
NOTICES OF FINAL RULEMAKING

This section of the *Arizona Administrative Register* contains Notices of Final Rulemaking. Final rules have been through the regular rulemaking process as defined in the Administrative Procedures Act. These rules were either approved by the Governor's Regulatory Review Council or the Attorney General's Office. Certificates of Approval are on file with the Office.

The final published notice includes a preamble and

text of the rules as filed by the agency. Economic Impact Statements are not published.

The Office of the Secretary of State is the filing office and publisher of these rules. Questions about the interpretation of the final rules should be addressed to the agency that promulgated them. Refer to Item #5 to contact the person charged with the rulemaking. The codified version of these rules will be published in the *Arizona Administrative Code*.

NOTICE OF FINAL RULEMAKING**TITLE 9. HEALTH SERVICES****CHAPTER 14. DEPARTMENT OF HEALTH SERVICES
LABORATORIES**

[R16-183]

PREAMBLE

- | <u>1. Article, Part, or Section Affected (as applicable)</u> | <u>Rulemaking Action</u> |
|---|---------------------------------|
| R9-14-601 | Amend |
| R9-14-602 | Amend |
| R9-14-603 | Amend |
| R9-14-605 | Amend |
| R9-14-606 | Amend |
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| R9-14-614 | Amend |
| R9-14-615 | Amend |
| R9-14-616 | Amend |
| R9-14-617 | Amend |
| R9-14-620 | Amend |
| R9-14-621 | Amend |
| Table 1 | Renumber |
| Table 6.1 | Renumber |
| Table 6.1 | Amend |
| Exhibit I | Repeal |
| Exhibit II | Repeal |
| Table 6.2.A | New Section |
| Table 6.2.B | New Section |
| Table 6.2.C | New Section |
| Table 6.2.D | New Section |
| Table 6.2.E | New Section |
| Table 6.3 | New Section |
| Table 6.4 | New Section |
- 2. Citations to the agency's statutory rulemaking authority to include the authorizing statute (general) and the implementing statute (specific):**
Authorizing statutes: A.R.S. §§ 36-132(A)(1), 36-136(F)
Implementing statutes: A.R.S. §§ 36-495.01 through 36-495.14
- 3. The effective date of the rules:**
October 1, 2016
- a. If the agency selected a date earlier than the 60 day effective date as specified in A.R.S. § 1032(A), include the earlier date and state the reason or reasons the agency selected the earlier effective date as provided in A.R.S. § 1032(A)(1) through (5):**



The Arizona Department of Health Services (Department) requests an effective date of October 1, 2016 under A.R.S. § 41-1032 (A)(1), (2), (3), and (4). These rules protect public health by ensuring the competency of environmental laboratories conducting compliance testing. Having an effective date of October 1, 2016 will enable Arizona to retain primary authority to regulate (primacy) in the area of safe drinking water, as described in paragraph 6, rather than losing primacy and having the regulation of Arizona drinking water come under federal control. The effective date will also provide enough time for the Department and entities regulated under these rules time to prepare to implement the new rules. Since the Department requested an exception from the rulemaking moratorium soon after the Department learned that the Arizona Department of Environmental Quality (ADEQ) had received an exception from the rulemaking moratorium to revise the ADEQ rules related to primacy, the need for an immediate effective date was not created by the Department's delay or inaction.

b. If the agency selected a date later than the 60 day effective date as specified in A.R.S. § 1032(A), include the later date and state the reason or reasons the agency selected the later effective date as provided in A.R.S. § 1032(B):

Not applicable

4. Citations to all related notices published in the Register as specified in R1-1-409(A) that pertain to the record of the final rulemaking package:

Notice of Rulemaking Docket Opening: 22 A.A.R. 704, April 1, 2016

Notice of Proposed Rulemaking: 22 A.A.R. 1415, June 10, 2016

5. The agency's contact person who can answer questions about the rulemaking:

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or

Name: Robert Lane, Manager
Address: Arizona Department of Health Services
Office of Administrative Counsel and Rules
150 N. 18th Ave., Suite 200
Phoenix, AZ 85007

Telephone: (602) 542-1020

Fax: (602) 364-1150

E-mail: Robert.Lane@azdhs.gov

6. An agency's justification and reason why a rule should be made, amended, repealed or renumbered, to include an explanation about the rulemaking:

Arizona Revised Statutes (A.R.S.) § 36-495.01 requires the Department to license environmental laboratories engaged in compliance testing; establish minimum standards of proficiency, methodology, quality assurance, operation, and safety for environmental laboratories; and develop rules in cooperation with ADEQ that are consistent with A.R.S. Title 49 and rules adopted by ADEQ. The Department adopted rules implementing A.R.S. § 36-495.01 in Arizona Administrative Code (A.A.C.) Title 9, Chapter 14, Article 6. Federal Environmental Protection Agency (EPA) regulations 40 CFR parts 141 and 142 establish national drinking water standards. A state may obtain primacy in the area of safe drinking water under 40 CFR part 142 if the state establishes drinking water regulations that are no less stringent than the regulations in effect under 40 CFR part 141. ADEQ and the Department share primacy over Arizona's drinking water supply, meaning that the rules of both agencies need to be consistent with the federal requirements. Although Arizona currently has primacy, 40 CFR parts 141 and 142 have been changed to be more stringent than Arizona regulations, requiring changes to both ADEQ's rules related to drinking water and the rules in 9 A.A.C. 14, Article 6. ADEQ has recently revised its rules in 18 A.A.C. 4, Article 1 to conform to changes made to 40 CFR parts 141 and 142. In order to retain primacy and comply with A.R.S. § 36-495.01, which requires the Department to develop rules that are consistent with ADEQ's rules, the Department sought and obtained an exception from the rulemaking moratorium established by Executive Order 2016-03 and has revised the rules in 9 A.A.C. 14, Article 6 to be consistent with 40 CFR parts 141 and 142 and the ADEQ rules. The Department is also making changes to address written criticisms of the rules, update obsolete methodologies and references, and make other changes to the rules, as described in the recent five-year-review report for the rules, to reduce the regulatory burden while achieving the same regulatory objective. The amendments conform to rulemaking format and style requirements of the Governor's Regulatory Review Council (Council) and the Office of the Secretary of State.



7. **A reference to any study relevant to the rule that the agency reviewed and proposes either to rely on or not to rely on in its evaluation of or justification for the rule, where the public may obtain or review each study, all data underlying each study, and any analysis of each study and other supporting material:**

The Department did not review or rely on any study for this rulemaking.

8. **A showing of good cause why the rulemaking is necessary to promote a statewide interest if the rulemaking will diminish a previous grant of authority of a political subdivision of this state:**

Not applicable

9. **The summary of the economic, small business, and consumer impact:**

The Department anticipates that cost bearers may include the Department, licensed environmental laboratories, and possibly the general public, if costs incurred by environmental laboratories are passed through to customers. Beneficiaries may include the Department, ADEQ, environmental laboratories, environmental organizations, and the general public. Annual costs/revenues changes are designated as minimal when more than \$0 and \$1,000 or less, moderate when between \$1,000 and \$10,000, and substantial when \$10,000 or greater in additional costs or revenues. A cost is listed as significant when meaningful or important, but not readily subject to quantification. Under these rules, the Department licenses approximately 144 environmental laboratories, including 62 environmental laboratories that are located out-of-state. Of the 144 licensed environmental laboratories, 96 are private and 48 are governmental agencies.

The Department anticipates that rules changes may cause the Department to incur minimal costs due to additional time being spent providing technical assistance to environmental laboratories on the changes, especially the new methods being added and the obsolete methods being removed. However, having more up-to-date references and methods in the rules may also provide a significant benefit to the Department because these changes make the rules consistent with the EPA requirements for compliance testing, enabling Arizona to retain primacy, and should help to ensure compliance with those requirements. Updating the rules to include the Standard Methods added in R9-14-610 may also result in a moderate cost to the Department for obtaining permission to copy the Standard Methods, estimated to be approximately \$3,600. The Department anticipates that the revision of R9-14-602 may cause no additional costs and a minimal benefit to the Department. The Department anticipates that the change to allow the Department to suspend the use of the installment payment plan in R9-14-608 under the circumstances described in the rule will result in a significant benefit to the Department. Allowing the Department to rescind approval of an alternate method or method alteration approved under R9-14-610(E), which would only be done when the reason the alternate method or method alteration was originally approved no longer exists, may result in a minimal benefit to the Department by helping to ensure compliance with EPA standards, and may cause, at most, a minimal decrease in fee revenue. Removing unnecessary requirements in R9-14-603 and R9-14-615 may result in a minimal benefit for the Department through a reduction in time to review an application or conduct an inspection. The Department anticipates that clarifying requirements in the rules may provide a significant benefit to the Department.

Although ADEQ has recently revised its rules in 18 A.A.C. 4, Article 1 to conform to changes made in 40 CFR parts 141 and 142, the Department's rules in 9 A.A.C. 14, Article 6, are currently in conflict with method and quality assurance requirements in 40 CFR 141 and 142 and the revised ADEQ rules. This puts ADEQ's ability to regulate Arizona's drinking water supply (primacy) in jeopardy. Because this rulemaking will resolve the conflict and enable Arizona to retain primacy, the Department believes that ADEQ will receive a significant benefit from having rules in 9 A.A.C. 14, Article 6, that are consistent with ADEQ rules and federal regulations and a significant benefit from having the flexibility to address local concerns through retaining primacy.

A regional or municipal water system performing in-house compliance testing is required to be licensed as an environmental laboratory. Many other governmental entities and many private facilities are licensed as environmental laboratories. These vary greatly in size and in the complexity of the compliance testing performed. The Department anticipates that being able to use up-to-date methods when testing water supplies may provide a minimal-to-moderate benefit to a regional or municipal water system and may cause minimal additional costs, depending on the parameters tested and the methods currently used. The Department anticipates that being able to use up-to-date methods when performing compliance testing may provide a minimal-to-substantial benefit to a governmental or private environmental laboratory, depending on the parameters tested and the methods currently used, and may cause minimal additional costs. An environmental laboratory, including a regional or municipal water system or an environmental laboratory owned by a governmental entity or a private person, that complies with the requirements in R9-14-602(4) or (5) may receive a minimal-to-moderate benefit from being exempt from the requirement to have every field/satellite site licensed as an environmental laboratory. The Department anticipates that the elimination of unnecessary requirements and having rules that are clearer and easier to understand may provide a significant benefit to an environmental laboratory. An environmental laboratory may also receive a significant benefit from Arizona retaining primacy since ADEQ and the Department may have more flexibility when addressing issues specific to Arizona. A health care institution, adding chlorine to its water supply to reduce cross-infection rates and increase patient safety and monitoring the effect of the chlorine addition on the water, may receive a minimal-to-moderate benefit from not having to be licensed as an environmental laboratory.

Environmental organizations include organizations representing water/wastewater professionals and the water-treatment industry, as well as consulting firms representing construction projects that impact the environment. The amended rules may provide a significant benefit to an environmental organization in several ways. The updated methods in the new rules meet minimum federal standards, meaning that the data produced are considered to be in compliance with federal requirements and are defensible in court. The new methods also rely on more sophisticated



technology; which help ensure that pollutants in the air, wastewater, and other environmental media are adequately assessed and enhance the professionalism of those using them. In addition, the improved clarity of the rules makes the rules easier to use because the requirements are easier to understand.

The general public may receive a significant benefit from having safe water to drink and being assured that pollutants in the air, wastewater, and other environmental media are adequately assessed. It is possible that any costs incurred by regional or municipal water systems may be passed on to the customers of the water systems. The Department anticipates that these additional costs would be, at most, minimal.

10. A description of any changes between the proposed rulemaking, to include supplemental notices, and the final rulemaking:

The Department moved two incorporations by reference into R9-14-610(B), so all incorporations by reference are in one location. In doing so, the Department identified a typographical error in one of the incorporations by reference being moved, Key Reference H, and for which the web-address had changed. Additional web-addresses for EPA methods were also found to have been changed since the Notice of Proposed Rulemaking had been filed. These typographical errors and others identified by Council staff were corrected in the Notice of Final Rulemaking.

11. An agency's summary of the public stakeholder comments made about the rulemaking and the agency response to the comments:

The Department received no written comments. The Department held an oral proceeding for the proposed rules on July 13, 2016, at which no stakeholders or members of the public attended.

12. All agencies shall list other matters prescribed by statute applicable to the specific agency or to any specific rule or class of rules. Additionally, an agency subject to Council review under A.R.S. §§ 41-1052 and 41-1055 shall respond to the following questions:

a. Whether the rule requires a permit, whether a general permit is used and if not, the reasons why a general permit is not used:

The rule requires a permit as specified in A.R.S. § 36-495.01. However, A.R.S. § 36-495.03 requires a license application to be for a specific location and for specific services and tests, so a general permit is not used.

b. Whether a federal law is applicable to the subject of the rule, whether the rule is more stringent than federal law and if so, citation to the statutory authority to exceed the requirements of federal law:

Not applicable

c. Whether a person submitted an analysis to the agency that compares the rule's impact of the competitiveness of business in this state to the impact on business in other states:

No business competitiveness analysis was received by the Department.

