Illinois Environmental Protection Agency

Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

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: Equilon Enterprises, LLC dba Shell Oil Products US
County: Madison
Street Address: 900 S. Central Ave
Site No. (IEPA): 1191150002
City: Roxana, IL 62084
Site No. (USEPA): ILD 080 012 305

2.0 Owner Information

Name: Not Applicable
Mail Address:
City:
State: Zip Code:
Contact Name:
Contact Title:
Phone:

3.0 Operator Information

Name: Equilon Enterprises LLC d/b/a SOPUS
Mail Address: 17 Junction Drive, PMB #399
City: Glen Carbon
State: IL Zip Code: 62034
Contact Name: Kevin Dyer
Contact Title: Senior Principal Program Manager
Phone: 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;
☑ Other (describe): Standard Operating Procedures updates

IEPA Permit Log No. B-43R
Date of Last IEPA Letter on Project: Jan 18, 2017
Log No. of Last IEPA Letter on Project: B-43R-CA-59, -60, -69

Does this submittal include groundwater information: ☐ Yes ☑ No

Date of Submittal: 6/29/17

5.0 Description of Submittal: (briefly describe what is being submitted and its purpose)

Routine updates to previously submitted Standard Operating Procedures (SOPs). Copies of submittal sent separately directly to Amy Boley and Gina Search.

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

Cover Letter; SOPs 10, 24, 26, and 51

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.

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: N/A

Operator Signature: Kevin E Meyer Date: 6/21/17

Title: Senior 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.

Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44 (h))

Professional's Signature: _____ Date: _____

Professional's Name N/A

Address _____ Professional's Seal:

City _____

State _____ Zip Code _____

Phone _____

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 N/A

_____ Date: _____

Signature of Laboratory Responsible Officer

Mailing Address of Laboratory

Address _____

City _____

State _____ Zip Code _____

_____

Name and Title of Laboratory Responsible Officer

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USA
aecom.com

June 29, 2017

Ms. Joyce L. Munie, PE
Manager, Permit Section
Illinois Environmental Protection Agency
Bureau of Land
1021 North Grand Avenue East
Springfield, Illinois 62794

Routine Updates to Previously Submitted Standard Operating Procedures
Equilon Enterprises LLC dba Shell Oil Products US
Roxana, Illinois
1191150002 - Madison County
ILD080012305

Dear Ms. Munie:

As part of AECOM Technical Services, Inc.'s (AECOM's) routine quality improvement process, we recently performed a review of some of the Standard Operating Procedures (SOPs) used by field staff performing activities at the investigation Site in Roxana, Illinois. Previously revised versions of SOPs were submitted to the Illinois Environmental Protection Agency (IEPA) in September 27, 2013, July 3, 2014, and March 4, 2015 submittals from URS Corporation, and in August 3, 2015 and April 4, 2017 submittals from AECOM. These procedures were originally submitted, as requested by various IEPA correspondences, within various reports and work plans related to the Investigation Site in Roxana, Illinois. We are submitting this package of updated SOPs for informational purposes.

The SOPs included with this submittal are listed below. f The SOPs listed received editorial and formatting revisions. A summary of any additional substantive revisions made to the SOPs are included in the table below.

SOP No	SOP Title	Additional Revisions
10	Well Gauging Measurements	Clarification of stable water levels for wells under pressure/vacuum
24	Soil and Groundwater Sample Identification, Packaging and Shipping	Clarification of chain of custody procedures; Revised title to be more specific to procedure
26	Sample Control and Custody	Clarification of chain of custody procedures
51	Vapor Sample Classification, Packaging and Shipping	Clarification of chain of custody procedures

If you have any questions, please contact Wendy Pennington at wendy.pennington@aecom.com (314-743-4166) or Bob Billman at bob.billman@aecom.com (314-743-4108).

