556	10.35	531266	12.60	442984	16.97	352115	19.22
M99753-1A	154217	6.65	613364	8.06	303792	10.35	472712	12.59	395110	16.97	330713	19.22
ZZZZZZ	158842	6.65	650285	8.06	339006	10.35	537126	12.59	404805	16.97	329141	19.22
ZZZZZZ	161360	6.65	624690	8.06	317385	10.35	509386	12.59	417829	16.97	354181	19.22
ZZZZZZ	162356	6.65	624328	8.06	311718	10.35	476494	12.59	378297	16.97	320215	19.22
ZZZZZZ	163568	6.65	641664	8.06	323730	10.35	500250	12.59	412585	16.97	350446	19.22
ZZZZZZ	145146	6.65	573259	8.06	292530	10.35	463016	12.60	398711	16.97	354299	19.22
OP24804-LB	147184	6.65	595910	8.06	307800	10.35	488836	12.59	392268	16.97	324405	19.22
OP24172-MB	195541	6.65	765233	8.06	398170	10.35	626293	12.60	492082	16.97	399078	19.22
ZZZZZZ	169586	6.65	665550	8.06	342113	10.35	532467	12.60	428165	16.97	345324	19.22
ZZZZZZ	173341	6.65	686249	8.06	352695	10.35	540177	12.60	439234	16.97	360290	19.22

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Surrogate Recovery Summary

Job Number: M99605
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Method: SW846 8270C Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
M99605-1	I72194.D	53.0	34.0	77.0	80.0	83.0	84.0
OP24769-BS	I72191.D	62.0	40.0	78.0	79.0	80.0	85.0
OP24769-BSD	I72192.D	62.0	40.0	83.0	82.0	87.0	87.0
OP24769-MB	I72190.D	55.0	36.0	80.0	85.0	81.0	88.0

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	15-110%
S2 = Phenol-d5	15-110%
S3 = 2,4,6-Tribromophenol	15-110%
S4 = Nitrobenzene-d5	30-130%
S5 = 2-Fluorobiphenyl	30-130%
S6 = Terphenyl-d14	30-130%

Semivolatile Surrogate Recovery Summary

Job Number: M99605
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Method: SW846 8270C Matrix: SO

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
M99605-2	S23572.D	85.0	84.0	75.0	97.0	79.0	102.0
M99605-3	S23573.D	80.0	80.0	73.0	92.0	74.0	95.0
M99605-4	S23574.D	80.0	79.0	72.0	92.0	75.0	93.0
M99605-5	S23548.D	77.0	74.0	65.0	83.0	74.0	85.0
OP24800-BS	S23545.D	73.0	74.0	67.0	81.0	69.0	79.0
OP24800-MB	S23544.D	82.0	80.0	62.0	88.0	77.0	89.0
OP24800-MS	S23546.D	76.0	77.0	66.0	80.0	66.0	76.0
OP24800-MSD	S23547.D	80.0	80.0	70.0	86.0	70.0	80.0

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	30-130%
S2 = Phenol-d5	30-130%
S3 = 2,4,6-Tribromophenol	30-130%
S4 = Nitrobenzene-d5	30-130%
S5 = 2-Fluorobiphenyl	30-130%
S6 = Terphenyl-d14	30-130%

New England ACCUTEST LABORATORIES

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Percent Solids Raw Data Summary

Percent Solids Raw Data Summary

Job Number: M99605
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample: M99605-2 Analyzed: 25-APR-11 by HS Method: SM21 2540 B MOD.
ClientID: ROST-4-PZ(G)12-14

Wet Weight (Total)	30.691	g
Tare Weight	20.876	g
Dry Weight (Total)	29.788	g
Solids, Percent	90.8	%

Sample: M99605-3 Analyzed: 25-APR-11 by HS Method: SM21 2540 B MOD.
ClientID: ROST-4-PZ(G)34-36

Wet Weight (Total)	30.882	g
Tare Weight	21.677	g
Dry Weight (Total)	30.093	g
Solids, Percent	91.4	%

Sample: M99605-4 Analyzed: 25-APR-11 by HS Method: SM21 2540 B MOD.
ClientID: ROST-4-PZ(G)34-36-D

Wet Weight (Total)	29.064	g
Tare Weight	20.021	g
Dry Weight (Total)	27.511	g
Solids, Percent	82.8	%

Sample: M99605-5 Analyzed: 25-APR-11 by HS Method: SM21 2540 B MOD.
ClientID: ROST-4-PZ(G)26-28

Wet Weight (Total)	32.639	g
Tare Weight	24.237	g
Dry Weight (Total)	31.579	g
Solids, Percent	87.4	%

7.1

7

Roxana ROST 4-PZ

Laboratory SDG: M99998

Data Reviewer: Tony Sedlacek

Peer Reviewer: Jeff Aust

Date Reviewed: 6/10/2011

Guidance: USEPA National Functional Guidelines for Superfund Organic Methods Data Review 2008

Sample Identification	Sample Identification
ROST 4PZ-C-050311	ROST 4PZ-D-050311
TB-ROST4PZ-050311	ROST 4PZ-B-050411
ROST 4PZ-B-050411 DUP	ROST 4PZ-A-050411
ROST 4PZ-050511EB	ROST 4PZ-050511
ROST 4PZ-F-050511	ROST 4PZ-G-050511

1.0 Data Package Completeness

Were all items delivered as specified in the QAPP and COC as appropriate?

Yes

2.0 Laboratory Case Narrative \ Cooler Receipt Form

Were problems noted in the laboratory case narrative or cooler receipt form?

Yes, the laboratory case narrative indicated SVOC samples were extracted outside holding time. VOC and SVOC LCS recoveries were outside evaluation criteria. SVOC and low level PAH surrogates were outside evaluation criteria. VOC and SVOC MS/MSD recoveries were outside evaluation criteria. Although not indicated in the laboratory case narrative, analytes were detected in the method blank and equipment blank. Low level PAH internal standards were outside evaluation criteria. The compound m,p-Xylene was qualified due to field duplicate RPD. These issues are addressed further in the appropriate sections below.

No problems were indicated in the cooler receipt form.

3.0 Holding Times

Were samples extracted/analyzed within applicable limits?

No, SVOC samples were re-extracted 3 days outside holding time criteria (7 days). Analytical results reported and qualified from the re-extracted samples are listed in the table below.

Field ID	Parameter	Analyte	Qualification
ROST 4PZ-C-050311	SVOCs	Aniline	**UJ**
ROST 4PZ-C-050311	SVOCs	Pyridine	**UJ**
ROST 4PZ-D-050311	SVOCs	Aniline	**UJ**
ROST 4PZ-D-050311	SVOCs	Pyridine	**UJ**

Field ID	Parameter	Analyte	Qualification
ROST 4PZ-B-050411	SVOCs	Aniline	**UJ**
ROST 4PZ-B-050411	SVOCs	Pyridine	**UJ**
ROST 4PZ-B-050411 DUP	SVOCs	Aniline	**UJ**
ROST 4PZ-B-050411 DUP	SVOCs	Pyridine	**UJ**
ROST 4PZ-050511	SVOCs	Aniline	**UJ**
ROST 4PZ-050511	SVOCs	Pyridine	**UJ**
ROST 4PZ-F-050511	SVOCs	Aniline	**UJ**
ROST 4PZ-F-050511	SVOCs	Pyridine	**UJ**
ROST 4PZ-G-050511	SVOCs	Aniline	**UJ**
ROST 4PZ-G-050511	SVOCs	Pyridine	**UJ**
ROST 4PZ-A-050411	SVOCs	Aniline	**UJ**
ROST 4PZ-A-050411	SVOCs	Pyridine	**UJ**

4.0 Blank Contamination

Were any analytes detected in the Method Blanks, Field Blanks or Trip Blanks?

Yes

Blank ID	Parameter	Analyte	Concentration/Amount
ROST 4PZ-050511EB	SVOCs	Bis(2-Ethylhexyl)phthalate	9.0 µg/L
MSL1758-MB	VOCs	Methylene chloride	2.6 µg/L
OP24849-MB	SVOCs	Di-n-butyl phthalate	1.2 µg/L
OP24849-MB	SVOCs	Bis(2-Ethylhexyl)phthalate	2.2 µg/L

Qualifications due to blank contamination are included in the table below. Analytical data that were reported non-detect or at concentrations greater than five times (5X) the associated blank concentration (10X for common laboratory contaminants) did not require qualification.

Sample ID	Parameter	Analyte	New Reporting Limit (RL)	Qualification
ROST 4PZ-C-050311	SVOCs	Bis(2-Ethylhexyl)phthalate	2.9	**U**
ROST 4PZ-D-050311	SVOCs	Bis(2-Ethylhexyl)phthalate	2.3	**U**
ROST 4PZ-B-050411	SVOCs	Bis(2-Ethylhexyl)phthalate	2.3	**U**
ROST 4PZ-B-050411 DUP	SVOCs	Bis(2-Ethylhexyl)phthalate	2.4	**U**
ROST 4PZ-A-050411	SVOCs	Bis(2-Ethylhexyl)phthalate	2.2	**U**
ROST 4PZ-050511	SVOCs	Bis(2-Ethylhexyl)phthalate	2.4	**U**
ROST 4PZ-F-050511	SVOCs	Bis(2-Ethylhexyl)phthalate	2.2	**U**
ROST 4PZ-G-050511	SVOCs	Bis(2-Ethylhexyl)phthalate	2.3	**U**

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

No

LCS/ LCSD ID	Parameter	Analyte	LCS/LCSD Recovery	RPD	LCS/LCSD/ RPD Criteria
MSL1758-BS	VOCs	Acetone	**194**	N/A	70-130
MSL1758-BS	VOCs	Acrolein	**368**	N/A	70-130
MSL1758-BS	VOCs	Acrylonitrile	**133**	N/A	70-130
MSL1758-BS	VOCs	Chloroethane	**142**	N/A	70-130
MSL1758-BS	VOCs	Chloromethane	**134**	N/A	70-130
MSL1758-BS	VOCs	1,1-Dichloroethane	**131**	N/A	70-130
MSG4286-BS	VOCs	Acrolein	**1248**	N/A	70-130
MSG4286-BS	VOCs	2-Chloroethyl vinyl ether	**474**	N/A	70-130
MSG4286-BS	VOCs	2-Hexanone	**67**	N/A	70-130
OP24849-BS	SVOCs	4-Chloroaniline	**15**	N/A	40-140
OP24849-BS	SVOCs	1-Methylnaphthalene	**0**	N/A	40-140
OP24914-BS	SVOCs	Aniline	**39**	N/A	40-140
OP24914-BS	SVOCs	Pyridine	**34**	N/A	40-140

Analytical data that required qualification based on LCS data are included in the table below. Analytical data reported as non-detect and associated with LCS recoveries above evaluation criteria, indicating a possible high bias, did not require qualification. The compounds aniline and pyridine were previously qualified due to holding time. No qualification of data was required.

Field ID	Parameter	Analyte	Qualification
ROST 4PZ-050511	VOCs	2-Hexanone	**UJ**
ROST 4PZ-G-050511	VOCs	2-Hexanone	**UJ**
ROST 4PZ-B-050411	VOCs	1,4-Dioxane	**UJ**
ROST 4PZ-C-050311	SVOCs	4-Chloroaniline	**UJ**
ROST 4PZ-D-050311	SVOCs	4-Chloroaniline	**UJ**
ROST 4PZ-B-050411	SVOCs	4-Chloroaniline	**UJ**
ROST 4PZ-B-050411 DUP	SVOCs	4-Chloroaniline	**UJ**
ROST 4PZ-A-050411	SVOCs	4-Chloroaniline	**UJ**
ROST 4PZ-F-050511	SVOCs	4-Chloroaniline	**UJ**
ROST 4PZ-050511	SVOCs	4-Chloroaniline	**UJ**
ROST 4PZ-G-050511	SVOCs	4-Chloroaniline	**UJ**

Field ID	Parameter	Analyte	Qualification
ROST 4PZ-C-050311	SVOCs	1-Methylnaphthalene	**J**
ROST 4PZ-D-050311	SVOCs	1-Methylnaphthalene	**J**
ROST 4PZ-B-050411	SVOCs	1-Methylnaphthalene	**R**
ROST 4PZ-B-050411 DUP	SVOCs	1-Methylnaphthalene	**R**
ROST 4PZ-A-050411	SVOCs	1-Methylnaphthalene	**R**
ROST 4PZ-F-050511	SVOCs	1-Methylnaphthalene	**J**
ROST 4PZ-050511	SVOCs	1-Methylnaphthalene	**J**
ROST 4PZ-G-050511	SVOCs	1-Methylnaphthalene	**R**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Field ID	Parameter	Surrogate	Recovery	Criteria
ROST 4PZ-D-050311	Low Level PAHs	Terphenyl-d_{14}	**139**	30-130
ROST 4PZ-B-050411	SVOCs	2-Fluorophenol	**1**	15-110
ROST 4PZ-B-050411	SVOCs	Phenol-d5	**1**	15-110
ROST 4PZ-B-050411	SVOCs	Nitrobenzene-d5	**2**	30-130
ROST 4PZ-B-050411	SVOCs	2-Fluorobiphenyl	**8**	30-130

Analytical data that required qualification based on surrogate data are included in the table below. Analytical data which were reported as nondetect and associated with surrogate recoveries above evaluation criteria, indicating a possible high bias, did not require qualification. Sample ROST 4PZ-B-050411 was previously qualified due to holding time, no additional qualification of data was required.

Field ID	Parameter	Analyte	Qualification
ROST 4PZ-D-050311	Low Level PAHs	Naphthalene	**J**

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

Were MS/MSD samples analyzed as part of this SDG?

Yes, sample ROST 4PZ-F-050511 was spiked and analyzed for VOCs and SVOCs.

Were MS/MSD recoveries within evaluation criteria?

No

MS/MSD ID	Parameter	Analyte	MS/MSD Recovery	RPD	MS/MSD/ RPD Criteria
ROST 4PZ-F-050511	VOCs	Acetone	**4720/3860**	20	70-130/30
ROST 4PZ-F-050511	VOCs	Acrolein	**276/208**	28	70-130/30
ROST 4PZ-F-050511	VOCs	Acrylonitrile	80/**64**	23	70-130/30
ROST 4PZ-F-050511	VOCs	Benzene	74/**38**	12	70-130/30

MS/MSD ID	Parameter	Analyte	MS/MSD Recovery	RPD	MS/MSD/ RPD Criteria
ROST 4PZ-F-050511	VOCs	2-Chloroethyl vinyl ether	**210/177**	17	70-130/30
ROST 4PZ-F-050511	VOCs	Dichlorodifluoromethane	79/**66**	19	70-130/30
ROST 4PZ-F-050511	VOCs	2,2-Dichloropropane	75/**68**	10	70-130/30
ROST 4PZ-F-050511	VOCs	Ethylbenzene	**40/20**	4	70-130/30
ROST 4PZ-F-050511	VOCs	Vinyl acetate	**440/346**	24	70-130/30
ROST 4PZ-F-050511	VOCs	m,p-Xylene	**43/21**	4	70-130/30
ROST 4PZ-F-050511	VOCs	o-Xylene	**78/66**	4	70-130/30
ROST 4PZ-F-050511	VOCs	Total Xylene	**54/36**	4	70-130/30
ROST 4PZ-F-050511	SVOCs	4-Chloroaniline	**16/17**	6	40-140/20
ROST 4PZ-F-050511	SVOCs	1-Methylnaphthalene	**11/13**	3	40/140/20

USEPA National Functional Guidelines for Organic Data Review indicates that organic data does not require qualification based on MS/MSD data alone and LCS recoveries were within evaluation criteria for these compounds. Analytes with LCS and MS/MSD recoveries outside evaluation criteria were previously qualified due to LCS recoveries, no additional qualification of data was required.

8.0 Internal Standard (IS) Recoveries

Were internal standard area recoveries within evaluation criteria?

No

Field ID	Parameter	Internal Standard	Internal Standard Recovery	Internal Standard Criteria
ROST 4PZ-C-050311	Low Level PAHs	1,4-Dichlorobenzene-d_4	**298924**	9488-37950
ROST 4PZ-C-050311	Low Level PAHs	Naphthalene-d_8	**1092563**	34731-138922
ROST 4PZ-C-050311	Low Level PAHs	Acenaphthene-d_{10}	**629215**	18318-73270
ROST 4PZ-C-050311	Low Level PAHs	Phenanthrene-d_{10}	**11670498**	34939-139754
ROST 4PZ-C-050311	Low Level PAHs	Chrysene-d_{12}	**12111768**	35870-143480
ROST 4PZ-C-050311	Low Level PAHs	Perylene-d_{12}	**1077210**	20614-82456
ROST 4PZ-D-050311	Low Level PAHs	1,4-Dichlorobenzene-d_4	**317901**	9488-37950
ROST 4PZ-D-050311	Low Level PAHs	Naphthalene-d_8	**1158704**	34731-138922
ROST 4PZ-D-050311	Low Level PAHs	Acenaphthene-d_{10}	**666991**	18318-73270
ROST 4PZ-D-050311	Low Level PAHs	Phenanthrene-d_{10}	**1214693**	34939-139754
ROST 4PZ-D-050311	Low Level PAHs	Chrysene-d_{12}	**1286234**	35870-143480
ROST 4PZ-D-050311	Low Level PAHs	Perylene-d_{12}	**1109474**	20614-82456

Field ID	Parameter	Internal Standard	Internal Standard Recovery	Internal Standard Criteria
ROST 4PZ-B-050411	Low Level PAHs	1,4-Dichlorobenzene-d_4	**213672**	9488-37950
ROST 4PZ-B-050411	Low Level PAHs	Naphthalene-d_8	**741308**	34731-138922
ROST 4PZ-B-050411	Low Level PAHs	Acenaphthene-d_{10}	**444957**	18318-73270
ROST 4PZ-B-050411	Low Level PAHs	Phenanthrene-d_{10}	**800418**	34939-139754
ROST 4PZ-B-050411	Low Level PAHs	Chrysene-d_{12}	**841181**	35870-143480
ROST 4PZ-B-050411	Low Level PAHs	Perylene-d_{12}	**723240**	20614-82456
ROST 4PZ-B-050411 DUP	Low Level PAHs	1,4-Dichlorobenzene-d_4	**265878**	9488-37950
ROST 4PZ-B-050411 DUP	Low Level PAHs	Naphthalene-d_8	**900905**	34731-138922
ROST 4PZ-B-050411 DUP	Low Level PAHs	Acenaphthene-d_{10}	**561483**	18318-73270
ROST 4PZ-B-050411 DUP	Low Level PAHs	Phenanthrene-d_{10}	**964530**	34939-139754
ROST 4PZ-B-050411 DUP	Low Level PAHs	Chrysene-d_{12}	**1011539**	35870-143480
ROST 4PZ-B-050411 DUP	Low Level PAHs	Perylene-d_{12}	**889318**	20614-82456
ROST 4PZ-A-050411	Low Level PAHs	1,4-Dichlorobenzene-d_4	**308831**	9488-37950
ROST 4PZ-A-050411	Low Level PAHs	Naphthalene-d_8	**1133471**	34731-138922
ROST 4PZ-A-050411	Low Level PAHs	Acenaphthene-d_{10}	**662972**	18318-73270
ROST 4PZ-A-050411	Low Level PAHs	Phenanthrene-d_{10}	**1171275**	34939-139754
ROST 4PZ-A-050411	Low Level PAHs	Chrysene-d_{12}	**1225771**	35870-143480
ROST 4PZ-A-050411	Low Level PAHs	Perylene-d_{12}	**1089354**	20614-82456
ROST 4PZ-050511	Low Level PAHs	1,4-Dichlorobenzene-d_4	**268506**	9488-37950
ROST 4PZ-050511	Low Level PAHs	Naphthalene-d_8	**942193**	34731-138922
ROST 4PZ-050511	Low Level PAHs	Acenaphthene-d_{10}	**563899**	18318-73270
ROST 4PZ-050511	Low Level PAHs	Phenanthrene-d_{10}	**992244**	34939-139754
ROST 4PZ-050511	Low Level PAHs	Chrysene-d_{12}	**1074755**	35870-143480
ROST 4PZ-050511	Low Level PAHs	Perylene-d_{12}	**942597**	20614-82456

Field ID	Parameter	Internal Standard	Internal Standard Recovery	Internal Standard Criteria
ROST 4PZ-F-050511	Low Level PAHs	1,4-Dichlorobenzene-d_4	**268382**	9488-37950
ROST 4PZ-F-050511	Low Level PAHs	Naphthalene-d_8	**928573**	34731-138922
ROST 4PZ-F-050511	Low Level PAHs	Acenaphthene-d_{10}	**556651**	18318-73270
ROST 4PZ-F-050511	Low Level PAHs	Phenanthrene-d_{10}	**975788**	34939-139754
ROST 4PZ-F-050511	Low Level PAHs	Chrysene-d_{12}	**1051417**	35870-143480
ROST 4PZ-F-050511	Low Level PAHs	Perylene-d_{12}	**928382**	20614-82456
ROST 4PZ-G-050511	Low Level PAHs	1,4-Dichlorobenzene-d_4	**252523**	9488-37950
ROST 4PZ-G-050511	Low Level PAHs	Naphthalene-d_8	**879397**	34731-138922
ROST 4PZ-G-050511	Low Level PAHs	Acenaphthene-d_{10}	**543422**	18318-73270
ROST 4PZ-G-050511	Low Level PAHs	Phenanthrene-d_{10}	**947545**	34939-139754
ROST 4PZ-G-050511	Low Level PAHs	Chrysene-d_{12}	**1009608**	35870-143480
ROST 4PZ-G-050511	Low Level PAHs	Perylene-d_{12}	**875152**	20614-82456

Analytical data that required qualification based on internal standard recoveries are included in the table below. Analytical data which were reported as nondetect and associated with internal standard recoveries above evaluation criteria, indicating a possible high bias, did not require qualification. Internal standard recoveries outside evaluation criteria in quality control samples were on evaluated or qualified.

Field ID	Parameter	Analyte	Qualification
ROST 4PZ-C-050311	Low Level PAHs	All PAH detects	**J**
ROST 4PZ-D-050311	Low Level PAHs	All PAH detects	**J**
ROST 4PZ-B-050411 DUP	Low Level PAHs	All PAH detects	**J**
ROST 4PZ-050511	Low Level PAHs	All PAH detects	**J**
ROST 4PZ-F-050511	Low Level PAHs	All PAH detects	**J**
ROST 4PZ-G-050511	Low Level PAHs	All PAH detects	**J**
ROST 4PZ-A-050411	Low Level PAHs	All PAH detects	**J**
ROST 4PZ-B-050411	Low Level PAHs	All PAH detects	**J**

9.0 Laboratory Duplicate Results

Were laboratory duplicate samples collected as part of this SDG?

No

10.0 Field Duplicate Results

Were field duplicate samples collected as part of this SDG?

Yes

Field ID	Field Duplicate ID
ROST 4PZ-B-050411	ROST 4PZ-B-050411 DUP

Were field duplicates within evaluation criteria?

No

Field ID	Field Duplicate ID	Parameter	Analyte	RPD	Qualification
ROST 4PZ-B-050411	ROST 4PZ-B-050411 DUP	VOCs	m,p-Xylene	**33**	**J/J**

11.0 Sample Dilutions

For samples that were diluted and nondetect, were undiluted results also reported?

Analytes were detected in samples that were diluted.

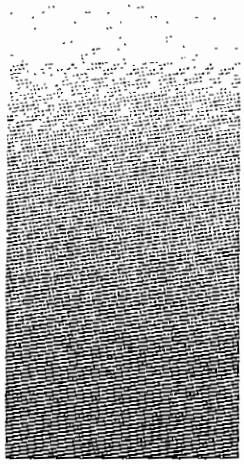
12.0 Additional Qualifications

Were additional qualifications applied?

No

New England ACCUTEST LABORATORIES

Reissue #1
06/09/11



Technical Report for

Shell Oil

URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

INC#97216640 SAP#340061

Accutest Job Number: M99998

Sampling Dates: 05/03/11 - 05/05/11

Report to:

URS Corporation

Elizabeth_Kunkel@URSCorp.com

ATTN: Elizabeth Kunkel

Reviewed 6/10/11

Total number of pages in report: **148**

ACCREDITED IN ACCORDANCE WITH nelac

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

Reza Tand
Lab Director

Client Service contact: Jeremy Vienneau 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) ISO 17025:2005 (L2235)

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Sample Summary

Shell Oil

Job No: M99998

URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL
Project No: INC#97216640 SAP#340061

Sample Number	Collected Date	Time By	Received	Matrix Code	Matrix Type	Client Sample ID
M99998-1	05/03/11	13:20 NSSV	05/06/11	AQ	Ground Water	ROST 4PZ-C-050311
M99998-2	05/03/11	15:10 NSSV	05/06/11	AQ	Ground Water	ROST 4PZ-D-050311
M99998-3	05/03/11	00:00 NSSV	05/06/11	AQ	Trip Blank Water	TB-ROST4PZ-050311
M99998-4	05/04/11	14:40 NSSV	05/06/11	AQ	Ground Water	ROST 4PZ-B-050411
M99998-5	05/04/11	14:40 NSSV	05/06/11	AQ	Ground Water	ROST 4PZ-B-050411 DUP
M99998-6	05/04/11	11:35 NSSV	05/06/11	AQ	Ground Water	ROST 4PZ-A-050411
M99998-7	05/05/11	07:30 NSSV	05/06/11	AQ	Equipment Blank	ROST 4PZ-050511EB
M99998-8	05/05/11	10:25 NSSV	05/06/11	AQ	Ground Water	ROST 4PZ-050511
M99998-9	05/05/11	13:40 NSSV	05/06/11	AQ	Ground Water	ROST 4PZ-F-050511
M99998-9D	05/05/11	13:40 NSSV	05/06/11	AQ	Water Dup/MSD	ROST 4PZ-F-050511
M99998-9S	05/05/11	13:40 NSSV	05/06/11	AQ	Water Matrix Spike	ROST 4PZ-F-050511
M99998-10	05/05/11	16:30 NSSV	05/06/11	AQ	Ground Water	ROST 4PZ-G-050511

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	Shell Oil	**Job No**	M99998
Site:	URSMOSTL:Roxana 2Q11 GW/ 21562593.0004 900 South Central	**Report Date**	5/20/2011 3:42:12 PM

9 Sample(s), 1 Trip Blank were colleeted on between 05/03/2011 and 05/05/2011 and were reeeived at Aecutest on 05/06/2011 properly preserved, at 2.6 Deg. C and intact. These Samples received an Accutest job number of M99998. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

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

Volatiles by GCMS By Method SW846 8260B

Matrix AQ **Batch ID:** MSG4286

- All samples were analyzed within the recommended method holding time.
- Sample(s) M99920-1MS, M99920-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific eriteria.
- Blank Spike Recovery(s) for 2-Hexanonc are outside control limits. Blank Spike meets program teehnical requirements.
- MS/MSD Recovery(s) for 2-Chloroethyl vinyl ether, 2-Hexanone, Acetone are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- RPD(s) for MSD for 2-Chloroethyl vinyl ether are outside eontrol limits for sample M99920-1MSD. High RPD due to possible matrix interference and/or sample non-homogeneity.
- M99998-10: The pH of the sample aliquot for VOA analysis was >2 at time of analysis.
- MSG4286-MS/MSD for Acrolein: Outside control limits. Associated samples are non-detect for this compound.
- MSG4286-BS for Acrolein, 2-Chloroethyl vinyl ether: Outside control limits. Associated samples are non-detect for this eompound.

Matrix AQ **Batch ID:** MSL1758

- All samples were analyzed within the recommended method holding time.
- All method blanks for this bateh meet method specific criteria.
- Sample(s) M99998-9MS, M99998-9MSD were used as the QC samples indicated.
- Blank Spike Recovery(s) for 1,1-Dichloroethane, Aeetone, Acrolein, Acrylonitrile, Chloroethane, Chloromethane are outside eontrol limits. Assoeiated samples are non-detect for this compound.
- Matrix Spike Recovery(s) for 2-Chloroethyl vinyl ether, Vinyl Acetate are outside eontrol limits. Outside eontrol limits due to possible matrix interference. Refer to Blank Spike.
- Matrix Spike Duplicate Reeovery(s) for 2,2-Dichloropropane, 2-Chloroethyl vinyl ether, Acrylonitrile, Diehlorodifluoromethane, Vinyl Aeetate are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Matrix Spike Reeovery(s) for Ethylbenzene, m,p-Xylene, Xylene (total) are outside control limits. Outside control limits due to high level in sample relative to spike amount.
- Matrix Spike Duplicate Recovery(s) for Ethylbenzene, m,p-Xylene, o-Xylene, Xylene (total) are outside control limits. Outside control limits due to high level in sample relative to spike amount.
- MS/MSD Recovery(s) for Acetone, Acrolcin are outside eontrol limits. Associated samples are non-detect for this compound.
- M99998-9MSD has internal standard outside eontrol limits. Outside control limits due to possible matrix interference.