13. A list of any incorporated by reference material as specified in A.R.S. § 41-1028 and its location in the rules:

Reference materials incorporated by reference are listed in R9-14-610(B).

14. Whether the rule was previously made, amended or repealed as an emergency rule. If so, cite the notice published in the Register as specified in R1-1-409(A). Also, the agency shall state where the text was changed between the emergency and the final rulemaking packages:

Not applicable

15. The full text of the rules follows:

TITLE 9. HEALTH SERVICES

CHAPTER 14. DEPARTMENT OF HEALTH SERVICES LABORATORIES

ARTICLE 6. LICENSING OF ENVIRONMENTAL LABORATORIES

Section

R9-14-601.	Definitions
R9-14-602.	Exemptions from Applicability
R9-14-603.	License Application and Process; Transferability
R9-14-605.	Compliance Monitoring
R9-14-606.	Provisional Licensing
R9-14-607.	Fees
R9-14-608.	Installment Payment of Fees by Small Businesses
R9-14-609.	Proficiency Evaluation Testing
R9-14-610.	Approved Methods and References
R9-14-611.	Compliance Testing for Drinking Water Compliance Testing Parameters
R9-14-612.	Compliance Testing for Wastewater Compliance Testing Parameters
R9-14-613.	Compliance Testing for Solid Waste Compliance Testing Parameters
R9-14-614.	Compliance Testing for Air and Stack Compliance Testing Parameters
R9-14-615.	Quality Assurance
R9-14-616.	Operation
R9-14-617.	Laboratory Records and Reports



R9-14-620.	Changes to a License
R9-14-621.	Time-frames
Table 4-6.1	Time-frames (in days)
Exhibit I.	Approved Methods; Method Fees; Instrumentation Fees Repealed
Exhibit II.	Alternate Default Limits Repealed
Table 6.2.A.	<u>Approved Methods and Method Fees for Drinking Water Parameters</u>
Table 6.2.B.	<u>Approved Methods and Method Fees for Wastewater Parameters</u>
Table 6.2.C.	<u>Approved Methods and Method Fees for Waste Parameters</u>
Table 6.2.D.	<u>Approved Methods and Method Fees for Air and Stack Parameters</u>
Table 6.2.E.	<u>Methods Director-Approved under R9-14-610(E) and Method Fees</u>
Table 6.3.	<u>Instrumentation Fees</u>
Table 6.4.	<u>Alternate Default Limits</u>

ARTICLE 6. LICENSING OF ENVIRONMENTAL LABORATORIES

R9-14-601. Definitions

In addition to the definitions in A.R.S. § 36-495, the following definitions apply in this Article, unless otherwise specified:

1. "Acceptance criteria" means the range of satisfactory test results for a parameter.
2. "ADEQ" means the Arizona Department of Environmental Quality.
3. "Affiliate" means a business organization that:
 - a. Controls or has the power to control the business organization that owns the laboratory,
 - b. Is controlled by or could be controlled by the business organization that owns the laboratory, or
 - c. Could be controlled by a third business organization that could also control the business organization that owns the laboratory.
4. "Alternate method" means an analytical test procedure or technique that is not an approved method and for which approval is requested under R9-14-610(C).
5. "Analyst" means an individual who performs compliance testing at a laboratory.
6. "Analyte" means the substance or chemical constituent being sought or measured in an analytical procedure.
7. "Applicant" means a person or persons requesting an initial or renewal license under R9-14-603, approval of an alternate method or method alteration under R9-14-610(C), or approval of an exemption under R9-14-615(D), and includes, as required under A.R.S. § 36-495.03(D), the owner and, if the owner is not the laboratory director, the laboratory director.
8. "Approved method" means an analytical test procedure or technique authorized by the Department to test for the presence of a particular contaminant or characteristic and includes:
 - a. ~~an~~ An alternate method approved by the Department under ~~R9-14-610(C)~~ R9-14-610(E), and
 - b. ~~an approved method~~ An analytical test procedure or technique currently authorized by the Department that is used with a method alteration approved by the Department under ~~R9-14-610(C)~~ R9-14-610(E).
9. "ASTM" means American Society for Testing and Materials.
10. "Blind proficiency testing" means the Department's determination of a laboratory analyst's ability to analyze samples correctly, accomplished by submitting samples for testing in such a manner that the laboratory analyst is not aware that the proficiency testing is occurring.
11. "Business organization" means an entity such as a sole proprietorship, an unincorporated association, a corporation, a limited liability company, a partnership, or a governmental entity.
12. "Calibration curve" means a graphical display of the functional relationship between the instrument or analytical device response and the analyte amount.
13. "Calibration model" means a mathematical form for a calibration curve.
14. "CCC" means calibration check compounds.
15. "CCV" means continuing calibration verification standard.
16. "Client" means a person that submits a sample to a laboratory for compliance testing.
17. "Contaminant" means a matter, pollutant, hazardous substance, or other substance for which a sample is being tested.
18. "Contiguous grounds" means real property that can be enclosed by a single unbroken boundary line that does not enclose property owned or leased by another.
19. "Critical step" means a task in the testing procedure that is required to be performed within a specified time period by regulation, method, standard operating procedure, or quality assurance plan.
20. "Current" means up-to-date and extending to the present time.
21. "Data outlier" means a test result that falls outside of acceptance criteria.
22. "Days" means calendar days, excluding the day of the act, event, or default from which a designated period of time begins to run and excluding the last day of the period if it is a Saturday, a Sunday, or a legal holiday, in which event the period runs until the end of the next day that is not a Saturday, a Sunday, or a legal holiday.
23. "DBCP" means 1,2-Dibromo-3-chloropropane.
24. "DDT" means dichloro-diphenyl-trichloroethane.



25. "DOC" means dissolved organic carbon.
26. "ECD" means electron capture detector.
27. "EDB" means 1,2-Dibromoethane.
28. "Effluent" means an outflow, as of a stream that flows out of a facility.
29. "EOX" means extractable organic halides.
30. "EP" means extraction procedure.
31. "EPA" means the United States Environmental Protection Agency.
32. "FID" means flame ionization detector.
33. "FL" means fluorescence.
34. "FT-IR" means Fourier transform infrared.
35. "GC" means gas chromatography.
36. "HEM" means n-Hexane extractable material.
37. "HPLC" means high performance liquid chromatography.
38. "HRGC" means high resolution gas chromatography.
39. "HRMS" means high resolution mass spectrometry.
40. "ICV" means initial calibration verification.
- ~~41. "IDOC" means initial demonstration of capability.~~
- ~~42-41.~~ "Initial Demonstration of Capability" or "IDOC" means a test performed by an analyst, as prescribed by a method, to document the analyst's ability to perform the method.
- ~~43-42.~~ "Investigation" means an evaluation of a licensee's or applicant's compliance with A.R.S. Title 36, Chapter 4.3 and this Article conducted by the Department upon its own initiative or upon receipt of a written complaint and may include a laboratory inspection.
- ~~44-43.~~ "IPC" means instrument performance check.
- ~~45-44.~~ "Key reference" means a document incorporated by reference in R9-14-610(B).
- ~~46-45.~~ "Laboratory inspection" means the Department's assessment of operations at a laboratory to determine an applicant's or a licensee's compliance with A.R.S. Title 36, Chapter 4.3 and this Article.
- ~~47-46.~~ "LCS" means laboratory control sample.
- ~~47.~~ "LDO" means Luminescence Measurement of Dissolved Oxygen.
48. "Level I license" means an approval issued by the Department authorizing compliance testing of one to nine total parameters at a laboratory.
49. "Level II license" means an approval issued by the Department authorizing compliance testing of 10 to 17 total parameters at a laboratory.
50. "Level III license" means an approval issued by the Department authorizing compliance testing of more than 17 total parameters at a laboratory.
51. "LFB" means laboratory fortified blank.
52. "LFM" means laboratory fortified sample matrix.
53. "Licensee" means a person or persons to whom the Department issues a license to operate a laboratory and includes, as required under A.R.S. § 36-495.03(D), the owner and, if the owner is not the laboratory director, the laboratory director.
54. "Limit of detection" means an analyte- and matrix-specific estimate of the minimum amount of a substance that an analytical process can reliably detect, ~~which may be laboratory dependent and is developed according to R9-14-615(C)(7).~~
55. "Limit of quantitation" or "LOQ" means the minimum levels, concentrations, or quantities of a target variable such as an analyte that can be reported with a specific degree of confidence.
- ~~56. "LOQ" means limit of quantitation.~~
- ~~57-56.~~ "LRMS" means low resolution mass spectrometry.
- ~~57.~~ "Maximum holding time" means the greatest number of minutes, hours, or days that a sample may be kept between sampling and the beginning of analysis and still be considered a valid sample for compliance testing.
58. "Method" means an analytical test procedure or technique.
59. "Method alteration" means a change to an established method.
60. "Method reporting limit" means the minimum concentration of a contaminant reported after analyzing a sample in a given parameter, determined after corrections have been made for sample dilution and sample weight.
61. "Mobile laboratory" means a non-stationary facility where compliance testing is performed.
62. "MPN" means most probable number.
63. "MRL" means minimum reporting level.
64. "MS" means mass spectrometry.
65. "MSE" means microscale solvent extraction.
- ~~66.~~ "MSRV" means Modified Semisolid Rappaport-Vassiliadis.
- ~~66-67.~~ "NPD" means nitrogen phosphorous detector.
- ~~67-68.~~ "NPDES" means national pollutant discharge elimination system.



69. “NTIS” means the National Technical Information Service, which is part of the U.S. Department of Commerce.
- ~~68-70.~~ “NTU” means nephelometric turbidity units.
- ~~69-71.~~ “ONPG-MUG” means ortho-nitrophenyl-β-D-galactopyranoside-4-methylumbelliferyl-β-D-glucuronide.
- ~~70-72.~~ “Owner” means a person that has controlling legal or equitable interest in and authority over a laboratory’s operations.
- ~~71-73.~~ “PAH” means polynuclear aromatic hydrocarbon.
- ~~72-74.~~ “Parameter” means the combination of a particular type of sample with a particular approved method by which the sample will be analyzed for a particular analyte or characteristic.
- ~~73-75.~~ “PB” means particle beam.
- ~~74-76.~~ “PCB” means polychlorinated biphenyls.
- ~~75-77.~~ “PCDD” means polychlorinated dibenzodioxins.
- ~~76-78.~~ “PCDF” means polychlorinated dibenzofurans.
- ~~77-79.~~ “PDA” means photodiode array.
- ~~78-80.~~ “PID” means photoionization detection.
- ~~79-81.~~ “POX” means purgeable organic halides.
- ~~80-82.~~ “Precision” means repeatability of measurement data, specifically the similarity of successive independent measurements of a single magnitude generated by repeated applications of a process under specified conditions.
- ~~81-83.~~ “Proficiency testing” means a proficiency testing service’s determination of mechanism in which samples with known characteristics are submitted to a laboratory for analysis to determine a laboratory analyst’s ability to analyze samples correctly, accomplished by submitting samples to the laboratory for testing and then analyzing the acceptability of the results.
- ~~82-84.~~ “Proficiency testing service” means an independent service company or other person acceptable to the EPA or, if the EPA has not indicated acceptance of a proficiency testing service an independent company or other person for a parameter, acceptable to the Department based on recognition from a national organization such as the National Environmental Laboratory Accreditation Program that:
- a. Is the source for samples with known characteristics for proficiency testing, and
- b. Assesses the acceptability of a laboratory analyst’s results from the samples with known characteristics during proficiency testing.
- ~~83-85.~~ “Qualified” means explained in documentation.
- ~~84-86.~~ “Quality assurance plan” means documentation that meets the requirements of R9-14-615(B).
- ~~85-87.~~ “Quality control checks” means the steps taken by laboratory analysts to monitor the accuracy and precision of sample analysis.
- ~~86-88.~~ “QCS” means quality control sample.
- ~~87-89.~~ “RDX” means Hexahydro-1,3,5-trinitro-1,3,5-triazine.
- ~~88-90.~~ “Records” means all written, recorded, and electronic documentation necessary to reconstruct all laboratory activities that produce data and includes all information relating to the laboratory’s equipment, analytical test methods, and related activities.
- ~~89-91.~~ “RPD” means relative percent difference.
- ~~90-92.~~ “Ruggedness” means the ability of a method to withstand changes in environmental factors and produce repeatable results.
- ~~91-93.~~ “Sample” means a specimen that is a representative part of a whole or a single item from a group.
- ~~92-94.~~ “Single laboratory” means an individual laboratory facility or multiple laboratory facilities located on contiguous grounds and having the same owner.
- ~~93-95.~~ “Small business” means a business organization, including its affiliates, that is independently owned and operated, that is not dominant in its field, and that employs fewer than 100 full-time employees or had gross annual receipts of less than \$4 million in its last fiscal year.
- ~~94-96.~~ “SOUR” means specific oxygen uptake rate.
- ~~95-97.~~ “SPE” means solid-phase extraction.
- ~~96-98.~~ “SPLP” means synthetic precipitation leaching procedure.
- ~~97-99.~~ “Standard operating procedure” means a documented process for carrying on business, analysis, or action, with instructions for performing routine or repetitive tasks.
- ~~98-100.~~ “Statistical outlier” means an individual data point that has a value far from those of the other data points in a set and that has been determined through statistical analysis to have been derived from a different population than the other data points.
- ~~99-101.~~ “TCLP” means toxicity characteristics leaching procedure.
- ~~100-102.~~ “TDS” means total dissolved solids.
- ~~101-103.~~ “TE” means thermal extraction.
- ~~102-104.~~ “TNT” means trinitrotoluene.
- ~~103-105.~~ “TOC” means total organic carbon.
- ~~104-106.~~ “TOX” means total organic halides.