Sincerely,

Wendy Pennington
Project Engineer
AECOM
T: 314-743-4166
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Robert B. Billman
Senior Project Manager
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encl: Revised SOPs
RCRA Corrective Action Certification Form

cc: Amy Boley (IEPA - Springfield, IL)
Gina Search (IEPA - Collinsville, IL)
Kevin Dyer (SOPUS)
Shannon Haney (Greensfelder Hemker)
Project File
Repositories (Roxana Public L brary, website)

1. Objective

This document defines the standard procedure for measuring water and non-aqueous phase liquid (NAPL) levels in monitoring wells for Shell projects in Hartford and Roxana, Illinois. This SOP serves as a supplement to information which might be in a project Work Plan or scope of work and is intended to be used together with other SOPs.

2. Equipment

The following equipment is typically needed:

- Water Level or Product/Water Interface probe with 0.01-foot increments;
- Well keys;
- Photoionization Detector (PID) (e.g., RAE Instruments MiniRAE 3000 or equivalent);Latex/Nitrile gloves;
- Site logbook;
- Field data sheets;
- Toughbook/Toughpad;
- Appropriate decontamination equipment;
- Appropriate personal protective equipment (PPE); and
- Permanent ink pen.

3. Fluid Level Measurement Procedures

Observations made during the fluid (water and/or NAPL) level measurement shall be recorded in the field logbook, on appropriate field forms, and/or in the appropriate program in the Toughbook/Toughpad in accordance with the procedures defined in SOP No. 8 Field Reporting and Documentation.

Appropriate PPE, as described in the Health and Safety Plan (HASP) shall be worn during well opening, fluid level measurement, and decontamination. The following procedures shall be completed when measuring fluid levels:

1. The water level probe shall be decontaminated prior to use in each monitoring well according to SOP No. 4 Decontamination.
2. Observations regarding the condition of the well, including the well pad, surface completion or protective casing, working padlock, etc. shall be documented in the field logbook, on appropriate field forms and/or in the Toughbook/Toughpad.

3. Put on a new, unused pair of disposable latex or nitrile gloves.
4. The well will be approached from upwind, the well cap unlocked and removed, and the air quality monitored at the top of the casing and in the breathing zone with a PID. Air quality measurements shall be recorded on appropriate field forms and/or in the Toughbook/Toughpad. If the well appears to be under vacuum or pressure conditions, allow adequate time after removing the well cap to reach equilibrium.
    a. Vacuum or pressure conditions may cause the water and/or NAPL level within the well to rise or fall once the well cap is removed and the well is exposed to atmospheric conditions.
5. After the well has reached equilibrium, an electric water level or NAPL/water interface probe shall be used to measure the depth to water from the top-of-casing reference point (either PVC or steel monitoring well casing) and/or check for NAPLs in the water column, where applicable.
    a. If no reference point is marked on the well casing, measurements shall be made from the north side of the well casing.
    b. If a special well wizard dedicated pump cap is present, the cap shall be removed from the riser pipe and depth to water measured from the top of well casing reference point. If the well wizard dedicated pump cap is unable to be removed, gauge the fluid level through the opening in the cap.
    c. If a special well wizard dedicated pump is present, fluid level measurements shall be taken with the pump in place within the well.
6. Record the depth to water and/or NAPL, as applicable. Measurements will be made to the nearest 0.01 feet. Record the measured reading.
7. Regauge and check the recorded measurement(s) before the probe is removed from the well in order to confirm the measurement and verify that the water level is static.
    a. If the regauged depth to water and/or NAPL is the same or comparable to the initial measurement (i.e., ± 0.02 feet), the fluid level is considered static.
    b. If the regauged depth to water and/or NAPL is not comparable to the initial measurement, the water level is still equilibrating to atmospheric conditions. Periodically regauge the depth to water and/or NAPL until two consecutive measurements are comparable, indicating a static fluid level.