Matrix AQ **Batch ID:** MSL1759

- All samples were analyzed within the recommended method holding time.
- Sample(s) MC237-5MS, MC237-5MSD were used as the QC samples indieated.
- All method blanks for this bateh meet method speeific criteria.

Matrix AQ **Batch ID:** MSL1761

Volatiles by GCMS By Method SW846 8260B

Matrix AQ	Batch ID: MSL1761

- All samples were analyzed within the recommended method holding time.
- Sample(s) MC148-2MS, MC148-2MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Blank Spike Recovery(s) for 1,1-Dichloroethane, 1,4-Dioxane, Acetone, Acrolein, Acrylonitrile, Chloroethane, Chloromethane, Methylene chloride, Vinyl Acetate are outside control limits. Associated samples are non-detect for this compound.
- Matrix Spike Recovery(s) for Acrolein, Acetone, Chloroethane are outside control limits. Associated samples are non-deteet for this compound.
- Matrix Spike Duplicate Reeovery(s) for Dichlorodifluoromethane are outside control limits. Outside control limits due to possible matrix interferenee. Refer to Blank Spike.
- RPD(s) for MSD for Aeetone are outside control limits for sample MC148-2MSD. Associated samples are non-detect for this compound.
- RPD of MSL1761-BSD for 1,4-Dioxane: Outside control limits. Associated samples are non-detect for this compound.
- MC148-2MSD for Acrolein: Outside control limits. Assoeiated samples are non-deteet for this compound.

Extractables by GCMS By Method SW846 8270C

Matrix AQ	Batch ID: OP24849

- All samples were extraeted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) M99998-9MS, M99998-9MSD were used as the QC samples indicated.
- Sample(s) M99998-1, M99998-10, M99998-2, M99998-4, M99998-5, M99998-6, M99998-7, M99998-8, M99998-9 have compound(s) reported with a "B" qualifier, indicating analyte is found in the associated method blank.
- BS/MS/MSD Reeovery(s) for 4-Chloroaniline are outside control limits. Blank Spike meets program technical requirements.
- OP24849-BS/MS/MSD for 1-Methylnaphthalene: Outside control limits. Assoeiated samples re-extracted/reanalyzed.

Matrix AQ	Batch ID: OP24914

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specifie criteria.
- Sample(s) MC192-1MS, MC192-1MSD were used as the QC samples indicated.
- M99998-1 through M99998-10: Sample re-extracted beyond recommended holding time.
- Blank Spike Recovery(s) for Aniline, Pyridine are outside control limits. Blank Spike meets program teehnical requirements.
- M99998-4 for 2-Fluorophenol, 2-Fluorobipheny, Phenol-d5, Nitrobenzene-d5: Outside eontrol limits due to possible matrix interference.
- OP24914-MS/MSD for Pyridine: Outside eontrol limits. Blank Spike meets program teehnical requirements.

Extractables by GCMS By Method SW846 8270C BY SIM

Matrix AQ	Batch ID: OP24850

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) M99998-9MS, M99998-9MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- M99998-2 for Terphenyl-d14: Outside control limits due to dilution.
- OP24850-MB/BS/MS/MSD, M99998-1 through M99998-10: Internal standard spiked at 10x concentration.

Volatiles by GC By Method SW846 8011

Matrix AQ	Batch ID: OP24856

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) M99998-9MS, M99998-9MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety.The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(M99998).

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	ROST 4PZ-C-050311		
Lab Sample ID:	M99998-1	Date Sampled:	05/03/11
Matrix:	AQ - Ground Water	Date Received:	05/06/11
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L52810.D	1	05/17/11	AMY	n/a	n/a	MSL1758
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-02-8	Acrolein	ND	25	ug/l	
107-13-1	Acrylonitrile	ND	5.0	ug/l	
71-43-2	Benzene	211	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
74-97-5	Bromochloromethane	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST 4PZ-C-050311		
Lab Sample ID:	M99998-1	Date Sampled:	05/03/11
Matrix:	AQ - Ground Water	Date Received:	05/06/11
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
123-91-1	1,4-Dioxane	ND	25	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	ug/l	
100-41-4	Ethylbenzene	320	1.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	11.8	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	117	5.0	ug/l	
103-65-1	n-Propylbenzene	18.3	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	110	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	115	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	24.0	5.0	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	669	1.0	ug/l	
95-47-6	o-Xylene	306	1.0	ug/l	
1330-20-7	Xylene (total)	975	1.0	ug/l	

ND = Not detected
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E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST 4PZ-C-050311		
Lab Sample ID:	M99998-1	Date Sampled:	05/03/11
Matrix:	AQ - Ground Water	Date Received:	05/06/11
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		70-130%
2037-26-5	Toluene-D8	102%		70-130%
460-00-4	4-Bromofluorobenzene	99%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID:	ROST 4PZ-C-050311		
Lab Sample ID:	M99998-1	Date Sampled:	05/03/11
Matrix:	AQ - Ground Water	Date Received:	05/06/11
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	S23778.D	1	05/11/11	PR	05/09/11	OP24849	MSS1010
Run #2 [a]	S24002.D	1	05/17/11	KR	05/13/11	OP24914	MSS1019

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2	1000 ml	1.0 ml

ABN Special List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic Acid	ND	10	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	ug/l	
95-48-7	2-Methylphenol	ND	10	ug/l	
	3&4-Methylphenol	ND	10	ug/l	
88-75-5	2-Nitrophenol	ND	10	ug/l	
100-02-7	4-Nitrophenol	ND	20	ug/l	
87-86-5	Pentachlorophenol	ND	10	ug/l	
108-95-2	Phenol	ND	5.0	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	ug/l	
62-53-3	Aniline	ND [b]	10	ug/l	UJ
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	ug/l	
100-51-6	Benzyl Alcohol	ND	10	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	ug/l	
106-47-8	4-Chloroaniline	ND	10	ug/l	UJ
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	ug/l	
132-64-9	Dibenzofuran	ND	5.0	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST 4PZ-C-050311		
Lab Sample ID:	M99998-1	Date Sampled:	05/03/11
Matrix:	AQ - Ground Water	Date Received:	05/06/11
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

ABN Special List

CAS No.	Compound	Result	RL	Units	Q
84-66-2	Diethyl phthalate	ND	5.0	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	~~2.9~~ ND	~~2.0~~ 2.9	ug/l	B U
118-74-1	Hexachlorobenzene	ND	5.0	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	ug/l	
67-72-1	Hexachloroethane	ND	5.0	ug/l	
78-59-1	Isophorone	ND	5.0	ug/l	
90-12-0	1-Methylnaphthalene	18.1	5.0	ug/l	J
88-74-4	2-Nitroaniline	ND	10	ug/l	
99-09-2	3-Nitroaniline	ND	10	ug/l	
100-01-6	4-Nitroaniline	ND	10	ug/l	
98-95-3	Nitrobenzene	ND	5.0	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.0	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.0	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	ug/l	
110-86-1	Pyridine	ND [b]	10	ug/l	UJ

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	68%	34%	15-110%
4165-62-2	Phenol-d5	42%	19%	15-110%
118-79-6	2,4,6-Tribromophenol	95%	67%	15-110%
4165-60-0	Nitrobenzene-d5	88%	72%	30-130%
321-60-8	2-Fluorobiphenyl	78%	58%	30-130%
1718-51-0	Terphenyl-d14	91%	75%	30-130%

(a) Sample re-extracted beyond recommended holding time.
(b) Result is from Run# 2

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST 4PZ-C-050311		
Lab Sample ID:	M99998-1	Date Sampled:	05/03/11
Matrix:	AQ - Ground Water	Date Received:	05/06/11
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F52845.D	1	05/12/11	PR	05/09/11	OP24850	MSF2552
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	1.8	0.10	ug/l	J
208-96-8	Acenaphthylene	ND	0.10	ug/l	~~UJ~~ OK TS
120-12-7	Anthracene	0.30	0.10	ug/l	J
56-55-3	Benzo(a)anthracene	0.13	0.050	ug/l	J
50-32-8	Benzo(a)pyrene	ND	0.10	ug/l	~~UJ~~ OK TS
205-99-2	Benzo(b)fluoranthene	ND	0.050	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	ug/l	
218-01-9	Chrysene	ND	0.10	ug/l	OK TS
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	ug/l	
206-44-0	Fluoranthene	ND	0.10	ug/l	~~UJ~~ OK TS
86-73-7	Fluorene	1.3	0.10	ug/l	J
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	ug/l	~~UJ~~ OK TS
91-57-6	2-Methylnaphthalene	22.3	0.20	ug/l	J
91-20-3	Naphthalene	40.8	0.10	ug/l	J
85-01-8	Phenanthrene	0.17	0.050	ug/l	J
129-00-0	Pyrene	0.12	0.10	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	109%		30-130%
321-60-8	2-Fluorobiphenyl	81%		30-130%
1718-51-0	Terphenyl-d14	103%		30-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID:	ROST 4PZ-C-050311		
Lab Sample ID:	M99998-1	Date Sampled:	05/03/11
Matrix:	AQ - Ground Water	Date Received:	05/06/11
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK2731.D	1	05/11/11	AP	05/09/11	OP24856	GBK113
Run #2							

	Initial Volume	Final Volume
Run #1	28.9 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
106-93-4	1,2-Dibromoethane	ND	0.018	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	81%		36-173%
460-00-4	Bromofluorobenzene (S)	91%		36-173%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST 4PZ-D-050311		
Lab Sample ID:	M99998-2	Date Sampled:	05/03/11
Matrix:	AQ - Ground Water	Date Received:	05/06/11
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L52811.D	1	05/17/11	AMY	n/a	n/a	MSL1758
Run #2	L52839.D	10	05/17/11	AMY	n/a	n/a	MSL1759

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-02-8	Acrolein	ND	25	ug/l	
107-13-1	Acrylonitrile	ND	5.0	ug/l	
71-43-2	Benzene	32.9	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
74-97-5	Bromochloromethane	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dicblorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST 4PZ-D-050311		
Lab Sample ID:	M99998-2	Date Sampled:	05/03/11
Matrix:	AQ - Ground Water	Date Received:	05/06/11
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
123-91-1	1,4-Dioxane	ND	25	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	ug/l	
100-41-4	Ethylbenzene	414 [a]	10	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	20.3	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	159	5.0	ug/l	
103-65-1	n-Propylbenzene	34.5	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	165	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	188	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	39.8	5.0	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	876 [a]	10	ug/l	
95-47-6	o-Xylene	394 [a]	10	ug/l	
1330-20-7	Xylene (total)	1270 [a]	10	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST 4PZ-D-050311		
Lab Sample ID:	M99998-2	Date Sampled:	05/03/11
Matrix:	AQ - Ground Water	Date Received:	05/06/11
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%	100%	70-130%
2037-26-5	Toluene-D8	98%	96%	70-130%
460-00-4	4-Bromofluorobenzene	93%	106%	70-130%

(a) Result is from Run# 2

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST 4PZ-D-050311		
Lab Sample ID:	M99998-2	Date Sampled:	05/03/11
Matrix:	AQ - Ground Water	Date Received:	05/06/11
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	S23779.D	1	05/11/11	PR	05/09/11	OP24849	MSS1010
Run #2 [a]	S24003.D	1	05/17/11	KR	05/13/11 UJ	OP24914	MSS1019

	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2	1050 ml	1.0 ml

ABN Special List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic Acid	ND	9.5	ug/l	
95-57-8	2-Chlorophenol	ND	4.8	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	9.5	ug/l	
120-83-2	2,4-Dichlorophenol	ND	9.5	ug/l	
105-67-9	2,4-Dimethylphenol	ND	9.5	ug/l	
51-28-5	2,4-Dinitrophenol	ND	19	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	9.5	ug/l	
95-48-7	2-Methylphenol	ND	9.5	ug/l	
	3&4-Methylphenol	ND	9.5	ug/l	
88-75-5	2-Nitrophenol	ND	9.5	ug/l	
100-02-7	4-Nitrophenol	ND	19	ug/l	
87-86-5	Pentachlorophenol	ND	9.5	ug/l	
108-95-2	Phenol	ND	4.8	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	9.5	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	9.5	ug/l	
62-53-3	Aniline	ND [b]	9.5	ug/l	UJ
101-55-3	4-Bromophenyl phenyl ether	ND	4.8	ug/l	
85-68-7	Butyl benzyl phthalate	ND	4.8	ug/l	
100-51-6	Benzyl Alcohol	ND	9.5	ug/l	
91-58-7	2-Chloronaphthalene	ND	4.8	ug/l	
106-47-8	4-Chloroaniline	ND	9.5	ug/l	UJ
111-91-1	bis(2-Chloroethoxy)methane	ND	4.8	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	4.8	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	4.8	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	4.8	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	4.8	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	9.5	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	9.5	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	4.8	ug/l	
132-64-9	Dibenzofuran	ND	4.8	ug/l	
84-74-2	Di-n-butyl phthalate	ND	4.8	ug/l	
117-84-0	Di-n-octyl phthalate	ND	4.8	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST 4PZ-D-050311		
Lab Sample ID:	M99998-2	Date Sampled:	05/03/11
Matrix:	AQ - Ground Water	Date Received:	05/06/11
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

ABN Special List

CAS No.	Compound	Result	RL	Units	Q
84-66-2	Diethyl phthalate	ND	4.8	ug/l	
131-11-3	Dimethyl phthalate	ND	4.8	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	~~2.3~~ ND	~~1.9~~ 2.3	ug/l	~~B~~ U
118-74-1	Hexachlorobenzene	ND	4.8	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	9.5	ug/l	
67-72-1	Hexachloroethane	ND	4.8	ug/l	
78-59-1	Isophorone	ND	4.8	ug/l	
90-12-0	1-Methylnaphthalene	63.7	4.8	ug/l	J
88-74-4	2-Nitroaniline	ND	9.5	ug/l	
99-09-2	3-Nitroaniline	ND	9.5	ug/l	
100-01-6	4-Nitroaniline	ND	9.5	ug/l	
98-95-3	Nitrobenzene	ND	4.8	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	4.8	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	4.8	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	4.8	ug/l	
110-86-1	Pyridine	ND [b]	9.5	ug/l	UJ

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	64%	32%	15-110%
4165-62-2	Phenol-d5	39%	18%	15-110%
118-79-6	2,4,6-Tribromophenol	92%	62%	15-110%
4165-60-0	Nitrobenzene-d5	89%	72%	30-130%
321-60-8	2-Fluorobiphenyl	74%	58%	30-130%
1718-51-0	Terphenyl-d14	91%	66%	30-130%

(a) Sample re-extracted beyond recommended holding time.
(b) Result is from Run# 2

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST 4PZ-D-050311		
Lab Sample ID:	M99998-2	Date Sampled:	05/03/11
Matrix:	AQ - Ground Water	Date Received:	05/06/11
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F52846.D	1	05/13/11	PR	05/09/11	OP24850	MSF2552
Run #2	I72532.D	10	05/15/11	KR	05/09/11	OP24850	MSI2601

	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2	1050 ml	1.0 ml

BN PAH List

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	2.3	0.095	ug/l	J
208-96-8	Acenaphthylene	ND	0.095	ug/l	
120-12-7	Anthracene	0.47	0.095	ug/l	J
56-55-3	Benzo(a)anthracene	0.12	0.048	ug/l	J
50-32-8	Benzo(a)pyrene	ND	0.095	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.048	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.095	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.095	ug/l	
218-01-9	Chrysene	ND	0.095	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.095	ug/l	
206-44-0	Fluoranthene	ND	0.095	ug/l	
86-73-7	Fluorene	1.9	0.095	ug/l	J
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.095	ug/l	
91-57-6	2-Methylnaphthalene	96.7	0.19	ug/l	J
91-20-3	Naphthalene	164 [a]	0.95	ug/l	J
85-01-8	Phenanthrene	4.8	0.048	ug/l	J
129-00-0	Pyrene	0.12	0.095	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	109%	115%	30-130%
321-60-8	2-Fluorobiphenyl	80%	122%	30-130%
1718-51-0	Terphenyl-d14	102%	139% [b]	30-130%

(a) Result is from Run# 2
(b) Outside control limits due to dilution.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST 4PZ-D-050311		
Lab Sample ID:	M99998-2	**Date Sampled:**	05/03/11
Matrix:	AQ - Ground Water	**Date Received:**	05/06/11
Method:	SW846 8011 SW846 8011	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK2732.D	1	05/11/11	AP	05/09/11	OP24856	GBK113
Run #2							

	Initial Volume	Final Volume
Run #1	32.7 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
106-93-4	1,2-Dibromoethane	ND	0.016	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	129%		36-173%
460-00-4	Bromofluorobenzene (S)	141%		36-173%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB-ROST4PZ-050311		
Lab Sample ID:	M99998-3	Date Sampled:	05/03/11
Matrix:	AQ - Trip Blank Water	Date Received:	05/06/11
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L52799.D	1	05/16/11	AMY	n/a	n/a	MSL1758
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-02-8	Acrolein	ND	25	ug/l	
107-13-1	Acrylonitrile	ND	5.0	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
74-97-5	Bromochloromethane	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
I24-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB-ROST4PZ-050311		
Lab Sample ID:	M99998-3	Date Sampled:	05/03/11
Matrix:	AQ - Trip Blank Water	Date Received:	05/06/11
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
123-91-1	1,4-Dioxane	ND	25	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorohenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB-ROST4PZ-050311		
Lab Sample ID:	M99998-3	Date Sampled:	05/03/11
Matrix:	AQ - Trip Blank Water	Date Received:	05/06/11
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		70-130%
2037-26-5	Toluene-D8	97%		70-130%
460-00-4	4-Bromofluorobenzene	104%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB-ROST4PZ-050311		
Lab Sample ID:	M99998-3	**Date Sampled:**	05/03/11
Matrix:	AQ - Trip Blank Water	**Date Received:**	05/06/11
Method:	SW846 8011 SW846 8011	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK2733.D	1	05/11/1I	AP	05/09/11	OP24856	GBK113
Run #2							

	Initial Volume	Final Volume
Run #1	33.3 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
106-93-4	1,2-Dibromoethane	ND	0.016	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	152%		36-173%
460-00-4	Bromofluorobenzene (S)	159%		36-173%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST 4PZ-B-050411		
Lab Sample ID:	M99998-4	Date Sampled:	05/04/11
Matrix:	AQ - Ground Water	Date Received:	05/06/11
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L52887.D	1	05/18/11	AMY	n/a	n/a	MSL1761
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-02-8	Acrolein	ND	25	ug/l	
107-13-1	Acrylonitrile	ND	5.0	ug/l	
71-43-2	Benzene	4.4	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
74-97-5	Bromochloromethane	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	1.1	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST 4PZ-B-050411		
Lab Sample ID:	M99998-4	Date Sampled:	05/04/11
Matrix:	AQ - Ground Water	Date Received:	05/06/11
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
123-91-1	1,4-Dioxane	ND	25	ug/l	UJ
97-63-2	Ethyl methacrylate	ND	5.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	2.0	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	6.0	1.0	ug/l	~~3.5~~ 7.5 J
95-47-6	o-Xylene	6.5	1.0	ug/l	
1330-20-7	Xylene (total)	12.5	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST 4PZ-B-050411		
Lab Sample ID:	M99998-4	Date Sampled:	05/04/11
Matrix:	AQ - Ground Water	Date Received:	05/06/11
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		70-130%
2037-26-5	Toluene-D8	103%		70-130%
460-00-4	4-Bromofluorobenzene	105%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID:	ROST 4PZ-B-050411		
Lab Sample ID:	M99998-4	Date Sampled:	05/04/11
Matrix:	AQ - Ground Water	Date Received:	05/06/11
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	S23780.D	1	05/11/11	PR	05/09/11	OP24849	MSS1010
Run #2 [a]	S24004.D	1	05/17/11	KR	05/13/11	OP24914	MSS1019

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2	1000 ml	1.0 ml

ABN Special List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic Acid	ND	10	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	ug/l	
95-48-7	2-Methylphenol	ND	10	ug/l	
	3&4-Methylphenol	ND	10	ug/l	
88-75-5	2-Nitrophenol	ND	10	ug/l	
100-02-7	4-Nitrophenol	ND	20	ug/l	
87-86-5	Pentachlorophenol	ND	10	ug/l	
108-95-2	Phenol	ND	5.0	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	ug/l	
62-53-3	Aniline	ND [b]	10	ug/l	UJ
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	ug/l	
85-68-7	Butyl benzyl phthalate	6.3	5.0	ug/l	
100-51-6	Benzyl Alcohol	ND	10	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	ug/l	
106-47-8	4-Chloroaniline	ND	10	ug/l	UJ
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	ug/l	
132-64-9	Dibenzofuran	ND	5.0	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	ug/l	

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

Report of Analysis

Client Sample ID:	ROST 4PZ-B-050411		
Lab Sample ID:	M99998-4	Date Sampled:	05/04/11
Matrix:	AQ - Ground Water	Date Received:	05/06/11
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

ABN Special List

CAS No.	Compound	Result	RL	Units	Q
84-66-2	Diethyl phthalate	ND	5.0	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	~~2.3~~ ND	~~2.0~~ 2.3	ug/l	B
118-74-1	Hexachlorobenzene	ND	5.0	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	ug/l	
67-72-1	Hexachloroethane	ND	5.0	ug/l	
78-59-1	Isophorone	ND	5.0	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.0	ug/l	R
88-74-4	2-Nitroaniline	ND	10	ug/l	
99-09-2	3-Nitroaniline	ND	10	ug/l	
100-01-6	4-Nitroaniline	ND	10	ug/l	
98-95-3	Nitrobenzene	ND	5.0	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.0	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.0	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	ug/l	
110-86-1	Pyridine	ND [b]	10	ug/l	UJ

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	66%	1% [c]	15-110%
4165-62-2	Phenol-d5	41%	1% [c]	15-110%
118-79-6	2,4,6-Tribromophenol	91%	61%	15-110%
4165-60-0	Nitrobenzene-d5	92%	2% [c]	30-130%
321-60-8	2-Fluorobiphenyl	79%	8% [c]	30-130%
1718-51-0	Terphenyl-d14	96%	80%	30-130%

(a) Sample re-extracted beyond recommended holding time.
(b) Result is from Run# 2
(c) Outside control limits due to possible matrix interference.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST 4PZ-B-050411		
Lab Sample ID:	M99998-4	Date Sampled:	05/04/11
Matrix:	AQ - Ground Water	Date Received:	05/06/11
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F52847.D	1	05/13/11	PR	05/09/11	OP24850	MSF2552
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	0.10	ug/l	
208-96-8	Acenaphthylene	ND	0.10	ug/l	
120-12-7	Anthracene	ND	0.10	ug/l	
56-55-3	Benzo(a)anthracene	0.12	0.050	ug/l	J
50-32-8	Benzo(a)pyrene	ND	0.10	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.050	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	ug/l	
218-01-9	Chrysene	ND	0.10	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	ug/l	
206-44-0	Fluoranthene	ND	0.10	ug/l	
86-73-7	Fluorene	0.12	0.10	ug/l	J
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	ug/l	
91-57-6	2-Methylnaphthalene	1.1	0.20	ug/l	J
91-20-3	Naphthalene	0.56	0.10	ug/l	J
85-01-8	Phenanthrene	0.069	0.050	ug/l	J
129-00-0	Pyrene	ND	0.10	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	104%		30-130%
321-60-8	2-Fluorobiphenyl	86%		30-130%
1718-51-0	Terphenyl-d14	107%		30-130%

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

Report of Analysis

Client Sample ID:	ROST 4PZ-B-050411		
Lab Sample ID:	M99998-4	**Date Sampled:**	05/04/11
Matrix:	AQ - Ground Water	**Date Received:**	05/06/11
Method:	SW846 8011 SW846 8011	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK2735.D	1	05/11/11	AP	05/09/11	OP24856	GBK113
Run #2							

	Initial Volume	Final Volume
Run #1	30.8 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
106-93-4	1,2-Dibromoethane	ND	0.017	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	103%		36-173%
460-00-4	Bromofluorobenzene (S)	117%		36-173%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST 4PZ-B-050411 DUP		
Lab Sample ID:	M99998-5	**Date Sampled:**	05/04/11
Matrix:	AQ - Ground Water	**Date Received:**	05/06/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L52813.D	1	05/17/11	AMY	n/a	n/a	MSL1758
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-02-8	Acrolein	ND	25	ug/l	
107-13-1	Acrylonitrile	ND	5.0	ug/l	
71-43-2	Benzene	3.6	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
74-97-5	Bromochloromethane	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	1.1	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dicblorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST 4PZ-B-050411 DUP		
Lab Sample ID:	M99998-5	Date Sampled:	05/04/11
Matrix:	AQ - Ground Water	Date Received:	05/06/11
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
123-91-1	1,4-Dioxane	ND	25	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	1.7	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,I-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	8.4	1.0	ug/l	J
95-47-6	o-Xylene	7.2	1.0	ug/l	
1330-20-7	Xylene (total)	15.7	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID:	ROST 4PZ-B-050411 DUP		
Lab Sample ID:	M99998-5	Date Sampled:	05/04/11
Matrix:	AQ - Ground Water	Date Received:	05/06/11
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	93%		70-130%
2037-26-5	Toluene-D8	94%		70-130%
460-00-4	4-Bromofluorobenzene	93%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID:	ROST 4PZ-B-050411 DUP		
Lab Sample ID:	M99998-5	Date Sampled:	05/04/11
Matrix:	AQ - Ground Water	Date Received:	05/06/11
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	S23781.D	1	05/11/11	PR	05/09/11	OP24849	MSS1010
Run #2 [a]	S24005.D	1	05/17/11	KR	05/13/11	OP24914	MSS1019

	Initial Volume	Final Volume
Run #1	980 ml	1.0 ml
Run #2	1000 ml	1.0 ml

ABN Special List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic Acid	ND	10	ug/l	
95-57-8	2-Chlorophenol	ND	5.1	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	ug/l	
105-67-9	2,4-Dimethylpbenol	ND	10	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	ug/l	
95-48-7	2-Methylphenol	ND	10	ug/l	
	3&4-Methylphenol	ND	10	ug/l	
88-75-5	2-Nitrophenol	ND	10	ug/l	
100-02-7	4-Nitrophenol	ND	20	ug/l	
87-86-5	Pentachlorophenol	ND	10	ug/l	
108-95-2	Phenol	ND	5.1	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	ug/l	
62-53-3	Aniline	ND [b]	10	ug/l	UJ
101-55-3	4-Bromophenyl phenyl ether	ND	5.1	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.1	ug/l	
100-51-6	Benzyl Alcohol	ND	10	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.1	ug/l	
106-47-8	4-Chloroaniline	ND	10	ug/l	UJ
111-91-1	bis(2-Chloroethoxy)methane	ND	5.1	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.1	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.1	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.1	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.1	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.1	ug/l	
132-64-9	Dibenzofuran	ND	5.1	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.1	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.1	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST 4PZ-B-050411 DUP		
Lab Sample ID:	M99998-5	Date Sampled:	05/04/11
Matrix:	AQ - Ground Water	Date Received:	05/06/11
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

ABN Special List

CAS No.	Compound	Result	RL	Units	Q
84-66-2	Diethyl phthalate	ND	5.1	ug/l	
131-11-3	Dimethyl phthalate	ND	5.1	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	~~2.4~~ ND	~~2.0~~ 2.4	ug/l	B U
118-74-1	Hexachlorobenzene	ND	5.1	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	ug/l	
67-72-1	Hexachloroethane	ND	5.1	ug/l	
78-59-1	Isophorone	ND	5.1	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.1	ug/l	R
88-74-4	2-Nitroaniline	ND	10	ug/l	
99-09-2	3-Nitroaniline	ND	10	ug/l	
100-01-6	4-Nitroaniline	ND	10	ug/l	
98-95-3	Nitrobenzene	ND	5.1	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.1	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.1	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.1	ug/l	
110-86-1	Pyridine	ND [b]	10	ug/l	UJ

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	59%	37%	15-110%
4165-62-2	Phenol-d5	37%	21%	15-110%
118-79-6	2,4,6-Tribromophenol	91%	72%	15-110%
4165-60-0	Nitrobenzene-d5	79%	81%	30-130%
321-60-8	2-Fluorobiphenyl	70%	70%	30-130%
1718-51-0	Terphenyl-d14	100%	84%	30-130%

(a) Sample re-extracted beyond recommended holding time.
(b) Result is from Run# 2

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST 4PZ-B-050411 DUP		
Lab Sample ID:	M99998-5	Date Sampled:	05/04/11
Matrix:	AQ - Ground Water	Date Received:	05/06/11
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F52848.D	1	05/13/11	PR	05/09/11	OP24850	MSF2552
Run #2							