- ~~105-107.~~ "Traceability" means the establishment of an unbroken chain of comparisons to the reference of origin.
- ~~106-108.~~ "TS" means thermospray.
- ~~107-109.~~ "TSS" means total suspended solids.
- ~~108-110.~~ "UV" means ultraviolet.
- ~~109-111.~~ "Valid" means that a license, certificate, or other form of authorization is in full force and effect and not suspended.
- ~~110-112.~~ "VOC" means volatile organic compound.
- ~~111-113.~~ "VOST" means volatile organic sampling train.

R9-14-602. Exemptions from Applicability

This Article does not apply to:

1. The laboratories exempted by A.R.S. § 36-495.02(A);
2. Compliance testing performed under the Federal Insecticide, Fungicide, and Rodenticide Act, 7 U.S.C. 136-136y; ~~or~~
3. An out-of-state laboratory at which only microbiology testing of bottled water is performed and for which the owner holds a current and valid environmental laboratory license or certificate, issued by another state of the United States, that specifically authorizes drinking water testing;
4. A person that:
 - a. Employs methods approved by either ADEQ or the Department; and
 - b. Tests compliance samples either:
 - i. For turbidity or conductivity at the time of sampling; or
 - ii. With a maximum holding time of 15 minutes after sampling; or
5. A laboratory that only performs compliance testing on daily chlorine dioxide or chlorite drinking water samples or ultra-low-range total residual chlorine wastewater samples as long as that laboratory is:
 - a. Employing methods approved by either ADEQ or the Department; and
 - b. Testing compliance samples immediately at the time of sampling, from which results may be obtained more than 15 minutes after sampling.

R9-14-603. License Application and Process; Transferability

- A. To obtain an initial or renewal license to operate a laboratory, an applicant shall submit to the Department, within the time prescribed in subsection ~~(C)~~ (B), an application that contains:
 1. ~~completed using~~ The following information in a Department-provided form and including format:
 - ~~1-a.~~ The name of the laboratory;
 - ~~2-b.~~ The current Arizona license number for the laboratory, if any;
 - ~~3-c.~~ The current EPA certification number for the laboratory, if any;
 - d. Whether the applicant is applying to license:
 - i. A single laboratory;
 - ii. Multiple laboratories located on contiguous grounds according to subsection (C)(2), or
 - iii. One of multiple laboratories under a single license according to subsection (C)(3);
 - ~~4-e.~~ The physical and mailing addresses for ~~the each~~ each laboratory for which the application is being submitted;
 - ~~5-f.~~ The telephone number, fax number, and e-mail address for the laboratory;
 - g. The type of laboratory:
 - i. Governmental;
 - ii. Company, performing internal work only;
 - iii. Commercial, for profit; or
 - iv. Other, with a description of the type of laboratory operation;
 - ~~6-h.~~ The For a type of laboratory specified in subsection (A)(1)(g)(ii) through (iv):
 - i. The name and address of the owner and of each additional person that has an ownership interest in the laboratory; and
 - 7-ii. For the owner and each additional business organization with an ownership interest in the laboratory each person specified in subsection (A)(1)(h)(i), the name of each officer, principal, and statutory agent;
 - ~~8-i.~~ The name of the laboratory director;
 9. ~~The type of laboratory:~~
 - a. ~~Governmental;~~
 - b. ~~Company, performing internal work only;~~
 - e. ~~Commercial, for profit; or~~
 - d. ~~Other, with a description of the type of laboratory operation;~~
 - 10-~~j.~~ The license Level for which Whether the applicant is applying for a:
 - i. Level I license;
 - ii. Level II license; or
 - iii. Level III license;
 - 11- ~~Whether the applicant is applying to license a single laboratory or multiple laboratories;~~



- ~~12-k.~~ If the applicant is applying to license a mobile laboratory; ~~the:~~
 - ~~i.~~ The vehicle make, vehicle identification number, and Arizona vehicle license number of the mobile laboratory; and
 - ~~13-ii.~~ If the applicant is applying to license a mobile laboratory that is affiliated with a non-mobile laboratory, the name of the non-mobile laboratory;
14. The name, title, and educational background of each individual authorized to sign final reports for the laboratory;
- ~~15-l.~~ If the application is for an initial license:
 - ~~i.~~ A list of the parameters for which the applicant is requesting to be licensed or, if an application for a renewal license, an indication that the applicant desires to be licensed for the same parameters as on the current license;
 - ~~16-ii.~~ A list of the instruments and equipment to be used at the laboratory for compliance testing or, if an application for a renewal license, an indication that the applicant is using the same instruments and equipment as used under the current license;
 - ~~17-iii.~~ A list of the software to be used at the laboratory for instrument control and data reduction interpretation or, if an application for a renewal license, an indication that the applicant is using the same software as used under the current license; and
 - ~~iv.~~ A list of the states in which the laboratory is licensed or certified and the corresponding license or certificate number for each state;
- m. If the application is for a renewal license, whether the applicant:
 - ~~i.~~ Is requesting to be licensed for the same parameters as on the current license;
 - ~~ii.~~ Is using the same instruments and equipment as used under the current license;
 - ~~iii.~~ Is using the same software as used under the current license; and
 - ~~iv.~~ Is requesting to make payments in installments, as permitted under R9-14-608, and, if so, an indication of the monthly, bimonthly, or quarterly schedule for the payments;
- n. If the information provided according to subsection (A)(1)(m) indicates a change in parameters, instruments or equipment, or software for a renewal license, the changes to the:
 - ~~i.~~ Parameters on the current license;
 - ~~ii.~~ Instruments or equipment used under the current license, or
 - ~~iii.~~ Software used under the current license;
- ~~18-o.~~ If the applicant is applying for an out-of-state laboratory, whether the applicant wants to receive technical updates at the laboratory by fax or through the Internet by e-mail;
- p. Whether the applicant agrees to allow the Department to submit supplemental requests for information; and
19. If an application for an initial license:
 - ~~a.~~ A copy of a proficiency testing report, for the current or most recently completed year, for the state in which the laboratory is located or, if that state does not require proficiency testing, for another state in which the laboratory is licensed or certified, for each of the parameters for which licensure is requested;
 - ~~b.~~ A list of the states in which the laboratory is licensed or certified and the corresponding license or certificate number for each state; and
 - ~~e.~~ A copy of a current quality assurance plan for the laboratory;
20. If an application for a renewal license:
 - ~~a.~~ A copy of a current standard operating procedure, limit of detection, and proficiency testing report, if available, for each parameter newly requested on the application; and
 - ~~b.~~ If the applicant desires to make payments in installments, as permitted under R9-14-608, an indication of this and the monthly, bimonthly, or quarterly schedule for the payments;
21. Except as provided in subsection (J), the fees required under R9-14-607 and R9-14-608, payable to the Arizona Department of Health Services by credit card; certified check; business check; or money order; or, if the owner is an Arizona state agency, purchase order;
22. Attestation, made under oath, that the owner and the laboratory director are aware of all applicable requirements in A.R.S. Title 36, Chapter 4.3 and this Article and that the information provided in the application, including the information in the documents accompanying the application form, is accurate and complete; and
- ~~23-g.~~ The dated and notarized signature of the laboratory director and:
 - ~~a-i.~~ If the owner is an individual, the individual;
 - ~~b-ii.~~ If the owner is a corporation, an officer of the corporation;
 - ~~c-iii.~~ If the owner is a partnership, one of the partners;
 - ~~d-iv.~~ If the owner is a limited liability company, a manager or, if the limited liability company does not have a manager, a member of the limited liability company;
 - ~~e-v.~~ If the owner is an association or cooperative, a member of the governing board of the association or cooperative;
 - ~~f.~~ If the owner is a joint venture, one of the individuals signing the joint venture agreement;



- ~~g-vi.~~ If the owner is a governmental agency, the individual in the senior leadership position with the agency or an individual designated in writing by that individual; or
- ~~h-vii.~~ If the owner is a business organization type other than those described in subsections ~~(A)(23)(b) through~~ ~~(F) (A)(1)(q)(ii) through (v)~~, an individual who is a member of the business organization;
- 2. A notarized attestation in a Department-provided format, made under oath, and signed by the individuals in subsection (A)(1)(q) stating that:
 - a. The owner and the laboratory director will comply with all applicable requirements in A.R.S. Title 36, Chapter 4.3 and this Article; and
 - b. The information and documents provided as part of the application are true and accurate;
- 3. If the application is for an initial license:
 - a. A copy of a proficiency testing report, for the current or most recently completed year, for the state in which the laboratory is located or, if that state does not require proficiency testing, for another state in which the laboratory is licensed or certified, for each of the parameters for which licensure is requested; and
 - b. A copy of a current quality assurance plan for the laboratory;
- 4. If the application is for a renewal license, a copy of a current standard operating procedure, limit of detection, and, if available, proficiency testing report for each new parameter specified according to subsection (A)(1)(n)(i); and
- 5. Except as provided in subsection (I), the fees required under R9-14-607 and R9-14-608, payable to the Arizona Department of Health Services by credit card; certified check; business check; money order; or, if the owner is an Arizona state agency, purchase order.
- ~~B.~~ An application may include an agreement between the applicant and the Department that the Department may submit supplemental requests for additional information.
- ~~C.B.~~ An applicant shall submit an application:
 - 1. For an initial license for an in-state laboratory, at least 30 days before the applicant intends to begin operating the in-state laboratory;
 - 2. For an initial license for an out-of-state laboratory, at least 60 days before the applicant intends to begin performing Arizona compliance testing;
 - 3. For a renewal license for an in-state laboratory, at least 30 days before the expiration date of the current license; and
 - 4. For a renewal license for an out-of-state laboratory, at least 60 days before the expiration date of the current license.
- ~~D.C.~~ The Department may issue a single laboratory license for:
 - 1. A single laboratory;
 - 2. Multiple laboratories that are located on contiguous grounds and have the same owner, if the applicant submits one application and combined fees for the laboratories; or
 - 3. Multiple laboratories, including mobile laboratories, that have the same owner but are not located on contiguous grounds, if:
 - a. The applicant submits a separate application and fees for each laboratory,
 - b. Each non-mobile laboratory is located in Arizona, and
 - c. Each mobile laboratory has a current and valid Arizona vehicle registration.
- ~~E.D.~~ The Department shall not issue a single laboratory license for multiple laboratories that do not meet the requirements of subsection ~~(D)(2) or (3)~~ (C)(2) or (3).
- ~~F.E.~~ The Department shall not consider an applicant to be in compliance with the requirements for licensure, as provided under A.R.S. § 36-495.09(A)(5), if the applicant does not pay the appropriate fees required under R9-14-607 and R9-14-608.
- ~~G.F.~~ The Department shall process an application as provided in R9-14-621.
- ~~H.G.~~ A laboratory license is valid only for the facility or facilities for which the license is issued and cannot be transferred to another facility.
- ~~I.H.~~ A laboratory license is valid only in the name of the persons to whom it is issued and expires upon a change in laboratory name, laboratory director, or ownership, unless within 20 business days after the change, the Department receives written notice of the change and an application for a new license.
- ~~J.I.~~ The Department shall not charge a fee for a license application submitted under subsection ~~(F) (H)~~ and shall issue a new license reflecting the change upon determining continued compliance with A.R.S. Title 36, Chapter 4.3 and this Article.
- R9-14-605. Compliance Monitoring**
 - A. The Department may conduct a laboratory inspection, investigation, or proficiency testing, or any combination of the three, at any time before or during a laboratory's license period.
 - B. The Department shall conduct at least ~~two laboratory inspections~~ an initial laboratory inspection and a follow-up annual laboratory inspection before determining ~~whether how often~~ to conduct ~~annual~~ subsequent laboratory inspections, as provided under subsection (C).
 - C. In determining ~~whether how often~~ to conduct ~~an annual~~ a laboratory inspection, the Department shall consider:
 - 1. The Department's findings at the last two laboratory inspections;
 - 2. The licensee's adherence to any corrective action plans created as a result of the last two laboratory inspections;
 - 3. Whether there has been a change in ownership or laboratory director since the last laboratory inspection;
 - 4. The extent to which the compliance testing performed at the laboratory has changed since the last laboratory inspection or would change as a result of a renewal application; and