8. If NAPL is detected within a well, the presence of NAPL should be confirmed by visual observations on the interface probe, a clear plastic bailer (disposable or dedicated), or similar. The confirmation method shall be documented along with the measurements on the field data sheet, and/or in the Toughbook/Toughpad.
9. This procedure can also be used to measure the total depth of the well, if required. A measuring tape, with a weight attached to the end if necessary, can be used in place of the water level or interface probe to measure the total well depth. Measurements will be made to the nearest 0.01 feet.
   a. If a special well wizard dedicated pump is present, the pump shall be removed prior to measuring the total well depth.
10. The static water level, the total depth of the well, and the depth of NAPL (if applicable), shall be measured with the probe, recorded on the water level data sheet and/or in the Toughbook/Toughpad, and then immediately rechecked before the probe is removed from the well.
11. All columns/entries of field data sheets and/or Toughbook/Toughpad shall be completed, including date and time of measurements. An example water level data sheet is attached to this SOP. Verify that every line/box contains an entry with the appropriate information. If something on the field form or in the Toughbook/Toughpad does not apply, that should be indicated using "NA".
12. Care shall be taken to verify the readings during each water level measurement period. Any significant changes in water level will be noted by comparing the most recent measurement with past measurements. This comparison is easily performed on the Toughbook/Toughpad when entering the data.
13. After any measurement is taken, the water level probe shall be decontaminated as described in SOP No. 4 Decontamination.
14. Place disposable equipment into a plastic garbage bag for disposal.

4. Documentation

The appropriate information will be entered into the Toughbook/Toughpad and/or on the water level data sheet in the field during gauging activities. A field logbook will also be kept during water level measurement activities describing decontamination procedures, calibration procedures, monitoring procedures, and other activities/observations during water level measurement. Refer to SOP No. 8 Field Reporting and Documentation for additional documentation information.

Water Level Record

Job No.: _____ Project/Event: _____

Client: _____ Date: _____

Location: _____ Personnel: _____

Well No.	Time	Depth to Water (ft btoc)	Depth to Product (ft btoc)	Depth to Bottom (ft btoc)	All Bolts Present	Lock Present	Working Cap Present	Pad Condition	Comments

G = Pad in good condition
BR = Cracked and Broken
NP = No visible pad present

1. Objective

This document defines the standard protocols for soil and groundwater sample identification, labeling, packaging, and shipping for Shell projects in Hartford and Roxana, Illinois. This SOP serves as a supplement to work plan, sampling and analysis plan or other project documentation, and is intended to be used together with several other SOPs.

2. Equipment

The following equipment is typically needed for sample identification, packaging and shipping:

- Chain of custody form
- Sample bottles (laboratory provided)
- Sample labels
- Water proof pen or similar
- Trash bag or similar for lining cooler
- Bubble wrap
- Ice
- Re-sealable storage bags
- Custody seal
- Clear packing tape
- Shipping label
- Waterproof cooler

3. Procedures

Sample Identification

Samples collected during site activities shall have discrete and site specific sample identification code (ID). These sample IDs are necessary to identify and track each of the many samples collected for analysis during the life of project. In addition, the sample IDs can be used in a database to identify and retrieve the analytical results received from the laboratory.

Each sample is identified by a unique code which indicates the specific project, site identification, sample location number, sample matrix identifier, sample depth, and/or date. If used, sample matrix identifiers may include the following:

GP - Geoprobe

GWP - Groundwater Profile

PZ - Piezometer

MW - Monitoring Well

CPT – Cone Penetrometer Testing

ROST - Rapid Optical Screening Tool

VMP - Vapor Monitoring Point

TB - Trip Blank

EB - Equipment Blank

DUP - Duplicate Sample

MS - Matrix Spike Sample

MSD - Matrix Spike Duplicate Sample

An example of the sample identification number codes for a groundwater monitoring well sample collected for field analysis for the Shell Sites will be:

MW13-PROJ-070713-EB.

Where "MW" indicates Monitoring Well, "13" indicates the well location, "PROJ" indicates the abbreviated project name (ROX, WRR, etc.), "070713" indicates the date, and "EB" indicates an equipment blank.

The project abbreviation, sample sequence, sampling locations, and sample type will be established prior to field activities for each sample to be collected. On-site personnel will obtain assistance from the Task or Project Manager in defining any special sampling requirements.