	Initial Volume	Final Volume
Run #1	980 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	0.10	ug/l	
208-96-8	Acenaphthylene	ND	0.10	ug/l	
120-12-7	Anthracene	ND	0.10	ug/l	
56-55-3	Benzo(a)anthracene	0.12	0.051	ug/l	J
50-32-8	Benzo(a)pyrene	ND	0.10	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.051	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	ug/l	
218-01-9	Chrysene	ND	0.10	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	ug/l	
206-44-0	Fluoranthene	ND	0.10	ug/l	
86-73-7	Fluorene	0.11	0.10	ug/l	J
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	ug/l	
91-57-6	2-Methylnaphthalene	1.2	0.20	ug/l	J
91-20-3	Naphthalene	0.51	0.10	ug/l	J
85-01-8	Phenanthrene	0.077	0.051	ug/l	J
129-00-0	Pyrene	ND	0.10	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	93%		30-130%
321-60-8	2-Fluorobiphenyl	73%		30-130%
1718-51-0	Terphenyl-d14	110%		30-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST 4PZ-B-050411 DUP		
Lab Sample ID:	M99998-5	Date Sampled:	05/04/11
Matrix:	AQ - Ground Water	Date Received:	05/06/11
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK2736.D	1	05/11/11	AP	05/09/11	OP24856	GBK113
Run #2							

	Initial Volume	Final Volume
Run #1	32.3 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
106-93-4	1,2-Dibromoethane	ND	0.016	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	119%		36-173%
460-00-4	Bromofluorobenzene (S)	131%		36-173%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST 4PZ-A-050411		
Lab Sample ID:	M99998-6	Date Sampled:	05/04/11
Matrix:	AQ - Ground Water	Date Received:	05/06/11
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L52814.D	1	05/17/11	AMY	n/a	n/a	MSL1758
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-02-8	Acrolein	ND	25	ug/l	
107-13-1	Acrylonitrile	ND	5.0	ug/l	
71-43-2	Benzene	199	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
74-97-5	Bromochloromethane	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-I	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST 4PZ-A-050411		
Lab Sample ID:	M99998-6	Date Sampled:	05/04/11
Matrix:	AQ - Ground Water	Date Received:	05/06/11
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
123-91-1	1,4-Dioxane	ND	25	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	ug/l	
100-41-4	Ethylbenzene	5.3	1.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	10.9	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	25.5	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	28.3	1.0	ug/l	
95-47-6	o-Xylene	32.7	1.0	ug/l	
1330-20-7	Xylene (total)	61.0	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST 4PZ-A-050411		
Lab Sample ID:	M99998-6	Date Sampled:	05/04/11
Matrix:	AQ - Ground Water	Date Received:	05/06/11
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		70-130%
2037-26-5	Toluene-D8	97%		70-130%
460-00-4	4-Bromofluorobenzene	97%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID:	ROST 4PZ-A-050411		
Lab Sample ID:	M99998-6	**Date Sampled:**	05/04/11
Matrix:	AQ - Ground Water	**Date Received:**	05/06/11
Method:	SW846 8270C SW846 3510C	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	S23782.D	1	05/11/11	PR	05/09/11	OP24849	MSS1010
Run #2 [a]	S24006.D	1	05/17/11	KR	05/13/11	OP24914	MSS1019

	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2	1050 ml	1.0 ml

ABN Special List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic Acid	ND	9.5	ug/l	
95-57-8	2-Chlorophenol	ND	4.8	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	9.5	ug/l	
120-83-2	2,4-Dichlorophenol	ND	9.5	ug/l	
105-67-9	2,4-Dimethylphenol	ND	9.5	ug/l	
51-28-5	2,4-Dinitrophenol	ND	19	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	9.5	ug/l	
95-48-7	2-Methylphenol	ND	9.5	ug/l	
	3&4-Methylphenol	ND	9.5	ug/l	
88-75-5	2-Nitrophenol	ND	9.5	ug/l	
100-02-7	4-Nitrophenol	ND	19	ug/l	
87-86-5	Pentachlorophenol	ND	9.5	ug/l	
108-95-2	Phenol	ND	4.8	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	9.5	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	9.5	ug/l	
62-53-3	Aniline	ND [b]	9.5	ug/l	UJ
101-55-3	4-Bromophenyl phenyl ether	ND	4.8	ug/l	
85-68-7	Butyl benzyl phthalate	ND	4.8	ug/l	
100-51-6	Benzyl Alcohol	ND	9.5	ug/l	
91-58-7	2-Chloronaphthalene	ND	4.8	ug/l	
106-47-8	4-Chloroaniline	ND	9.5	ug/l	UJ
111-91-1	bis(2-Chloroethoxy)methane	ND	4.8	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	4.8	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	4.8	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	4.8	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	4.8	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	9.5	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	9.5	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	4.8	ug/l	
132-64-9	Dibenzofuran	ND	4.8	ug/l	
84-74-2	Di-n-butyl phthalate	ND	4.8	ug/l	
117-84-0	Di-n-octyl phthalate	ND	4.8	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST 4PZ-A-050411		
Lab Sample ID:	M99998-6	Date Sampled:	05/04/11
Matrix:	AQ - Ground Water	Date Received:	05/06/11
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

ABN Special List

CAS No.	Compound	Result	RL	Units	Q
84-66-2	Diethyl phthalate	ND	4.8	ug/l	
131-11-3	Dimethyl phthalate	ND	4.8	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	~~2.2~~ ND	~~1.9~~ 2.2	ug/l	B U
118-74-1	Hexachlorobenzene	ND	4.8	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	9.5	ug/l	
67-72-1	Hexachloroethane	ND	4.8	ug/l	
78-59-1	Isophorone	ND	4.8	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	ug/l	R1
88-74-4	2-Nitroaniline	ND	9.5	ug/l	
99-09-2	3-Nitroaniline	ND	9.5	ug/l	
100-01-6	4-Nitroaniline	ND	9.5	ug/l	
98-95-3	Nitrobenzene	ND	4.8	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	4.8	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	4.8	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	4.8	ug/l	
110-86-1	Pyridine	ND [b]	9.5	ug/l	UJ

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	54%	31%	15-110%
4165-62-2	Phenol-d5	33%	17%	15-110%
118-79-6	2,4,6-Tribromophenol	89%	61%	15-110%
4165-60-0	Nitrobenzene-d5	78%	68%	30-130%
321-60-8	2-Fluorobiphenyl	71%	57%	30-130%
1718-51-0	Terphenyl-d14	95%	89%	30-130%

(a) Sample re-extracted beyond recommended holding time.
(b) Result is from Run# 2

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST 4PZ-A-050411		
Lab Sample ID:	M99998-6	Date Sampled:	05/04/11
Matrix:	AQ - Ground Water	Date Received:	05/06/11
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F52849.D	1	05/13/11	PR	05/09/11	OP24850	MSF2552
Run #2							

	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	0.095	ug/l	
208-96-8	Acenaphthylene	ND	0.095	ug/l	
120-12-7	Anthracene	ND	0.095	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.048	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.095	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.048	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.095	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.095	ug/l	
218-01-9	Chrysene	ND	0.095	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.095	ug/l	
206-44-0	Fluoranthene	ND	0.095	ug/l	
86-73-7	Fluorene	ND	0.095	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.095	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.19	ug/l	
91-20-3	Naphthalene	0.39	0.095	ug/l	J
85-01-8	Phenanthrene	ND	0.048	ug/l	
129-00-0	Pyrene	ND	0.095	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	96%		30-130%
321-60-8	2-Fluorobiphenyl	75%		30-130%
1718-51-0	Terphenyl-d14	106%		30-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST 4PZ-A-050411		
Lab Sample ID:	M99998-6	Date Sampled:	05/04/11
Matrix:	AQ - Ground Water	Date Received:	05/06/11
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK2737.D	1	05/11/11	AP	05/09/11	OP24856	GBK113
Run #2							

	Initial Volume	Final Volume
Run #1	31.6 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
106-93-4	1,2-Dibromoethane	ND	0.017	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	104%		36-173%
460-00-4	Bromofluorobenzene (S)	115%		36-173%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST 4PZ-050511EB		
Lab Sample ID:	M99998-7	Date Sampled:	05/05/11
Matrix:	AQ - Equipment Blank	Date Received:	05/06/11
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L52801.D	1	05/16/11	AMY	n/a	n/a	MSL1758
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-02-8	Acrolein	ND	25	ug/l	
107-13-1	Acrylonitrile	ND	5.0	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
74-97-5	Bromochloromethane	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST 4PZ-050511EB		
Lab Sample ID:	M99998-7	Date Sampled:	05/05/11
Matrix:	AQ - Equipment Blank	Date Received:	05/06/11
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
123-91-1	1,4-Dioxane	ND	25	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST 4PZ-050511EB		
Lab Sample ID:	M99998-7	Date Sampled:	05/05/11
Matrix:	AQ - Equipment Blank	Date Received:	05/06/11
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		70-130%
2037-26-5	Toluene-D8	97%		70-130%
460-00-4	4-Bromofluorobenzene	100%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST 4PZ-050511EB		
Lab Sample ID:	M99998-7	Date Sampled:	05/05/11
Matrix:	AQ - Equipment Blank	Date Received:	05/06/11
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	S23783.D	1	05/11/11	PR	05/09/11	OP24849	MSS1010
Run #2 [a]	S24007.D	1	05/17/11	KR	05/13/11	OP24914	MSS1019

	Initial Volume	Final Volume
Run #1	990 ml	1.0 ml
Run #2	980 ml	1.0 ml

ABN Special List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic Acid	ND	10	ug/l	
95-57-8	2-Chlorophenol	ND	5.1	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	ug/l	
95-48-7	2-Methylphenol	ND	10	ug/l	
	3&4-Methylphenol	ND	10	ug/l	
88-75-5	2-Nitrophenol	ND	10	ug/l	
100-02-7	4-Nitrophenol	ND	20	ug/l	
87-86-5	Pentachlorophenol	ND	10	ug/l	
108-95-2	Phenol	ND	5.1	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	ug/l	
62-53-3	Aniline	ND [b]	10	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.1	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.1	ug/l	
100-51-6	Benzyl Alcohol	ND	10	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.1	ug/l	
106-47-8	4-Chloroaniline	ND	10	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.1	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.1	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.1	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.1	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.1	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.1	ug/l	
132-64-9	Dibenzofuran	ND	5.1	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.1	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.1	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST 4PZ-050511EB		
Lab Sample ID:	M99998-7	Date Sampled:	05/05/11
Matrix:	AQ - Equipment Blank	Date Received:	05/06/11
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

ABN Special List

CAS No.	Compound	Result	RL	Units	Q
84-66-2	Diethyl phthalate	ND	5.1	ug/l	
131-11-3	Dimethyl phthalate	ND	5.1	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	9.0	2.0	ug/l	B
118-74-1	Hexachlorobenzene	ND	5.1	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	ug/l	
67-72-1	Hexachloroethane	ND	5.1	ug/l	
78-59-1	Isophorone	ND	5.1	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.1	ug/l	
88-74-4	2-Nitroaniline	ND	10	ug/l	
99-09-2	3-Nitroaniline	ND	10	ug/l	
100-01-6	4-Nitroaniline	ND	10	ug/l	
98-95-3	Nitrobenzene	ND	5.1	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.1	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.1	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.1	ug/l	
110-86-1	Pyridine	ND [b]	10	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	69%	38%	15-110%
4165-62-2	Phenol-d5	43%	20%	15-110%
118-79-6	2,4,6-Tribromophenol	88%	67%	15-110%
4165-60-0	Nitrobenzene-d5	89%	83%	30-130%
321-60-8	2-Fluorobiphenyl	83%	72%	30-130%
1718-51-0	Terphenyl-d14	98%	89%	30-130%

(a) Sample re-extracted beyond recommended holding time.
(b) Result is from Run# 2

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST 4PZ-050511EB		
Lab Sample ID:	M99998-7	**Date Sampled:**	05/05/11
Matrix:	AQ - Equipment Blank	**Date Received:**	05/06/11
Method:	SW846 8270C BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F52850.D	1	05/13/11	PR	05/09/11	OP24850	MSF2552
Run #2							

	Initial Volume	Final Volume
Run #1	990 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	0.10	ug/l	
208-96-8	Acenaphthylene	ND	0.10	ug/l	
120-12-7	Anthracene	ND	0.10	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.051	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.051	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	ug/l	
218-01-9	Chrysene	ND	0.10	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	ug/l	
206-44-0	Fluoranthene	ND	0.10	ug/l	
86-73-7	Fluorene	ND	0.10	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.20	ug/l	
91-20-3	Naphthalene	ND	0.10	ug/l	
85-01-8	Phenanthrene	ND	0.051	ug/l	
129-00-0	Pyrene	ND	0.10	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	104%		30-130%
321-60-8	2-Fluorobiphenyl	86%		30-130%
1718-51-0	Terphenyl-d14	108%		30-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST 4PZ-050511EB		
Lab Sample ID:	M99998-7	**Date Sampled:**	05/05/11
Matrix:	AQ - Equipment Blank	**Date Received:**	05/06/11
Method:	SW846 8011 SW846 8011	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK2738.D	1	05/11/11	AP	05/09/11	OP24856	GBKI13
Run #2							

	Initial Volume	Final Volume
Run #1	31.5 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
106-93-4	1,2-Dibromoethane	ND	0.017	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	115%		36-173%
460-00-4	Bromofluorobenzene (S)	129%		36-173%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST 4PZ-050511		
Lab Sample ID:	M99998-8	Date Sampled:	05/05/11
Matrix:	AQ - Ground Water	Date Received:	05/06/11
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	G106199.D	1	05/18/11	DFT	n/a	n/a	MSG4286
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-02-8	Acrolein	ND	25	ug/l	
107-13-1	Acrylonitrile	ND	5.0	ug/l	
71-43-2	Benzene	6.5	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
74-97-5	Bromochloromethane	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	7.9	2.0	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

3.8

Client Sample ID:	ROST 4PZ-050511		
Lab Sample ID:	M99998-8	Date Sampled:	05/05/11
Matrix:	AQ - Ground Water	Date Received:	05/06/11
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
123-91-1	1,4-Dioxane	ND	25	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	ug/l	
100-41-4	Ethylbenzene	2.8	1.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	UJ
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	12.4	5.0	ug/l	
103-65-1	n-Propylbenzene	8.0	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	2.6	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	19.7	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	12.5	5.0	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	13.3	1.0	ug/l	
95-47-6	o-Xylene	4.7	1.0	ug/l	
1330-20-7	Xylene (total)	18.0	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST 4PZ-050511		
Lab Sample ID:	M99998-8	**Date Sampled:**	05/05/11
Matrix:	AQ - Ground Water	**Date Received:**	05/06/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	114%		70-130%
2037-26-5	Toluene-D8	109%		70-130%
460-00-4	4-Bromofluorobenzene	96%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID:	ROST 4PZ-050511		
Lab Sample ID:	M99998-8	Date Sampled:	05/05/11
Matrix:	AQ - Ground Water	Date Received:	05/06/11
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	S23784.D	1	05/11/11	PR	05/09/11	OP24849	MSS1010
Run #2 [a]	S24008.D	1	05/17/11	KR	05/13/11	OP24914	MSS1019

	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2	1050 ml	1.0 ml

ABN Special List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic Acid	ND	9.5	ug/l	
95-57-8	2-Chlorophenol	ND	4.8	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	9.5	ug/l	
120-83-2	2,4-Dichlorophenol	ND	9.5	ug/l	
105-67-9	2,4-Dimethylphenol	ND	9.5	ug/l	
51-28-5	2,4-Dinitrophenol	ND	19	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	9.5	ug/l	
95-48-7	2-Methylphenol	ND	9.5	ug/l	
	3&4-Methylphenol	ND	9.5	ug/l	
88-75-5	2-Nitrophenol	ND	9.5	ug/l	
100-02-7	4-Nitrophenol	ND	19	ug/l	
87-86-5	Pentachlorophenol	ND	9.5	ug/l	
108-95-2	Phenol	ND	4.8	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	9.5	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	9.5	ug/l	
62-53-3	Aniline	ND [b]	9.5	ug/l	UJ
101-55-3	4-Bromophenyl phenyl ether	ND	4.8	ug/l	
85-68-7	Butyl benzyl phthalate	6.0	4.8	ug/l	
100-51-6	Benzyl Alcohol	ND	9.5	ug/l	
91-58-7	2-Chloronaphthalene	ND	4.8	ug/l	
106-47-8	4-Chloroaniline	ND	9.5	ug/l	UJ
111-91-1	bis(2-Chloroethoxy)methane	ND	4.8	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	4.8	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	4.8	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	4.8	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	4.8	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	9.5	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	9.5	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	4.8	ug/l	
132-64-9	Dibenzofuran	ND	4.8	ug/l	
84-74-2	Di-n-butyl phthalate	ND	4.8	ug/l	
117-84-0	Di-n-octyl phthalate	ND	4.8	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST 4PZ-050511		
Lab Sample ID:	M99998-8	Date Sampled:	05/05/11
Matrix:	AQ - Ground Water	Date Received:	05/06/11
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

ABN Special List

CAS No.	Compound	Result	RL	Units	Q
84-66-2	Diethyl phthalate	ND	4.8	ug/l	
131-11-3	Dimethyl phthalate	ND	4.8	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	~~2.4~~ ND	~~1.9~~ 2.4	ug/l	BU
118-74-1	Hexachlorobenzene	ND	4.8	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	9.5	ug/l	
67-72-1	Hexachloroethane	ND	4.8	ug/l	
78-59-1	Isophorone	ND	4.8	ug/l	
90-12-0	1-Methylnaphthalene	15.5	4.8	ug/l	J
88-74-4	2-Nitroaniline	ND	9.5	ug/l	
99-09-2	3-Nitroaniline	ND	9.5	ug/l	
100-01-6	4-Nitroaniline	ND	9.5	ug/l	
98-95-3	Nitrobenzene	ND	4.8	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	4.8	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	4.8	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	4.8	ug/l	
110-86-1	Pyridine	ND [b]	9.5	ug/l	UJ

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	61%	30%	15-110%
4165-62-2	Phenol-d5	38%	17%	15-110%
118-79-6	2,4,6-Tribromophenol	95%	62%	15-110%
4165-60-0	Nitrobenzene-d5	85%	69%	30-130%
321-60-8	2-Fluorobiphenyl	78%	60%	30-130%
1718-51-0	Terphenyl-d14	96%	85%	30-130%

(a) Sample re-extracted beyond recommended holding time.
(b) Result is from Run# 2

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST 4PZ-050511		
Lab Sample ID:	M99998-8	Date Sampled:	05/05/I1
Matrix:	AQ - Ground Water	Date Received:	05/06/11
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F52851.D	1	05/13/11	PR	05/09/11	OP24850	MSF2552
Run #2							

	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	1.6	0.095	ug/l	J
208-96-8	Acenaphthylene	ND	0.095	ug/l	
120-12-7	Anthracene	0.40	0.095	ug/l	J
56-55-3	Benzo(a)anthracene	0.11	0.048	ug/l	J
50-32-8	Benzo(a)pyrene	ND	0.095	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.048	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.095	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.095	ug/l	
218-01-9	Chrysene	ND	0.095	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.095	ug/l	
206-44-0	Fluoranthene	ND	0.095	ug/l	
86-73-7	Fluorene	1.1	0.095	ug/l	J
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.095	ug/l	
91-57-6	2-Methylnaphthalene	13.9	0.19	ug/l	J
91-20-3	Naphthalene	2.9	0.095	ug/l	J
85-01-8	Phenanthrene	1.1	0.048	ug/l	J
129-00-0	Pyrene	0.13	0.095	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	101%		30-130%
321-60-8	2-Fluorobiphenyl	82%		30-130%
1718-51-0	Terphenyl-d14	108%		30-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST 4PZ-050511		
Lab Sample ID:	M99998-8	Date Sampled:	05/05/11
Matrix:	AQ - Ground Water	Date Received:	05/06/11
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK2739.D	1	05/11/11	AP	05/09/11	OP24856	GBK113
Run #2							

	Initial Volume	Final Volume
Run #1	31.7 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
106-93-4	1,2-Dibromoethane	ND	0.017	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	99%		36-173%
460-00-4	Bromofluorobenzene (S)	109%		36-173%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST 4PZ-F-050511		
Lab Sample ID:	M99998-9	Date Sampled:	05/05/11
Matrix:	AQ - Ground Water	Date Received:	05/06/11
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L52815.D	1	05/17/11	AMY	n/a	n/a	MSL1758
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-02-8	Acrolein	ND	25	ug/l	
107-13-1	Acrylonitrile	ND	5.0	ug/l	
71-43-2	Benzene	127	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
74-97-5	Bromochloromethane	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	

ND = Not detected
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E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST 4PZ-F-050511		
Lab Sample ID:	M99998-9	Date Sampled:	05/05/11
Matrix:	AQ - Ground Water	Date Received:	05/06/11
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
123-91-1	1,4-Dioxane	ND	25	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	ug/l	
100-41-4	Ethylbenzene	256	1.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	14.5	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	55.3	5.0	ug/l	
103-65-1	n-Propylbenzene	17.4	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	25.3	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	94.8	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	24.0	5.0	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	528	1.0	ug/l	
95-47-6	o-Xylene	108	1.0	ug/l	
1330-20-7	Xylene (total)	636	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST 4PZ-F-050511		
Lab Sample ID:	M99998-9	Date Sampled:	05/05/11
Matrix:	AQ - Ground Water	Date Received:	05/06/11
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		70-130%
2037-26-5	Toluene-D8	100%		70-130%
460-00-4	4-Bromofluorobenzene	91%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID:	ROST 4PZ-F-050511		
Lab Sample ID:	M99998-9	Date Sampled:	05/05/11
Matrix:	AQ - Ground Water	Date Received:	05/06/11
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	S23785.D	1	05/11/11	PR	05/09/11	OP24849	MSS1010
Run #2 [a]	S24009.D	1	05/17/11	KR	05/13/11	OP24914	MSS1019

	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2	1000 ml	1.0 ml

ABN Special List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic Acid	ND	9.5	ug/l	
95-57-8	2-Chlorophenol	ND	4.8	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	9.5	ug/l	
120-83-2	2,4-Dichlorophenol	ND	9.5	ug/l	
105-67-9	2,4-Dimethylphenol	ND	9.5	ug/l	
51-28-5	2,4-Dinitrophenol	ND	19	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	9.5	ug/l	
95-48-7	2-Methylphenol	ND	9.5	ug/l	
	3&4-Methylphenol	ND	9.5	ug/l	
88-75-5	2-Nitrophenol	ND	9.5	ug/l	
100-02-7	4-Nitrophenol	ND	19	ug/l	
87-86-5	Pentachlorophenol	ND	9.5	ug/l	
108-95-2	Phenol	ND	4.8	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	9.5	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	9.5	ug/l	
62-53-3	Aniline	ND [b]	10	ug/l	UJ
101-55-3	4-Bromophenyl phenyl ether	ND	4.8	ug/l	
85-68-7	Butyl benzyl phthalate	ND	4.8	ug/l	
100-51-6	Benzyl Alcohol	ND	9.5	ug/l	
91-58-7	2-Chloronaphthalene	ND	4.8	ug/l	
106-47-8	4-Chloroaniline	ND	9.5	ug/l	UJ
111-91-1	bis(2-Chloroethoxy)methane	ND	4.8	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	4.8	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	6.9	4.8	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	4.8	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	4.8	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	9.5	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	9.5	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	4.8	ug/l	
132-64-9	Dibenzofuran	ND	4.8	ug/l	
84-74-2	Di-n-butyl phthalate	ND	4.8	ug/l	
117-84-0	Di-n-octyl phthalate	ND	4.8	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST 4PZ-F-050511		
Lab Sample ID:	M99998-9	Date Sampled:	05/05/11
Matrix:	AQ - Ground Water	Date Received:	05/06/11
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

ABN Special List

CAS No.	Compound	Result	RL	Units	Q
84-66-2	Diethyl phthalate	ND	4.8	ug/l	
131-11-3	Dimethyl phthalate	ND	4.8	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	~~2.2~~ ND	~~1.9~~ 2.2	ug/l	B U
118-74-1	Hexachlorobenzene	ND	4.8	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	9.5	ug/l	
67-72-1	Hexachloroethane	ND	4.8	ug/l	
78-59-1	Isophorone	ND	4.8	ug/l	
90-12-0	1-Methylnaphthalene	24.0	4.8	ug/l	J
88-74-4	2-Nitroaniline	ND	9.5	ug/l	
99-09-2	3-Nitroaniline	ND	9.5	ug/l	
100-01-6	4-Nitroaniline	ND	9.5	ug/l	
98-95-3	Nitrobenzene	ND	4.8	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	4.8	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	4.8	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	4.8	ug/l	
110-86-1	Pyridine	ND [b]	10	ug/l	UJ

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	58%	33%	15-110%
4165-62-2	Phenol-d5	35%	18%	15-110%
118-79-6	2,4,6-Tribromophenol	84%	71%	15-110%
4165-60-0	Nitrobenzene-d5	80%	76%	30-130%
321-60-8	2-Fluorobiphenyl	70%	64%	30-130%
1718-51-0	Terphenyl-d14	86%	84%	30-130%

(a) Sample re-extracted beyond recommended holding time.
(b) Result is from Run# 2

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST 4PZ-F-050511		
Lab Sample ID:	M99998-9	Date Sampled:	05/05/11
Matrix:	AQ - Ground Water	Date Received:	05/06/11
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F52852.D	1	05/13/11	PR	05/09/11	OP24850	MSF2552
Run #2							

	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	0.73	0.095	ug/l	J
208-96-8	Acenaphthylene	ND	0.095	ug/l	
120-12-7	Anthracene	0.17	0.095	ug/l	J
56-55-3	Benzo(a)anthracene	0.11	0.048	ug/l	J
50-32-8	Benzo(a)pyrene	ND	0.095	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.048	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.095	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.095	ug/l	
218-01-9	Chrysene	ND	0.095	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.095	ug/l	
206-44-0	Fluoranthene	ND	0.095	ug/l	
86-73-7	Fluorene	0.64	0.095	ug/l	J
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.095	ug/l	
91-57-6	2-Methylnaphthalene	33.6	0.19	ug/l	J
91-20-3	Naphthalene	46.8	0.095	ug/l	J
85-01-8	Phenanthrene	1.4	0.048	ug/l	J
129-00-0	Pyrene	ND	0.095	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	91%		30-130%
321-60-8	2-Fluorobiphenyl	73%		30-130%
1718-51-0	Terphenyl-d14	97%		30-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST 4PZ-F-050511		
Lab Sample ID:	M99998-9	Date Sampled:	05/05/11
Matrix:	AQ - Ground Water	Date Received:	05/06/11
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK2740.D	1	05/11/11	AP	05/09/11	OP24856	GBK113
Run #2							

	Initial Volume	Final Volume
Run #1	33.2 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
106-93-4	1,2-Dibromoethane	ND	0.016	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	137%		36-173%
460-00-4	Bromofluorobenzene (S)	141%		36-173%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST 4PZ-G-050511		
Lab Sample ID:	M99998-10	**Date Sampled:**	05/05/11
Matrix:	AQ - Ground Water	**Date Received:**	05/06/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	G106200.D	1	05/18/11	DFT	n/a	n/a	MSG4286
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-02-8	Acrolein	ND	25	ug/l	
107-13-1	Acrylonitrile	ND	5.0	ug/l	
71-43-2	Benzene	141	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
74-97-5	Bromochloromethane	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST 4PZ-G-050511		
Lab Sample ID:	M99998-10	Date Sampled:	05/05/11
Matrix:	AQ - Ground Water	Date Received:	05/06/11
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dicbloropropane	ND	2.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
123-91-1	1,4-Dioxane	ND	25	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	ug/l	
100-41-4	Ethylbenzene	25.3	1.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	UJ
98-82-8	Isopropylbenzene	9.9	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	19.6	5.0	ug/l	
103-65-1	n-Propylbenzene	6.9	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	4.4	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	17.0	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	22.7	5.0	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	50.9	1.0	ug/l	
95-47-6	o-Xylene	4.5	1.0	ug/l	
1330-20-7	Xylene (total)	55.4	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST 4PZ-G-050511		
Lab Sample ID:	M99998-10	Date Sampled:	05/05/11
Matrix:	AQ - Ground Water	Date Received:	05/06/11
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	113%		70-130%
2037-26-5	Toluene-D8	115%		70-130%
460-00-4	4-Bromofluorobenzene	95%		70-130%

(a) The pH of the sample aliquot for VOA analysis was > 2 at time of analysis.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID:	ROST 4PZ-G-050511		
Lab Sample ID:	M99998-10	Date Sampled:	05/05/11
Matrix:	AQ - Ground Water	Date Received:	05/06/11
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	S23786.D	1	05/11/11	PR	05/09/11	OP24849	MSS1010
Run #2 [a]	S24010.D	1	05/17/11	KR	05/13/11	OP24914	MSS1019