5. Performance on the most recent proficiency testing completed at the laboratory.
- D. For a laboratory at which drinking water compliance testing is performed, the Department shall conduct a laboratory inspection at least once every three years or as otherwise required by the EPA.
- E. The Department shall comply with A.R.S. § 41-1009 in conducting laboratory inspections and investigations that occur at a laboratory.
- F. If the Department determines, based on a laboratory inspection, investigation, or proficiency testing, or any combination of the three, that a laboratory owner, officer, agent, or employee has engaged in conduct described under A.R.S. § 36-495.09(A), the Department shall request that the licensee or applicant submit to the Department a written corrective action plan, unless the Department determines one of the following, in which case the Department may take action under A.R.S. § 36-495.09:
 1. That the deficiencies were committed intentionally;
 2. That the deficiencies cannot be corrected within a reasonable period of time;
 3. That the deficiencies are evidence of a pattern of noncompliance;
 4. That the deficiencies are a risk to any person; the public health, safety, or welfare; or the environment; or
 5. That there is a reasonable belief, as stated in A.R.S. § 36-495.09(B), that a violation of A.R.S. § 36-495.09(A)(5) has occurred and that the life or safety of the public is immediately affected.
- G. Within 30 days after receiving a request for a written corrective action plan, a licensee or applicant shall submit to the Department a written corrective action plan that includes the following for each identified deficiency:
 1. A description of how the deficiency will be corrected, and
 2. A date of correction for the deficiency.
- H. The Department shall accept a written corrective action plan if the plan:
 1. Describes how each identified deficiency will be corrected, and
 2. Includes a date for correcting each deficiency as soon as practicable based upon the actions necessary to correct the deficiency.
- I. If the Department disapproves a corrective action plan, the Department shall send to the licensee or applicant a written notice of disapproval requesting that the licensee or applicant submit to the Department a revised corrective action plan for the items that the Department disapproves.
 1. A licensee or applicant shall submit a revised corrective action plan to the Department within 21 days after the date of a written notice of disapproval.
 2. If a licensee or applicant does not submit a revised corrective action plan within 21 days after the date of a written notice of disapproval, the Department may take action under A.R.S. § 36-495.09.
- J. A licensee or applicant shall notify the Department when corrective action has been completed.
- K. Within 30 days after receiving notice that corrective action has been completed, the Department shall determine whether each deficiency has been corrected and whether the corrective action brings the laboratory operations into substantial compliance with A.R.S. Title 36, Chapter 4.3 and this Article.
- L. If the Department determines that a licensee or applicant has not corrected a deficiency or that the licensee or applicant has not corrected a deficiency within a reasonable period of time, the Department may take any enforcement action authorized by law as a result of the deficiency.
- M. Under A.R.S. § 41-1009(G), the Department's decision regarding whether a licensee or applicant may submit a corrective action plan or whether a deficiency has been corrected or has been corrected within a reasonable period of time is not an appealable agency action as defined by A.R.S. § 41-1092.

R9-14-606. Provisional Licensing

- A. The Department may issue a provisional license to a licensee when the Department suspends the licensee's regular license because of deficiencies identified in an investigation, laboratory inspection, or proficiency testing, or any combination of the three, if the licensee agrees to carry out a corrective action plan acceptable to the Department to eliminate the deficiencies.
- B. In determining whether to issue a provisional license, the Department shall consider:
 1. The nature of the deficiencies upon which the suspension is based;
 2. The licensee's history of compliance with A.R.S. Title 36, Chapter 4.3 and this Article;
 3. The extent to which the public health and safety may be impacted by the continued operation of the laboratory with a provisional license; and
 4. The extent to which the public's interests are served by allowing the licensee the opportunity to correct the deficiencies and continue operating with a provisional license.
- C. The Department shall issue an amended list of parameters for a provisional license.
- D. A licensee shall return its regular license to the Department within 14 days after receiving written notification of license suspension.
- E. A provisional license is valid for a period established by the Department, not to exceed 12 months.
- F. A licensee with a provisional license ~~who desires~~ may submit an application to obtain a regular initial license ~~shall apply for an initial license according to R9-14-603~~ at least 30 days before the provisional license expires.
- G. The Department shall issue a regular initial license as described in subsection (F) only upon determining that a licensee is in full compliance with the corrective action plan developed according to subsection (A); A.R.S. Title 36, Chapter 4.3; and this Article.
- H. The Department shall not issue a provisional license to an applicant ~~for an initial license~~ submitting an application for an



initial license according to R9-14-603.

R9-14-607. Fees

- A. Except as provided in R9-14-608, an applicant shall submit the following fees to the Department with each application for an initial or renewal license:
 - 1. The cumulative method and instrumentation fees for each laboratory, as determined according to Tables ~~1 and 2 in Exhibit I~~ 6.2.A, 6.2.B, 6.2.C, 6.2.D, 6.2.E, and 6.3;
 - 2. The following application fees:
 - a. If applying for a single license for a single laboratory, which may include multiple laboratories located on contiguous grounds and having the same owner, the following fee:
 - i. For a Level I license, \$1,677;
 - ii. For a Level II license, \$2,130; or
 - iii. For a Level III license, \$2,348; or
 - b. If applying for a single license for multiple laboratories not located on contiguous grounds, the following fee for each laboratory:
 - i. For a Level I license, \$1,442;
 - ii. For a Level II license, \$1,895; and
 - iii. For a Level III license, \$2,130;
 - 3. An administrative fee of \$130 for the proficiency testing to occur during the license period; and
 - 4. If applying for an out-of-state laboratory, an annual information update fee of \$126.
- B. The fees paid to the Department under this Article are nonrefundable, unless A.R.S. § 41-1077 applies.

R9-14-608. Installment Payment of Fees by Small Businesses

- A. A licensee may, for license renewal, pay the fees calculated under R9-14-607(A)(1), (3), and (4) to the Department in 12 or fewer installments if the ~~laboratory~~ owner is a small business.
- B. A licensee who desires to make payments in installments as described in subsection (A) shall indicate this on the application for license renewal and shall indicate a monthly, bimonthly, or quarterly schedule for the payments, which shall result in full payment within 12 or fewer months.
- C. A licensee making installment payments shall submit the first installment payment to the Department along with the application for license renewal and the application fee calculated under R9-14-607(A)(2), and each subsequent installment payment on a monthly, bimonthly, or quarterly basis, as indicated on the application, or until the fees are paid in full, whichever comes first.
- D. A licensee shall ensure that each installment payment is:
 - 1. Paid by the first day of the month in which it is due; and
 - 2. At least equal to the amount calculated by dividing the total fees due under R9-14-607(A)(1), (3), and (4) by the number of payments indicated on the application for license renewal.
- E. If a licensee fails to submit an installment payment within seven days after its due date, the Department shall charge a \$50 fee for processing the late payment.
- ~~F.~~ If a licensee fails more than twice during the license period to submit an installment payment within seven days after the due date of the installment payment, the Department may suspend the licensee's authorization to make installment payments and require the licensee to pay all pending fees.
- ~~F-G.~~ If a licensee fails to submit an installment payment within 30 days after its due date, the Department may initiate action under A.R.S. § 36-495.09.

R9-14-609. Proficiency Testing

- ~~A.~~ At least once in each 12-month period, and more often if requested by the Department, each licensee or applicant that performs drinking water compliance testing shall have at least one laboratory analyst demonstrate proficiency in drinking water compliance testing by participating in proficiency testing provided by the Department, the EPA, or a proficiency testing service.
- ~~B.~~ Each proficiency testing for drinking water compliance testing shall include at least one proficiency testing sample for each parameter for which an initial license or renewal license has been issued or requested. If more than one method is used to test for an analyte, a different lot shall be used for each method.
- ~~C.~~ At least once in each 12-month period, and more often if requested by the Department, each licensee or applicant that performs non-drinking water compliance testing shall have at least one laboratory analyst demonstrate proficiency in non-drinking water compliance testing by participating in proficiency testing provided by the Department, the EPA, or a proficiency testing service, if proficiency testing is available.
- ~~D.~~ Each proficiency testing for non-drinking water compliance testing shall include at least one proficiency testing sample for each parameter for which an initial license or renewal license has been issued or requested and for which proficiency testing samples are available.
- A. At least once in each 12-month period, and more often if requested by the Department, each licensee or applicant shall have at least one laboratory analyst participate in proficiency testing provided by the Department, the EPA, or a proficiency testing service that:
 - 1. Includes at least one proficiency testing sample for each parameter for which an initial license or renewal license has been issued or requested and for which proficiency testing samples are available;
 - 2. Demonstrates the laboratory analyst's proficiency in compliance testing of:
 - a. Applicable drinking water parameters in Table 6.2.A, if:



- i. The applicant plans to perform compliance testing of drinking water parameters, or
 - ii. The licensee is approved to perform compliance testing of drinking water parameters; and
 - b. Applicable parameters other than drinking water parameters, if:
 - i. The applicant plans to perform compliance testing of the parameters, or
 - ii. The licensee is approved to perform compliance testing of the parameters; and
 - 3. If the licensee or applicant has been issued or has requested a license that includes approval for testing an analyte by different methods, may use the same proficiency testing sample for each method.
- ~~F.B.~~** To demonstrate proficiency for a parameter, test results reported for the parameter shall be within acceptance limits established ~~by~~ for:
- 1. ~~For drinking~~ Drinking water inorganic chemistry parameters; ~~by~~ the EPA, as provided in 40 CFR 141.23;
 - 2. ~~For drinking~~ Drinking water organic chemistry parameters; ~~by~~ the EPA, as provided in 40 CFR 141.24;
 - 3. ~~For lead~~ Lead or copper in drinking water; ~~by~~ the EPA, as provided in 40 CFR 141.89;
 - 4. ~~For disinfection~~ Disinfection byproducts in drinking water; ~~by~~ the EPA, as provided in 40 CFR 141.131; and
 - 5. ~~For other~~ Other parameters; ~~by~~ the EPA or the proficiency testing service.
- ~~F.C.~~** A licensee or applicant shall ensure that:
- 1. Each proficiency testing sample accepted at the licensee's or applicant's laboratory is analyzed at the licensee's or applicant's laboratory;
 - 2. Each proficiency testing sample is tested within the maximum holding times ~~required~~ allowed for its parameter, using the same procedures and techniques employed for routine sample testing, and calculating the holding time from the time the sample seal is broken or as indicated in the instructions accompanying the sample;
 - 3. A proficiency testing service provides proficiency testing results directly to the Department;
 - 4. If proficiency testing is provided by the Department, the licensee or applicant submits to the Department payment for the actual costs of the proficiency testing materials; and
 - 5. If proficiency testing is not provided by the Department or the EPA, the licensee or applicant selects a proficiency testing service and contracts with and pays the proficiency testing service directly for proficiency testing.
- ~~G.D.~~** The Department may submit blind proficiency testing samples to a licensed laboratory at any time during the license period.

R9-14-610. Approved Methods and References

- A. A licensee or applicant shall ensure that compliance testing is performed according to an approved method and may use method alterations approved by the Department under subsection (C).
- B. The approved methods listed by parameter in ~~Exhibit I, Table 1~~ Tables 6.2.A through 6.2.D are found in the following references, which are incorporated by reference with the modifications described below; are on file with the Department; include no future editions or amendments; and are available as provided below.

