

Sampling and Reporting for Sampler 1 and 2 Certification

Study Guide Questions

Chapters 1-7



Chapter 1

Level 1 Study Questions

1. What are the three parts of a site sampling plan?
 - A. *Description of System; Distribution Map; Sampling point information*

2. What are funds from the Water Conservation Fee used for?
 - A. *Sample collection and analyses for Compliance monitoring*

3. What types of samples can Level 1 Water Sampling Technicians collect?
 - A. *Microbiological; Lead & Copper; Chlorine residual; Turbidity; and Field Tests for pH, Dissolved Oxygen & Temperature*

Chapter 1

Level 1 Sample Test Questions

1. How much is the Water Conservation Fee?
 - A. \$0.03/100 gallons
 - B. \$0.03/1000 gallons
 - C. \$0.50/1000 gallons

2. The Water Conservation Fee covers repeat microbiological sample analyses.
 - A. True
 - B. False

3. How many hours of training credits are required for WST Level 1 certification?
 - A. 5
 - B. 10
 - C. 20
 - D. 30

Chapter 1 Level 2 Study Questions

1. What information should be included in a sample siting plan narrative?
 - A. *Specific information about the system and sampling point information. For microbiological sampling it should include the schedule and rotation (minimum of 4 sample sites).*

2. What is the difference between POE and POU sample sites?
 - A. *POE (point of entry)—Where treated water enters the distribution system
POU (point of use)—Water drawn directly from consumers plumbing fixtures before flushing*

3. Which samples must be collected by the PWS?
 - A. *Samples collected in Distribution system (Microbiological; Chlorine Residuals; Lead/Copper)*

Chapter 1

Level 2 Sample Test Questions

1. What type of sample is a lead and copper sample?
 - A. POE
 - B. POU
 - C. Distribution

2. The Water Conservation Fee covers secondary contaminant sample collection and analyses.
 - A. True
 - B. False

3. How many hours of training credits are required for WST Level 2 certification?
 - A. 5
 - B. 10
 - C. 20
 - D. 30

4. Systems that collect 6 or more microbiological samples a month must:
 - A. Collect them at the first of the month
 - B. Collect them at regular time intervals
 - C. Collect them at the end of the month

Chapter 2

Level 1 Study Questions

1. What is an MCL?
 - A. *Maximum contaminant level allowed in drinking water per regulations*
2. Why is turbidity a Primary Contaminant?
 - A. *It can shield harmful bacteria from the disinfection processes*
3. What is a nephelometer?
 - A. *Instrument used to measure Nephelometric Turbidity Units (NTUs)*
4. What is a repeat sample?
 - A. *A sample re - collected after a positive routine bacteriological sample*
5. How long must bacteriological and chemical sampling results be kept?
 - A. *Bacteriological –5 yrs.; Chemical –10 yrs.; Lead and Copper—12 yrs.*
6. How often must consumer confidence reports be prepared and distributed?
 - A. *Every year by July 1st*

Chapter 2

Level 1 Sample Test Questions

1. A public water system is any system that serves a population greater than or equal to:
 - A. 25
 - B. 50
 - C. 100

2. What is the maximum chlorine residual allowed by the Disinfectant-Disinfection By-Products Rule?
 - A. 2 mg/l
 - B. 4 mg/l
 - C. 6 mg/l
 - D. 8 mg/l

3. What type of contaminant is iron?
 - A. Primary Inorganic
 - B. Primary Organic
 - C. Secondary

4. The failure of a public water system to comply with the NM Drinking Water Regulations must be reported to NMED within:
 - A. 12 Hours
 - B. 48 Hours
 - C. 4 Days
 - D. One week

Chapter 2

Level 2 Study Questions

1. What are the four components of the Ground Water Rule?
 - A. *Sanitary Surveys; Source Monitoring; Corrective Action; Compliance Monitoring*
2. What notification is required for a Tier 1 violation?
 - A. *24-hour public notice and reported to NMED w/in 24-hours*
3. What are the action levels for lead and copper?
 - A. *Lead—0.015 mg/L ; Copper—1.3 mg/L*
4. How often must nitrate samples be submitted?
 - A. *Yearly*