	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2	1050 ml	1.0 ml

ABN Special List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic Acid	ND	9.5	ug/l	
95-57-8	2-Chlorophenol	ND	4.8	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	9.5	ug/l	
120-83-2	2,4-Dichlorophenol	ND	9.5	ug/l	
105-67-9	2,4-Dimethylphenol	ND	9.5	ug/l	
51-28-5	2,4-Dinitrophenol	ND	19	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	9.5	ug/l	
95-48-7	2-Methylphenol	ND	9.5	ug/l	
	3&4-Methylphenol	ND	9.5	ug/l	
88-75-5	2-Nitrophenol	ND	9.5	ug/l	
100-02-7	4-Nitrophenol	ND	19	ug/l	
87-86-5	Pentachlorophenol	ND	9.5	ug/l	
108-95-2	Phenol	ND	4.8	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	9.5	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	9.5	ug/l	
62-53-3	Aniline	ND [b]	9.5	ug/l	UJ
101-55-3	4-Bromophenyl phenyl ether	ND	4.8	ug/l	
85-68-7	Butyl benzyl phthalate	ND	4.8	ug/l	
100-51-6	Benzyl Alcohol	ND	9.5	ug/l	
91-58-7	2-Chloronaphthalene	ND	4.8	ug/l	
106-47-8	4-Chloroaniline	ND	9.5	ug/l	UJ
111-91-1	bis(2-Chloroethoxy)methane	ND	4.8	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	4.8	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	4.8	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	4.8	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	4.8	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	9.5	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	9.5	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	4.8	ug/l	
132-64-9	Dibenzofuran	ND	4.8	ug/l	
84-74-2	Di-n-butyl phthalate	ND	4.8	ug/l	
117-84-0	Di-n-octyl phthalate	ND	4.8	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST 4PZ-G-050511		
Lab Sample ID:	M99998-10	Date Sampled:	05/05/11
Matrix:	AQ - Ground Water	Date Received:	05/06/11
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

ABN Special List

CAS No.	Compound	Result	RL	Units	Q
84-66-2	Diethyl phthalate	ND	4.8	ug/l	
131-11-3	Dimethyl phthalate	ND	4.8	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	~~2.3~~ ND	~~1.9~~ 2.3	ug/l	BW
118-74-1	Hexachlorobenzene	ND	4.8	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	9.5	ug/l	
67-72-1	Hexachloroethane	ND	4.8	ug/l	
78-59-1	Isophorone	ND	4.8	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	ug/l	R
88-74-4	2-Nitroaniline	ND	9.5	ug/l	
99-09-2	3-Nitroaniline	ND	9.5	ug/l	
100-01-6	4-Nitroaniline	ND	9.5	ug/l	
98-95-3	Nitrobenzene	ND	4.8	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	4.8	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	4.8	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	4.8	ug/l	
110-86-1	Pyridine	ND [b]	9.5	ug/l	UJ

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	50%	37%	15-110%
4165-62-2	Phenol-d5	30%	20%	15-110%
118-79-6	2,4,6-Tribromophenol	93%	74%	15-110%
4165-60-0	Nitrobenzene-d5	87%	85%	30-130%
321-60-8	2-Fluorobiphenyl	79%	70%	30-130%
1718-51-0	Terphenyl-d14	99%	89%	30-130%

(a) Sample re-extracted beyond recommended holding time.
(b) Result is from Run# 2

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST 4PZ-G-050511		
Lab Sample ID:	M99998-10	Date Sampled:	05/05/11
Matrix:	AQ - Ground Water	Date Received:	05/06/11
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F52853.D	1	05/13/11	PR	05/09/11	OP24850	MSF2552
Run #2							

	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	0.12	0.095	ug/l	J
208-96-8	Acenaphthylene	ND	0.095	ug/l	
120-12-7	Anthracene	ND	0.095	ug/l	
56-55-3	Benzo(a)anthracene	0.11	0.048	ug/l	J
50-32-8	Benzo(a)pyrene	ND	0.095	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.048	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.095	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.095	ug/l	
218-01-9	Chrysene	ND	0.095	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.095	ug/l	
206-44-0	Fluoranthene	ND	0.095	ug/l	
86-73-7	Fluorene	0.12	0.095	ug/l	J
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.095	ug/l	
91-57-6	2-Methylnaphthalene	6.6	0.19	ug/l	J
91-20-3	Naphthalene	13.2	0.095	ug/l	J
85-01-8	Phenanthrene	0.069	0.048	ug/l	J
129-00-0	Pyrene	ND	0.095	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	99%		30-130%
321-60-8	2-Fluorobiphenyl	80%		30-130%
1718-51-0	Terphenyl-d14	109%		30-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST 4PZ-G-050511		
Lab Sample ID:	M99998-10	Date Sampled:	05/05/11
Matrix:	AQ - Ground Water	Date Received:	05/06/11
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK2741.D	1	05/11/11	AP	05/09/11	OP24856	GBK113
Run #2							

	Initial Volume	Final Volume
Run #1	33.1 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
106-93-4	1,2-Dibromoethane	ND	0.016	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	129%		36-173%
460-00-4	Bromofluorobenzene (S)	136%		36-173%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

New England ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Certification Exceptions
- Certification Exceptions (IL)
- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody

Shell Oil Products Chain Of Custody Record

LAB (LOCATION): Accutest Labs, 495 Technology Ctr W, Marlborough, MA 01752 (508-481-6200)

Lab Vendor #

Please Check Appropriate Box: ENV. SERVICES / MOTIVA RETAIL / SHELL RETAIL / MOTIVA SD&CM / CONSULTANT / LUBES / SHELL PIPELINE / OTHER

Print Bill To Contact Name: WENDY PENNINGTON

PO #

INCIDENT # (ENV SERVICES): 9 7 2 1 6 5 4 0

SAP #: 3 4 0 0 6 1

DATE: 5/4/11

PAGE: 1 of 2

URS CORPORATION

1001 HIGHLANDS PLAZA DRIVE WEST - SUITE 300; ST LOUIS, MO 63110

WENDY PENNINGTON

314-743-4168 or 341-452-8929 | 314-429-0462

900 South Central Ave, ROXANA | IL

Roxana ROST-4-PZ / 21562593.00011

N. SATAM / S. VOSS

LAB USE ONLY: M99998

TURNAROUND TIME (CALENDAR DAYS): STANDARD (10 DAY) / 5 DAYS / 3 DAYS / 2 DAYS / 24 HOURS / RESULTS NEEDED ON WEEKEND

LA - RWQCB REPORT FORMAT / UST AGENCY:

DELIVERABLES: LEVEL 1 / LEVEL 2 / LEVEL 3 / LEVEL 4 / OTHER (SPECIFY) EDD

TEMPERATURE ON RECEIPT C° Cooler #1 | Cooler #2 | Cooler #3

SPECIAL INSTRUCTIONS OR NOTES:

SHELL CONTRACT RATE APPLIES / STATE REIMBURSEMENT RATE APPLIES / EDD NOT NEEDED / RECEIPT VERIFICATION REQUESTED / PROVIDE LEDD DISK

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	DATE	TIME	MATRIX	HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	VOC 8260B	VOC 8011	SVOC 8270C	PAH 8270LL	PID (ppm)	FIELD NOTES: Container PID Readings or Laboratory Notes
-1	ROST 4PZ-C-050311	5/3/11	1320	Water	3			2	2	7	X	X	X	X		
-2	ROST 4PZ-D-050311	5/3/11	1510		3			2	2	7	X	X	X	X		
-3	TB-ROST 4PZ-050311	5/3/11			1				1		X	X				
-4	ROST 4PZ-B-050411	5/4/11	1440		3			2	2	7	X	X	X	X		
-5	ROST 4PZ-B-050411 DUP	5/4/11	1440		3			2	2	7	X	X	X	X		
-6	ROST-4-PZ-A-050411	5/4/11	1135	↓	3			2	2	7	X	X	X	X		
-7	ROST 4PZ-050511 EB	05/5/11	0730	Water	3			2	2	7	X	X	X	X		
-8	ROST 4PZ-050511	5/5/11	1025		3			2	2	7	X	X	X	X		
-9,1	ROST 4PZ-F-050511	5/5/11	1340		3			2	2	7	X	X	X	X		1GB, 2BS,
-9,2	ROST 4PZ F-050511 MS	5/5/11	1340	↓	3			2	2	7	X	X	X	X		2B4

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
[signature]	FED EX	5/5/11	1700
FedEx	[signature]	5/6/11	09:30

5 seals pk. Rec @ 1.5, 1.2, 2.6°

M99998: Chain of Custody
Page 1 of 2

4.1

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LAB (LOCATION)

Shell Oil Products Chain Of Custody Record

Accutest Labs, 495 Technology Ctr W, Marlborough, MA 01752 (508-481-6200)

Lab Vendor #

Please Check Appropriate Box: ENV. SERVICES / MOTIVA RETAIL / SHELL RETAIL / MOTIVA SD&CM / CONSULTANT / LUBES / SHELL PIPELINE / OTHER

Print Bill To Contact Name: WENDY PENNINGTON

PO #

INCIDENT # (ENV SERVICES): 9 7 2 1 6 6 4 0

SAP #: 3 4 0 0 8 1

DATE: 5/5/11

PAGE: 2 of 2

URS CORPORATION

1001 HIGHLANDS PLAZA DRIVE WEST - SUITE 300; ST. LOUIS, MO 63110

WENDY PENNINGTON

314-743-4166 or 341-452-8929 | 314-429-0482

Site Address: 900 South Central Ave, ROXANA, IL

Roxana ROST-4-PZ / 21562583.00011

Sampler: M. SATAM, S. VOSS

LAB USE ONLY: M99998

TURNAROUND TIME: STANDARD (10 DAY) / 5 DAYS / 3 DAYS / 2 DAYS / 24 HOURS / RESULTS NEEDED ON WEEKEND

DELIVERABLES: LEVEL 1 / LEVEL 2 / LEVEL 3 / LEVEL 4 / OTHER (SPECIFY) EDD

TEMPERATURE ON RECEIPT C° Cooler #1 Cooler #2 Cooler #3

SPECIAL INSTRUCTIONS OR NOTES :

SHELL CONTRACT RATE APPLIES / STATE REIMBURSEMENT RATE APPLIES / EDD NOT NEEDED / RECEIPT VERIFICATION REQUESTED / PROVIDE UST DISK

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	VOC 8260B	VOC 8011	SVOC 8270C	PAH 8270LL	PID (ppm)	FIELD NOTES
-9	ROST APZ-F050511 MSD	5/5/11	1340	Water	3			2	2	7	x	x	x	x		
-10	ROST APZ-G-050511	5/5/11	1630	Water	3			2	2	7	x	x	x	x		

Relinquished by	Received by	Date	Time
[signature]	FED EX	5/5/11	1700
FedEx	[signature]	5/6/11	09:30

rec @ 1.5, 1.2, 2.6°

4.1

4

M99998: Chain of Custody
Page 2 of 2

Internal Sample Tracking Chronicle

Shell Oil

Job No: M99998

URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL
Project No: INC#97216640 SAP#340061

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
M99998-1 Collected: 03-MAY-11 13:20 By: NSSV Received: 06-MAY-11 By: JB ROST-4PZ-C-050311						
M99998-1	SW846 8011	11-MAY-11 01:02	AP	09-MAY-11	AJ	V8011EDB
M99998-1	SW846 8270C	11-MAY-11 19:38	PR	09-MAY-11	FC	AB8270SL
M99998-1	SW846 8270C BY SIM	12-MAY-11 23:57	PR	09-MAY-11	FC	B8270SIMPAH
M99998-1	SW846 8260B	17-MAY-11 01:14	AMY			V8260SL
M99998-1	SW846 8270C	17-MAY-11 09:40	KR	13-MAY-11	FC	AB8270SL
M99998-2 Collected: 03-MAY-11 15:10 By: NSSV Received: 06-MAY-11 By: JB ROST-4PZ-D-050311						
M99998-2	SW846 8011	11-MAY-11 01:28	AP	09-MAY-11	AJ	V8011EDB
M99998-2	SW846 8270C	11-MAY-11 20:08	PR	09-MAY-11	FC	AB8270SL
M99998-2	SW846 8270C BY SIM	13-MAY-11 00:26	PR	09-MAY-11	FC	B8270SIMPAH
M99998-2	SW846 8270C BY SIM	15-MAY-11 18:46	KR	09-MAY-11	FC	B8270SIMPAH
M99998-2	SW846 8260B	17-MAY-11 01:42	AMY			V8260SL
M99998-2	SW846 8270C	17-MAY-11 10:10	KR	13-MAY-11	FC	AB8270SL
M99998-2	SW846 8260B	17-MAY-11 15:02	AMY			V8260SL
M99998-3 Collected: 03-MAY-11 00:00 By: NSSV Received: 06-MAY-11 By: JB TB-ROST4PZ-050311						
M99998-3	SW846 8011	11-MAY-11 01:54	AP	09-MAY-11	AJ	V8011EDB
M99998-3	SW846 8260B	16-MAY-11 20:00	AMY			V8260SL
M99998-4 Collected: 04-MAY-11 14:40 By: NSSV Received: 06-MAY-11 By: JB ROST-4PZ-B-050411						
M99998-4	SW846 8011	1I-MAY-11 02:47	AP	09-MAY-I1	AJ	V8011EDB
M99998-4	SW846 8270C	11-MAY-11 20:38	PR	09-MAY-11	FC	AB8270SL
M99998-4	SW846 8270C BY SIM	13-MAY-11 00:57	PR	09-MAY-11	FC	B8270SIMPAH
M99998-4	SW846 8270C	17-MAY-11 10:40	KR	13-MAY-11	FC	AB8270SL
M99998-4	SW846 8260B	18-MAY-11 13:55	AMY			V8260SL
M99998-5 Collected: 04-MAY-11 14:40 By: NSSV Received: 06-MAY-11 By: JB ROST-4PZ-B-050411 DUP						
M99998-5	SW846 8011	1I-MAY-11 03:13	AP	09-MAY-11	AJ	V8011EDB
M99998-5	SW846 8270C	11-MAY-11 21:08	PR	09-MAY-11	FC	AB8270SL

Internal Sample Tracking Chronicle

Shell Oil

Job No: M99998

URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL
Project No: INC#97216640 SAP#340061

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
M99998-5	SW846 8270C BY SIM	13-MAY-11 01:30	PR	09-MAY-11	FC	B8270SIMPAH
M99998-5	SW846 8260B	17-MAY-11 02:39	AMY			V8260SL
M99998-5	SW846 8270C	17-MAY-11 11:10	KR	13-MAY-11	FC	AB8270SL
M99998-6 Collected: 04-MAY-11 11:35 By: NSSV Received: 06-MAY-11 By: JB ROST-4PZ-A-050411						
M99998-6	SW846 8011	11-MAY-11 03:39	AP	09-MAY-11	AJ	V8011EDB
M99998-6	SW846 8270C	11-MAY-11 21:38	PR	09-MAY-11	FC	AB8270SL
M99998-6	SW846 8270C BY SIM	13-MAY-11 01:59	PR	09-MAY-11	FC	B8270SIMPAH
M99998-6	SW846 8260B	17-MAY-11 03:08	AMY			V8260SL
M99998-6	SW846 8270C	17-MAY-11 11:40	KR	13-MAY-11	FC	AB8270SL
M99998-7 Collected: 05-MAY-11 07:30 By: NSSV Received: 06-MAY-11 By: JB ROST-4PZ-050511EB						
M99998-7	SW846 8011	11-MAY-11 04:06	AP	09-MAY-11	AJ	V8011EDB
M99998-7	SW846 8270C	11-MAY-11 22:08	PR	09-MAY-11	FC	AB8270SL
M99998-7	SW846 8270C BY SIM	13-MAY-11 02:27	PR	09-MAY-11	FC	B8270SIMPAH
M99998-7	SW846 8260B	16-MAY-11 20:57	AMY			V8260SL
M99998-7	SW846 8270C	17-MAY-11 12:10	KR	13-MAY-11	FC	AB8270SL
M99998-8 Collected: 05-MAY-11 10:25 By: NSSV Received: 06-MAY-11 By: JB ROST-4PZ-050511						
M99998-8	SW846 8011	11-MAY-11 04:32	AP	09-MAY-11	AJ	V8011EDB
M99998-8	SW846 8270C	11-MAY-11 22:37	PR	09-MAY-11	FC	AB8270SL
M99998-8	SW846 8270C BY SIM	13-MAY-11 03:00	PR	09-MAY-11	FC	B8270SIMPAH
M99998-8	SW846 8270C	17-MAY-11 12:40	KR	13-MAY-11	FC	AB8270SL
M99998-8	SW846 8260B	18-MAY-11 12:32	DFT			V8260SL
M99998-9 Collected: 05-MAY-11 13:40 By: NSSV Received: 06-MAY-11 By: JB ROST-4PZ-F-050511						
M99998-9	SW846 8011	11-MAY-11 04:58	AP	09-MAY-11	AJ	V8011EDB
M99998-9	SW846 8270C	11-MAY-11 23:07	PR	09-MAY-11	FC	AB8270SL
M99998-9	SW846 8270C BY SIM	13-MAY-11 03:29	PR	09-MAY-11	FC	B8270SIMPAH
M99998-9	SW846 8260B	17-MAY-11 03:36	AMY			V8260SL
M99998-9	SW846 8270C	17-MAY-11 13:10	KR	13-MAY-11	FC	AB8270SL

Internal Sample Tracking Chronicle

Shell Oil

Job No: M99998

URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL
Project No: INC#97216640 SAP#340061

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
M99998-10 Collected: 05-MAY-11 16:30 By: NSSV Received: 06-MAY-11 By: JB ROST 4PZ-G-050511						
M99998-10	SW846 8011	11-MAY-11 05:24	AP	09-MAY-11	AJ	V8011EDB
M99998-10	SW846 8270C	11-MAY-11 23:37	PR	09-MAY-11	FC	AB8270SL
M99998-10	SW846 8270C BY SIM	13-MAY-11 04:02	PR	09-MAY-11	FC	B8270SIMPAH
M99998-10	SW846 8270C	17-MAY-11 13:40	KR	13-MAY-11	FC	AB8270SL
M99998-10	SW846 8260B	I8-MAY-11 13:00	DFT			V8260SL

Accutest Internal Chain of Custody

Job Number: M99998
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL
Received: 05/06/11

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
M99998-1.1	Walk In Ref #22	Mahmoud Afzali	05/13/11 12:18	Retrieve from Storage
M99998-1.1	Mahmoud Afzali		05/13/11 16:42	Depleted
M99998-1.2	Walk In Ref #22	Michael Widuta	05/09/11 06:45	Retrieve from Storage
M99998-1.2	Michael Widuta		05/09/11 13:41	Depleted
M99998-1.3	VOC Ref #2	Amy Min Yang	05/16/11 18:05	Retrieve from Storage
M99998-1.3	Amy Min Yang	GCMSL	05/16/11 18:05	Load on Instrument
M99998-1.3	GCMSL	Amy Min Yang	05/17/11 17:38	Unload from Instrument
M99998-1.3	Amy Min Yang	VOC Ref #2	05/17/11 17:38	Return to Storage
M99998-1.6	VOC Ref #2	Francisco Castellanos	05/09/11 11:42	Retrieve from Storage
M99998-1.6	Francisco Castellanos		05/09/11 18:25	Depleted
M99998-2.1	Walk In Ref #22	Michael Widuta	05/09/11 06:45	Retrieve from Storage
M99998-2.1	Michael Widuta		05/09/11 13:41	Depleted
M99998-2.2	Walk In Ref #22	Mahmoud Afzali	05/13/11 12:18	Retrieve from Storage
M99998-2.2	Mahmoud Afzali		05/13/11 16:42	Depleted
M99998-2.3	VOC Ref #2	Amy Min Yang	05/16/11 18:05	Retrieve from Storage
M99998-2.3	Amy Min Yang	GCMSL	05/16/11 18:05	Load on Instrument
M99998-2.3	GCMSL	Amy Min Yang	05/17/11 17:38	Unload from Instrument
M99998-2.3	Amy Min Yang	VOC Ref #2	05/17/11 17:38	Return to Storage
M99998-2.4	VOC Ref #2	Amy Min Yang	05/17/11 13:19	Retrieve from Storage
M99998-2.4	Amy Min Yang	GCMSL	05/17/11 13:19	Load on Instrument
M99998-2.4	GCMSL	Amy Min Yang	05/17/11 17:38	Unload from Instrument
M99998-2.4	Amy Min Yang	VOC Ref #2	05/17/11 17:38	Return to Storage
M99998-2.7	VOC Ref #2	Francisco Castellanos	05/09/11 11:42	Retrieve from Storage
M99998-2.7	Francisco Castellanos		05/09/11 18:25	Depleted
M99998-3.1	VOC Ref #2	Amy Min Yang	05/16/11 18:05	Retrieve from Storage
M99998-3.1	Amy Min Yang	GCMSL	05/16/11 18:05	Load on Instrument
M99998-3.1	GCMSL	Amy Min Yang	05/17/11 17:38	Unload from Instrument
M99998-3.1	Amy Min Yang	VOC Ref #2	05/17/11 17:38	Return to Storage
M99998-3.2	VOC Ref #2	Francisco Castellanos	05/09/11 11:42	Retrieve from Storage
M99998-3.2	Francisco Castellanos		05/09/11 18:25	Depleted
M99998-4.1	Walk In Ref #22	Amirhossein Farvardin	05/12/11 08:35	Retrieve from Storage
M99998-4.1	Amirhossein Farvardin	Walk In Ref #22	05/12/11 08:51	Return to Storage
M99998-4.1	Walk In Ref #22	Mahmoud Afzali	05/13/11 12:18	Retrieve from Storage

Accutest Internal Chain of Custody

Job Number: M99998
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL
Received: 05/06/11

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
M99998-4.1	Mahmoud Afzali		05/13/11 16:42	Depleted
M99998-4.2	Walk In Ref #22	Michael Widuta	05/09/11 06:45	Retrieve from Storage
M99998-4.2	Michael Widuta		05/09/11 13:41	Depleted
M99998-4.4	VOC Ref #2	Amy Min Yang	05/16/11 18:05	Retrieve from Storage
M99998-4.4	Amy Min Yang	GCMSL	05/16/11 18:05	Load on Instrument
M99998-4.4	GCMSL	Amy Min Yang	05/17/11 17:38	Unload from Instrument
M99998-4.4	Amy Min Yang	VOC Ref #2	05/17/11 17:38	Return to Storage
M99998-4.5	VOC Ref #2	Amy Min Yang	05/18/11 07:57	Retrieve from Storage
M99998-4.5	Amy Min Yang	GCMSL	05/18/11 07:57	Load on Instrument
M99998-4.5	GCMSL	Amy Min Yang	05/18/11 16:45	Unload from Instrument
M99998-4.5	Amy Min Yang	VOC Ref #2	05/18/11 16:45	Return to Storage
M99998-4.6	VOC Ref #2	Francisco Castellanos	05/09/11 11:42	Retrieve from Storage
M99998-4.6	Francisco Castellanos		05/09/11 18:25	Depleted
M99998-5.1	Walk In Ref #22	Mahmoud Afzali	05/13/11 12:18	Retrieve from Storage
M99998-5.1	Mahmoud Afzali		05/13/11 16:42	Depleted
M99998-5.2	Walk In Ref #22	Michael Widuta	05/09/11 06:45	Retrieve from Storage
M99998-5.2	Michael Widuta		05/09/11 13:41	Depleted
M99998-5.4	VOC Ref #2	Amy Min Yang	05/16/11 18:05	Retrieve from Storage
M99998-5.4	Amy Min Yang	GCMSL	05/16/11 18:05	Load on Instrument
M99998-5.4	GCMSL	Amy Min Yang	05/17/11 17:38	Unload from Instrument
M99998-5.4	Amy Min Yang	VOC Ref #2	05/17/11 17:38	Return to Storage
M99998-5.6	VOC Ref #2	Francisco Castellanos	05/09/11 11:42	Retrieve from Storage
M99998-5.6	Francisco Castellanos		05/09/11 18:25	Depleted
M99998-6.1	Walk In Ref #22	Mahmoud Afzali	05/13/11 12:18	Retrieve from Storage
M99998-6.1	Mahmoud Afzali		05/13/11 16:42	Depleted
M99998-6.2	Walk In Ref #22	Michael Widuta	05/09/11 06:45	Retrieve from Storage
M99998-6.2	Michael Widuta		05/09/11 13:41	Depleted
M99998-6.3	VOC Ref #2	Amy Min Yang	05/16/11 18:05	Retrieve from Storage
M99998-6.3	Amy Min Yang	GCMSL	05/16/11 18:05	Load on Instrument
M99998-6.3	GCMSL	Amy Min Yang	05/17/11 17:38	Unload from Instrument
M99998-6.3	Amy Min Yang	VOC Ref #2	05/17/11 17:38	Return to Storage
M99998-6.7	VOC Ref #2	Francisco Castellanos	05/09/11 11:42	Retrieve from Storage

Accutest Internal Chain of Custody

Job Number: M99998
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL
Received: 05/06/11

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
M99998-6.7	Francisco Castellanos		05/09/11 18:25	Depleted
M99998-7.1	Walk In Ref #22	Mahmoud Afzali	05/13/11 12:18	Retrieve from Storage
M99998-7.1	Mahmoud Afzali		05/13/11 16:42	Depleted
M99998-7.2	Walk In Ref #22	Michael Widuta	05/09/11 06:45	Retrieve from Storage
M99998-7.2	Michael Widuta		05/09/11 13:41	Depleted
M99998-7.3	VOC Ref #2	Amy Min Yang	05/16/11 18:05	Retrieve from Storage
M99998-7.3	Amy Min Yang	GCMSL	05/16/11 18:05	Load on Instrument
M99998-7.3	GCMSL	Amy Min Yang	05/17/11 17:38	Unload from Instrument
M99998-7.3	Amy Min Yang	VOC Ref #2	05/17/11 17:38	Return to Storage
M99998-7.7	VOC Ref #2	Francisco Castellanos	05/09/11 11:42	Retrieve from Storage
M99998-7.7	Francisco Castellanos		05/09/11 18:25	Depleted
M99998-8.1	Walk In Ref #22	Mahmoud Afzali	05/13/11 12:18	Retrieve from Storage
M99998-8.1	Mahmoud Afzali		05/13/11 16:42	Depleted
M99998-8.2	Walk In Ref #22	Michael Widuta	05/09/11 06:45	Retrieve from Storage
M99998-8.2	Michael Widuta		05/09/11 13:41	Depleted
M99998-8.5	VOC Ref #2	Dana Tyron	05/18/11 10:39	Retrieve from Storage
M99998-8.5	Dana Tyron	GCMSG	05/18/11 10:39	Load on Instrument
M99998-8.5	GCMSG	Dana Tyron	05/19/11 09:56	Unload from Instrument
M99998-8.5	Dana Tyron	VOC Ref #2	05/19/11 09:56	Return to Storage
M99998-8.7	VOC Ref #2	Francisco Castellanos	05/09/11 11:42	Retrieve from Storage
M99998-8.7	Francisco Castellanos		05/09/11 18:25	Depleted
M99998-9.1	Walk In Ref #22	Michael Widuta	05/09/11 06:45	Retrieve from Storage
M99998-9.1	Michael Widuta		05/09/11 13:41	Depleted
M99998-9.3	Walk In Ref #22	Michael Widuta	05/09/11 06:45	Retrieve from Storage
M99998-9.3	Michael Widuta		05/09/11 13:41	Depleted
M99998-9.5	Walk In Ref #22	Mahmoud Afzali	05/13/11 12:18	Retrieve from Storage
M99998-9.5	Mahmoud Afzali		05/13/11 16:42	Depleted
M99998-9.6	Walk In Ref #22	Michael Widuta	05/09/11 06:45	Retrieve from Storage
M99998-9.6	Michael Widuta		05/09/11 13:41	Depleted
M99998-9.9	VOC Ref #2	Amy Min Yang	05/16/11 18:05	Retrieve from Storage
M99998-9.9	Amy Min Yang	GCMSL	05/16/11 18:05	Load on Instrument

Accutest Internal Chain of Custody

Job Number: M99998
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL
Received: 05/06/11