Key Reference

- A Environmental Monitoring and Support Laboratory–Cincinnati, EPA, Pub. No. EPA-/600/4-79-020 (600479020), Methods for Chemical Analysis of Water and Wastes (rev. March 1983), available at <http://nepis.epa.gov/pubtitleord.htm> <http://nepis.epa.gov/EPA/html/pubs/pubtitle.html> or by calling (800) 490-9198.
- A1 Environmental Monitoring and Support Laboratory–Cincinnati, EPA, Pub. No. EPA/600/R-94/111 (600R94111), Methods for the Determination of Metals in Environmental Samples: Supplement I (May 1994), available at <http://nepis.epa.gov/pubtitleord.htm> <http://nepis.epa.gov/EPA/html/pubs/pubtitle.html> or by calling (800) 490-9198.
- A2 Environmental Monitoring Systems Laboratory, EPA, Pub. No. EPA/600/R-93/100 (600R93100), Methods for the Determination of Inorganic Substances in Environmental Samples (August 1993), available at <http://nepis.epa.gov/pubtitleord.htm>, modified to increase the maximum holding time from 48 hours to 14 days at 4° C for chlorinated, unacidified drinking water samples collected for determination of nitrate <http://nepis.epa.gov/EPA/html/pubs/pubtitle.html> or by calling (800) 490-9198.
- A3 Technicon Industrial Systems, Industrial Method No. 380-75WE, Fluoride in Water and Wastewater (July 1977), available from Bran & Luebbe Analyzing Inc., 1025 Busch Parkway, Buffalo Grove, IL 60089.
- A4 Office of Water, EPA, Pub. No. EPA 821-R-02-019, Method 1631, Revision E: Mercury in Water by Oxidation, Purge and Trap, and Cold Vapor Atomic Fluorescence Spectrometry (August 2002), available at <http://www.epa.gov/water-science/methods/1631.html>.
- A5 Technicon Industrial Systems, Industrial Method No. 129-71W, Fluoride in Water and Wastewater (December 1972), available from Bran & Luebbe Analyzing Inc., 1025 Busch Parkway, Buffalo Grove, IL 60089.
- A6 Herbert P. Wagner et al., EPA, Pub. No. EPA 815-B-01-001, Method 317.0: Determination of Inorganic Oxyhalide Disinfection By Products in Drinking Water Using Ion Chromatography with the Addition of a Postcolumn Reagent for Trace Bromate Analysis (rev. 2.0 July 2001), available at www.epa.gov/safewater/methods/soureal.html.
- A7 Herbert P. Wagner et al., EPA, Pub. No. EPA 815-R-05-007, Method 326.0: Determination of Inorganic Oxyhalide Disinfection By Products in Drinking Water Using Ion Chromatography Incorporating the Addition of a Suppressor Acidified Postcolumn Reagent for Trace Bromate Analysis (rev. 1.0 June 2002), available at www.epa.gov/safewater/methods/soureal.html.
- A8 Teri A. Dattilio et al., EPA, Pub. No. EPA 815-R-05-008, Method 327.0: Determination of Chlorine Dioxide and Chlorite Ion in Drinking Water Using Lissamine Green B and Horseradish Peroxidase with Detection by Visible Spectrophotometry (rev. 1.1 May 2005), available at www.epa.gov/safewater/methods/soureal.html.
- A9 B.B. Potter and J.C. Wimsatt, EPA, Pub. No. EPA/600/R-05/055, Method 415.3: Determination of Total Organic Carbon



and Specific UV Absorbance at 254 nm in Source and Drinking Water (rev. 1.1 February 2005), available at www.epa.gov/nerleww/ordmeth.htm.

- A3 Technicon Industrial Systems, Industrial Method No. 380-75WE, Fluoride in Water and Wastewater (February 1976), available from Mequon Technology Center, 10520-C North Baehr Road, Mequon, WI 53092 or by calling (262) 241-7900.
- A4 National Service Center for Environmental Publications (NSCEP), Online EPA Publication Title List available at <http://nepis.epa.gov/EPA/html/Pubs/pubtitle.html> or by calling (800) 490-9198. Publication numbers for the methods that are listed under this reference are:
1. Method 317.0, Rev 2.0, July 2001, EPA 815-B-01-001
 2. Method 314.1, Rev 1.0, May 2005, EPA 815-R-05-009
 3. Method 326.0, Rev 1.0, June 2000, EPA 815-R-03-007
 4. Method 327.0, Rev 1.1, May 2005, EPA 815-R-05-008
 5. Method 331.0, Rev 1.0, January 2005, EPA 815-R-05-007
 6. Method 515.4, Rev 1.0, April 2000, EPA 800-R-00-016
 7. Method 527, Rev 1.0, April 2005, EPA 815-R-05-005
 8. Method 531.2, Rev 1.0, September 2001, EPA 815-B-01-002
 9. Method 552.3, Rev 1.0, July 2003, EPA 815-B-03-002
 10. Method 200.5, Rev 4.2, October 2003, EPA 600-R-06-115
 11. Method 332, Rev 1.0, March 2005, EPA 600-R-05-049
 12. Method 415.3, Rev 1.1, February 2005, EPA 600-R-05-055
 13. Method 415.3, Rev 1.2, September 2009, EPA 600-R-09-122
 14. Method 521, Version 1.0, September 2004, EPA 600-R-05-054
 15. Method 529, Rev 1.0, September 2002, EPA 600-R-05-052
 16. Method 535, Rev 1.1, April 2005, EPA 600-R-05-053
 17. Method 1631, Rev E, August 2002, EPA 821-R-02-019
 18. Method 557, Version 1.0, September 2009, EPA 815-B-09-012
 19. Method 524.4, May 2013, EPA 815-R-13-002
 20. Method 524.3, Version 1.0, June 2009, EPA 815-B-09-009
 21. Method 522, Version 1.0, September 2008, EPA 600-R-08-101
 22. Method 1613, Rev B, October 1994, EPA 821-B-94-005
 23. Method 245.7, Rev 2.0, February 2005, EPA 821-R-05-001
 24. Method 1664, Rev B, February 2010, EPA 821-R-10-001
 25. Method 1638, April 1995, EPA 821-R-95-031
 26. Method OIA-1677 DW, January 2004, EPA 821-R-04-001
 27. Method 1627, December 2011, Acid Mine Drainage, EPA 821-R-09-002
 28. PCBs in Transformer Fluid and Oils, September 1982, EPA 600/4-81-045
 29. Asbestos in Bulk Samples, December 1982, EPA 600/M4-82-020
 30. Method 100.1, Asbestos Fibers, September 1993, EPA 600/4-83-043
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 32. Method 1622, Cryptosporidium in Water, December 2005, EPA 815-R-05-001
 33. Method 1623.1, Cryptosporidium and Giardia in Water, January 2012, EPA 816-R-12-001
 34. Method 1682, Salmonella in Sewage Sludge, July 2006, EPA 821-R-06-014
 35. Method 1605, Aeromonas in Finished Water by MF, October 2001, EPA 821-R/01/034
 36. Method 1604, Total coliforms and E.coli by MF, September 2002, EPA-821-02-024
 37. Method 1601, Coliphage, April 2001, EPA 821-R-01-030
 38. Method 1602, Coliphage, April 2001, EPA 821-R-01-029
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 40. Method 537, September 2009, EPA/600/R-08/092
 41. Method 302.0, September 2009, EPA-815-B-09-014
 42. Method 539, November 2010, EPA 815-B-10-001
 43. Method 218.7, November 2011, EPA 815-R-11-005
 44. Method 334.0, September 2009, EPA 815-B-09-013
- A5 EPA Pub. No. EPA 815-R-00-014 (815R00014), Volume 1, Methods for the Determination of Organic and Inorganic Compounds in Drinking Water (August 2000), available at <http://nepis.epa.gov/EPA/html/Pubs/pubtitle.html> or by calling (800) 490-9198, modified to require the following when testing for bromate using method 321.8: Samples must be preserved at the time of sampling with 50 mg ethylenediamine (EDA)/L of sample and must be analyzed within 28 days. Ion chromatography and post-column reaction or IC/ICP-MS must be used for monitoring of bromate for purposes of demonstrating eligibility of reduced monitoring, as prescribed in 40 CFR 141.132(b)(3)(ii).
- A6 Lachat Instruments, QuikChem Method 10-204-00-1-X, Digestion and Distillation of Total Cyanide in Drinking and Wastewaters Using MICRO DIST and Determination of Cyanide by Flow Injection Analysis (rev. 2.1 November 30, 2000), available from Lachat Instruments, 6645 W. Mill Rd., Milwaukee, WI 53218-0204.
- A7 Standard Test Methods for Trace Uranium in Water by Pulsed-Laser Phosphorimetry, ASTM D5174-97, 02, available



- from ASTM International, 100 Barr Harbor Dr., P.O. Box C700, W. Conshohocken, PA 19428-2959 or through www.astm.org.
- B Herman L. Krieger, EPA, Pub. No. EPA-600/4-75-008 (6004755008), Interim Radiochemical Methodology for Drinking Water (March 1976), available from National Technical Information Service, 5285 Pt. Royal Rd., Springfield, VA 22161 at <http://nepis.epa.gov/EPA/html/pubs/pubtitle.html> or by calling (800) 490-9198.
- C American Public Health Association et al., Standard Methods for the Examination of Water and Wastewater (19th ed. 1995 22nd edition 2012), available from American Public Health Association, 800 I Street, NW, Washington, DC 20001- or at <http://www.standardmethods.org> with the approved method having the same last two digits in the method number as the year in which the method was approved by the Standard Methods Committee, as published for the individual methods in the 22nd edition.
- C1 Hach Company, Hach Water Analysis Handbook (3rd ed. 1997 5th edition 2008), available from Hach Company, P.O. Box 389, Loveland, CO 80539-0389.
- C2 American Public Health Association et al., Standard Methods for the Examination of Water and Wastewater (20th ed. 1998 21st edition 2005), available from American Public Health Association, 800 I St., NW, Washington, DC 20001; modified to require:
- a. For drinking water TOC testing:
 - i. That inorganic carbon be removed from each TOC sample before analysis;
 - ii. That each TOC sample not be filtered before analysis;
 - iii. That the pH of each TOC sample be checked and documented before analysis and that the test result be qualified in the final report if the sample pH was >2, and
 - iv. That each acidified TOC sample be analyzed within 28 days; and
 - b. For drinking water DOC testing:
 - i. That each DOC sample be filtered through a 0.45 um pore diameter filter as soon as practical and no later than 48 hours after sampling;
 - ii. That each DOC sample be acidified after filtration to achieve a pH 2 with minimal addition of the acid specified in the method or by the instrument manufacturer;
 - iii. That each acidified DOC sample be analyzed within 28 days after sample collection;
 - iv. That inorganic carbon be removed from each DOC sample before analysis;
 - v. That water passed through the filter before filtration of the DOC sample serve as the filtered blank, and
 - vi. That the filtered blank be analyzed using procedures identical to those used for analysis of the DOC sample and have DOC < 0.5 mg/L;
 - c. For drinking water testing of UV absorbing organic constituents:
 - i. That UV absorption be measured at 253.7 nm or 254 nm;
 - ii. That each UV sample be filtered through a 0.45 um pore diameter filter before analysis;
 - iii. That the pH of UV samples not be adjusted, and
 - iv. That each UV sample be analyzed as soon as practical and no later than 48 hours after sampling; and
 - d. For drinking water disinfection byproducts testing by micro liquid-liquid extraction/GC-ECD using method 6251B, that each sample be extracted within 14 days after sample collection.
- C3 Hach Method 10360, Luminescence Measurement of Dissolved Oxygen in Water and Wastewater and for Use in the Determination of BOD5 and cBOD5, Revision 1.2, October 2011, available from Hach Company, P.O. Box 389, Loveland, CO 80539-0389.
- C4 Expedited Approval of Test Procedures for the Analysis of Contaminants Under the Safe Drinking Water Act, August 04, 2014, available at <https://www.gpo.gov/fdsys/pkg/FR-2014-06-19/html/2014-14369.htm>.
- C5 Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act; Analysis and Sampling Procedures; Final Rule, May 18, 2012, available at <http://www.gpo.gov/fdsys/pkg/FR-2012-05-18/pdf/2012-10210.pdf>.
- C6 The quality control criteria and the modifications listed in the "Guidelines Establishing Test Procedures for the Analysis of Pollutants; Analytical Methods for Biological Pollutants in Wastewater and Sewage Sludge," March 26, 2007, available at <http://www.epa.gov/fedrgstr/EPA-WATER/2007/March/Day-26/w1455.pdf>.
- C7 ChlordioX Plus "Chlorine Dioxide and Chlorite in Drinking Water by Amperometry using Disposable Sensors," November 2013, available from Palintest Ltd., Jamike Avenue, Suite 100, Erlanger, KY 41018.
- C8 American Public Health Association et al., Standard Methods for the Examination of Water and Wastewater (20th ed. 1998), available from American Public Health Association, 800 I St., NW, Washington, DC 20001.
- D Environmental Monitoring Systems Laboratory-Cincinnati, EPA, Pub. No. EPA/600/4-88/039 (600488039), Methods for the Determination of Organic Compounds in Drinking Water (rev. July 1991), available at <http://nepis.epa.gov/pubtitleord.htm> <http://nepis.epa.gov/EPA/html/pubs/pubtitle.html> or by calling (800) 490-9198.
- D1 Environmental Monitoring Systems Laboratory-Cincinnati, EPA, Pub. No. EPA/600/4-90/020 (600490020), Methods for the Determination of Organic Compounds in Drinking Water: Supplement I (July 1990), available at <http://nepis.epa.gov/pubtitleord.htm> <http://nepis.epa.gov/EPA/html/pubs/pubtitle.html> or by calling (800) 490-9198.
- D2 Environmental Monitoring Systems Laboratory-Cincinnati, EPA, Pub. No. EPA/600/R-92/129 (600R92129), Methods for the Determination of Organic Compounds in Drinking Water: Supplement II (August 1992), available at <http://nepis.epa.gov/pubtitleord.htm> <http://nepis.epa.gov/EPA/html/pubs/pubtitle.html> or by calling (800) 490-9198.
- D3 National Exposure Research Laboratory-Cincinnati, EPA, Pub. No. EPA/600/R-95/131 (600R95131), Methods for the Determination of Organic Compounds in Drinking Water: Supplement III (August 1995), available at <http://nepis.epa.gov/pubtitleord.htm> <http://nepis.epa.gov/EPA/html/pubs/pubtitle.html> or by calling (800) 490-9198.