Chapter 2

Level 2 Sample Test Questions

1. The MCL for Total Trihalomethanes is:


- A. 0.010 mg/l
- B. 0.080 mg/l
- C. 0.200 mg/l

2. The SDWA Compliance Cycle for the Standardized Monitoring Rule consists of three:

- A. Years
- B. Compliance Periods
- C. Quarters
- D. Months

Chapter 3

Study Questions



1. Who is responsible for the developing the sample siting plan?

A. *The Water System; NMED-DWB Reviews and Approves*

2. What is sodium thiosulphate used for?

A. *To neutralize any chlorine residual present in the sample*

3. What equipment is needed to collect a microbiological sample?

A. *Cl₂ residual kit; Cooler; Ice/Packs; Plastic Bags; Soap or gloves; Bact-T bottles; Marker and Tape; alcohol squirt bottle*

4. Which faucets should be avoided when selecting a sampling point?

A. *Hinged/swivel faucets; Leaking taps; Vacuum Breakers or Attachments*

5. Why should routine samples be collected early in the week?

A. *Because positive results require repeat samples to be collected within 24 hrs. of being notified; Lab accidents/rejects could require re-sampling*

6. Which samples require a red tape seal and chain of custody?

A. *Repeat samples*

7. How are microbiological samples stored and transported?

A. *The sample must be cooled to a temperature of less than 39°F or 4°C until tested; Deliver to lab within 24 hrs to give adequate time to analyze*

8. How soon must repeat samples be collected after notification of positive results?

A. *Within 24 hrs*

Chapter 3—Sample Test Questions

1. Microbiological samples must be tested within ____ hours.
 - A. 12
 - B. 24
 - C. 30
 - D. 36

2. If a system takes one microbiological sample a month, how many repeat samples must be taken when positive result are reported?
 - A. 2
 - B. 3
 - C. 4
 - D. 5

3. If positive results occur, what is the minimum number of samples for next month?
 - A. 1
 - B. 3
 - C. 5
 - D. 10

Chapter 3—Sample Test Questions

4. Repeat samples require upstream and downstream sampling. This must be done within how many service connections of the original sample?
- A. 2
 - B. 3
 - C. 4
 - D. 5
5. How many milliliters of sample are required for testing?
- A. 50
 - B. 75
 - C. 100
 - D. 125
6. A sample collected after a water line repair should be identified as a _____ on the sample request form.
- A. Routine sample
 - B. Repeat Sample
 - C. Special sample
 - D. NMED monitoring sample

Chapter 4—Study Questions

1. What are the personal hygiene issues that could affect VOC sample results?
A. *Smoking; Aerosols; Gases; Fumes; Gloves should be worn*
2. Organic samples should be stored at what temperature?
A. *4°C or 39°F*
3. What are the seven sets of samples included in the SLD semi volatile organic compound sample kit?
A. *VOCII; Acid Herbicides; SOC; Carbamates; Glyphosate; Endothall; Diquat*
4. Which samples must be preserved with HCl?
A. *VOCs; Acid Herbicides; SOCs;*
5. What are the two sets of samples included in a disinfection by-products sample kit?
A. *Total Trihalomethanes (TTHM) and Haloacetic Acids (HAA5)*

Chapter 4

Sample Test Questions

1. Which samples require collection without air bubbles?
 - A. VOC samples
 - B. VOC II samples
 - C. TTHM samples
 - D. All of the above

2. Most of the organic sample bottles have preservative chemicals added to them at the lab.
 - A. True
 - B. False

3. Which of the following samples requires only one sample bottle?
 - A. SOC
 - B. Halo acetic acids
 - C. Endothall
 - D. TTHM

Chapter 4

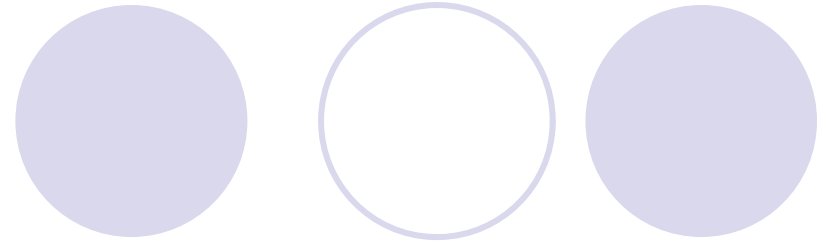
Sample Test Questions



4. Which of these samples is preserved with citrate buffer?
- A. VOC
 - B. Carbamates
 - C. Acid Herbicides
 - D. Glyphosate
5. SLD semi volatile samples that require the addition of HCl have:
- A. Yellow labels
 - B. Blue labels
 - C. White labels
 - D. Green labels