Sample Labeling

Sample labels will be filled out as completely as possible by a designated member of the sampling team prior to beginning field sampling activities each day. The date, time, sampler initials/signature should not be completed until the time of sample collection. All sample labels shall be filled out using waterproof ink, preferably black. Below is information typically included on a sample label:

- Sampler's company affiliation
- Project/Site location

- Sample identification code
- Date and time of sample collection
- Analyses required
- Method of preservation or preservative (if any)
- Sample matrix (i.e., soil, groundwater, surface water)
- Sampler's signature or initials.

Labels will be affixed to the sample bottle. The sample bottle will be wiped off to remove any dirt, moisture and/or contamination that may have become adhered to the outside of the bottle. Clear tape will be applied in order to keep the label attached to the sample and to keep the label legible. If waterproof or weatherproof labels are used to label sample bottles, clear tape is NOT required. If a sample bottle displays a tared weight from the laboratory, clear tape will NOT be used.

Sample Packaging and Shipping

For packaging and shipping of air or soil vapor samples, refer to SOP No. 51 Vapor Sampling Classification, Packaging and Shipping. Below describes packaging and shipping procedures for water and soil samples.

After sample collection, each container will be labeled as described above, and then stored on ice at 4°C (+/- 2°C) in an insulated cooler until packed for shipment to the laboratory. Coolers will be lined with a trash bag or similar and either the ice or the sample bottles will be bagged in sealed storage bags, or as otherwise recommended by the laboratory.

Sample bottles will be wiped off to remove any dirt, moisture and/or contamination that may have become adhered to the outside of the bottle. To the extent possible, the sample containers will be placed in re-sealable storage bags and wrapped in protective packing material (bubble wrap). Samples will then be placed right side up in a lined cooler with ice and a completed chain-of-custody (COC) form (placed in a separate zip-locked bag). The COC may be specific to the samples included within each shipping container or may be comprehensive of all samples collected during a particular day/sampling period, regardless of the number of shipping containers.

A custody seal will be placed over the lid and body of the cooler on the side from which the cooler is opened. The cooler will be wrapped with clear packing tape, including over the custody seal, for delivery to the laboratory. Samples will be hand delivered or shipped by overnight

express carrier for delivery to the analytical laboratory. All samples must be shipped for laboratory receipt and analyses within specific holding times. This may require daily shipment of samples with short holding times. The temperature of all coolers will be measured upon receipt at the laboratory. A temperature blank may be included in each cooler for temperature measurement purposes, per laboratory specific requirements.

Sample Documentation and Tracking

Field Notes - Documentation of observations and data acquired in the field will recorded on field sampling sheets, in a bound field logbook and/or in a Toughbook/Toughpad to provide a permanent record of field activities. Refer to SOP No. 8 Field Reporting and Documentation for additional information.

Sample Chain-of-Custody - During field sampling activities, traceability of the sample must be maintained from the time the samples are collected until laboratory data are issued. The sampling team member(s) will be responsible for initiating and filling out the COC form during sample collection. Information on the custody, transfer, handling, and shipping of samples will be recorded on a COC form. The COC should contain project and sample specific information. Sample labels should be checked against the COC to ensure everything intended for analysis is listed on the COC.

A member of the sampling crew will sign the COC form over to the person or party responsible for delivery of the samples to the laboratory, retain a copy of the COC form, document the method of shipment, and send the original COC form with the samples. Additionally, an electronic copy of the COC should be forwarded to applicable project contacts (e.g., task manager, project chemist, etc.). Each time custody of the samples is transferred, the COC should be signed by both parties. Refer to SOP No. 26 Sample Control and Custody Procedures for additional information about COCs.

1. Objective

This document defines the standard procedure for the control and custody of environmental samples for Shell projects for Hartford and Roxana, Illinois. This SOP is intended to be used together with several other SOPs.

