

## APPENDIX B

### PROCEDURE FOR FIELD DOCUMENTATION AND QUALITY ASSURANCE/QUALITY CONTROL

#### 1.0 OBJECTIVE

To guide documentation of field activities.

- A. Applicability - This guidance is required for documentation of field work performed for the South Platte Decision Support System.

#### 2.0 BACKGROUND

Field documentation is required to provide a permanent record of measurements and observations and ensure collection of scientifically valid data. Field notes are intended to: (1) provide a chronological narrative so that someone not onsite can later reconstruct the day's activities, and, (2) answer the basic questions: who, what, when, where, why, and how?

The specific events of a day in the field may never be repeated and staff may not have the opportunity to return to the site. Field notes are the core record of field activities. Among other things, field notes allow field and office staff to reconstruct events onsite, determine personnel present at a given time, resolve disagreements with subcontractors, and resolve data anomalies. Authors should write clearly, legibly, and be aware that their notes may later get wet or be photocopied several times. Notes that are not made with an indelible, dark, waterproof, pen may be lost.

#### 3.0 EQUIPMENT

Field Logbook (bound)  
Indelible black or dark blue waterproof ink pen  
Ruler or scale (if needed)

##### A. Logbook Procedure

##### 1. Preparation

In addition to this guidance, site personnel responsible for maintaining logbooks must be familiar with all procedures applicable to the field activity being performed. These procedures should be consulted as necessary to obtain specific information about equipment and supplies, health and safety, sample collection, packaging, decontamination, and documentation. These procedures should be present in the site-specific work plan.

Field logbooks shall be bound with lined, consecutively numbered pages. Prior to use in the field, each logbook will be marked with a specific number issued by the task leader or project manager. Before going to the field, the Work Plan and the Health and Safety Plan should be reviewed by field personnel. These documents should be on-site during all field activities.

##### 2. Logbook must include:

- a. Site name and book number on cover.
  - b. Name of CDM contact and phone number(s).
  - c. Start date and date of last daily entry.
  - d. First five pages to be reserved for table of contents.
3. General:
- a. All entries will be made in a waterproof black or blue indelible marker.
  - b. Indicate deletions by drawing a single line through the text to be deleted and initialing and dating the deletion.
  - c. Do not remove any pages from the book.
  - d. Record work, observations, quantities of materials, calculations, drawings and related information, flow rates, and any relevant system operational parameters directly in the logbook. Field measurements must include units.
  - e. If data collection forms are used, the information need not be duplicated in the logbook, however, any forms used to record site information must be referenced in the logbook.
  - f. Maps should have approximate scale, north arrow, and reference to features that can be easily located from site drawings or aerial photographs,
  - g. All entries made in margins, after daily log is closed, or otherwise not part of daily narrative must be signed and dated.
4. Table of Contents - The first five pages of the logbook will be reserved for a table of contents (TOC). Mark the first page with the heading and enter the following:

#### TABLE OF CONTENTS

Date/Description	Page
	1-5

The remaining pages of the table of contents will be designated as such with "TOC" written on the top center of each page.

5. Specific logbook entries must include:
- a. Initial, date, and page number on each page.
  - b. Sign and date the final page of entries each day.
  - c. Initial and date all changes.

- d. Draw a single diagonal line through the remainder of the final page at the end of the day (close out daily log).
  - e. Entries into field logbook must be preceded with the time the observation was made (24-hour time units).
  - f. A new author must sign and print his/her name before additional entries are made.
6. Record the following information on a daily basis:
- a. Date.
  - b. Name of individual making entry.
  - c. Names of field team members and other individuals, including on-site subcontractor staff involved in subject field activities.
  - d. Any individuals or visitors who are observing team's activities.
  - e. Description of activities being conducted.
  - f. Weather conditions and other pertinent data.
  - g. Instruments used and serial numbers.
7. Other logbook entry requirements include:
- a. Changes in weather.
  - b. Deviations from procedures including reasons for deviations.
  - c. Problems, downtime, or delays.
  - d. Sample identification, analyses to be requested, preservation methods, and container types.
  - e. Activities taken to mitigate possibility of sample bias or conditions which may bias samples.
  - f. Information identifying any photographs taken (film roll number, photo number, view direction, subject description, etc., as applicable).

Routine activities that have been conducted and documented may be referenced with the appropriate page and entry in the logbook in lieu of repeating a full description of that activity (e.g., "Well development performed as described on p. 92, 09:20, no deviations from method"). To facilitate routine data collection and later data entry, data such as water levels or field parameters should be recorded in tables in the field logbook. It is recommended that copies of the field notes should be made on a weekly basis, at a minimum, with copies maintained in the project files.

END OF APPENDIX B