- nepis.epa.gov/pubtitleord.htm <http://nepis.epa.gov/EPA/html/pubs/pubtitle.html> or by calling (800) 490-9198.
- D4 Office of Ground Water and Drinking Water Technical Support Center, EPA, Pub. No. EPA 815-R-05-004 (815R05004), Manual for the Certification of Laboratories Analyzing Drinking Water: Criteria and Procedures Quality Assurance (5th ed: edition January 2005), available at <http://nepis.epa.gov/EPA/html/pubs/pubtitle.html> or by calling (800) 490-9198.
 - D5 J.W. Munch and W.J. Bashe, EPA, Method 549.2: Determination of Diquat and Paraquat in Drinking Water by Liquid-Solid Extraction and High Performance Liquid Chromatography with Ultraviolet Detection (rev. 1 June 1997), available at <http://www.nemi.gov>.
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 - D7 M.V. Bassett et al., EPA, Pub. No. EPA 815-B-01-002, Method 531.2: Measurement of N-Methylcarbamoyloximes and N-Methylcarbamates in Water by Direct Aqueous Injection HPLC with Postcolumn Derivatization (rev. 1.0 September 2001), available at <http://www.nemi.gov>.
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 - D6 Supplement II to the 5th edition of the Manual for the Certification of Laboratories Analyzing Drinking Water; EPA 815-F-12-006, November 2012, available at <http://water.epa.gov/scitech/drinkingwater/labcert/index.cfm>.
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 - D8 Modified Colitag[®], ATP D05-0035—"Modified ColitagTM Test Method for the Simultaneous Detection of *E. coli* and other Total Coliforms in Water," August 28, 2009, available from CPI International, Inc., 5580 Skylane Blvd., Santa Rosa, CA, 95403 or by calling (800) 878-7654.
 - D9 Stage 2 Disinfectants and Disinfection Byproducts Rule, January 04, 2006, available at <https://www.federalregister.gov/articles/2006/01/04/06-3/national-primary-drinking-water-regulations-stage-2-disinfectants-and-disinfection-byproducts-rule>.
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 - D11 Source Water Monitoring Guidance Manual for Public Water Systems for the Final Long Term 2 Enhanced Surface Water Treatment Rule; EPA 815-R06-005 (815R06005), February 2006, available at <http://nepis.epa.gov/EPA/html/pubs/pubtitle.html> or by calling (800) 490-9198.
 - D12 Analytical Methods Recommended for Drinking Water Monitoring of Secondary Contaminants (PDF), EPA 815-B-14-005 (815B14005), January 2014, available at <http://nepis.epa.gov/EPA/html/pubs/pubtitle.html> or by calling (800) 490-9198.
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 - E2 EPA Methods 608.1, 608.2, 614, 614.1, 615, 617, 619, 622, 622.1, 627, and 632, found in Methods for the Determina-



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- E3 “White House Document” Environmental Regulations and Technology-Control of Pathogens and Vector Attraction in Sewage Sludge, EPA 625/R-92/013 (625R92013), revised July 2003, available at <http://nepis.epa.gov/EPA/html/pubs/pubtitle.html> or by calling (800) 490-9198.
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- E7 Kelada-01, Kelada Automated Test Methods for Total Cyanide, Acid Dissociable Cyanide, and Thiocyanate, EPA 821-B-01-009, revision 1.2, August 2001, available from NTIS, 5285 Port Royal Road, Springfield, VA 22161 or by calling (800) 490-9198. EPA Note: A 450-W UV lamp may be used in this method instead of the 550-W lamp specified if it provides performance within the quality control acceptance criteria of the method in a given instrument. Similarly, modified flow cell configurations and flow conditions may be used in the method, provided that the quality control acceptance criteria are met.
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- O 40 CFR Part 50, (July 2006), available at <http://www.access.gpo.gov/nara/cfr/cfr-table-search.html> Chapter 1, Subchapter C (2015), available at http://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title40/40cfr50_main_02.tpl.
- O1 Compendium of Methods for the Determination of Inorganic Compounds in Ambient Air, Compendium Method IO-3.4, Determination of Metals in Ambient Particulate Matter Using Inductively Coupled Plasma (ICP) Spectroscopy, EPA/625/R-96/010AC (625R96010AC), June 1999, available at <http://nepis.epa.gov/EPA/html/pubs/pubtitle.html> or by calling (800) 490-9198.
- O2 Compendium of Methods for the Determination of Inorganic Compounds in Ambient Air, Compendium Method IO-3.5,



- Determination of Metals in Ambient Particulate Matter Using Inductively Coupled Plasma/Mass Spectrometry (ICP/MS), EPA/625/R-96/010AB (625R96010AB), June 1999, available at <http://nepis.epa.gov/EPA/html/pubs/pubtitle.html> or by calling (800) 490-9198.
- O3 Compendium of Methods for the Determination of Inorganic Compounds in Ambient Air, Compendium Method IO-3.1, Selection, Preparation and Extraction, EPA/625/R-96/010AD (625R96010AD), June 1999, available at <http://nepis.epa.gov/EPA/html/pubs/pubtitle.html> or by calling (800) 490-9198.
- O4 Determination of Lead in TSP by Inductively Coupled Plasma Mass Spectrometry (ICP-MS) with Heated Ultrasonic Nitric and Hydrochloric Acid Filter Extraction; available from the Bureau of State Laboratory Services, 250 N. 17th Ave., Phoenix, AZ 85007, and at <http://www.azdhs.gov/documents/preparedness/state-laboratory/lab-licensure-certification/technical-resources/additional-resources/lead-in-ambient-air-by-icp-ms-eql-0510-191.pdf>.
- P EPA, Pub. No. EPA/600/4-84/013, USEPA Manual of Methods for Virology (rev. June 2001), Chapters 1-12 and 14-16 1 through 16 available at www.epa.gov/nerlewww/about.htm and Chapter 13 available at <http://nepis.epa.gov/pubtitleord.htm> <http://nepis.epa.gov/EPA/html/pubs/pubtitle.html> or by calling (800) 490-9198.
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- P2 G. Shay Fout et al., EPA, Pub. No. EPA/600/R-95/178 (600R95178), ICR Microbial Laboratory Manual (April 1996), available at <http://nepis.epa.gov/pubtitleord.htm> <http://nepis.epa.gov/EPA/html/pubs/pubtitle.html> or by calling (800) 490-9198.
- P3 Charles P. Gerba, University of Arizona, U of A 2000: Ascaris lumbricoides Ascaris lumbricoides in Water (1999), available from the University of Arizona, Microbial Analytical Laboratory, Building No. 90, Rm. 406, Tucson, AZ 85721.
- P4 EPA, Pub. No. EPA 815 R-05-001, Method 1622: Cryptosporidium in Water by Filtration/IMS/FA (December 2005), available at <http://www.epa.gov/microbes/>, modified to require flow cytometer-counted spiking suspensions for MS samples and ongoing precision and recovery samples.
- P5 EPA, Pub. No. EPA 815 R-05-002, Method 1623: Cryptosporidium and Giardia in Water by Filtration/IMS/FA (December 2005), available at <http://www.epa.gov/microbes/>, modified to require flow cytometer-counted spiking suspensions for MS samples and ongoing precision and recovery samples.
- Q 40 CFR Part 60 app. A Chapter I, Subchapter C, Part 60 (July 2006 January 2008), available at <http://www.access.gpo.gov/nara/cfr/cfr-table-search.html> <http://www.ecfr.gov/cgi-bin/text-idx?SID=059c1-fa5bb66be2b9393d76638c87a0c&node=pt40.8.60&rgn=div5>.
- Q1 EPA Performance Specification PS-12B: Analysis of Vapor Phase Mercury Emissions from Stationary Sources Using a Sorbent Trap Monitoring System, available at <http://www.epa.gov/ttnemc01/perfspec/ps-12B.pdf>.
- R Office of Air Quality, ADEQ, Arizona Testing Manual for Air Pollutant Emissions (rev. F March 1992), available from the Office of Air Quality, ADEQ, 1110 W. Washington St., Phoenix, AZ 85007 and at <http://www.azdeq.gov/environ/air/compliance/download/manual.pdf>.
- S 40 CFR Part 61 apps. B and C (July 2006 January 2008), available at <http://www.access.gpo.gov/nara/cfr/cfr-table-search.html> http://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title40/40cfr61_main_02.tpl.
- S1 EPA, Pub. No. EPA/625/R-96/010b (625R96010b), Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air (2nd ed. edition January 1999), available at <http://nepis.epa.gov/pubtitleord.htm> <http://nepis.epa.gov/EPA/html/pubs/pubtitle.html> or by calling (800) 490-9198.
- U Environmental Measurements Laboratory, U.S. Department of Energy, Pub. No. HASL-300, EML Procedures Manual, Vol. I (28th ed. edition February 1997), available from National Technical Information Service NTIS, 5285 Ptt. Port Royal Rd., Springfield, VA 22161.
- V Eastern Environmental Radiation Facility, EPA, Pub. No. EPA 520/5-84-006 (520584006), Eastern Environmental Radiation Facility Radiochemistry Procedures Manual (2nd prtg. 1988 December 1987), available from National Technical Information Service, 5285 Ptt. Royal Rd., Springfield, VA 22161 at <http://nepis.epa.gov/EPA/html/pubs/pubtitle.html> or by calling (800) 490-9198.
- W Environmental Monitoring and Support Laboratory Las Vegas, EPA, Pub. No. EMSL-LV-0539-17 (EMSLLV053917), Radiochemical Analytical Procedures for Analysis of Environmental Samples (March 1979), available from National Technical Information Service, 5285 Ptt. Royal Rd., Springfield, VA 22161 at <http://nepis.epa.gov/EPA/html/pubs/pubtitle.html> or by calling (800) 490-9198.
- X Office of Ground Water and Drinking Water, EPA, Pub. No. EPA/600/4-91/016 (600491016), Test Methods for Escherichia coli Escherichia coli in Drinking Water: EC Medium with Mug Tube Procedure, Nutrient Agar with Mug Membrane Filter Procedure (July 1991), available at <http://nepis.epa.gov/pubtitleord.htm> <http://nepis.epa.gov/EPA/html/pubs/pubtitle.html> or by calling (800) 490-9198.
- Y Office of Water, EPA, Pub. No. EPA 821 R-99-013, Method OIA-1677: Available Cyanide by Flow Injection, Ligand Exchange, and Amperometry (August 1999), available at <http://www.epa.gov/waterscience/methods/cyanide/> Method OIA-1677-09, Available Cyanide by Ligand Exchange and Flow Injection Analysis (FIA). 2010, available from ALP-KEM, a Division of OI Analytical, 151 Graham Road, College Station, TX 77845 or by calling (979) 690-1711.
- Z EPA, Pub. No. EPA 815 R-00-014, Volume 1, Methods for the Determination of Organic and Inorganic Compounds in Drinking Water (August 2000), available at <http://nepis.epa.gov/pubtitleOW.htm>, modified to require the following when testing for bromate using method 321.8:
- a. That each sample be analyzed within 28 days after sampling, and