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
M99998-9.9	GCMSL	Amy Min Yang	05/17/11 17:38	Unload from Instrument
M99998-9.9	Amy Min Yang	VOC Ref #2	05/17/11 17:38	Return to Storage
M99998-9.12	VOC Ref #2	Amy Min Yang	05/16/11 18:05	Retrieve from Storage
M99998-9.12	Amy Min Yang	GCMSL	05/16/11 18:05	Load on Instrument
M99998-9.12	GCMSL	Amy Min Yang	05/17/11 17:38	Unload from Instrument
M99998-9.12	Amy Min Yang	VOC Ref #2	05/17/11 17:38	Return to Storage
M99998-9.14	VOC Ref #2	Amy Min Yang	05/16/11 18:05	Retrieve from Storage
M99998-9.14	Amy Min Yang	GCMSL	05/16/11 18:05	Load on Instrument
M99998-9.14	GCMSL	Amy Min Yang	05/17/11 17:38	Unload from Instrument
M99998-9.14	Amy Min Yang	VOC Ref #2	05/17/11 17:38	Return to Storage
M99998-9.15	VOC Ref #2	Amy Min Yang	05/16/11 18:05	Retrieve from Storage
M99998-9.15	Amy Min Yang	GCMSL	05/16/11 18:05	Load on Instrument
M99998-9.15	GCMSL	Amy Min Yang	05/17/11 17:38	Unload from Instrument
M99998-9.15	Amy Min Yang	VOC Ref #2	05/17/11 17:38	Return to Storage
M99998-9.16	VOC Ref #2	Francisco Castellanos	05/09/11 11:42	Retrieve from Storage
M99998-9.16	Francisco Castellanos		05/09/11 18:25	Depleted
M99998-9.18	VOC Ref #2	Francisco Castellanos	05/09/11 11:42	Retrieve from Storage
M99998-9.18	Francisco Castellanos		05/09/11 18:25	Depleted
M99998-9.19	VOC Ref #2	Francisco Castellanos	05/09/11 11:42	Retrieve from Storage
M99998-9.19	Francisco Castellanos		05/09/11 18:25	Depleted
M99998-10.1	Walk In Ref #22	Mahmoud Afzali	05/13/11 12:18	Retrieve from Storage
M99998-10.1	Mahmoud Afzali		05/13/11 16:42	Depleted
M99998-10.2	Walk In Ref #22	Michael Widuta	05/09/11 06:45	Retrieve from Storage
M99998-10.2	Michael Widuta		05/09/11 13:41	Depleted
M99998-10.6	VOC Ref #2	Dana Tyron	05/18/11 10:39	Retrieve from Storage
M99998-10.6	Dana Tyron	GCMSG	05/18/11 10:39	Load on Instrument
M99998-10.6	GCMSG	Dana Tyron	05/19/11 09:56	Unload from Instrument
M99998-10.6	Dana Tyron	VOC Ref #2	05/19/11 09:56	Return to Storage
M99998-10.7	VOC Ref #2	Francisco Castellanos	05/09/11 11:42	Retrieve from Storage
M99998-10.7	Francisco Castellanos		05/09/11 18:25	Depleted

New England ACCUTEST LABORATORIES

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: M99998
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSL1758-MB	L52798.D	1	05/16/11	AMY	n/a	n/a	MSL1758

The QC reported here applies to the following samples: Method: SW846 8260B

M99998-1, M99998-2, M99998-3, M99998-5, M99998-6, M99998-7, M99998-9

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-02-8	Acrolein	ND	25	ug/l	
107-13-1	Acrylonitrile	ND	5.0	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
74-97-5	Bromochloromethane	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	

Method Blank Summary

Job Number: M99998
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSL1758-MB	L52798.D	1	05/16/11	AMY	n/a	n/a	MSL1758

The QC reported here applies to the following samples: Method: SW846 8260B

M99998-1, M99998-2, M99998-3, M99998-5, M99998-6, M99998-7, M99998-9

CAS No.	Compound	Result	RL	Units	Q
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
123-91-1	1,4-Dioxane	ND	25	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	2.6	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Tricbloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

Method Blank Summary

Job Number: M99998
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSL1758-MB	L52798.D	1	05/16/11	AMY	n/a	n/a	MSL1758

The QC reported here applies to the following samples: Method: SW846 8260B

M99998-1, M99998-2, M99998-3, M99998-5, M99998-6, M99998-7, M99998-9

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	99%	70-130%
2037-26-5	Toluene-D8	98%	70-130%
460-00-4	4-Bromofluorobenzene	98%	70-130%

Method Blank Summary

Job Number: M99998
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSL1759-MB	L52824.D	1	05/17/11	AMY	n/a	n/a	MSL1759

The QC reported here applies to the following samples: Method: SW846 8260B

M99998-2

CAS No.	Compound	Result	RL	Units	Q
100-41-4	Ethylbenzene	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	89%	70-130%
2037-26-5	Toluene-D8	95%	70-130%
460-00-4	4-Bromofluorobenzene	92%	70-130%

Method Blank Summary

Job Number: M99998
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSL1761-MB	L52876.D	1	05/18/11	AMY	n/a	n/a	MSL1761

The QC reported here applies to the following samples: Method: SW846 8260B

M99998-4

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-02-8	Acrolein	ND	25	ug/l	
107-13-1	Acrylonitrile	ND	5.0	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
74-97-5	Bromochloromethane	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	

Method Blank Summary

Job Number: M99998
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSL1761-MB	L52876.D	1	05/18/11	AMY	n/a	n/a	MSL1761

The QC reported here applies to the following samples: Method: SW846 8260B

M99998-4

CAS No.	Compound	Result	RL	Units	Q
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
123-91-1	1,4-Dioxane	ND	25	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

Method Blank Summary

Job Number: M99998
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSL1761-MB	L52876.D	1	05/18/11	AMY	n/a	n/a	MSL1761

The QC reported here applies to the following samples: Method: SW846 8260B

M99998-4

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	105%	70-130%
2037-26-5	Toluene-D8	101%	70-130%
460-00-4	4-Bromofluorobenzene	100%	70-130%

Method Blank Summary

Job Number: M99998
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSG4286-MB	G106196.D	1	05/18/11	DFT	n/a	n/a	MSG4286

The QC reported here applies to the following samples: Method: SW846 8260B

M99998-8, M99998-10

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-02-8	Acrolein	ND	25	ug/l	
107-13-1	Acrylonitrile	ND	5.0	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
74-97-5	Bromochloromethane	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	

Method Blank Summary

Job Number: M99998
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSG4286-MB	G106196.D	1	05/18/11	DFT	n/a	n/a	MSG4286

The QC reported here applies to the following samples: Method: SW846 8260B

M99998-8, M99998-10

CAS No.	Compound	Result	RL	Units	Q
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
123-91-1	1,4-Dioxane	ND	25	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

Method Blank Summary

Job Number: M99998
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSG4286-MB	G106196.D	1	05/18/11	DFT	n/a	n/a	MSG4286

The QC reported here applies to the following samples: Method: SW846 8260B

M99998-8, M99998-10

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	110%	70-130%
2037-26-5	Toluene-D8	110%	70-130%
460-00-4	4-Bromofluorobenzene	109%	70-130%

Blank Spike Summary

Job Number: M99998
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSL1758-BS	L52796.D	1	05/16/11	AMY	n/a	n/a	MSL1758

5.2.1

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The QC reported here applies to the following samples: Method: SW846 8260B

M99998-1, M99998-2, M99998-3, M99998-5, M99998-6, M99998-7, M99998-9

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	50	96.8	194* a	70-130
107-02-8	Acrolein	250	921	368* a	70-130
107-13-1	Acrylonitrile	50	66.3	133* a	70-130
71-43-2	Benzene	50	56.0	112	70-130
108-86-1	Bromobenzene	50	49.0	98	70-130
74-97-5	Bromochloromethane	50	53.9	108	70-130
75-27-4	Bromodichloromethane	50	58.8	118	70-130
75-25-2	Bromoform	50	44.4	89	70-130
74-83-9	Bromomethane	50	42.4	85	70-130
78-93-3	2-Butanone (MEK)	50	62.7	125	70-130
104-51-8	n-Butylbenzene	50	56.3	113	70-130
135-98-8	sec-Butylbenzene	50	54.3	109	70-130
98-06-6	tert-Butylbenzene	50	55.9	112	70-130
75-15-0	Carbon disulfide	50	57.9	116	70-130
56-23-5	Carbon tetrachloride	50	47.4	95	70-130
108-90-7	Chlorobenzene	50	47.1	94	70-130
75-00-3	Chloroethane	50	70.8	142* a	70-130
110-75-8	2-Chloroethyl vinyl ether	50	55.2	110	70-130
67-66-3	Chloroform	50	57.0	114	70-130
74-87-3	Chloromethane	50	67.2	134* a	70-130
95-49-8	o-Chlorotoluene	50	53.1	106	70-130
106-43-4	p-Chlorotoluene	50	53.3	107	70-130
96-12-8	1,2-Dibromo-3-chloropropane	50	57.7	115	70-130
124-48-1	Dibromochloromethane	50	48.8	98	70-130
106-93-4	1,2-Dibromoethane	50	49.2	98	70-130
95-50-1	1,2-Dichlorobenzene	50	49.2	98	70-130
541-73-1	1,3-Dichlorobenzene	50	49.7	99	70-130
106-46-7	1,4-Dichlorobenzene	50	48.3	97	70-130
75-71-8	Dichlorodifluoromethane	50	44.4	89	70-130
75-34-3	1,1-Dichloroethane	50	65.6	131* a	70-130
107-06-2	1,2-Dichloroethane	50	60.5	121	70-130
75-35-4	1,1-Dichloroethene	50	47.4	95	70-130
156-59-2	cis-1,2-Dichloroethene	50	56.9	114	70-130
156-60-5	trans-1,2-Dichloroethene	50	52.6	105	70-130
78-87-5	1,2-Dichloropropane	50	55.4	111	70-130
142-28-9	1,3-Dichloropropane	50	49.9	100	70-130

Blank Spike Summary

Job Number: M99998
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSL1758-BS	L52796.D	1	05/16/11	AMY	n/a	n/a	MSL1758

The QC reported here applies to the following samples: Method: SW846 8260B

M99998-1, M99998-2, M99998-3, M99998-5, M99998-6, M99998-7, M99998-9

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
594-20-7	2,2-Dichloropropane	50	57.8	116	70-130
563-58-6	1,1-Dichloropropene	50	53.9	108	70-130
10061-01-5	cis-1,3-Dichloropropene	50	53.7	107	70-130
10061-02-6	trans-1,3-Dichloropropene	50	55.5	111	70-130
123-91-1	1,4-Dioxane	250	245	98	70-130
97-63-2	Ethyl methacrylate	50	59.9	120	77-137
100-41-4	Ethylbenzene	50	48.1	96	70-130
87-68-3	Hexachlorobutadiene	50	48.4	97	70-130
591-78-6	2-Hexanone	50	51.6	103	70-130
98-82-8	Isopropylbenzene	50	60.6	121	70-130
99-87-6	p-Isopropyltoluene	50	53.6	107	70-130
1634-04-4	Methyl Tert Butyl Ether	50	64.3	129	70-130
108-10-1	4-Methyl-2-pentanone (M1BK)	50	60.7	121	70-130
74-95-3	Methylene bromide	50	56.1	112	70-130
75-09-2	Methylene chloride	50	62.4	125	70-130
91-20-3	Naphthalene	50	44.8	90	70-130
103-65-1	n-Propylbenzene	50	55.5	111	70-130
100-42-5	Styrene	50	47.6	95	70-130
630-20-6	1,1,1,2-Tetrachloroethane	50	49.3	99	70-130
79-34-5	1,1,2,2-Tetrachloroethane	50	53.2	106	70-130
127-18-4	Tetrachloroethene	50	43.2	86	70-130
108-88-3	Toluene	50	56.2	112	70-130
87-61-6	1,2,3-Trichlorobenzene	50	47.9	96	70-130
120-82-1	1,2,4-Trichlorobenzene	50	48.7	97	70-130
71-55-6	1,1,1-Trichloroethane	50	59.2	118	70-130
79-00-5	1,1,2-Trichloroethane	50	55.4	111	70-130
79-01-6	Trichloroethene	50	52.7	105	70-130
75-69-4	Trichlorofluoromethane	50	53.7	107	70-130
96-18-4	1,2,3-Trichloropropane	50	54.0	108	70-130
95-63-6	1,2,4-Trimethylbenzene	50	52.4	105	70-130
108-67-8	1,3,5-Trimethylbenzene	50	51.9	104	70-130
108-05-4	Vinyl Acetate	50	60.2	120	70-130
75-01-4	Vinyl chloride	50	56.5	113	70-130
	m,p-Xylene	100	90.3	90	70-130
95-47-6	o-Xylene	50	43.9	88	70-130
1330-20-7	Xylene (total)	150	134	89	70-130

Blank Spike Summary

Job Number: M99998
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSL1758-BS	L52796.D	1	05/16/11	AMY	n/a	n/a	MSL1758

The QC reported here applies to the following samples: Method: SW846 8260B

M99998-1, M99998-2, M99998-3, M99998-5, M99998-6, M99998-7, M99998-9

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	105%	70-130%
2037-26-5	Toluene-D8	101%	70-130%
460-00-4	4-Bromofluorobenzene	96%	70-130%

(a) Outside control limits. Associated samples are non-detect for this compound.

Blank Spike Summary

Job Number: M99998
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSL1759-BS	L52822.D	1	05/17/11	AMY	n/a	n/a	MSL1759

The QC reported here applies to the following samples: Method: SW846 8260B

M99998-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
100-41-4	Ethylbenzene	50	55.5	111	70-130
	m,p-Xylene	100	107	107	70-130
95-47-6	o-Xylene	50	50.7	101	70-130
1330-20-7	Xylene (total)	150	158	105	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	87%	70-130%
2037-26-5	Toluene-D8	96%	70-130%
460-00-4	4-Bromofluorobenzene	91%	70-130%

Blank Spike Summary

Job Number: M99998
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSG4286-BS	G106195.D	1	05/18/11	DFT	n/a	n/a	MSG4286

The QC reported here applies to the following samples: Method: SW846 8260B

M99998-8, M99998-10

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	50	41.2	82	70-130
107-02-8	Acrolein	250	3120	1248*	70-130
107-13-1	Acrylonitrile	50	49.0	98	70-130
71-43-2	Benzene	50	53.6	107	70-130
108-86-1	Bromobenzene	50	50.3	101	70-130
74-97-5	Bromochloromethane	50	61.0	122	70-130
75-27-4	Bromodichloromethane	50	56.1	112	70-130
75-25-2	Bromoform	50	52.4	105	70-130
74-83-9	Bromomethane	50	54.0	108	70-130
78-93-3	2-Butanone (MEK)	50	49.6	99	70-130
104-51-8	n-Butylbenzene	50	52.6	105	70-130
135-98-8	sec-Butylbenzene	50	52.9	106	70-130
98-06-6	tert-Butylbenzene	50	50.1	100	70-130
75-15-0	Carbon disulfide	50	61.7	123	70-130
56-23-5	Carbon tetrachloride	50	57.3	115	70-130
108-90-7	Chlorobenzene	50	52.9	106	70-130
75-00-3	Chloroethane	50	57.8	116	70-130
110-75-8	2-Chloroethyl vinyl ether	50	237	474* [a]	70-130
67-66-3	Chloroform	50	58.0	116	70-130
74-87-3	Chloromethane	50	44.8	90	70-130
95-49-8	o-Chlorotoluene	50	48.3	97	70-130
106-43-4	p-Chlorotoluene	50	50.4	101	70-130
96-12-8	1,2-Dibromo-3-chloropropane	50	43.6	87	70-130
124-48-1	Dibromochloromethane	50	54.6	109	70-130
106-93-4	1,2-Dibromoethane	50	53.5	107	70-130
95-50-1	1,2-Dichlorobenzene	50	51.5	103	70-130
541-73-1	1,3-Dichlorobenzene	50	51.7	103	70-130
106-46-7	1,4-Dichlorobenzene	50	51.1	102	70-130
75-71-8	Dichlorodifluoromethane	50	44.3	89	70-130
75-34-3	1,1-Dichloroethane	50	55.4	111	70-130
107-06-2	1,2-Dichloroethane	50	51.1	102	70-130
75-35-4	1,1-Dichloroethene	50	60.0	120	70-130
156-59-2	cis-1,2-Dichloroethene	50	55.2	110	70-130
156-60-5	trans-1,2-Dichloroethene	50	57.4	115	70-130
78-87-5	1,2-Dichloropropane	50	53.6	107	70-130
142-28-9	1,3-Dichloropropane	50	50.4	101	70-130

Blank Spike Summary

Job Number: M99998
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSG4286-BS	G106195.D	1	05/18/11	DFT	n/a	n/a	MSG4286

The QC reported here applies to the following samples: Method: SW846 8260B

M99998-8, M99998-10

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
594-20-7	2,2-Dichloropropane	50	59.1	118	70-130
563-58-6	1,1-Dichloropropene	50	56.2	112	70-130
10061-01-5	cis-1,3-Dichloropropene	50	55.6	111	70-130
10061-02-6	trans-1,3-Dichloropropene	50	60.3	121	70-130
123-91-1	1,4-Dioxane	250	225	90	70-130
97-63-2	Ethyl methacrylate	50	50.1	100	77-137
100-41-4	Ethylbenzene	50	53.2	106	70-130
87-68-3	Hexachlorobutadiene	50	57.0	114	70-130
591-78-6	2-Hexanone	50	33.6	67* [b]	70-130
98-82-8	Isopropylbenzene	50	58.8	118	70-130
99-87-6	p-Isopropyltoluene	50	54.5	109	70-130
1634-04-4	Methyl Tert Butyl Ether	50	53.5	107	70-130
108-10-1	4-Methyl-2-pentanone (MIBK)	50	43.3	87	70-130
74-95-3	Methylene bromide	50	57.2	114	70-130
75-09-2	Methylene chloride	50	57.3	115	70-130
91-20-3	Naphthalene	50	41.2	82	70-130
103-65-1	n-Propylbenzene	50	51.9	104	70-130
100-42-5	Styrene	50	54.4	109	70-130
630-20-6	1,1,1,2-Tetrachloroethane	50	53.5	107	70-130
79-34-5	1,1,2,2-Tetrachloroethane	50	47.2	94	70-130
127-18-4	Tetrachloroethene	50	55.5	111	70-130
108-88-3	Toluene	50	57.6	115	70-130
87-61-6	1,2,3-Trichlorobenzene	50	45.6	91	70-130
120-82-1	1,2,4-Trichlorobenzene	50	46.9	94	70-130
71-55-6	1,1,1-Trichloroethane	50	59.8	120	70-130
79-00-5	1,1,2-Trichloroethane	50	57.6	115	70-130
79-01-6	Trichloroethene	50	56.4	113	70-130
75-69-4	Trichlorofluoromethane	50	56.3	113	70-130
96-18-4	1,2,3-Trichloropropane	50	43.3	87	70-130
95-63-6	1,2,4-Trimethylbenzene	50	51.1	102	70-130
108-67-8	1,3,5-Trimethylbenzene	50	50.2	100	70-130
108-05-4	Vinyl Acetate	50	46.8	94	70-130
75-01-4	Vinyl chloride	50	51.6	103	70-130
	m,p-Xylene	100	109	109	70-130
95-47-6	o-Xylene	50	54.1	108	70-130
1330-20-7	Xylene (total)	150	164	109	70-130

Blank Spike Summary

Job Number: M99998
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSG4286-BS	G106195.D	1	05/18/11	DFT	n/a	n/a	MSG4286

The QC reported here applies to the following samples: Method: SW846 8260B

M99998-8, M99998-10

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	112%	70-130%
2037-26-5	Toluene-D8	113%	70-130%
460-00-4	4-Bromofluorobenzene	95%	70-130%

(a) Outside control limits. Associated samples are non-detect for this compound.
(b) Outside control limits. Blank Spike meets program technical requirements.

Blank Spike/Blank Spike Duplicate Summary

Job Number: M99998
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSL1761-BS	L52873.D	1	05/18/11	AMY	n/a	n/a	MSL1761
MSL1761-BSD	L52874.D	1	05/18/11	AMY	n/a	n/a	MSL1761

The QC reported here applies to the following samples: Method: SW846 8260B

M99998-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	50	82.0	164* a	79.0	158* a	4	70-130/25
107-02-8	Acrolein	250	1010	404* a	1020	408* a	1	70-130/25
107-13-1	Acrylonitrile	50	70.9	142* a	66.3	133* a	7	70-130/25
71-43-2	Benzene	50	57.8	116	54.7	109	6	70-130/25
108-86-1	Bromobenzene	50	50.5	101	50.2	100	1	70-130/25
74-97-5	Bromochloromethane	50	58.2	116	55.0	110	6	70-130/25
75-27-4	Bromodichloromethane	50	59.6	119	57.5	115	4	70-130/25
75-25-2	Bromoform	50	42.0	84	41.4	83	1	70-130/25
74-83-9	Bromomethane	50	57.1	114	54.6	109	4	70-130/25
78-93-3	2-Butanone (MEK)	50	55.7	111	59.4	119	6	70-130/25
104-51-8	n-Butylbenzene	50	57.7	115	57.1	114	1	70-130/25
135-98-8	sec-Butylbenzene	50	56.5	113	56.9	114	1	70-130/25
98-06-6	tert-Butylbenzene	50	59.1	118	59.6	119	1	70-130/25
75-15-0	Carbon disulfide	50	64.1	128	58.6	117	9	70-130/25
56-23-5	Carbon tetrachloride	50	51.1	102	49.8	100	3	70-130/25
108-90-7	Chlorobenzene	50	46.6	93	47.3	95	1	70-130/25
75-00-3	Chloroethane	50	76.9	154* a	69.9	140* a	10	70-130/25
110-75-8	2-Chloroethyl vinyl ether	50	55.2	110	47.3	95	15	70-130/25
67-66-3	Chloroform	50	61.2	122	58.0	116	5	70-130/25
74-87-3	Chloromethane	50	70.8	142* a	66.6	133* a	6	70-130/25
95-49-8	o-Chlorotoluene	50	55.4	111	55.2	110	0	70-130/25
106-43-4	p-Chlorotoluene	50	56.7	113	55.6	111	2	70-130/25
96-12-8	1,2-Dibromo-3-chloropropane	50	53.3	107	55.0	110	3	70-130/25
124-48-1	Dibromochloromethane	50	48.8	98	48.2	96	1	70-130/25
106-93-4	1,2-Dibromoethane	50	48.4	97	47.9	96	1	70-130/25
95-50-1	1,2-Dicblorobenzene	50	50.5	101	50.3	101	0	70-130/25
541-73-1	1,3-Dicblorobenzene	50	50.2	100	50.0	100	0	70-130/25
106-46-7	1,4-Dichlorobenzene	50	49.3	99	48.9	98	1	70-130/25
75-71-8	Dichlorodifluoromethane	50	44.7	89	39.6	79	12	70-130/25
75-34-3	1,1-Dichloroethane	50	71.9	144* a	67.1	134* a	7	70-130/25
107-06-2	1,2-Dichloroethane	50	61.3	123	57.5	115	6	70-130/25
75-35-4	1,1-Dichloroethene	50	53.4	107	49.4	99	8	70-130/25
156-59-2	cis-1,2-Dichloroethene	50	59.9	120	54.5	109	9	70-130/25
156-60-5	trans-1,2-Dichloroethene	50	60.9	122	58.2	116	5	70-130/25
78-87-5	1,2-Dichloropropane	50	58.2	116	56.2	112	3	70-130/25
142-28-9	1,3-Dichloropropane	50	51.1	102	50.5	101	1	70-130/25

Blank Spike/Blank Spike Duplicate Summary

Job Number: M99998
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSL1761-BS	L52873.D	1	05/18/11	AMY	n/a	n/a	MSL1761
MSL1761-BSD	L52874.D	1	05/18/11	AMY	n/a	n/a	MSL1761

The QC reported here applies to the following samples: Method: SW846 8260B

M99998-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
594-20-7	2,2-Dichloropropane	50	49.4	99	46.7	93	6	70-130/25
563-58-6	1,1-Dichloropropene	50	58.5	117	56.1	112	4	70-130/25
10061-01-5	cis-1,3-Dichloropropene	50	52.6	105	51.6	103	2	70-130/25
10061-02-6	trans-1,3-Dichloropropene	50	52.9	106	50.2	100	5	70-130/25
123-91-1	1,4-Dioxane	250	125	50* a	163	65* a	26* a	70-130/25
97-63-2	Ethyl methacrylate	50	59.7	119	59.3	119	1	77-137/25
100-41-4	Ethylbenzene	50	50.4	101	49.7	99	1	70-130/25
87-68-3	Hexachlorobutadiene	50	48.8	98	48.1	96	1	70-130/25
591-78-6	2-Hexanone	50	50.8	102	49.0	98	4	70-130/25
98-82-8	Isopropylbenzene	50	64.4	129	65.2	130	1	70-130/25
99-87-6	p-Isopropyltoluene	50	55.6	111	55.7	111	0	70-130/25
1634-04-4	Methyl Tert Butyl Ether	50	65.0	130	63.1	126	3	70-130/25
108-10-1	4-Methyl-2-pentanone (MIBK)	50	61.1	122	58.4	117	5	70-130/25
74-95-3	Methylene bromide	50	54.8	110	54.9	110	0	70-130/25
75-09-2	Methylene chloride	50	70.5	141* a	73.7	147* a	4	70-130/25
91-20-3	Naphthalene	50	42.6	85	45.0	90	5	70-130/25
103-65-1	n-Propylbenzene	50	57.8	116	57.9	116	0	70-130/25
100-42-5	Styrene	50	48.8	98	49.3	99	1	70-130/25
630-20-6	1,1,1,2-Tetrachloroethane	50	49.1	98	49.5	99	1	70-130/25
79-34-5	1,1,2,2-Tetrachloroethane	50	53.4	107	53.9	108	1	70-130/25
127-18-4	Tetrachloroethene	50	45.6	91	46.9	94	3	70-130/25
108-88-3	Toluene	50	60.0	120	55.9	112	7	70-130/25
87-61-6	1,2,3-Trichlorobenzene	50	47.7	95	48.4	97	1	70-130/25
120-82-1	1,2,4-Trichlorobenzene	50	47.9	96	48.3	97	1	70-130/25
71-55-6	1,1,1-Trichloroethane	50	64.0	128	60.5	121	6	70-130/25
79-00-5	1,1,2-Trichloroethane	50	57.4	115	55.1	110	4	70-130/25
79-01-6	Trichloroethene	50	54.7	109	52.3	105	4	70-130/25
75-69-4	Trichlorofluoromethane	50	60.2	120	55.8	112	8	70-130/25
96-18-4	1,2,3-Trichloropropane	50	52.1	104	53.1	106	2	70-130/25
95-63-6	1,2,4-Trimethylbenzene	50	53.6	107	53.6	107	0	70-130/25
108-67-8	1,3,5-Trimethylbenzene	50	53.7	107	53.9	108	0	70-130/25
108-05-4	Vinyl Acetate	50	65.5	131* a	62.4	125	5	70-130/25
75-01-4	Vinyl chloride	50	63.3	127	60.1	120	5	70-130/25
	m,p-Xylene	100	95.2	95	93.2	93	2	70-130/25
95-47-6	o-Xylene	50	45.1	90	44.5	89	1	70-130/25
1330-20-7	Xylene (total)	150	140	93	138	92	1	70-130/25

Blank Spike/Blank Spike Duplicate Summary

Job Number: M99998
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSL1761-BS	L52873.D	1	05/18/11	AMY	n/a	n/a	MSL1761
MSL1761-BSD	L52874.D	1	05/18/11	AMY	n/a	n/a	MSL1761

The QC reported here applies to the following samples: Method: SW846 8260B

M99998-4

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	110%	104%	70-130%
2037-26-5	Toluene-D8	103%	100%	70-130%
460-00-4	4-Bromofluorobenzene	101%	101%	70-130%

(a) Outside control limits. Associated samples are non-detect for this compound.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M99998
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M99998-9MS	L52818.D	1	05/17/11	AMY	n/a	n/a	MSL1758
M99998-9MSD	L52819.D	1	05/17/11	AMY	n/a	n/a	MSL1758
M99998-9	L52815.D	1	05/17/11	AMY	n/a	n/a	MSL1758