2. Equipment

The following equipment is typically needed for sample control and custody procedures:

- Waterproof shipping container(s) (e.g., coolers)
- Custody seals
- Temperature Blanks
- Field forms such as a Chain of Custody (COC) or sample collection sheet
- Field notebook
- Re-sealable bags
- Waterproof pen
- Permanent markers
- Nitrile gloves, or similar

3. Sample Control and Custody

Once the samples are collected, they must remain in the custody of the sampler or another worker from the site. The samples can also remain unattended in a locked vehicle or jobsite trailer so that tampering with the samples will not be possible.

During field sampling activities, traceability of the samples must be maintained from the time the samples are collected until the laboratory data is issued. Initial information concerning the collection of the samples will be recorded on the COC and in the field log book as outlined in SOP No. 8 Field Reporting and Documentation.

COC forms will be used to document the transport and receipt of samples from the field to the lab. Information required on a COC includes the following:

- Samplers signature and company affiliation
- Company contact information (address, project contact, telephone, email)
- Project number/Project name
- Purchase Order (PO) number typically same number as project number

- Date and time of sample collection
- Sample IDs
- Sample matrix
- Analyses requested
- The total number of containers being sent to the lab for each sample
- The appropriate preservative used (where applicable), designating the number of containers to be analyzed with that preservative
- If any samples are to be placed on hold at the laboratory, this should be clearly indicated on the COC in the comments section
- Turnaround time (TAT) requested
- Deliverables requested
- Signature of person(s) relinquishing custody, dates, and times
- Signature of person(s) accepting custody, dates, and times
- Method of shipment
- Shipping air bill number (if appropriate)
- Appropriate project-specific Incident and SAP numbers (for Shell projects)
- Special instructions or field notes, if applicable
- Numerated pages (Page__of__)
    - Verify with the task manager and/or laboratory coordinator for potential maximum number of samples per sample delivery group (SDG).

The sampling team members will be responsible for initiating and filling out the COC form during sample collection. The COC will be signed by a sampling team member to relinquish custody of the samples to a shipping carrier, courier service, laboratory, or to another team member who is responsible for packing/shipping containers. If another team member is packing the shipping container (cooler, box, etc.), they will sign the COC to relinquish custody to the shipping carrier, courier service, or laboratory. Each time custody of the samples is transferred, the COC should be signed by both parties.

Information on the custody, transfer, handling, and shipping of samples will be recorded on a COC form. If the COC is not three-part (minimum) carbon-copy form, then photocopy the COC

after initial signatures have been obtained, and before the samples and original copy leave the site (i.e., samples given to courier, delivery company or similar). One COC form will be included in each shipping container of samples and if samples are not hand delivered, the COC will be placed in a Ziploc bag and placed inside the shipping container(s).

- The COC may be specific to the samples included within each shipping container, or may be comprehensive of all samples collected during a particular day/sampling period, regardless of the number of shipping containers.
- If there are multiple shipping containers in a shipment, then the COC included in each shipping container will designate the container number based on the total number of containers (e.g., cooler 2 of 6, box 1 of 4, etc.). In addition, the COC and/or logbook will indicate which samples are in which containers (e.g., MW-1 thru MW-4 in cooler #3, etc.). This designation can be made in the comments section or in the margins of the COC.

Additionally, an electronic copy of the COC will be forwarded to applicable project contacts (e.g., task manager, project chemist, etc.).

Refer to SOP No. 24 Soil and Groundwater Sample Classification, Packaging and Shipping for more information regarding packing and shipping of soil and groundwater samples. Refer to SOP No. 51 Vapor Samples Classification, Packaging and Shipping for more information regarding packing and shipping of vapor samples. Upon receipt at the laboratory, the person receiving the samples will sign the COC form. The original COC will remain with the samples until final disposition of the samples by the laboratory. The laboratory will dispose of the samples in an appropriate manner after data reporting (standard disposal times are laboratory dependent).

1. Purpose and Scope

This document defines the standard protocols for sample classification, packaging and shipping of air and soil vapor samples for Shell projects in Hartford and Roxana, Illinois. This SOP is intended to be used together with several other SOPs.