- b. That the test result be qualified in the final report if the sample was not preserved with 50 mg of ethylenediamine per liter of sample at the time of sampling.
- Z IDEXX Colilert*-18 and Quanti-Tray* Test Method for the Detection of Fecal Coliforms in Wastewater, available from IDEXX Laboratories, Inc., One IDEXX Dr., Westbrook, ME 04092 or by calling 1-800-548-6733.
- Z1 EPA, Pub. No. EPA-821-R-01-034, EPA Method 1605: Aeromonas in Finished Water by Membrane Filtration Using Ampicillin-Dextrin Agar with Vancomycin (ADA-V) (October 2001), available at <http://www.epa.gov/safewater/methods/pdfs/met1605.pdf>.
- Z2 EPA, Pub. No. EPA-821-R-93-010-A, Methods for the Determination of Nonconventional Pesticides in Municipal and Industrial Wastewater, Volume I (rev. 1 August 1993), available from National Technical Information Service, 5285 Pt. Royal Rd., Springfield, VA 22161.
- Z1 EPA Method 1681, July 2006, EPA-821-R-06-013, Fecal Coliform in Sewage Sludge (Biosolids) by Multiple Tube Fermentation using A-1 Medium, available at <http://nepis.epa.gov/EPA/html/pubs/pubtitle.html> or by calling (800) 490-9198.
- Z3Z2EPA, Pub. No. EPA-821-R-02-013 (821R02013), Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms (4th ed. edition October 2002), available at www.epa.gov/est/wet/disk3/ or <http://nepis.epa.gov/EPA/html/pubs/pubtitle.html> or by calling (800) 490-9198.
- Z4Z3IDEXX Laboratories, Inc., IDEXX SimPlate TM HPC Method for Heterotrophs in Water (November 2000), available from IDEXX Laboratories, Inc., One IDEXX Dr., Westbrook, ME 04092.
- Z5Z4William A. Yanko, EPA, Pub. No. EPA/600/1-87/014 (600187014), Occurrence of Pathogens in Distribution and Marketing Municipal Sludges (1987), available from National Technical Information Service, 5285 Pt. Royal Rd., Springfield, VA 22161 at <http://nepis.epa.gov/EPA/html/pubs/pubtitle.html> or by calling (800) 490-9198.
- Z6 ASTM, Standard Test Methods for Determining Sediment Concentration in Water Samples (reapproved 2002), available from ASTM International, 100 Barr Harbor Dr., P.O. Box C700, W. Conshohocken, PA 19428-2959.
- Z7 CEM Corporation, Closed Vessel Microwave Digestion of Wastewater Samples for Determination of Metals (April 1992), available from CEM Corporation, P.O. Box 200, Matthews, NC 28106-0200.
- Z8 EPA, Pub. No. EPA-821-R-02-024, Method 1604: Total Coliforms and Escherichia coli in Water by Membrane Filtration Using a Simultaneous Detection Technique (MI Medium) (September 2002), available at <http://www.epa.gov/safewater/methods/pdfs/met1604.pdf>.
- Z9 Lachat Instruments, QuikChem Method 10-204-00-1-X, Digestion and Distillation of Total Cyanide in Drinking and Wastewaters Using MICRO-DIST and Determination of Cyanide by Flow Injection Analysis (rev. 2.1 November 30, 2000), available from Lachat Instruments, 6645 W. Mill Rd., Milwaukee, WI 53218.
- Z5 CPI International Colitag® Product as a Test for Detection and Identification of Coliforms and E. coli Bacteria in Drinking Water and Source Water as Required in National Primary Drinking Water Regulations, August 2001, available from CPI International, 5580 Skylane Blvd, Santa Rosa, CA 95403, at <http://www.cpiinternational.com>, or by calling 1-800-878-7654.
- Z6 m-ColiBlue 24 Test, Total Coliforms and E. coli Membrane Filtration Method with m-ColiBlue 24 Broth, Method No. 10029, Revision 2, August 17, 1999, available at Hach Company, P.O. Box 389, Loveland, Colorado 80539-0389 or by calling 1-800-227-4224.
- Z7 Colisure Test, IDEXX Laboratories Inc., February 28, 1994, available from IDEXX Laboratories, Inc., One IDEXX Dr., Westbrook, ME 04092 or by calling 1-800-548-6733.
- Z8 Presence/Absence for Coliforms and E. coli in Water, Charm Sciences, Inc., December 21, 1997, available at 659 Andover Street, Lawrence, MA 01843, 987-687-9200, <http://www.charm.com>.
- Z10Z9OI Analytical/ALPKEM, Nitrogen, Total Kjeldahl, Method PAI-DK01 (Block Digestion, Steam Distillation, Titrimetric Detection) (rev. December 22, 1994), available from OI Analytical/ALPKEM, P.O. Box 9010, College Station, TX 77842.
- Z11Z10OI Analytical/ALPKEM, Nitrogen, Total Kjeldahl, Method PAI-DK02 (Block Digestion, Steam Distillation, Colorimetric Detection) (rev. December 22, 1994), available from OI Analytical/ALPKEM, P.O. Box 9010, College Station, TX 77842.
- Z12Z11OI Analytical/ALPKEM, Nitrogen, Total Kjeldahl, Method PAI-DK03 (Block Digestion, Automated FIA Gas Diffusion) (rev. December 22, 1994), available from OI Analytical/ALPKEM, P.O. Box 9010, College Station, TX 77842.
- Z13Z12EPA, Pub. No. EPA-821-R-02-012, Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms (5th ed. edition October 2002), available at www.epa.gov/waterscience/WET/disk2/ or <http://nepis.epa.gov/EPA/html/pubs/pubtitle.html> or by calling (800) 490-9198.
- Z13 Lozarchak, J. 2001, "Short-term Chronic Toxicity Tests on Daphnia magna (Survival and Growth Tests)", USEPA, available from the Department at 250 N. 17th Ave, Phoenix, AZ 85007, and at <http://www.azdhs.gov/documents/preparedness/state-laboratory/lab-licensure-certification/technical-resources/additional-resources/lazorchak-toxicity-method.pdf>.
- Z14 ReadyCult Coliforms 100 Presence/Absence Test for Detection and Identification of Coliform Bacteria and Escherichia coli in Finished Waters, Version 1.1, January 2007, available from EM Science, EMD Millipore, 290 Concord Road, Billerica, MA 01821, at <http://www.emdmillipore.com>, or by calling 781-533-6000.
- Z15 Chromocult® Coliform Agar Presence/Absence Membrane Filter Test Method for Detection and Identification of Coliform Bacteria and Escherichia coli in Finished Waters, Version 1.0, November 2000, available from EM Science, EMD Millipore, 290 Concord Road, Billerica, MA 01821, at <http://www.emdmillipore.com>, or by calling 781-533-6000.
- C. If an approved method is not available for a particular parameter, or a different method or method alteration that is not an approved method is required or authorized to be used for a particular parameter by the EPA, ADEQ, the U.S. Food and Drug Administration, or 9 A.A.C. 8, a licensee or a person exempt under R9-14-602(4) or (5) may request approval



of an alternate method or method alteration by submitting to the Department:

1. For an alternate method or method alteration required or authorized by the EPA, ADEQ, the U.S. Food and Drug Administration, or 9 A.A.C. 8, ~~the request shall include the following information:~~
 - a. The name, address, and telephone number of the licensee or person exempt under R9-14-602(4) or (5) submitting the request;
 - b. The name, address, and telephone number of the laboratory for which approval of the alternate method or method alteration is requested;
 - c. Identification of the parameter for which approval of the alternate method or method alteration is requested; and
 - d. Reference to the EPA, ADEQ, U.S. Food and Drug Administration, or 9 A.A.C. 8 requirement or authorization for the use of the alternate method or method alteration for which approval is requested; and
 - e. ~~An alternate method or method alteration approval fee of \$50, payable to the Arizona Department of Health Services, in the form of a certified check, business check, money order, or credit card payment.~~
 2. For an alternate method or method alteration ~~that is not required or authorized by the EPA, ADEQ, the U.S. Food and Drug Administration, or 9 A.A.C. 8, the request shall include~~ to be used because an approved method is not available for a particular parameter, the following information:
 - a. The name, address, and telephone number of the licensee or person exempt under R9-14-602(4) or (5) submitting the request;
 - b. The name, address, and telephone number of the laboratory for which approval of the alternate method or method alteration is requested;
 - c. Identification of the parameter for which approval of the alternate method or method alteration is requested; and
 - d. Written justification for using the alternate method or method alteration for which approval is requested, including the following:
 - i. A detailed description of the alternate method or method alteration;
 - ii. References to published or other studies confirming the general applicability of the alternate method or method alteration to the parameter for which its use is intended;
 - iii. Reference to the EPA, ADEQ, U.S. Food and Drug Administration, or 9 A.A.C. 8 requirement to test the parameter; and
 - iv. Data that demonstrate the performance of the alternate method or method alteration in terms of accuracy, precision, reliability, ruggedness, ease of use, and ability to achieve a detection limit appropriate for the proposed use of the alternate method or method alteration; and
 - ~~e-3.~~ An alternate method or method alteration approval fee of \$50, payable to the Arizona Department of Health Services, in the form of a certified check, business check, money order, or credit card payment.
- ~~3-D.~~ Before approving an alternate method or method alteration that is not required or authorized by the EPA, ADEQ, the U.S. Food and Drug Administration, or 9 A.A.C. 8, the Department may require that the alternate method or method alteration be performed by a laboratory ~~at a~~ designated by the Department to verify that, using the parameter for which its use is intended, the alternate method or method alteration produces data that comply with subsection (C)(2)(d)(iv).
- ~~4-E.~~ The Department may approve an alternate method or method alteration if the Department determines:
- ~~a-1.~~ One of the following:
 - ~~i-a.~~ Use of the alternate method or method alteration is required or authorized by the EPA, ADEQ, the U.S. Food and Drug Administration, or 9 A.A.C. 8; or
 - ~~ii-b.~~ Use of the alternate method or method alteration is justified as described in subsection (C)(2)(d); and
 - ~~b-2.~~ If the alternate method or method alteration pertains to drinking water compliance testing, the EPA concurs that the alternate method or method alteration may be used.
- F.** The Department may rescind the approval of an alternate method or method alteration approved by the Department according to subsection (E), if, as applicable:
1. For an alternate method or method alteration requested under subsection (C)(1), the alternate method or method alteration is no longer required or authorized by the EPA, ADEQ, the U.S. Food and Drug Administration, or 9 A.A.C. 8; or
 2. For an alternate method or method alteration requested under subsection (C)(2), an approved method becomes available for the particular parameter.

R9-14-611. Compliance Testing for Drinking Water Compliance Testing Parameters

- A.** A licensee for a laboratory at which compliance testing for drinking water compliance testing parameters is performed, including compliance testing performed according to 9 A.A.C. 8, Article 2, shall ensure that:
1. ~~The~~ Except as provided in subsection (B), the laboratory is operated in compliance with the guidelines in Key ~~Ref-erence~~ References D4, D5, and D6, excluding the requirements for laboratory personnel education and experience;
 2. Each sample for Arizona drinking water sample for Arizona parameter compliance testing is analyzed:
 - a. using Using an approved method:
 - ~~a-i.~~ Listed under Exhibit I, Table 1, Section A, in Table 6.2.A Drinking Water Parameters; or



- b-ii. Approved by the Department for compliance testing for drinking water ~~compliance testing parameters~~ under ~~R9-14-610(C)~~ R9-14-610(E); and
- b. If the approved method is from Key Reference C, following the quality control guidelines in Key Reference C associated with the approved method; and
- 3. If the licensee ~~desires to be licensed~~ requests approval to perform testing for vinyl chloride, the licensee also obtains ~~license approval~~ approval to perform testing for each of the analytes listed in 40 CFR 141.61(a)(2)-(21).
- B. If an approved method does not include a specific quality control guideline, a licensee for a laboratory at which compliance testing for drinking water parameters is performed shall ensure that the laboratory is operated in compliance with the guidelines in Key References C4, D7, D9, D10, D11, D12, D13, or D14, as applicable.

R9-14-612. Compliance Testing for Wastewater ~~Compliance Testing Parameters~~

A licensee for a laboratory at which ~~wastewater~~ compliance testing for wastewater parameters is performed shall ensure that:

- 1. The laboratory is operated in compliance with the guidelines in Key References C5 and C6; and
- 2. ~~each wastewater~~ Each sample for Arizona ~~wastewater parameter~~ compliance testing is analyzed:
 - a. ~~using~~ Using an approved method:
 - 1-i. Listed under Exhibit I, Table 1, Section B, in Table 6.2.B Wastewater Parameters; or
 - 2-ii. Approved by the Department for wastewater ~~parameter~~ compliance testing under ~~R9-14-610(C)~~ R9-14-610(E); and
 - b. If the approved method is from Key Reference C, following the quality control guidelines in Key Reference C associated with the approved method.

R9-14-613. Compliance Testing for Solid Waste ~~Compliance Testing Parameters~~

- A. A licensee for a laboratory at which ~~solid waste~~ compliance testing for waste parameters is performed shall ensure that each ~~solid waste~~ sample for Arizona compliance testing is analyzed using an approved method:
 - 1. Listed under Exhibit I, Table 1, Section C, in Table 6.2.C Solid Waste Parameters; or
 - 2. Approved by the Department for ~~solid waste~~ compliance testing under ~~R9-14-610(C)~~ R9-14-610(E).
- B. A licensee for a laboratory at which ~~solid waste~~ compliance testing for waste parameters is performed using an 8000 series method from Key Reference F shall:
 - 1. If the method includes specific quality control requirements, follow the specific quality control requirements in the method;
 - 2. If the method does not include specific quality control requirements, follow all requirements in EPA, Method 8000C: Determinative Chromatographic Separations (rev. 3 March 2003), incorporated by reference, on file with the Department, including no future editions or amendments, and available at http://www.epa.gov/epaoswer/haz-waste/test/new_meth.htm Key Reference F14; and
 - 3. If the method does not include specific sample extraction procedures, follow the procedures in the following from Key Reference F, as applicable:
 - a. Method 3500B,
 - b. Method 3600C, and or
 - c. Method 5000.
- C. A licensee for a laboratory at which ~~solid waste~~ compliance testing for waste parameters is performed using a non-8000 series method from Key Reference F shall comply with the following from Key Reference F, as applicable, according to the requirements of the specific method:
 - 1. Method 4000, and or
 - 2. ~~Method 7000A~~ Methods 7000B and 7010.
- D. A licensee for a laboratory at which ~~solid waste~~ compliance testing for waste parameters is performed using a method from Key Reference F shall comply with Chapters 1 through 8 of Update IV, February 2007, of Key Reference F, as applicable, according to the requirements of the specific method.