The QC reported here applies to the following samples: Method: SW846 8260B

M99998-1, M99998-2, M99998-3, M99998-5, M99998-6, M99998-7, M99998-9

CAS No.	Compound	M99998-9 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		50	2360	4720* a	1930	3860* a	20	70-130/30
107-02-8	Acrolein	ND		250	691	276* a	520	208* a	28	70-130/30
107-13-1	Acrylonitrile	ND		50	40.2	80	31.8	64* b	23	70-130/30
71-43-2	Benzene	127		50	164	74	146	38* b	12	70-130/30
108-86-1	Bromobenzene	ND		50	52.7	105	51.8	104	2	70-130/30
74-97-5	Bromochloromethane	ND		50	51.8	104	48.9	98	6	70-130/30
75-27-4	Bromodichloromethane	ND		50	53.1	106	45.6	91	15	70-130/30
75-25-2	Bromoform	ND		50	53.6	107	52.7	105	2	70-130/30
74-83-9	Bromomethane	ND		50	37.1	74	40.3	81	8	70-130/30
78-93-3	2-Butanone (MEK)	ND		50	62.4	125	52.8	106	17	70-130/30
104-51-8	n-Butylbenzene	2.1		50	53.5	103	48.6	93	10	70-130/30
135-98-8	sec-Butylbenzene	ND		50	53.4	107	49.5	99	8	70-130/30
98-06-6	tert-Butylbenzene	ND		50	53.1	106	47.0	94	12	70-130/30
75-15-0	Carbon disulfide	ND		50	48.7	97	41.0	82	17	70-130/30
56-23-5	Carbon tetrachloride	ND		50	40.1	80	36.1	72	10	70-130/30
108-90-7	Chlorobenzene	ND		50	55.5	111	54.2	108	2	70-130/30
75-00-3	Chloroethane	ND		50	56.5	113	48.2	96	16	70-130/30
110-75-8	2-Chloroethyl vinyl ether	ND		50	105	210* b	88.3	177* b	17	70-130/30
67-66-3	Chloroform	ND		50	50.7	101	43.2	86	16	70-130/30
74-87-3	Chloromethane	ND		50	50.9	102	42.6	85	18	70-130/30
95-49-8	o-Chlorotoluene	ND		50	60.9	122	55.7	111	9	70-130/30
106-43-4	p-Chlorotoluene	ND		50	53.3	107	48.6	97	9	70-130/30
96-12-8	1,2-Dibromo-3-chloropropane	ND		50	46.6	93	38.6	77	19	70-130/30
124-48-1	Dibromochloromethane	ND		50	58.8	118	57.7	115	2	70-130/30
106-93-4	1,2-Dibromoethane	ND		50	55.6	111	55.0	110	1	70-130/30
95-50-1	1,2-Dichlorobenzene	ND		50	53.2	106	50.4	101	5	70-130/30
541-73-1	1,3-Dichlorobenzene	ND		50	52.5	105	50.1	100	5	70-130/30
106-46-7	1,4-Dichlorobenzene	ND		50	50.9	102	47.5	95	7	70-130/30
75-71-8	Dichlorodifluoromethane	ND		50	39.6	79	32.8	66* b	19	70-130/30
75-34-3	1,1-Dichloroethane	ND		50	51.7	103	42.8	86	19	70-130/30
107-06-2	1,2-Dichloroethane	ND		50	49.5	99	40.5	81	20	70-130/30
75-35-4	1,1-Dichloroethene	ND		50	45.1	90	38.2	76	17	70-130/30
156-59-2	cis-1,2-Dichloroethene	ND		50	51.6	103	43.6	87	17	70-130/30
156-60-5	trans-1,2-Dichloroethene	ND		50	48.0	96	44.2	88	8	70-130/30
78-87-5	1,2-Dichloropropane	ND		50	50.2	100	44.1	88	13	70-130/30
142-28-9	1,3-Dichloropropane	ND		50	52.7	105	48.8	98	8	70-130/30

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M99998
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M99998-9MS	L52818.D	1	05/17/11	AMY	n/a	n/a	MSL1758
M99998-9MSD	L52819.D	1	05/17/11	AMY	n/a	n/a	MSL1758
M99998-9	L52815.D	1	05/17/11	AMY	n/a	n/a	MSL1758

The QC reported here applies to the following samples: Method: SW846 8260B

M99998-1, M99998-2, M99998-3, M99998-5, M99998-6, M99998-7, M99998-9

CAS No.	Compound	M99998-9 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
594-20-7	2,2-Dichloropropane	ND		50	37.3	75	33.9	68* b	10	70-130/30
563-58-6	1,1-Dichloropropene	ND		50	52.3	105	44.1	88	17	70-130/30
10061-01-5	cis-1,3-Dichloropropene	ND		50	51.1	102	45.1	90	12	70-130/30
10061-02-6	trans-1,3-Dichloropropene	ND		50	51.1	102	46.0	92	11	70-130/30
123-91-1	1,4-Dioxane	ND		250	220	88	218	87	1	70-130/30
97-63-2	Ethyl methacrylate	ND		50	54.4	109	49.0	98	10	72-139/30
100-41-4	Ethylbenzene	256		50	276	40* c	266	20* c	4	70-130/30
87-68-3	Hexachlorobutadiene	ND		50	52.1	104	46.7	93	11	70-130/30
591-78-6	2-Hexanone	ND		50	39.8	80	43.7	87	9	70-130/30
98-82-8	Isopropylbenzene	14.5		50	75.1	121	70.5	112	6	70-130/30
99-87-6	p-Isopropyltoluene	0.99		50	55.0	108	51.6	101	6	70-130/30
1634-04-4	Methyl Tert Butyl Ether	ND		50	53.4	107	45.8	92	15	70-130/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		50	46.8	94	42.3	85	10	70-130/30
74-95-3	Methylene bromide	ND		50	50.9	102	43.5	87	16	70-130/30
75-09-2	Methylene chloride	ND		50	48.8	98	41.6	83	16	70-130/30
91-20-3	Naphthalene	55.3		50	109	107	104	97	5	70-130/30
103-65-1	n-Propylbenzene	17.4		50	69.2	104	64.5	94	7	70-130/30
100-42-5	Styrene	ND		50	57.9	116	55.1	110	5	70-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		50	59.3	119	58.3	117	2	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		50	45.4	91	42.4	85	7	70-130/30
127-18-4	Tetrachloroethene	ND		50	58.3	117	56.4	113	3	70-130/30
108-88-3	Toluene	25.3		50	80.6	111	73.9	97	9	70-130/30
87-61-6	1,2,3-Trichlorobenzene	ND		50	54.3	109	50.2	100	8	70-130/30
120-82-1	1,2,4-Trichlorobenzene	ND		50	55.4	111	52.0	104	6	70-130/30
71-55-6	1,1,1-Trichloroethane	ND		50	49.4	99	43.3	87	13	70-130/30
79-00-5	1,1,2-Trichloroethane	ND		50	54.8	110	51.3	103	7	70-130/30
79-01-6	Trichloroethene	ND		50	55.0	110	49.9	100	10	70-130/30
75-69-4	Trichlorofluoromethane	ND		50	44.4	89	37.6	75	17	70-130/30
96-18-4	1,2,3-Trichloropropane	ND		50	43.9	88	40.0	80	9	70-130/30
95-63-6	1,2,4-Trimethylbenzene	94.8		50	142	94	130	70	9	70-130/30
108-67-8	1,3,5-Trimethylbenzene	24.0		50	74.3	101	69.5	91	7	70-130/30
108-05-4	Vinyl Acetate	ND		50	220	440* b	173	346* b	24	70-130/30
75-01-4	Vinyl chloride	ND		50	48.8	98	40.5	81	19	70-130/30
	m,p-Xylene	528		100	571	43* c	549	21* c	4	70-130/30
95-47-6	o-Xylene	108		50	147	78	141	66* c	4	70-130/30
1330-20-7	Xylene (total)	636		150	717	54* c	690	36* c	4	70-130/30

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M99998
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M99998-9MS	L52818.D	1	05/17/11	AMY	n/a	n/a	MSL1758
M99998-9MSD	L52819.D	1	05/17/11	AMY	n/a	n/a	MSL1758
M99998-9	L52815.D	1	05/17/11	AMY	n/a	n/a	MSL1758

The QC reported here applies to the following samples: Method: SW846 8260B

M99998-1, M99998-2, M99998-3, M99998-5, M99998-6, M99998-7, M99998-9

CAS No.	Surrogate Recoveries	MS	MSD	M99998-9	Limits
1868-53-7	Dibromofluoromethane	89%	86%	96%	70-130%
2037-26-5	Toluene-D8	98%	99%	100%	70-130%
460-00-4	4-Bromofluorobenzene	86%	87%	91%	70-130%

(a) Outside control limits. Associated samples are non-detect for this compound.
(b) Outside control limits due to possible matrix interference. Refer to Blank Spike.
(c) Outside control limits due to high level in sample relative to spike amount.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M99998
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Not Sample from this SDG

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC237-5MS	L52843.D	5	05/17/11	AMY	n/a	n/a	MSL1759
MC237-5MSD	L52844.D	5	05/17/11	AMY	n/a	n/a	MSL1759
MC237-5	L52831.D	I	05/17/11	AMY	n/a	n/a	MSL1759

5.4.2

5

The QC reported here applies to the following samples: Method: SW846 8260B

M99998-2

CAS No.	Compound	MC237-5 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
100-41-4	Ethylbenzene	ND		250	238	95	231	92	3	70-130/30
	m,p-Xylene	ND		500	449	90	450	90	0	70-130/30
95-47-6	o-Xylene	ND		250	218	87	218	87	0	70-130/30
1330-20-7	Xylene (total)	ND		750	667	89	668	89	0	70-130/30

CAS No.	Surrogate Recoveries	MS	MSD	MC237-5	Limits
1868-53-7	Dibromofluoromethane	108%	105%	103%	70-130%
2037-26-5	Toluene-D8	100%	99%	98%	70-130%
460-00-4	4-Bromofluorobenzene	100%	101%	98%	70-130%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M99998
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC148-2MS	L52892.D	1	05/18/11	AMY	n/a	n/a	MSL1761
MC148-2MSD	L52893.D	1	05/18/11	AMY	n/a	n/a	MSL1761
MC148-2	L52889.D	1	05/18/11	AMY	n/a	n/a	MSL1761

5.4.3

The QC reported here applies to the following samples: Method: SW846 8260B

M99998-4

CAS No.	Compound	MC148-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		50	88.9	178* [a]	50.0	100	56* [a]	70-130/30
107-02-8	Acrolein	ND		250	844	338* [a]	710	284* [a]	17	70-130/30
107-13-1	Acrylonitrile	ND		50	57.2	114	51.0	102	11	70-130/30
71-43-2	Benzene	ND		50	54.3	109	50.7	101	7	70-130/30
108-86-1	Bromobenzene	ND		50	47.8	96	49.2	98	3	70-130/30
74-97-5	Bromochloromethane	ND		50	54.7	109	51.0	102	7	70-130/30
75-27-4	Bromodichloromethane	ND		50	57.5	115	54.6	109	5	70-130/30
75-25-2	Bromoform	ND		50	42.0	84	47.1	94	11	70-130/30
74-83-9	Bromomethane	ND		50	37.8	76	47.2	94	22	70-130/30
78-93-3	2-Butanone (MEK)	ND		50	54.1	108	46.7	93	15	70-130/30
104-51-8	n-Butylbenzene	4.8		50	57.8	106	56.5	103	2	70-130/30
135-98-8	sec-Butylbenzene	6.5		50	60.0	107	58.2	103	3	70-130/30
98-06-6	tert-Butylbenzene	1.0		50	54.9	108	51.8	102	6	70-130/30
75-15-0	Carbon disulfide	ND		50	55.8	112	49.2	98	13	70-130/30
56-23-5	Carbon tetrachloride	ND		50	46.2	92	46.2	92	0	70-130/30
108-90-7	Chlorobenzene	ND		50	47.5	95	51.3	103	8	70-130/30
75-00-3	Chloroethane	ND		50	66.0	132* [a]	57.6	115	14	70-130/30
110-75-8	2-Chloroethyl vinyl ether	ND		50	42.7	85	47.6	95	11	70-130/30
67-66-3	Chloroform	ND		50	54.3	109	49.5	99	9	70-130/30
74-87-3	Chloromethane	ND		50	58.3	117	52.3	105	11	70-130/30
95-49-8	o-Chlorotoluene	ND		50	52.1	104	49.6	99	5	70-130/30
106-43-4	p-Chlorotoluene	ND		50	52.8	106	49.6	99	6	70-130/30
96-12-8	1,2-Dibromo-3-chloropropane	ND		50	57.6	115	53.4	107	8	70-130/30
124-48-1	Dibromochloromethane	ND		50	48.9	98	52.1	104	6	70-130/30
106-93-4	1,2-Dibromoethane	ND		50	49.0	98	51.8	104	6	70-130/30
95-50-1	1,2-Dichlorobenzene	ND		50	47.7	95	50.3	101	5	70-130/30
541-73-1	1,3-Dichlorobenzene	ND		50	49.4	99	49.6	99	0	70-130/30
106-46-7	1,4-Dichlorobenzene	ND		50	46.7	93	47.5	95	2	70-130/30
75-71-8	Dichlorodifluoromethane	ND		50	37.2	74	33.9	68* [b]	9	70-130/30
75-34-3	1,1-Dichloroethane	ND		50	63.8	128	52.6	105	19	70-130/30
107-06-2	1,2-Dichloroethane	ND		50	54.9	110	51.2	102	7	70-130/30
75-35-4	1,1-Dichloroethene	ND		50	48.7	97	44.7	89	9	70-130/30
156-59-2	cis-1,2-Dichloroethene	ND		50	53.7	107	49.1	98	9	70-130/30
156-60-5	trans-1,2-Dichloroethene	ND		50	53.5	107	49.5	99	8	70-130/30
78-87-5	1,2-Dichloropropane	ND		50	53.5	107	49.5	99	8	70-130/30
142-28-9	1,3-Dichloropropane	ND		50	49.8	100	49.7	99	0	70-130/30

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M99998
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC148-2MS	L52892.D	1	05/18/11	AMY	n/a	n/a	MSL1761
MC148-2MSD	L52893.D	1	05/18/11	AMY	n/a	n/a	MSL1761
MC148-2	L52889.D	1	05/18/11	AMY	n/a	n/a	MSL1761

The QC reported here applies to the following samples: Method: SW846 8260B

M99998-4

CAS No.	Compound	MC148-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
594-20-7	2,2-Dichloropropane	ND		50	63.6	127	50.6	101	23	70-130/30
563-58-6	1,1-Dichloropropene	ND		50	53.7	107	50.2	100	7	70-130/30
10061-01-5	cis-1,3-Dichloropropene	ND		50	51.4	103	49.0	98	5	70-130/30
10061-02-6	trans-1,3-Dichloropropene	ND		50	50.3	101	49.3	99	2	70-130/30
123-91-1	1,4-Dioxane	ND		250	228	91	246	98	8	70-130/30
97-63-2	Ethyl methacrylate	ND		50	56.9	114	54.6	109	4	72-139/30
100-41-4	Ethylbenzene	ND		50	50.0	100	51.3	103	3	70-130/30
87-68-3	Hexachlorobutadiene	ND		50	47.8	96	50.1	100	5	70-130/30
591-78-6	2-Hexanone	ND		50	49.9	100	45.2	90	10	70-130/30
98-82-8	Isopropylbenzene	12.8		50	73.2	121	70.3	115	4	70-130/30
99-87-6	p-Isopropyltoluene	2.2		50	54.3	104	51.7	99	5	70-130/30
1634-04-4	Methyl Tert Butyl Ether	ND		50	63.6	127	56.4	113	12	70-130/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		50	57.5	115	49.7	99	15	70-130/30
74-95-3	Methylene bromide	ND		50	53.2	106	50.3	101	6	70-130/30
75-09-2	Methylene chloride	ND		50	58.6	117	53.4	107	9	70-130/30
91-20-3	Naphthalene	ND		50	47.0	94	49.8	100	6	70-130/30
103-65-1	n-Propylbenzene	12.2		50	66.2	108	62.5	101	6	70-130/30
100-42-5	Styrene	ND		50	49.0	98	52.8	106	7	70-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		50	48.6	97	53.1	106	9	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		50	50.9	102	48.8	98	4	70-130/30
127-18-4	Tetrachloroethene	ND		50	45.5	91	50.5	101	10	70-130/30
108-88-3	Toluene	ND		50	54.3	109	54.6	109	1	70-130/30
87-61-6	1,2,3-Trichlorobenzene	ND		50	50.5	101	54.0	108	7	70-130/30
120-82-1	1,2,4-Trichlorobenzene	ND		50	52.6	105	56.6	113	7	70-130/30
71-55-6	1,1,1-Trichloroethane	ND		50	58.3	117	51.8	104	12	70-130/30
79-00-5	1,1,2-Trichloroethane	ND		50	52.6	105	51.3	103	3	70-130/30
79-01-6	Trichloroethene	ND		50	51.3	103	50.7	101	1	70-130/30
75-69-4	Trichlorofluoromethane	ND		50	52.2	104	47.1	94	10	70-130/30
96-18-4	1,2,3-Trichloropropane	ND		50	50.4	101	45.1	90	11	70-130/30
95-63-6	1,2,4-Trimethylbenzene	ND		50	51.2	102	49.5	99	3	70-130/30
108-67-8	1,3,5-Trimethylbenzene	ND		50	50.3	101	49.1	98	2	70-130/30
108-05-4	Vinyl Acetate	ND		50	52.8	106	47.8	96	10	70-130/30
75-01-4	Vinyl chloride	ND		50	55.0	110	48.1	96	13	70-130/30
	m,p-Xylene	ND		100	94.4	94	100	100	6	70-130/30
95-47-6	o-Xylene	ND		50	46.0	92	48.7	97	6	70-130/30
1330-20-7	Xylene (total)	ND		150	140	93	149	99	6	70-130/30

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M99998
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC148-2MS	L52892.D	1	05/18/11	AMY	n/a	n/a	MSL1761
MC148-2MSD	L52893.D	1	05/18/11	AMY	n/a	n/a	MSL1761
MC148-2	L52889.D	1	05/18/11	AMY	n/a	n/a	MSL1761

The QC reported here applies to the following samples: Method: SW846 8260B

M99998-4

CAS No.	Surrogate Recoveries	MS	MSD	MC148-2	Limits
1868-53-7	Dihromofluoromethane	102%	98%	109%	70-130%
2037-26-5	Toluene-D8	94%	99%	101%	70-130%
460-00-4	4-Bromofluorobenzene	94%	92%	104%	70-130%

(a) Outside control limits. Associated samples are non-detect for this compound.
(b) Outside control limits due to possible matrix interference. Refer to Blank Spike.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M99998
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M99920-1MS	G106210.D	5	05/18/11	DFT	n/a	n/a	MSG4286
M99920-1MSD	G106211.D	5	05/18/11	DFT	n/a	n/a	MSG4286
M99920-1	G106197.D	1	05/18/11	DFT	n/a	n/a	MSG4286
M99920-1	G106209.D	5	05/18/11	DFT	n/a	n/a	MSG4286

The QC reported here applies to the following samples: Method: SW846 8260B

M99998-8, M99998-10

CAS No.	Compound	M99920-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		250	129	52* [a]	133	53* [a]	3	70-130/30
107-02-8	Acrolein	ND		1250	12600	1008* [b]	12700	1016* [b]	1	70-130/30
107-13-1	Acrylonitrile	ND		250	238	95	233	93	2	70-130/30
71-43-2	Benzene	ND		250	280	112	280	112	0	70-130/30
108-86-1	Bromobenzene	ND		250	255	102	258	103	1	70-130/30
74-97-5	Bromochloromethane	ND		250	307	123	309	124	1	70-130/30
75-27-4	Bromodichloromethane	ND		250	271	108	274	110	1	70-130/30
75-25-2	Bromoform	ND		250	236	94	238	95	1	70-130/30
74-83-9	Bromomethane	ND		250	252	101	260	104	3	70-130/30
78-93-3	2-Butanone (MEK)	ND		250	180	72	175	70	3	70-130/30
104-51-8	n-Butylbenzene	ND		250	255	102	259	104	2	70-130/30
135-98-8	sec-Butylbenzene	ND		250	264	106	270	108	2	70-130/30
98-06-6	tert-Butylbenzene	ND		250	258	103	260	104	1	70-130/30
75-15-0	Carbon disulfide	ND		250	234	94	240	96	3	70-130/30
56-23-5	Carbon tetrachloride	ND		250	285	114	296	118	4	70-130/30
108-90-7	Chlorobenzene	ND		250	270	108	272	109	1	70-130/30
75-00-3	Chloroethane	ND		250	268	107	283	113	5	70-130/30
110-75-8	2-Chloroethyl vinyl ether	ND		250	466	186* [a]	ND	0* [a]	200* [c]	70-130/30
67-66-3	Chloroform	ND		250	290	116	296	118	2	70-130/30
74-87-3	Chloromethane	ND		250	187	75	186	74	1	70-130/30
95-49-8	o-Chlorotoluene	ND		250	247	99	252	101	2	70-130/30
106-43-4	p-Chlorotoluene	ND		250	253	101	258	103	2	70-130/30
96-12-8	1,2-Dibromo-3-chloropropane	ND		250	220	88	219	88	0	70-130/30
124-48-1	Dibromochloromethane	ND		250	255	102	260	104	2	70-130/30
106-93-4	1,2-Dibromoethane	ND		250	271	108	273	109	1	70-130/30
95-50-1	1,2-Dichlorobenzene	ND		250	258	103	260	104	1	70-130/30
541-73-1	1,3-Dichlorobenzene	ND		250	258	103	263	105	2	70-130/30
106-46-7	1,4-Dichlorobenzene	ND		250	253	101	255	102	1	70-130/30
75-71-8	Dichlorodifluoromethane	ND		250	179	72	184	74	3	70-130/30
75-34-3	1,1-Dichloroethane	ND		250	275	110	275	110	0	70-130/30
107-06-2	1,2-Dichloroethane	ND		250	263	105	264	106	0	70-130/30
75-35-4	1,1-Dichloroethene	ND		250	291	116	302	121	4	70-130/30
156-59-2	cis-1,2-Dichloroethene	ND		250	278	111	279	112	0	70-130/30
156-60-5	trans-1,2-Dichloroethene	ND		250	284	114	290	116	2	70-130/30
78-87-5	1,2-Dichloropropane	ND		250	265	106	266	106	0	70-130/30
142-28-9	1,3-Dichloropropane	ND		250	254	102	254	102	0	70-130/30

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M99998
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M99920-1MS	G106210.D	5	05/18/11	DFT	n/a	n/a	MSG4286
M99920-1MSD	G106211.D	5	05/18/11	DFT	n/a	n/a	MSG4286
M99920-1	G106197.D	1	05/18/11	DFT	n/a	n/a	MSG4286
M99920-1	G106209.D	5	05/18/11	DFT	n/a	n/a	MSG4286

The QC reported here applies to the following samples: Method: SW846 8260B

M99998-8, M99998-10

CAS No.	Compound	M99920-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
594-20-7	2,2-Dichloropropane	ND		250	303	121	310	124	2	70-130/30
563-58-6	1,1-Dichloropropene	ND		250	286	114	297	119	4	70-130/30
10061-01-5	cis-1,3-Dichloropropene	ND		250	273	109	273	109	0	70-130/30
10061-02-6	trans-1,3-Dichloropropene	ND		250	291	116	299	120	3	70-130/30
123-91-1	1,4-Dioxane	ND		1250	1020	82	1070	86	5	70-130/30
97-63-2	Ethyl methacrylate	ND		250	244	98	247	99	1	72-139/30
100-41-4	Ethylbenzene	2.4		250	273	108	278	110	2	70-130/30
87-68-3	Hexachlorobutadiene	ND		250	264	106	273	109	3	70-130/30
591-78-6	2-Hexanone	ND		250	115	46* [a]	112	45* [a]	3	70-130/30
98-82-8	Isopropylbenzene	ND		250	299	120	305	122	2	70-130/30
99-87-6	p-Isopropyltoluene	ND		250	271	108	279	112	3	70-130/30
1634-04-4	Methyl Tert Butyl Ether	887 [d]		250	1170	108	1170	108	0	70-130/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		250	213	85	206	82	3	70-130/30
74-95-3	Methylene bromide	ND		250	289	116	288	115	0	70-130/30
75-09-2	Methylene chloride	ND		250	279	112	275	110	1	70-130/30
91-20-3	Naphthalene	ND		250	199	80	204	82	2	70-130/30
103-65-1	n-Propylbenzene	ND		250	259	104	264	106	2	70-130/30
100-42-5	Styrene	ND		250	272	109	279	112	3	70-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		250	265	106	274	110	3	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		250	231	92	232	93	0	70-130/30
127-18-4	Tetrachloroethene	ND		250	289	116	294	118	2	70-130/30
108-88-3	Toluene	ND		250	289	116	295	118	2	70-130/30
87-61-6	1,2,3-Trichlorobenzene	ND		250	207	83	216	86	4	70-130/30
120-82-1	1,2,4-Trichlorobenzene	ND		250	219	88	224	90	2	70-130/30
71-55-6	1,1,1-Trichloroethane	ND		250	303	121	314	126	4	70-130/30
79-00-5	1,1,2-Trichloroethane	ND		250	287	115	287	115	0	70-130/30
79-01-6	Trichloroethene	ND		250	290	116	295	118	2	70-130/30
75-69-4	Trichlorofluoromethane	ND		250	279	112	286	114	2	70-130/30
96-18-4	1,2,3-Trichloropropane	ND		250	206	82	205	82	0	70-130/30
95-63-6	1,2,4-Trimethylbenzene	22.9		250	281	103	286	105	2	70-130/30
108-67-8	1,3,5-Trimethylbenzene	9.6		250	264	102	267	103	1	70-130/30
108-05-4	Vinyl Acetate	ND		250	236	94	233	93	1	70-130/30
75-01-4	Vinyl chloride	ND		250	227	91	234	94	3	70-130/30
	m,p-Xylene	14.6		500	566	110	583	114	3	70-130/30
95-47-6	o-Xylene	3.7		250	279	110	282	111	1	70-130/30
1330-20-7	Xylene (total)	18.4		750	845	110	865	113	2	70-130/30

5.4.4

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M99998
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M99920-1MS	G106210.D	5	05/18/11	DFT	n/a	n/a	MSG4286
M99920-1MSD	G106211.D	5	05/18/11	DFT	n/a	n/a	MSG4286
M99920-1	G106197.D	1	05/18/11	DFT	n/a	n/a	MSG4286
M99920-1	G106209.D	5	05/18/11	DFT	n/a	n/a	MSG4286

The QC reported here applies to the following samples: Method: SW846 8260B

M99998-8, M99998-10

CAS No.	Surrogate Recoveries	MS	MSD	M99920-1	M99920-1	Limits
1868-53-7	Dibromofluoromethane	111%	110%	113%	108%	70-130%
2037-26-5	Toluene-D8	113%	112%	110%	110%	70-130%
460-00-4	4-Bromofluorobenzene	93%	94%	98%	102%	70-130%

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.
(b) Outside control limits. Associated samples are non-detect for this compound.
(c) High RPD due to possible matrix interference and/or sample non-homogeneity.
(d) Result is from Run #2.

Volatile Internal Standard Area Summary

Job Number: M99998
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Check Std:	MSG4286-CC4240	Injection Date:	05/18/11
Lab File ID:	G106194.D	Injection Time:	10:07
Instrument ID:	GCMSG	Method:	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	79668	9.13	120252	10.00	63129	13.28	65569	15.85	29100	6.68
Upper Limit [a]	159336	9.63	240504	10.50	126258	13.78	131138	16.35	58200	7.18
Lower Limit [b]	39834	8.63	60126	9.50	31565	12.78	32785	15.35	14550	6.18
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSG4286-BS	79724	9.13	120356	10.00	63414	13.28	65527	15.85	28326	6.68
MSG4286-MB	78604	9.13	117504	10.01	59643	13.28	49729	15.86	29263	6.68
M99920-1	77344	9.13	116669	10.01	59004	13.28	57247	15.85	27358	6.68
ZZZZZZ	78675	9.13	118220	10.00	60737	13.28	61353	15.85	28384	6.68
M99998-8	77991	9.13	118712	10.00	61368	13.28	61833	15.85	28143	6.68
M99998-10 [c]	77393	9.13	117609	10.00	61767	13.28	62528	15.85	42081	6.69
ZZZZZZ	83746	9.21	79363	10.07	55391	13.28	61757	15.85	30431	6.69
ZZZZZZ	75898	9.15	86622	10.02	56386	13.28	59113	15.85	29077	6.68
ZZZZZZ	72301	9.13	100772	10.01	55420	13.28	50822	15.85	26745	6.68
M99920-1	72198	9.13	107293	10.00	55455	13.28	49776	15.85	25010	6.68
M99920-1MS	73127	9.13	110232	10.00	58093	13.28	60650	15.85	25263	6.68
M99920-1MSD	74073	9.13	110889	10.00	58667	13.28	60994	15.85	25519	6.67
ZZZZZZ	73421	9.13	109596	10.01	55499	13.28	47038	15.86	23188	6.68
ZZZZZZ	73016	9.13	110785	10.01	56768	13.28	47563	15.86	24964	6.68
ZZZZZZ	74402	9.13	111538	10.01	56761	13.28	48656	15.86	26757	6.68
ZZZZZZ	74167	9.13	112806	10.01	57402	13.28	48597	15.86	26623	6.68
ZZZZZZ	75436	9.13	112284	10.01	57891	13.28	51969	15.85	27181	6.68
ZZZZZZ	74989	9.13	114113	10.01	57884	13.28	48323	15.86	27619	6.68

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.
(c) The pH of the sample aliquot for VOA analysis was >2 at time of analysis.