Chapter 5

Study Questions




1. Which of the primary inorganic contaminants are considered to be heavy metals?
 - A. *SDWA Group 1– Antimony (Sb); Arsenic (As); Barium (Ba); Beryllium (Be); Cadmium (Cd); Chromium (Cr); Mercury (Hg); Nickel (Ni); Selenium (Se); Thallium (Tl)*
2. What is the name of the sampling group that includes nitrate and nitrite?
 - A. *Nutrients Group*
3. Which sampling groups do not require preservative chemical addition?
 - A. *Secondary or Major Anions/Cations Group*

Chapter 5—Sample Test Questions

1. Nitric acid (HNO_3) is not used as a preservative in:
 - A. Lead and copper samples
 - B. Heavy metal samples
 - C. Nitrate/nitrite samples
2. All inorganic samples must be refrigerated at:
 - A. 18°C
 - B. 10°C
 - C. 4°C
 - D. 0°C
3. Which inorganic sample is preserved with sodium hydroxide (NaOH)?
 - A. Fluoride
 - B. Total Cyanide
 - C. Iron
 - D. Alkalinity
4. How long must a first draw sample for lead and copper sit in the plumbing?
 - A. 30-60 minutes
 - B. 2-4 hours
 - C. 6-18 hours
 - D. 24-36 hours

Chapter 6

Study Questions



1. What was changed in 2003 regarding the monitoring schedules for radiological contaminants?
 - A. *Changed to follow the 3-6-9 year Standardized Monitoring Rule*
2. Which chemical was added to the radiological contaminant group in 2003?
 - A. *Uranium (MCL = 30 $\mu\text{g/L}$)*

Chapter 6—Sample Test Questions

1. Most radiological samples are preserved using:
 - A. Hydrochloric Acid
 - B. Sodium thiosulfate
 - C. Nitric acid
 - D. Sulfuric Acid
2. Which sample must be collected with no headspace?
 - A. Gross Alpha/Beta
 - B. Radon-222
 - C. Radium-228
 - D. All of the above
3. Radon is collected in:
 - A. 1-quart container
 - B. 1-gallon container
 - C. 150 ml container
 - D. Two 40 ml vials
4. Which sample has a 4-day holding time?
 - A. Sequential Flow Scheme
 - B. Radon-222
 - C. Gross alpha/beta
 - D. Uranium

Chapter 7

Study Questions

1. Which samples currently require chain of custody documentation?
A. *Bac-t repeat samples*
2. What types of analyses does the water chemistry section run?
A. *Secondary; Major Anions/Cations; Nutrients; Fluoride and Cyanide*
3. What additional information is required on the microbiological request form for repeat samples?
A. *Original ID number for positive sample and whether sample is upstream, downstream or original site location; chain of custody*
4. Which sections of the unified sample request form have drop-down menus?
A. *Analyses lists*

Chapter 7—Sample Test Questions

1. Which of the following numbers might be a system identification number?
 - A. 2634-208
 - B. NM35101-07
 - C. 912-44-0932
 - D. 12-041

2. Some sample kits use one form for multiple analyses.
 - A. True
 - B. False

3. The unified sample request form cannot be used for which of these analyses?
 - A. Organic analyses
 - B. Radiological analyses
 - C. Microbiological analyses
 - D. Heavy metal analyses

4. Repeat microbiological samples must include:
 - A. Red evidentiary seal tape
 - B. Chain of custody
 - C. Positive sample reference number in request form
 - D. All of the above

Other—Sample Test Questions

1. What is the first step for bleeding wound?
 - A. Wash wound
 - B. Put pressure to wound
 - C. Wash and bandage wound
 - D. Let wound clot
2. Should you ice and get medical attention for a poisonous spider bite?
 - A. Yes
 - B. No
3. The MSDS is required for chemical that are?
 - A. A physical hazard
 - B. Volatile
 - C. A carcinogen hazard
 - D. A toxic hazard
4. What safety information should employers provide employees:
 - A. MSDS
 - B. Training
 - C. Hazardous warning labels
 - D. All of the above

Contact Information

- NMED Drinking Water Bureau
 - www.nmenv.state.nm.us/dwb/dwbtop.html
 - *Albuquerque Field Office – (505) 222-9500*
 - *Santa Fe Field Office – (505) 476-8600*
 - *Clovis Field Office – (505) 762-3728*
 - *Las Cruces Field Office – (505) 524-6300*
- USEPA website
 - www.epa.gov/safewater
- USEPA Safe Drinking Water Hotline
 - (800) 426-4791
 - hotline-sdwa@epamail.epa.gov
- New Mexico Rural Water Association
 - (800) 819-9893
 - www.nmrwa.org