2. Equipment

The following equipment is typically used for sample classification, packaging and shipping:

- Chain of Custody (COC)
- Sample canisters
- Sample labels
- Waterproof pen
- UN-approved shipping box
- Shipping labels
- Packing materials
- Packing tape

3. Procedures

Sample Identification

Samples collected during site activities shall have discrete and site specific sample identification numbers. These sample IDs are necessary to identify and track each of the many samples collected for analysis during the life of a project. In addition, the sample IDs can be used in a database to identify and retrieve the analytical results received from the laboratory.

Each sample is identified by a unique code which indicates the sample location type, sample location number, sample depth, and/or date collected. The sample locations will be numbered sequentially.

An example of the sample identification number codes for a vapor monitoring port collected for field analysis will be: VMP-1-5-090110.

Where "VMP" indicates a Vapor Monitoring Port sample, "1" indicates the site location number, "5" indicates the top of the sample depth interval, "090110" indicates the MMDDYY date the sample was collected.

The sampling locations and sample sequence identifiers will be established prior to field activities for each sample to be collected. On-site personnel will obtain assistance from the Task

or Project Manager in defining any special sampling requirements. Other sample identification may be specified by the Task or Project Manager on an individual project basis.

Sample Labeling

Sample labels will be filled out as completely as possible by a designated member of the sampling team prior to beginning field sampling activities each day. The date, time, sampler initials/signature, and the last field of the sample identification number should not be completed until the time of sample collection. All sample labels shall be filled out using waterproof ink. At a minimum, each label shall contain the following information:

- Sampler's company affiliation
- Project/Site location
- Sample identification code
- Date and time of sample collection
- Analyses required
- Canister ID
- Initial and final vacuum readings
- Sampler's signature or initials.

Sample Handling and Shipping

After sample collection, each container will be labeled as described above, and then stored in a fashion which will protect the stems of the stainless steel canisters. A determination will be made prior to sample shipment if the samples will be handled as hazardous materials for shipping and transportation purposes. If the samples are to be handled as hazardous material, a trained hazardous material shipper will be required to pack and ship samples.

When shipping samples designated as hazardous material, the sample containers will be placed right side up in a UN approved shipping box with a “This End Up” sticker, a “Cargo Aircraft Only” sticker, and a “Flammable Gas” placard. No more than the specified number of samples will be placed in an individual box for shipment (check regulations prior to packing). If the samples are designated non-hazardous, they do not require a UN approved shipping box or stickers/placards, and there is no limit to the number of canisters shipped in a box.

A chain-of-custody (COC) form will accompany each box. The COC may be specific to the samples included within each shipping container, or may be comprehensive of all samples

collected during a particular day/sampling period, regardless of the number of shipping containers.

A custody seal will be placed over both flaps on both the top and bottom of the box and covered in clear tape so custody seals are visible. The box will then be taped closedfor delivery to the laboratory. Samples will be hand delivered or shipped by overnight carrier for delivery to the analytical laboratory. All samples must be shipped for laboratory receipt and analyses within specific holding times.

Sample Documentation and Tracking

Field Notes

Documentation of observations and data acquired in the field will be recorded on field sampling sheets, in a bound field logbook and/or in a Toughbook/Toughpad to provide a permanent record of field activities. Refer to SOP No. 8 Field Reporting and Documentation for additional information.

Sample Chain-of-Custody

During field sampling activities, traceability of the sample must be maintained from the time the samples are collected until laboratory data are issued. The sampling team member(s) will be responsible for initiating and filling out the COC form in the field during sample collection. Information on the custody, transfer, handling, and shipping of samples will be recorded on a COC form. The COC should contain project and sample specific information. Sample labels should be checked against the COC to ensure everything intended for analysis is listed on the COC.

A member of the sampling crew shall sign the COC form over to the person or party responsible for delivery of the samples to the laboratory, retain a copy of the COC form, document the method of shipment, and send the original COC form with the samples. Additionally, an electronic copy of the COC should be forwarded to applicable project contacts (e.g., task manager, project chemist, etc.). Each time custody of the samples is transferred, the COC should be signed by both parties. Refer to SOP No. 26 Sample Control and Custody Procedures for additional information about COCs.