Volatile Internal Standard Area Summary

Job Number: M99998
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Check Std:	MSL1758-CC1755	Injection Date:	05/16/11
Lab File ID:	L52795.D	Injection Time:	18:05
Instrument ID:	GCMSL	Method:	SW846 8260B

5.5.2

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	84424	8.19	140535	9.02	99684	12.26	82646	14.82	41032	5.84
Upper Limit [a]	168848	8.69	281070	9.52	199368	12.76	165292	15.32	82064	6.34
Lower Limit [b]	42212	7.69	70268	8.52	49842	11.76	41323	14.32	20516	5.34
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSL1758-BS	88921	8.19	146376	9.02	106354	12.26	88123	14.82	46819	5.82
MSL1758-MB	87827	8.19	143880	9.03	93003	12.27	71510	14.83	45846	5.85
M99998-3	86282	8.19	140677	9.03	93283	12.27	69556	14.83	41070	5.86
ZZZZZZ	85676	8.19	140916	9.03	92902	12.27	69820	14.83	42131	5.85
M99998-7	84644	8.19	138864	9.03	93325	12.27	68106	14.83	41712	5.83
ZZZZZZ	80284	8.19	132609	9.03	89403	12.27	66969	14.83	40776	5.83
ZZZZZZ	76670	8.19	128526	9.03	84254	12.27	64046	14.83	40533	5.86
ZZZZZZ	78961	8.19	129570	9.03	87602	12.27	65291	14.83	41050	5.86
ZZZZZZ	80156	8.19	128723	9.03	86262	12.27	65590	14.83	36987	5.83
ZZZZZZ	78734	8.19	131352	9.03	87622	12.27	65312	14.83	38588	5.83
ZZZZZZ	82758	8.19	134875	9.03	89497	12.27	79354	14.82	37023	5.83
ZZZZZZ	81683	8.19	135211	9.03	87898	12.27	67031	14.83	43759	5.89
ZZZZZZ	83632	8.19	138264	9.03	91386	12.27	68477	14.83	39497	5.87
M99998-1	87707	8.19	144293	9.02	99883	12.26	88960	14.82	39281	5.82
M99998-2	109355	8.19	172856	9.02	108691	12.26	104638	14.82	44598	5.82
M99998-5	118590	8.19	188430	9.02	112236	12.26	104323	14.82	43108	5.83
M99998-6	116637	8.19	179987	9.02	110160	12.26	96454	14.82	44602	5.85
M99998-9	113600	8.19	182538	9.02	114118	12.26	111078	14.82	48953	5.82
ZZZZZZ	122201	8.19	183796	9.02	111800	12.26	104306	14.82	50756	5.89
ZZZZZZ	124421	8.19	188531	9.03	114728	12.27	111231	14.82	55162	5.88
M99998-9MS	129227	8.19	198480	9.02	133298	12.26	132649	14.82	46708	5.82
M99998-9MSD	169440[c]	8.19	255899	9.02	164150	12.26	165560[c]	14.82	53609	5.82

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.
(c) Outside control limits due to possible matrix interference.

Volatile Internal Standard Area Summary

Job Number: M99998
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Check Std:	MSL1759-CC1755	Injection Date:	05/17/11
Lab File ID:	L52822.D	Injection Time:	06:57
Instrument ID:	GCMSL	Method:	SW846 8260B

5.5.3

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	180986	8.19	268707	9.02	164333	12.26	160342	14.82	56566	5.82
Upper Limit [a]	361972	8.69	537414	9.52	328666	12.76	320684	15.32	113132	6.32
Lower Limit [b]	90493	7.69	134354	8.52	82167	11.76	80171	14.32	28283	5.32
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSL1759-BS	180986	8.19	268707	9.02	164333	12.26	160342	14.82	56566	5.82
MSL1759-MB	132408	8.19	200202	9.03	120721	12.27	107764	14.83	47804	5.85
ZZZZZZ	114742	8.19	179923	9.03	110113	12.27	94283	14.83	48491	5.83
ZZZZZZ	108110	8.19	173456	9.03	108560	12.27	87386	14.83	50599	5.85
ZZZZZZ	105224	8.19	174603	9.03	107862	12.27	84492	14.83	44439	5.91
ZZZZZZ	128694	8.19	205359	9.03	129680	12.27	103545	14.83	55936	5.84
ZZZZZZ	123057	8.19	199931	9.03	131139	12.27	100504	14.83	56791	5.82
ZZZZZZ	116484	8.19	186091	9.03	122723	12.27	99382	14.82	57629	5.88
MC237-5	114521	8.19	186021	9.03	120908	12.27	95098	14.83	62904	5.88
ZZZZZZ	114067	8.19	185386	9.03	121103	12.27	93565	14.83	59547	5.86
ZZZZZZ	113697	8.19	184538	9.03	126814	12.27	93896	14.83	61180	5.83
GP12967-LB1	111607	8.19	182274	9.03	120507	12.27	89155	14.83	52527	5.89
ZZZZZZ	111452	8.19	185029	9.03	132258	12.27	104283	14.83	53263	5.83
ZZZZZZ	107831	8.19	176684	9.03	123520	12.27	95475	14.82	49428	5.86
M99998-2	115598	8.19	189750	9.02	122566	12.26	96579	14.82	60191	5.86
ZZZZZZ	110712	8.19	179877	9.03	121940	12.27	86732	14.83	56845	5.88
ZZZZZZ	102377	8.19	173316	9.03	116239	12.27	83161	14.83	54753	5.86
GP12967-LS1	106679	8.19	181323	9.02	129735	12.26	105076	14.82	50643	5.82
MC237-5MS	111362	8.19	187476	9.02	132695	12.26	108138	14.82	57672	5.82
MC237-5MSD	111887	8.19	187040	9.02	131432	12.26	109204	14.82	55829	5.82

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Internal Standard Area Summary

Job Number: M99998
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Check Std:	MSL1761-CC1755	Injection Date:	05/18/11
Lab File ID:	L52872.D	Injection Time:	06:45
Instrument ID:	GCMSL	Method:	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	102623	8.19	173005	9.02	127225	12.26	103662	14.82	49371	5.82
Upper Limit [a]	205246	8.69	346010	9.52	254450	12.76	207324	15.32	98742	6.32
Lower Limit [b]	51312	7.69	86503	8.52	63613	11.76	51831	14.32	24686	5.32
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSL1761-BS	104742	8.19	176704	9.02	131456	12.26	106089	14.82	52792	5.82
MSL1761-BSD	111510	8.19	185830	9.02	133344	12.26	106322	14.82	50124	5.82
MSL1761-MB	107071	8.19	174348	9.03	120909	12.27	90679	14.83	53520	5.86
ZZZZZZ	105963	8.19	177037	9.03	122536	12.27	89370	14.82	58263	5.83
ZZZZZZ	101868	8.19	171078	9.03	118025	12.27	85224	14.83	52837	5.86
ZZZZZZ	98842	8.19	168378	9.03	111102	12.27	83732	14.83	46847	5.86
ZZZZZZ	101513	8.19	170826	9.03	115132	12.27	85447	14.83	58171	5.86
ZZZZZZ	99042	8.19	164439	9.02	114705	12.27	83886	14.83	55094	5.84
ZZZZZZ	95526	8.19	161290	9.03	110793	12.27	81948	14.83	57936	5.86
ZZZZZZ	95173	8.19	166120	9.03	115275	12.27	84489	14.82	54315	5.82
GP12962-LS2	97947	8.19	169119	9.02	125336	12.26	99757	14.82	55149	5.81
ZZZZZZ	97461	8.19	162544	9.03	114144	12.27	83572	14.83	53126	5.87
M99998-4	95679	8.19	163615	9.02	113618	12.27	88266	14.82	47365	5.87
ZZZZZZ	96944	8.19	163223	9.03	111688	12.27	84241	14.83	56522	5.87
MC148-2	96245	8.19	162300	9.03	110454	12.27	89186	14.82	51825	5.83
ZZZZZZ	112301	8.19	192245	9.03	127377	12.27	101858	14.82	61711	5.84
ZZZZZZ	126998	8.19	207531	9.02	127627	12.26	108429	14.82	54914	5.84
MC148-2MS	128391	8.19	209014	9.02	144635	12.26	121573	14.82	58205	5.83
MC148-2MSD	150508	8.19	230445	9.02	155579	12.26	144603	14.82	56177	5.82

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Surrogate Recovery Summary

Job Number: M99998
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Method: SW846 8260B Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
M99998-1	L52810.D	101.0	102.0	99.0
M99998-2	L52839.D	100.0	96.0	106.0
M99998-2	L52811.D	91.0	98.0	93.0
M99998-3	L52799.D	101.0	97.0	104.0
M99998-4	L52887.D	107.0	103.0	105.0
M99998-5	L52813.D	93.0	94.0	93.0
M99998-6	L52814.D	91.0	97.0	97.0
M99998-7	L52801.D	102.0	97.0	100.0
M99998-8	G106199.D	114.0	109.0	96.0
M99998-9	L52815.D	96.0	100.0	91.0
M99998-10	G106200.D	113.0	115.0	95.0
M99920-1MS	G106210.D	111.0	113.0	93.0
M99920-1MSD	G106211.D	110.0	112.0	94.0
M99998-9MS	L52818.D	89.0	98.0	86.0
M99998-9MSD	L52819.D	86.0	99.0	87.0
MC148-2MS	L52892.D	102.0	94.0	94.0
MC148-2MSD	L52893.D	98.0	99.0	92.0
MC237-5MS	L52843.D	108.0	100.0	100.0
MC237-5MSD	L52844.D	105.0	99.0	101.0
MSG4286-BS	G106195.D	112.0	113.0	95.0
MSG4286-MB	G106196.D	110.0	110.0	109.0
MSL1758-BS	L52796.D	105.0	101.0	96.0
MSL1758-MB	L52798.D	99.0	98.0	98.0
MSL1759-BS	L52822.D	87.0	96.0	91.0
MSL1759-MB	L52824.D	89.0	95.0	92.0
MSL1761-BS	L52873.D	110.0	103.0	101.0
MSL1761-BSD	L52874.D	104.0	100.0	101.0
MSL1761-MB	L52876.D	105.0	101.0	100.0

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	70-130%
S2 = Toluene-D8	70-130%
S3 = 4-Bromofluorobenzene	70-130%

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: M99998
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24849-MB	S23774.D	1	05/11/11	PR	05/09/11	OP24849	MSS1010

The QC reported here applies to the following samples: Method: SW846 8270C

M99998-1, M99998-2, M99998-4, M99998-5, M99998-6, M99998-7, M99998-8, M99998-9, M99998-10

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic Acid	ND	10	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	ug/l	
95-48-7	2-Methylphenol	ND	10	ug/l	
	3&4-Methylphenol	ND	10	ug/l	
88-75-5	2-Nitrophenol	ND	10	ug/l	
100-02-7	4-Nitrophenol	ND	20	ug/l	
87-86-5	Pentachlorophenol	ND	10	ug/l	
108-95-2	Phenol	ND	5.0	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	ug/l	
100-51-6	Benzyl Alcohol	ND	10	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	ug/l	
106-47-8	4-Chloroaniline	ND	10	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	ug/l	
132-64-9	Dibenzofuran	ND	5.0	ug/l	
84-74-2	Di-n-butyl phthalate	1.2	5.0	ug/l	J
117-84-0	Di-n-octyl phthalate	ND	5.0	ug/l	
84-66-2	Diethyl phthalate	1.1	5.0	ug/l	J
131-11-3	Dimethyl phthalate	ND	5.0	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	2.2	2.0	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	ug/l	

Method Blank Summary

Job Number: M99998
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24849-MB	S23774.D	1	05/11/11	PR	05/09/11	OP24849	MSS1010

The QC reported here applies to the following samples: Method: SW846 8270C

M99998-1, M99998-2, M99998-4, M99998-5, M99998-6, M99998-7, M99998-8, M99998-9, M99998-10

CAS No.	Compound	Result	RL	Units	Q
67-72-1	Hexachloroethane	ND	5.0	ug/l	
78-59-1	Isophorone	ND	5.0	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.0	ug/l	
88-74-4	2-Nitroaniline	ND	10	ug/l	
99-09-2	3-Nitroaniline	ND	10	ug/l	
100-01-6	4-Nitroaniline	ND	10	ug/l	
98-95-3	Nitrobenzene	ND	5.0	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.0	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.0	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	59%	15-110%
4165-62-2	Phenol-d5	38%	15-110%
118-79-6	2,4,6-Tribromophenol	78%	15-110%
4165-60-0	Nitrobenzene-d5	74%	30-130%
321-60-8	2-Fluorobiphenyl	68%	30-130%
1718-51-0	Terphenyl-d14	94%	30-130%

Method Blank Summary

Job Number: M99998
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24914-MB	S23941.D	1	05/15/11	KR	05/13/11	OP24914	MSS1016

The QC reported here applies to the following samples: Method: SW846 8270C

M99998-1, M99998-2, M99998-4, M99998-5, M99998-6, M99998-7, M99998-8, M99998-9, M99998-10

CAS No.	Compound	Result	RL	Units	Q
62-53-3	Aniline	ND	10	ug/l	
110-86-1	Pyridine	ND	10	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	39%	15-110%
4165-62-2	Phenol-d5	21%	15-110%
118-79-6	2,4,6-Tribromophenol	64%	15-110%
4165-60-0	Nitrobenzene-d5	82%	30-130%
321-60-8	2-Fluorobiphenyl	70%	30-130%
1718-51-0	Terphenyl-d14	81%	30-130%

Method Blank Summary

Job Number: M99998
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24850-MB	F52841.D	1	05/12/11	PR	05/09/11	OP24850	MSF2552

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

M99998-1, M99998-2, M99998-4, M99998-5, M99998-6, M99998-7, M99998-8, M99998-9, M99998-10

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	0.10	ug/l	
208-96-8	Acenaphthylene	ND	0.10	ug/l	
120-12-7	Anthracene	ND	0.10	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.050	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.050	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	ug/l	
218-01-9	Chrysene	ND	0.10	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	ug/l	
206-44-0	Fluoranthene	ND	0.10	ug/l	
86-73-7	Fluorene	ND	0.10	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.20	ug/l	
91-20-3	Naphthalene	ND	0.10	ug/l	
85-01-8	Phenanthrene	ND	0.050	ug/l	
129-00-0	Pyrene	ND	0.10	ug/l	

CAS No.	Surrogate Recoveries		Limits
4165-60-0	Nitrobenzene-d5	83%	30-130%
321-60-8	2-Fluorobiphenyl	72%	30-130%
1718-51-0	Terphenyl-d14	103%	30-130%

Blank Spike Summary

Job Number: M99998
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24849-BS	S23775.D	1	05/11/11	PR	05/09/11	OP24849	MSS1010

The QC reported here applies to the following samples: Method: SW846 8270C

M99998-1, M99998-2, M99998-4, M99998-5, M99998-6, M99998-7, M99998-8, M99998-9, M99998-10

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
65-85-0	Benzoic Acid	100	40.9	41	30-130
95-57-8	2-Chlorophenol	100	84.5	85	30-130
59-50-7	4-Chloro-3-methyl phenol	100	91.9	92	30-130
120-83-2	2,4-Dichlorophenol	100	90.7	91	30-130
105-67-9	2,4-Dimethylphenol	100	86.4	86	30-130
51-28-5	2,4-Dinitrophenol	100	85.2	85	30-130
534-52-1	4,6-Dinitro-o-cresol	100	94.8	95	30-130
95-48-7	2-Methylphenol	100	82.0	82	30-130
	3&4-Methylphenol	200	163	82	30-130
88-75-5	2-Nitrophenol	100	90.2	90	30-130
100-02-7	4-Nitrophenol	100	59.9	60	30-130
87-86-5	Pentachlorophenol	100	94.4	94	30-130
108-95-2	Phenol	100	43.7	44	30-130
95-95-4	2,4,5-Trichlorophenol	100	91.8	92	30-130
88-06-2	2,4,6-Trichlorophenol	100	92.6	93	30-130
101-55-3	4-Bromophenyl phenyl ether	50	45.3	91	40-140
85-68-7	Butyl benzyl phthalate	50	46.8	94	40-140
100-51-6	Benzyl Alcohol	50	32.6	65	40-140
91-58-7	2-Chloronaphthalene	50	40.5	81	40-140
106-47-8	4-Chloroaniline	50	7.5	15* a	40-140
111-91-1	bis(2-Chloroethoxy)methane	50	42.8	86	40-140
111-44-4	bis(2-Chloroethyl)ether	50	41.3	83	40-140
108-60-1	bis(2-Chloroisopropyl)ether	50	44.9	90	40-140
7005-72-3	4-Chlorophenyl phenyl ether	50	43.2	86	40-140
122-66-7	1,2-Diphenylhydrazine	50	44.3	89	40-140
121-14-2	2,4-Dinitrotoluene	50	45.3	91	40-140
606-20-2	2,6-Dinitrotoluene	50	43.7	87	40-140
91-94-1	3,3'-Dichlorobenzidine	50	34.6	69	40-140
132-64-9	Dibenzofuran	50	41.1	82	40-140
84-74-2	Di-n-butyl phthalate	50	49.2	98	40-140
117-84-0	Di-n-octyl phthalate	50	52.7	105	40-140
84-66-2	Diethyl phthalate	50	46.5	93	40-140
131-11-3	Dimethyl phthalate	50	45.3	91	40-140
117-81-7	bis(2-Ethylhexyl)phthalate	50	49.9	100	40-140
118-74-1	Hexachlorobenzene	50	45.2	90	40-140
77-47-4	Hexachlorocyclopentadiene	50	21.3	43	40-140

Blank Spike Summary

Job Number: M99998
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24849-BS	S23775.D	1	05/11/11	PR	05/09/11	OP24849	MSS1010

The QC reported here applies to the following samples: Method: SW846 8270C

M99998-1, M99998-2, M99998-4, M99998-5, M99998-6, M99998-7, M99998-8, M99998-9, M99998-10

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-72-1	Hexachloroethane	50	34.2	68	40-140
78-59-1	Isophorone	50	43.4	87	40-140
90-12-0	1-Methylnaphthalene	50	ND	0* b	40-140
88-74-4	2-Nitroaniline	50	45.8	92	40-140
99-09-2	3-Nitroaniline	50	31.7	63	40-140
100-01-6	4-Nitroaniline	50	40.2	80	40-140
98-95-3	Nitrobenzene	50	43.7	87	40-140
62-75-9	n-Nitrosodimethylamine	50	20.7	41	40-140
621-64-7	N-Nitroso-di-n-propylamine	50	49.2	98	40-140
86-30-6	N-Nitrosodiphenylamine	50	44.4	89	40-140

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	73%	15-110%
4165-62-2	Phenol-d5	50%	15-110%
118-79-6	2,4,6-Tribromophenol	98%	15-110%
4165-60-0	Nitrobenzene-d5	91%	30-130%
321-60-8	2-Fluorobiphenyl	82%	30-130%
1718-51-0	Terphenyl-d14	97%	30-130%

(a) Outside control limits. Blank Spike meets program technical requirements.
(b) Outside control limits. Associated samples re-extracted/reanalyzed.

Blank Spike Summary

Job Number: M99998
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24914-BS	S23942.D	1	05/15/11	KR	05/13/11	OP24914	MSS1016

6.2.2

The QC reported here applies to the following samples: Method: SW846 8270C

M99998-1, M99998-2, M99998-4, M99998-5, M99998-6, M99998-7, M99998-8, M99998-9, M99998-10

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
62-53-3	Aniline	50	19.5	39* [a]	40-140
110-86-1	Pyridine	50	16.9	34* [a]	40-140

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	42%	15-110%
4165-62-2	Phenol-d5	25%	15-110%
118-79-6	2,4,6-Tribromophenol	78%	15-110%
4165-60-0	Nitrobenzene-d5	84%	30-130%
321-60-8	2-Fluorobiphenyl	71%	30-130%
1718-51-0	Terphenyl-d14	81%	30-130%

(a) Outside control limits. Blank Spike meets program technical requirements.

Blank Spike Summary

Job Number: M99998
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24850-BS	F52842.D	1	05/12/11	PR	05/09/11	OP24850	MSF2552

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

M99998-1, M99998-2, M99998-4, M99998-5, M99998-6, M99998-7, M99998-8, M99998-9, M99998-10

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	50	39.8	80	40-140
208-96-8	Acenaphthylene	50	33.7	67	40-140
120-12-7	Anthracene	50	40.9	82	40-140
56-55-3	Benzo(a)anthracene	50	55.3	111	40-140
50-32-8	Benzo(a)pyrene	50	30.3	61	40-140
205-99-2	Benzo(b)fluoranthene	50	38.6	77	40-140
191-24-2	Benzo(g,h,i)perylene	50	48.0	96	40-140
207-08-9	Benzo(k)fluoranthene	50	29.5	59	40-140
218-01-9	Chrysene	50	44.2	88	40-140
53-70-3	Dibenzo(a,h)anthracene	50	47.6	95	40-140
206-44-0	Fluoranthene	50	47.2	94	40-140
86-73-7	Fluorene	50	57.3	115	40-140
193-39-5	Indeno(1,2,3-cd)pyrene	50	43.2	86	40-140
91-57-6	2-Methylnaphthalene	50	51.0	102	40-140
91-20-3	Naphthalene	50	43.5	87	40-140
85-01-8	Phenanthrene	50	43.2	86	40-140
129-00-0	Pyrene	50	51.7	103	40-140

CAS No.	Surrogate Recoveries	BSP	Limits
4165-60-0	Nitrobenzene-d5	104%	30-130%
321-60-8	2-Fluorobiphenyl	78%	30-130%
1718-51-0	Terphenyl-d14	114%	30-130%

6.2.3

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M99998
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24849-MS	S23776.D	1	05/11/11	PR	05/09/11	OP24849	MSS1010
OP24849-MSD	S23777.D	1	05/11/11	PR	05/09/11	OP24849	MSS1010
M99998-9	S23785.D	1	05/11/11	PR	05/09/11	OP24849	MSS1010

The QC reported here applies to the following samples: Method: SW846 8270C

M99998-1, M99998-2, M99998-4, M99998-5, M99998-6, M99998-7, M99998-8, M99998-9, M99998-10

6.3.1

6

CAS No.	Compound	M99998-9 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
65-85-0	Benzoic Acid	ND		100	63.5	64	61.2	61	4	30-130/20
95-57-8	2-Chlorophenol	ND		100	86.6	87	85.2	85	2	30-130/20
59-50-7	4-Chloro-3-methyl phenol	ND		100	94.1	94	94.0	94	0	30-130/20
120-83-2	2,4-Dichlorophenol	ND		100	91.3	91	94.3	94	3	30-130/20
105-67-9	2,4-Dimethylphenol	ND		100	91.1	91	91.8	92	1	30-130/20
51-28-5	2,4-Dinitrophenol	ND		100	99.5	100	97.9	98	2	30-130/20
534-52-1	4,6-Dinitro-o-cresol	ND		100	101	101	99.8	100	1	30-130/20
95-48-7	2-Methylphenol	ND		100	85.7	86	82.8	83	3	30-130/20
	3&4-Methylphenol	ND		200	165	83	160	80	3	30-130/20
88-75-5	2-Nitrophenol	ND		100	92.1	92	94.3	94	2	30-130/20
100-02-7	4-Nitrophenol	ND		100	64.1	64	59.7	60	7	30-130/20
87-86-5	Pentachlorophenol	ND		100	110	110	107	107	3	30-130/20
108-95-2	Phenol	ND		100	41.3	41	39.3	39	5	30-130/20
95-95-4	2,4,5-Trichlorophenol	ND		100	95.5	96	96.0	96	1	30-130/20
88-06-2	2,4,6-Trichlorophenol	ND		100	97.5	98	95.0	95	3	30-130/20
101-55-3	4-Bromophenyl phenyl ether	ND		50	45.3	91	44.0	88	3	40-140/20
85-68-7	Butyl benzyl phthalate	ND		50	48.6	97	48.4	97	0	40-140/20
100-51-6	Benzyl Alcohol	ND		50	32.5	65	30.4	61	7	40-140/20
91-58-7	2-Chloronaphthalene	ND		50	41.8	84	41.5	83	1	40-140/20
106-47-8	4-Chloroaniline	ND		50	8.1	16* a	8.6	17* a	6	40-140/20
111-91-1	bis(2-Chloroethoxy)methane	ND		50	44.3	89	45.4	91	2	40-140/20
111-44-4	bis(2-Chloroethyl)ether	ND		50	43.6	87	43.2	86	1	40-140/20
108-60-1	bis(2-Chloroisopropyl)ether	6.9		50	59.0	104	58.3	103	1	40-140/20
7005-72-3	4-Chlorophenyl phenyl ether	ND		50	43.5	87	42.2	84	3	40-140/20
122-66-7	1,2-Diphenylhydrazine	ND		50	46.9	94	45.8	92	2	40-140/20
121-14-2	2,4-Dinitrotoluene	ND		50	48.6	97	46.7	93	4	40-140/20
606-20-2	2,6-Dinitrotoluene	ND		50	44.5	89	44.4	89	0	40-140/20
91-94-1	3,3'-Dichlorobenzidine	ND		50	23.2	46	22.1	44	5	40-140/20
132-64-9	Dibenzofuran	0.59		50	43.5	86	42.5	84	2	40-140/20
84-74-2	Di-n-butyl phthalate	1.2		50	51.5	101	49.8	97	3	40-140/20
117-84-0	Di-n-octyl phthalate	ND		50	55.0	110	53.9	108	2	40-140/20
84-66-2	Diethyl phthalate	0.94		50	48.8	96	47.4	93	3	40-140/20
131-11-3	Dimethyl phthalate	ND		50	46.3	93	45.2	90	2	40-140/20
117-81-7	bis(2-Ethylhexyl)phthalate	2.2	B	50	51.5	99	51.0	98	1	40-140/20
118-74-1	Hexachlorobenzene	ND		50	44.3	89	42.8	86	3	40-140/20
77-47-4	Hexachlorocyclopentadiene	ND		50	21.2	42	22.4	45	6	40-140/20

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M99998
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24849-MS	S23776.D	1	05/11/11	PR	05/09/11	OP24849	MSS1010
OP24849-MSD	S23777.D	1	05/11/11	PR	05/09/11	OP24849	MSS1010
M99998-9	S23785.D	1	05/11/11	PR	05/09/11	OP24849	MSS1010

The QC reported here applies to the following samples: Method: SW846 8270C

M99998-1, M99998-2, M99998-4, M99998-5, M99998-6, M99998-7, M99998-8, M99998-9, M99998-10

CAS No.	Compound	M99998-9 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-72-1	Hexachloroethane	ND		50	46.9	94	47.1	94	0	40-140/20
78-59-1	Isophorone	ND		50	45.5	91	46.0	92	1	40-140/20
90-12-0	1-Methylnaphthalene	24.0		50	29.5	11* b	30.5	13* b	3	40-140/20
88-74-4	2-Nitroaniline	ND		50	50.1	100	48.5	97	3	40-140/20
99-09-2	3-Nitroaniline	ND		50	29.0	58	27.1	54	7	40-140/20
100-01-6	4-Nitroaniline	ND		50	40.2	80	38.8	78	4	40-140/20
98-95-3	Nitrobenzene	ND		50	46.6	93	47.2	94	1	40-140/20
62-75-9	n-Nitrosodimethylamine	ND		50	21.8	44	20.2	40	8	40-140/20
621-64-7	N-Nitroso-di-n-propylamine	ND		50	53.5	107	52.1	104	3	40-140/20
86-30-6	N-Nitrosodiphenylamine	ND		50	47.9	96	46.9	94	2	40-140/20

CAS No.	Surrogate Recoveries	MS	MSD	M99998-9	Limits
367-12-4	2-Fluorophenol	68%	65%	58%	15-110%
4165-62-2	Phenol-d5	45%	43%	35%	15-110%
118-79-6	2,4,6-Tribromophenol	101%	98%	84%	15-110%
4165-60-0	Nitrobenzene-d5	92%	95%	80%	30-130%
321-60-8	2-Fluorobiphenyl	83%	82%	70%	30-130%
1718-51-0	Terphenyl-d14	87%	86%	86%	30-130%

(a) Outside control limits. Blank Spike meets program technical requirements.
(b) Outside control limits. Associated samples re-extracted/reanalyzed.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M99998
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample not from this SDG

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24914-MS	S23943.D	1	05/15/11	KR	05/13/11	OP24914	MSS1016
OP24914-MSD	S23944.D	1	05/15/11	KR	05/13/11	OP24914	MSS1016
MC192-1	S23945.D	1	05/15/11	KR	05/13/11	OP24914	MSS1016

6.3.2

6

The QC reported here applies to the following samples: Method: SW846 8270C

M99998-1, M99998-2, M99998-4, M99998-5, M99998-6, M99998-7, M99998-8, M99998-9, M99998-10

CAS No.	Compound	MC192-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
62-53-3	Aniline	ND		50	20.0	40	21.6	43	8	40-140/20
110-86-1	Pyridine	ND		50	16.7	33* [a]	16.6	33* [a]	1	40-140/20

CAS No.	Surrogate Recoveries	MS	MSD	MC192-1	Limits
367-12-4	2-Fluorophenol	44%	44%	38%	15-110%
4165-62-2	Phenol-d5	26%	26%	21%	15-110%
118-79-6	2,4,6-Tribromophenol	79%	81%	64%	15-110%
4165-60-0	Nitrobenzene-d5	89%	89%	76%	30-130%
321-60-8	2-Fluorobiphenyl	72%	74%	65%	30-130%
1718-51-0	Terphenyl-d14	83%	86%	82%	30-130%

(a) Outside control limits. Blank Spike meets program technical requirements.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M99998
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24850-MS	F52843.D	1	05/12/11	PR	05/09/11	OP24850	MSF2552
OP24850-MSD	F52844.D	1	05/12/11	PR	05/09/11	OP24850	MSF2552
M99998-9	F52852.D	1	05/13/11	PR	05/09/11	OP24850	MSF2552

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

M99998-1, M99998-2, M99998-4, M99998-5, M99998-6, M99998-7, M99998-8, M99998-9, M99998-10

CAS No.	Compound	M99998-9 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	0.73		47.6	41.4	85	40.6	84	2	40-140/20
208-96-8	Acenaphthylene	ND		47.6	34.8	73	33.4	70	4	40-140/20
120-12-7	Anthracene	0.17		47.6	41.6	87	41.3	86	1	40-140/20
56-55-3	Benzo(a)anthracene	0.11		47.6	54.4	114	53.1	111	2	40-140/20
50-32-8	Benzo(a)pyrene	0.091		47.6	28.5	60	28.2	59	1	40-140/20
205-99-2	Benzo(b)fluoranthene	ND		47.6	35.2	74	36.3	76	3	40-140/20
191-24-2	Benzo(g,h,i)perylene	ND		47.6	45.5	96	42.5	89	7	40-140/20
207-08-9	Benzo(k)fluoranthene	ND		47.6	26.8	56	25.3	53	6	40-140/20
218-01-9	Chrysene	0.012		47.6	42.7	90	41.8	88	2	40-140/20
53-70-3	Dibenzo(a,h)anthracene	ND		47.6	46.6	98	44.2	93	5	40-140/20
206-44-0	Fluoranthene	0.032		47.6	47.4	99	45.7	96	4	40-140/20
86-73-7	Fluorene	0.64		47.6	59.8	124	57.4	119	4	40-140/20
193-39-5	Indeno(1,2,3-cd)pyrene	ND		47.6	41.6	87	46.7	98	12	40-140/20
91-57-6	2-Methylnaphthalene	33.6		47.6	89.1	117	86.5	111	3	40-140/20
91-20-3	Naphthalene	46.8		47.6	94.7	101	94.5	100	0	40-140/20
85-01-8	Phenanthrene	1.4		47.6	43.2	88	42.5	86	2	40-140/20
129-00-0	Pyrene	0.049		47.6	48.9	103	48.8	102	0	40-140/20

CAS No.	Surrogate Recoveries	MS	MSD	M99998-9	Limits
4165-60-0	Nitrobenzene-d5	108%	106%	91%	30-130%
321-60-8	2-Fluorobiphenyl	83%	79%	73%	30-130%
1718-51-0	Terphenyl-d14	106%	104%	97%	30-130%

Semivolatile Internal Standard Area Summary

Job Number: M99998
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Check Std:	MSF2552-CC2545	Injection Date:	05/12/11
Lab File ID:	F52836A.D	Injection Time:	19:15
Instrument ID:	GCMSF	Method:	SW846 8270C BY SIM

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	18975	5.10	69461	6.35	36635	8.71	69877	11.17	71740	16.09	41228	18.60
Upper Limit [a]	37950	5.60	138922	6.85	73270	9.21	139754	11.67	143480	16.59	82456	19.10
Lower Limit [b]	9488	4.60	34731	5.85	18318	8.21	34939	10.67	35870	15.59	20614	18.10
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
ZZZZZZ	25486	5.10	95072	6.35	53312	8.70	97675	11.17	96923	16.09	63065	18.60
ZZZZZZ	27022	5.10	98918	6.35	52536	8.70	92130	11.17	88780	16.09	55213	18.60
ZZZZZZ	22744	5.11	82083	6.35	43710	8.70	76412	11.17	72740	16.09	42745	18.60
ZZZZZZ	24934	5.10	93896	6.35	49297	8.70	86462	11.15	80077	16.08	46383	18.60
OP24850-MB	257406[c]	5.10	938388[c]	6.35	522272[c]	8.70	947265[c]	11.17	997294[c]	16.09	881389[c]	18.60
OP24850-BS	358295[c]	5.10	1291429[c]	6.34	770472[c]	8.70	1380006[c]	11.17	1258001[c]	16.10	1089207[c]	18.61
OP24850-MS	307105[c]	5.12	1143355[c]	6.34	642256[c]	8.71	1151598[c]	11.17	1133912[c]	16.10	1111559[c]	18.61
OP24850-MSD	357232[c]	5.11	1335067[c]	6.35	774053[c]	8.71	1345454[c]	11.17	1271661[c]	16.10	1231052[c]	18.61
M99998-1	298924[c]	5.10	1092563[c]	6.35	629215[c]	8.70	1167049[c]	11.17	1211176[c]	16.09	1077210[c]	18.60
M99998-2	317901[c]	5.10	1158704[c]	6.34	666991[c]	8.70	1214693[c]	11.17	1286234[c]	16.09	1109474[c]	18.61
M99998-4	213672[c]	5.10	741308[c]	6.35	444957[c]	8.70	800418[c]	11.15	841181[c]	16.09	723240[c]	18.60
M99998-5	265878[c]	5.11	900905[c]	6.35	561483[c]	8.70	964530[c]	11.15	1011539[c]	16.09	889318[c]	18.60
M99998-6	308831[c]	5.10	1133471[c]	6.34	662972[c]	8.70	1171275[c]	11.15	1225771[c]	16.09	1089354[c]	18.60
~~M99998-7~~	~~270464[c]~~	~~5.10~~	~~966505[c]~~	~~6.34~~	~~561192[c]~~	~~8.70~~	~~968914[c]~~	~~11.15~~	~~1006625[c]~~	~~16.09~~	~~878628[c]~~	~~18.60~~
M99998-8	268506[c]	5.10	942193[c]	6.35	563899[c]	8.70	992244[c]	11.15	1074755[c]	16.09	942597[c]	18.60
M99998-9	268382[c]	5.11	928573[c]	6.35	556651[c]	8.70	975788[c]	11.15	1051417[c]	16.09	928382[c]	18.60
M99998-10	252523[c]	5.11	879397[c]	6.35	543422[c]	8.70	947545[c]	11.15	1009608[c]	16.09	875152[c]	18.60

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.
(c) Internal standard spiked at 10x concentration.

6.4.1

Semivolatile Internal Standard Area Summary

Job Number: M99998
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Check Std:	MSI2601-CC2540	Injection Date:	05/15/11
Lab File ID:	I72518.D	Injection Time:	11:23
Instrument ID:	GCMSI	Method:	SW846 8270C BY SIM

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	12791	5.35	49368	6.63	26263	9.08	39601	11.58	34772	16.55	25918	19.08
Upper Limit [a]	25582	5.85	98736	7.13	52526	9.58	79202	12.08	69544	17.05	51836	19.58
Lower Limit [b]	6396	4.85	24684	6.13	13132	8.58	19801	11.08	17386	16.05	12959	18.58
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP24900-MB	14177	5.35	56083	6.63	28974	9.07	43094	11.58	31265	16.54	23577	19.08
OP24900-BS	11153	5.35	42575	6.63	21632	9.07	31720	11.58	24683	16.55	19876	19.08
OP24900-BSD	11992	5.35	45905	6.63	23243	9.08	34246	11.58	25856	16.55	20270	19.08
OP24900-MS	12228	5.35	47977	6.63	24019	9.08	34762	11.58	25712	16.55	20198	19.08
OP24900-MSD	14668	5.35	57607	6.63	29539	9.08	45133	11.60	31493	16.55	21720	19.08
MC118-3	14311	5.35	57027	6.63	28554	9.07	42670	11.58	32384	16.55	26295	19.08
ZZZZZZ	14163	5.35	56272	6.63	27987	9.07	41640	11.58	32637	16.54	26741	19.08
ZZZZZZ	11721	5.35	45838	6.63	35958	9.08	37460	11.60	29119	16.55	25137	19.08
ZZZZZZ	13450	5.35	54428	6.63	28224	9.07	42413	11.58	34149	16.55	28160	19.08
ZZZZZZ	14436	5.35	57573	6.63	29451	9.07	42355	11.58	31769	16.54	26445	19.08
ZZZZZZ	12082	5.35	46879	6.63	24269	9.07	37828	11.58	27572	16.55	22764	19.08
ZZZZZZ	13226	5.35	53513	6.63	26800	9.07	40483	11.58	32011	16.55	26440	19.08
ZZZZZZ	12131	5.35	47846	6.63	25577	9.07	40446	11.58	28122	16.55	22381	19.08
M99998-2	141336[c]	5.35	554835[c]	6.63	296010[c]	9.08	435737[c]	11.58	354539[c]	16.56	307297[c]	19.09
OP24857-MB	15562	5.35	61496	6.63	30599	9.07	44987	11.58	34799	16.55	28461	19.08
OP24857-BS	11878	5.35	47514	6.63	23672	9.08	35062	11.58	28035	16.55	22532	19.08
OP24857-BSD	13143	5.35	52048	6.63	25860	9.07	40561	11.58	32209	16.55	24702	19.08
OP24857-MS	11075	5.35	42581	6.63	21965	9.07	33092	11.58	26793	16.55	21817	19.08
OP24857-MSD	10902	5.35	42118	6.63	21821	9.07	33084	11.58	27403	16.55	22684	19.08
ZZZZZZ	12543	5.35	48847	6.63	25065	9.07	38602	11.58	29755	16.55	24520	19.08
M99982-3	11245	5.35	43871	6.63	22691	9.07	34635	11.58	28513	16.55	23004	19.08

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.
(c) Internal standard spiked at 10x concentration.

Semivolatile Internal Standard Area Summary

Job Number: M99998
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Check Std:	MSS1010-CC1009	Injection Date:	05/11/11
Lab File ID:	S23771.D	Injection Time:	16:07
Instrument ID:	GCMSS	Method:	SW846 8270C

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	175027	6.60	612985	8.01	367252	10.29	754247	12.53	976874	16.91	849075	19.15
Upper Limit [a]	350054	7.10	1225970	8.51	734504	10.79	1508494	13.03	1953748	17.41	1698150	19.65
Lower Limit [b]	87514	6.10	306493	7.51	183626	9.79	377124	12.03	488437	16.41	424538	18.65
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
ZZZZZZ	162012	6.60	593250	8.01	339685	10.29	655007	12.52	760970	16.89	710806	19.14
ZZZZZZ	162012	6.60	593250	8.01	339685	10.29	655007	12.52	760970	16.89	710806	19.14
ZZZZZZ	167824	6.60	602864	8.01	350396	10.29	700805	12.52	848083	16.89	778440	19.14
ZZZZZZ	167824	6.60	602864	8.01	350396	10.29	700805	12.52	848083	16.89	778440	19.14
OP24849-MB	195682	6.60	719957	8.01	439784	10.28	890702	12.52	947560	16.89	818426	19.14
OP24849-BS	231226	6.60	808217	8.01	486157	10.29	962808	12.53	1075075	16.90	894300	19.15
OP24849-MS	216371	6.60	792977	8.01	460764	10.29	907410	12.53	1090328	16.90	911466	19.15
OP24849-MSD	236003	6.60	832197	8.01	498063	10.29	979687	12.53	1110352	16.91	937089	19.15
M99998-1	229646	6.60	873811	8.01	519143	10.29	1015938	12.52	1137872	16.90	1030256	19.14
M99998-2	218093	6.60	819512	8.01	491996	10.28	978445	12.52	1148500	16.89	1036089	19.14
M99998-4	196142	6.60	716319	8.01	450554	10.28	910451	12.52	1022319	16.89	896197	19.14
M99998-5	187482	6.60	706973	8.01	425211	10.28	868964	12.52	927825	16.89	817815	19.14
M99998-6	209605	6.60	774219	8.01	464641	10.28	949891	12.52	1042409	16.89	927673	19.14
M99998-7	201854	6.60	741275	8.01	452663	10.28	913321	12.52	964102	16.89	821328	19.14
M99998-8	210472	6.60	774109	8.01	462045	10.28	912738	12.52	1055433	16.89	936429	19.14
M99998-9	216398	6.60	796320	8.01	468290	10.28	945582	12.52	1046055	16.89	938764	19.14
M99998-10	192932	6.60	713037	8.01	434846	10.28	886355	12.52	988592	16.89	868413	19.14
ZZZZZZ	201192	6.60	743880	8.01	449507	10.28	915421	12.52	1006815	16.89	898377	19.14
ZZZZZZ	213216	6.60	788059	8.01	480252	10.28	975281	12.52	1058296	16.90	946046	19.14
ZZZZZZ	223522	6.60	833856	8.01	516484	10.28	1033122	12.52	1128505	16.89	1000873	19.14
ZZZZZZ	208176	6.60	766051	8.01	455927	10.28	907155	12.52	1014317	16.89	924253	19.14
ZZZZZZ	196984	6.60	732607	8.01	447133	10.28	875046	12.52	1005199	16.89	913013	19.14
ZZZZZZ	192623	6.60	700078	8.01	424617	10.28	860553	12.52	965264	16.89	837428	19.14
ZZZZZZ	215879	6.60	787454	8.01	456857	10.29	876659	12.52	1015648	16.90	933294	19.15

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Internal Standard Area Summary

Job Number: M99998
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Check Std:	MSS1016-CC1009	Injection Date:	05/15/11
Lab File ID:	S23925.D	Injection Time:	10:33
Instrument ID:	GCMSS	Method:	SW846 8270C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	156575	6.59	562050	7.99	336420	10.27	663879	12.51	817224	16.88	698781	19.12
Upper Limit [a]	313150	7.09	1124100	8.49	672840	10.77	1327758	13.01	1634448	17.38	1397562	19.62
Lower Limit [b]	78288	6.09	281025	7.49	168210	9.77	331940	12.01	408612	16.38	349391	18.62
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP24869-MB	155178	6.59	589202	7.99	353821	10.27	702459	12.50	737832	16.87	615130	19.12
OP24869-BS	206472	6.59	753615	7.99	437377	10.27	863202	12.51	961518	16.88	775522	19.12
OP24869-MS	173846	6.59	644792	7.99	374390	10.27	726029	12.51	795079	16.88	661438	19.12
OP24869-MSD	191896	6.59	721508	7.99	410266	10.27	806893	12.51	898308	16.88	716937	19.12
MC19-7	154879	6.59	595778	7.99	347646	10.27	693716	12.50	715721	16.87	647133	19.12
ZZZZZZ	181096	6.59	684729	7.99	408214	10.27	826659	12.50	880356	16.88	757541	19.12
ZZZZZZ	181941	6.59	681073	7.99	407082	10.27	829671	12.50	890600	16.88	752804	19.12
ZZZZZZ	158836	6.59	588559	7.99	349068	10.27	679560	12.50	669063	16.88	587036	19.12
OP24899-MB	173600	6.59	672495	7.99	401042	10.27	797176	12.50	849621	16.88	734011	19.12
OP24899-BS	180510	6.60	686268	8.00	393223	10.27	761817	12.51	815842	16.88	702158	19.12
OP24899-BSD	178588	6.59	670284	8.00	391252	10.27	748355	12.51	827861	16.88	724499	19.12
OP24899-MS	168984	6.59	611673	8.00	364943	10.27	695086	12.51	752897	16.88	639813	19.12
OP24899-MSD	162151	6.59	600805	8.00	348083	10.27	670140	12.51	723991	16.88	617553	19.12
MC118-2	151481	6.60	574345	8.00	344682	10.27	681677	12.50	730928	16.88	642636	19.12
ZZZZZZ	144724	6.59	535679	8.00	324301	10.27	646983	12.50	695709	16.88	591323	19.12
OP24914-MB	160430	6.59	603569	8.00	364658	10.27	741007	12.50	764793	16.88	700707	19.12
OP24914-BS	178191	6.59	652866	8.00	381433	10.27	726584	12.51	792888	16.88	697512	19.12
OP24914-MS	180176	6.59	665847	7.99	391632	10.27	750804	12.51	837218	16.88	713792	19.12
OP24914-MSD	180775	6.59	666520	7.99	386192	10.27	747674	12.51	823017	16.88	722399	19.12
MC192-1	161009	6.59	612912	7.99	361330	10.27	721511	12.50	793237	16.87	695523	19.12
ZZZZZZ	167494	6.59	622951	7.99	370340	10.27	738396	12.50	805650	16.87	728707	19.12
ZZZZZZ	157486	6.59	584292	7.99	346612	10.26	684517	12.50	772322	16.87	725923	19.12
ZZZZZZ	154655	6.59	575958	7.99	339153	10.26	675685	12.50	789031	16.87	781376	19.12

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Internal Standard Area Summary

Job Number: M99998
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Check Std:	MSS1019-CC1009	Injection Date:	05/17/11
Lab File ID:	S24001A.D	Injection Time:	09:10
Instrument ID:	GCMSS	Method:	SW846 8270C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	180695	6.57	672456	7.97	403242	10.24	801482	12.47	932805	16.85	852775	19.09
Upper Limit [a]	361390	7.07	1344912	8.47	806484	10.74	1602964	12.97	1865610	17.35	1705550	19.59
Lower Limit [b]	90348	6.07	336228	7.47	201621	9.74	400741	11.97	466403	16.35	426388	18.59
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
M99998-1 [c]	211424	6.57	837749	7.97	507252	10.24	987889	12.47	1079425	16.85	1022842	19.09
M99998-2 [c]	213040	6.57	839959	7.97	521021	10.24	1013466	12.47	1106227	16.85	1054187	19.09
M99998-4 [c]	188966	6.57	736450	7.97	453555	10.24	896814	12.47	1016882	16.85	939045	19.09
M99998-5 [c]	190241	6.57	735987	7.96	439732	10.24	886823	12.47	966312	16.85	903953	19.09
M99998-6 [c]	198552	6.57	766994	7.97	462269	10.24	930742	12.47	1007700	16.85	946819	19.09
M99998-7 [c]	176672	6.57	645439	7.97	396962	10.24	782343	12.47	858367	16.84	772585	19.09
M99998-8 [c]	180968	6.57	710827	7.96	431013	10.24	850517	12.47	913202	16.85	872438	19.09
M99998-9 [c]	222718	6.57	860304	7.96	522820	10.24	1024280	12.47	1133399	16.85	1049827	19.09
M99998-10 [c]	198412	6.57	750659	7.96	457365	10.24	890740	12.47	973166	16.84	901614	19.09
ZZZZZZ	192334	6.57	720823	7.96	436955	10.24	869100	12.47	957389	16.85	834342	19.09
ZZZZZZ	178984	6.57	673884	7.97	414047	10.24	823737	12.47	880751	16.84	780319	19.09
ZZZZZZ	173314	6.57	642570	7.96	390317	10.24	778845	12.47	861677	16.84	762345	19.09
ZZZZZZ	174675	6.57	640196	7.97	393159	10.24	790673	12.47	858549	16.84	746434	19.09
ZZZZZZ	172631	6.57	643903	7.96	397192	10.24	783344	12.47	856944	16.84	786936	19.09
ZZZZZZ	177473	6.57	673388	7.97	418040	10.24	839190	12.47	885955	16.84	768441	19.09

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.
(c) Sample re-extracted beyond recommended holding time.

Semivolatile Surrogate Recovery Summary

Job Number: M99998
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Method: SW846 8270C Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
M99998-1	S24002.D	34.0	19.0	67.0	72.0	58.0	75.0
M99998-1	S23778.D	68.0	42.0	95.0	88.0	78.0	91.0
M99998-2	S24003.D	32.0	18.0	62.0	72.0	58.0	66.0
M99998-2	S23779.D	64.0	39.0	92.0	89.0	74.0	91.0
M99998-4	S24004.D	1.0* [a]	1.0* [a]	61.0	2.0* [a]	8.0* [a]	80.0
M99998-4	S23780.D	66.0	41.0	91.0	92.0	79.0	96.0
M99998-5	S24005.D	37.0	21.0	72.0	81.0	70.0	84.0
M99998-5	S23781.D	59.0	37.0	91.0	79.0	70.0	100.0
M99998-6	S24006.D	31.0	17.0	61.0	68.0	57.0	89.0
M99998-6	S23782.D	54.0	33.0	89.0	78.0	71.0	95.0
M99998-7	S24007.D	38.0	20.0	67.0	83.0	72.0	89.0
M99998-7	S23783.D	69.0	43.0	88.0	89.0	83.0	98.0
M99998-8	S24008.D	30.0	17.0	62.0	69.0	60.0	85.0
M99998-8	S23784.D	61.0	38.0	95.0	85.0	78.0	96.0
M99998-9	S24009.D	33.0	18.0	71.0	76.0	64.0	84.0
M99998-9	S23785.D	58.0	35.0	84.0	80.0	70.0	86.0
M99998-10	S24010.D	37.0	20.0	74.0	85.0	70.0	89.0
M99998-10	S23786.D	50.0	30.0	93.0	87.0	79.0	99.0
OP24849-BS	S23775.D	73.0	50.0	98.0	91.0	82.0	97.0
OP24849-MB	S23774.D	59.0	38.0	78.0	74.0	68.0	94.0
OP24849-MS	S23776.D	68.0	45.0	101.0	92.0	83.0	87.0
OP24849-MSD	S23777.D	65.0	43.0	98.0	95.0	82.0	86.0
OP24914-BS	S23942.D	42.0	25.0	78.0	84.0	71.0	81.0
OP24914-MB	S23941.D	39.0	21.0	64.0	82.0	70.0	81.0
OP24914-MS	S23943.D	44.0	26.0	79.0	89.0	72.0	83.0
OP24914-MSD	S23944.D	44.0	26.0	81.0	89.0	74.0	86.0

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	15-110%
S2 = Phenol-d5	15-110%
S3 = 2,4,6-Tribromophenol	15-110%
S4 = Nitrobenzene-d5	30-130%
S5 = 2-Fluorobiphenyl	30-130%
S6 = Terphenyl-d14	30-130%

(a) Outside control limits due to possible matrix interference.

Semivolatile Surrogate Recovery Summary

Job Number: M99998
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Method: SW846 8270C BY SIM Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
M99998-1	F52845.D	109.0	81.0	103.0
M99998-2	I72532.D	115.0	122.0	139.0* [a]
M99998-2	F52846.D	109.0	80.0	102.0
M99998-4	F52847.D	104.0	86.0	107.0
M99998-5	F52848.D	93.0	73.0	110.0
M99998-6	F52849.D	96.0	75.0	106.0
M99998-7	F52850.D	104.0	86.0	108.0
M99998-8	F52851.D	101.0	82.0	108.0
M99998-9	F52852.D	91.0	73.0	97.0
M99998-10	F52853.D	99.0	80.0	109.0
OP24850-BS	F52842.D	104.0	78.0	114.0
OP24850-MB	F52841.D	83.0	72.0	103.0
OP24850-MS	F52843.D	108.0	83.0	106.0
OP24850-MSD	F52844.D	106.0	79.0	104.0

Surrogate Compounds	Recovery Limits
S1 = Nitrobenzene-d5	30-130%
S2 = 2-Fluorobiphenyl	30-130%
S3 = Terphenyl-d14	30-130%

(a) Outside control limits due to dilution.

6.5.2

GC Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries

Method Blank Summary

Job Number: M99998
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24856-MB	BK2727.D	1	05/10/11	AP	05/09/11	OP24856	GBK113

The QC reported here applies to the following samples: Method: SW846 8011

M99998-1, M99998-2, M99998-3, M99998-4, M99998-5, M99998-6, M99998-7, M99998-8, M99998-9, M99998-10

CAS No.	Compound	Result	RL	Units	Q
106-93-4	1,2-Dibromoethane	ND	0.015	ug/l	

CAS No.	Surrogate Recoveries		Limits
460-00-4	Bromofluorobenzene (S)	118%	36-173%
460-00-4	Bromofluorobenzene (S)	117%	36-173%

Blank Spike Summary

Job Number: M99998
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24856-BS	BK2728.D	1	05/10/11	AP	05/09/11	OP24856	GBK113

The QC reported here applies to the following samples: Method: SW846 8011

M99998-1, M99998-2, M99998-3, M99998-4, M99998-5, M99998-6, M99998-7, M99998-8, M99998-9, M99998-10

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
106-93-4	1,2-Dibromoethane	0.071	0.066	93	60-140

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	Bromofluorobenzene (S)	92%	36-173%
460-00-4	Bromofluorobenzene (S)	102%	36-173%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M99998
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24856-MS	BK2729.D	1	05/11/11	AP	05/09/11	OP24856	GBK113
OP24856-MSD	BK2730.D	1	05/11/11	AP	05/09/11	OP24856	GBK113
M99998-9	BK2740.D	1	05/11/11	AP	05/09/11	OP24856	GBK113

The QC reported here applies to the following samples: Method: SW846 8011

M99998-1, M99998-2, M99998-3, M99998-4, M99998-5, M99998-6, M99998-7, M99998-8, M99998-9, M99998-10

7.3.1

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CAS No.	Compound	M99998-9 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
106-93-4	1,2-Dibromoethane	ND		0.0762	0.086	113	0.094	121	9	63-163/27

CAS No.	Surrogate Recoveries	MS	MSD	M99998-9	Limits
460-00-4	Bromofluorobenzene (S)	129%	139%	137%	36-173%
460-00-4	Bromofluorobenzene (S)	141%	156%	141%	36-173%

Volatile Surrogate Recovery Summary

Job Number: M99998
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Method: SW846 8011 Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]	S1 [b]
M99998-1	BK2731.D	81.0	91.0
M99998-2	BK2732.D	129.0	141.0
M99998-3	BK2733.D	152.0	159.0
M99998-4	BK2735.D	103.0	117.0
M99998-5	BK2736.D	119.0	131.0
M99998-6	BK2737.D	104.0	115.0
M99998-7	BK2738.D	115.0	129.0
M99998-8	BK2739.D	99.0	109.0
M99998-9	BK2740.D	137.0	141.0
M99998-10	BK2741.D	129.0	136.0
OP24856-BS	BK2728.D	92.0	102.0
OP24856-MB	BK2727.D	118.0	117.0
OP24856-MS	BK2729.D	129.0	141.0
OP24856-MSD	BK2730.D	139.0	156.0

Surrogate Compounds	Recovery Limits
S1 = Bromofluorobenzene (S)	36-173%

(a) Recovery from GC signal #1
(b) Recovery from GC signal #2

GC Surrogate Retention Time Summary

Job Number: M99998
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Check Std:	GBK113-CC113	Injection Date:	05/10/11
Lab File ID:	BK2723.D	Injection Time:	21:33
Instrument ID:	GCBK	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	4.92	5.49

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
OP24855-BSD	BK2724.D	05/10/11	21:59	4.92	5.49
OP24855-MS	BK2725.D	05/10/11	22:25	4.92	5.49
OP24855-MSD	BK2726.D	05/10/11	22:51	4.92	5.49
OP24856-MB	BK2727.D	05/10/11	23:17	4.92	5.49
OP24856-BS	BK2728.D	05/10/11	23:44	4.92	5.49
OP24856-MS	BK2729.D	05/11/11	00:10	4.92	5.49
OP24856-MSD	BK2730.D	05/11/11	00:36	4.92	5.49
M99998-1	BK2731.D	05/11/11	01:02	4.92	5.49
M99998-2	BK2732.D	05/11/11	01:28	4.92	5.49
M99998-3	BK2733.D	05/11/11	01:54	4.92	5.49

Surrogate Compounds

S1 = Bromofluorobenzene (S)

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Job Number: M99998
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana ROST-4-PZ / 21562593.00011 170 East Rand Ave. Hartford, IL

Check Std:	GBK113-CC113	Injection Date:	05/11/11
Lab File ID:	BK2734.D	Injection Time:	02:21
Instrument ID:	GCBK	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	4.92	5.49

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
M99998-4	BK2735.D	05/11/11	02:47	4.92	5.49
M99998-5	BK2736.D	05/11/11	03:13	4.92	5.49
M99998-6	BK2737.D	05/11/11	03:39	4.92	5.49
M99998-7	BK2738.D	05/11/11	04:06	4.93	5.49
M99998-8	BK2739.D	05/11/11	04:32	4.92	5.49
M99998-9	BK2740.D	05/11/11	04:58	4.92	5.49
M99998-10	BK2741.D	05/11/11	05:24	4.92	5.49
ZZZZZZ	BK2742.D	05/11/11	05:50	4.92	5.49
GBKI13-ECC113	BK2743.D	05/11/11	06:17	4.92	5.49

Surrogate Compounds

S1 = Bromofluorobenzene (S)

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2