R9-14-614. Compliance Testing for Air and Stack ~~Compliance Testing Parameters~~

A licensee for a laboratory at which ~~air or stack~~ compliance testing for air or stack parameters is performed shall ensure that each air or stack sample for Arizona compliance testing is analyzed using an approved method:

- 1. Listed under Exhibit I, Table 1, Section D, in Table 6.2.D Air and Stack Parameters; or
- 2. Approved by the Department for ~~air or stack~~ compliance testing for air or stack parameters under ~~R9-14-610(C)~~ R9-14-610(E).

R9-14-615. Quality Assurance

- A. A licensee or applicant shall ensure that the analytical data produced at the licensee's or applicant's laboratory are of known and acceptable precision and accuracy, as prescribed by the approved method for each analysis or as prescribed by the limits described under subsection ~~(C)(9)~~ (C)(8), and are scientifically valid and defensible.
- B. A licensee or applicant shall ~~have establish~~ implement, and comply with a written quality assurance plan that contains the following and is available at the laboratory for Department review:
 - 1. A title page identifying the laboratory and date of review and including the laboratory director's signature of approval;
 - 2. A table of contents;



3. An organization chart or list of the laboratory personnel, including names, ~~line~~ lines of authority, and identification of principal quality assurance personnel;
 4. A copy of the current laboratory license and a list of licensed parameters;
 5. A statement of quality assurance objectives, including data quality objectives with precision and accuracy goals and the criteria for determining the acceptability of each testing;
 6. Specifications for:
 - a. Sample containers,
 - b. Preparation of sample containers,
 - c. Preservation of samples, and
 - d. Maximum ~~allowable~~ holding times allowed;
 7. A procedure for documenting laboratory receipt of samples and tracking of samples during laboratory testing;
 8. A procedure for analytical instrument calibration, including frequency of calibration and complying with the requirements for calibration in subsection (C);
 9. A procedure for compliance testing data reduction and validation and reporting of final results, including the identification and treatment of data outliers, the determination of the accuracy of data transcription, and all calculations;
 10. A statement of the frequency of all quality control checks;
 11. A statement of the acceptance criteria for all quality control checks;
 12. Preventive maintenance procedures and schedules;
 13. Assessment procedures for data acceptability, including appropriate procedures for manual integration of chromatograms and when manual integration is inappropriate;
 14. Corrective action procedures to be taken when results from analytical quality control checks are unacceptable, including steps to demonstrate the presence of any interference if the precision, accuracy, or limit of quantitation of the reported compliance testing result is affected by the interference; and
 15. Procedures for chain-of-custody documentation, including procedures for the documentation and reporting of any deviation from the sample handling or preservation requirements listed in this Section.
- C. A licensee or applicant shall:
1. Have available at the laboratory all methods, equipment, reagents, and glassware necessary for the compliance testing for which the licensee or applicant is licensed or is requesting a license;
 2. Use ~~and document the use of~~ only reagents of a grade equal to or greater than that required by the approved methods and document the use of the reagents;
 3. Maintain and require each analyst to comply with a complete and current standard operating procedure that meets the requirements for each licensed method, which shall include at least:
 - ~~a. A requirement that the method be performed in compliance with the requirements in the approved method;~~
 - ~~b. a.~~ A description of all procedures to be followed when the method is performed;
 - ~~c. b.~~ A list of the concentrations for calibration standards, check standards, and spikes;
 - ~~d. c.~~ Requirements for instrumental conditions and set up;
 - ~~e. d.~~ A requirement for frequency of calibration;
 - ~~f. e.~~ Calculations for the quantitation of The quantitative methods to be used to calculate the final concentration of an analyte in samples, with the actual sample dilution including any factors used in the calculations and the calibration algorithm used, which reflect the procedures followed; and
 - ~~g. f.~~ Requirements for preventative maintenance;
 4. Calibrate each instrument as required by each approved method for which the equipment is used, as follows:
 - a. If a calibration model is specified in the method, using the specified calibration model or, if another calibration model has been approved by the Department as a method alteration, using the calibration model approved as a method alteration;
 - b. If multiple calibration models are included as options in the method, using one of the included calibration models or, if another calibration model has been approved by the Department as a method alteration, using the calibration model approved as a method alteration;
 - c. If the method does not include a calibration model, using the manufacturer's specifications for calibration;
 5. Maintain calibration documentation, including documentation that demonstrates the calculations performed using each calibration model;
 6. Develop, document, and maintain a current limit of detection and limit of quantitation for each compliance parameter for each instrument;
 7. Develop each limit of detection using:
 - a. The protocol in the applicable test method;
 - b. The protocol in the applicable federal regulation; or
 - c. A process that complies with the guidelines in Section D.1.2 of Chapter 5, Appendix D—Essential Quality Control Requirements, in National Environmental Laboratory Accreditation Conference, EPA Pub. No. EPA/600/R-04/003, 2003 NELAC Standard (June 5, 2003), including no future editions or amendments, which is incorporated by reference, on file with the Department, and available from the National Environmental Labo-



~~laboratory Accreditation Conference, US EPA ORD/NERL, Mailcode E243-05, RTP, NC 27711, or at www.epa.gov/nelac/ Key Reference H;~~

~~8. Maintain all compliance testing equipment in proper operating condition;~~

~~9-8.~~ For each parameter tested at the laboratory for which quality control acceptance criteria are not specified in the approved method or by EPA or ADEQ:

- a. Use default limits provided in ~~Exhibit H Table 6.4;~~ or
- b. Statistically develop limits from historical data by:
 - i. Determining the mean and standard deviation for a minimum of 20 data points not invalidated for cause, excluding statistical outliers;
 - ii. Setting the limits no more than three standard deviations from the mean and in the detectable range, using as the lower end of the detectable range the limit of quantitation or the lowest standard value represented in the initial calibration; and
 - iii. Explaining the origin of the lower end of the detectable range in the laboratory's standard operating procedure;

~~10-9.~~ Discard or segregate all expired standards or reagents;

~~11-10.~~ Maintain a record showing the traceability of reagents; and

~~12-11.~~ Ensure that a calibration model is not used or changed to avoid necessary instrument maintenance.

D. A licensee or applicant may submit a written request to the Department for an exemption from subsection (C)(1) for a specific parameter if the licensee or applicant documents:

1. ~~Documents that~~ That the approved method has been performed at the laboratory and that the analytical data generated were scientifically valid and defensible and of known and acceptable precision and accuracy; and
2. ~~Documents the~~ The licensee's or applicant's ability to obtain the equipment, reagent, or glassware necessary to perform the approved method.

E. The written request for an exemption under subsection (D) shall include:

1. The name, address, and main telephone number of the laboratory;
2. The name, address, and telephone number of the licensee or applicant submitting the request;
3. Identification of the parameter and the equipment, reagent, or glassware for which the licensee or applicant is requesting an exemption; and
4. The documentation described in subsections (D)(1) and (2).

F. The Department may approve a request for an exemption under subsection (D) if ~~it~~ the Department determines ~~that the~~ that the:

1. ~~That the approved~~ Approved method has been performed at the laboratory;
2. ~~That the analytical~~ Analytical data generated were scientifically valid and defensible and of known and acceptable precision and accuracy; and
3. ~~That the licensee~~ Licensee or applicant is able to obtain the equipment, reagent, or glassware necessary to perform the approved method.

G. A licensee or applicant shall ensure that a laboratory's written quality assurance plan is a separate document available at the laboratory and includes all of the components required in subsection (B), but a licensee or applicant may satisfy the components required in subsections (B)(3) through (15) through incorporating by reference provisions in separate documents, such as standard operating procedures.

H. ~~A Except as provided in subsection (I), a~~ licensee or applicant shall ensure that each laboratory standard operating procedure is a separate document available at the laboratory and includes all of the components required in subsection (C)(3), ~~but a licensee or applicant may satisfy the components required in subsections (C)(3)(f) and (g) through incorporating by reference provisions in separate documents such as other standard operating procedures.~~

I. A licensee or applicant may satisfy the components required in subsections (C)(3)(e) and (f) through incorporating by reference provisions in separate documents, such as other standard operating procedures.

R9-14-616. Operation

A licensee shall ensure that:

1. A compliance testing sample accepted at the licensee's laboratory is analyzed at:
 - a. ~~At the~~ The licensee's laboratory,
 - b. ~~At another~~ Another laboratory licensed under this Article, or
 - c. ~~At a~~ A laboratory ~~exempted~~ exempt under ~~A.R.S. § 36-495.02(A) or~~ R9-14-602;
2. The facility and utilities required to operate equipment and perform compliance testing are maintained;
3. Environmental controls are maintained within the laboratory to ensure that laboratory environmental conditions do not affect analytical results beyond quality control limits established for the methods performed at the laboratory;
4. Storage, handling, and disposal of hazardous materials at the laboratory are in accordance with all state and federal regulations;
5. The following information is maintained for all supervisory, quality assurance, and analytical personnel:
 - a. A summary of each individual's education and professional experience;
 - b. Documentation of each individual's review of the quality assurance plan required under R9-14-615(B) and the approved methods and laboratory standard operating procedures for each area of testing performed by the individual or for which the individual has supervisory or quality assurance responsibility;



- c. Documentation of each analyst's completion of training on the use of equipment and of proper laboratory technique, including the name of the analyst, the name of the instructor, the duration of the training, and the date of completion of the training;
- d. Documentation of each analyst's completion of training classes, continuing education courses, seminars, and conferences that relate to the testing procedures used by the analyst for compliance testing;
- e. Documentation of each analyst's completion of Initial Demonstration of Capability as required ~~by~~ for each approved method performed by the analyst, as applicable;
- f. Documentation of each analyst's performance of proficiency testing, as applicable;
- g. Documentation of each analyst's completion of training related to instrument calibration that includes:
 - i. Instruction on each calibration model that the analyst will use or for which the analyst will review data;
 - ii. For each calibration model described in subsection (5)(g)(i), the specific aspects of the calibration model that might compromise the data quality, such as detector saturation, lack of detector sensitivity, the calibration model's not accurately reflecting the calibration points, inappropriate extension of the calibration range, weighting factors, and dropping of mid-level calibration points without justification; and
 - iii. Instruction that a calibration model shall not be used or changed to avoid necessary instrument maintenance; and
- h. Documentation of each individual's applicable certifications and specialized training; and
6. The licensee complies with all applicable federal, state, and local occupational safety and health regulations.

R9-14-617. Laboratory Records and Reports

A licensee or applicant shall ensure that:

1. Each record and report required to be maintained by this Article is available for inspection and copying by the Department during a laboratory's normal business hours;
2. The Department is permitted to remove copied records and reports from a laboratory;
3. The licensee or applicant maintains records and reports of compliance testing for at least five years after the date of compliance testing, with:
 - a. All records and reports for at least the most current two years maintained onsite at the laboratory and the remaining records and reports stored in a secure storage facility;
 - b. Each hard copy document containing data either maintained as a hard copy document or scanned into a PDF file or another electronic file format that preserves an exact copy of the hard copy data; and
 - c. All instrument-generated electronic data maintained in a reproducible format from which reports can be produced and printed;
4. No portion of a record or report of compliance testing is altered or deleted to hide or misrepresent any part of the data;
5. The licensee or applicant produces all records and reports requested by the Department within 24 hours after the request or, if the licensee or applicant requests a period longer than 24 hours, ~~a~~ the longer period of time agreed upon by the Department;
6. Upon Department request, the licensee or applicant makes available for inspection and copying the requested data from non-Arizona compliance samples;
7. A compliance testing record contains:
 - a. Sample information, including the following:
 - i. A unique sample identification assigned at the laboratory,
 - ii. The location or location code of sample collection,
 - iii. The sample collection date and time,
 - iv. The type of testing to be performed, and
 - v. The name of the individual who collected the sample;
 - b. The name and address of the client submitting the sample to the laboratory;
 - c. The name of the individual who submitted the sample to the laboratory;
 - d. The date and time of receipt of the sample at the laboratory;
 - e. The name of the individual who received the sample at the laboratory;
 - f. The dates and times of testing, including the date and time of each critical step;
 - g. The actual results of compliance testing, including all raw data, work sheets, and calculations performed;
 - h. The actual results of quality control data validating the test results, including the calibration and calculations performed;
 - i. The name of each analyst or who performed the testing; and
 - j. A copy of the final report; and
8. A final report of compliance testing contains:
 - a. The name, address, and telephone number of the laboratory;
 - b. The license number assigned to the laboratory by the Department;
 - c. Actual scientifically valid and defensible results of compliance testing in appropriate units of measure, obtained in accordance with an approved method and quality assurance plan;



- d. Qualified results of compliance testing not obtained in accordance with an approved method and quality assurance plan;
- e. A list of each approved method used to obtain the reported results;
- f. Sample information, including the following:
 - i. The unique sample identification assigned at the laboratory,
 - ii. The location or location code of sample collection,
 - iii. The sample collection date and time,
 - iv. The name of the individual who collected the sample,
 - v. The name of the client that submitted the sample to the laboratory, and
 - vi. The name of the individual who submitted the sample to the laboratory;
- g. The date of analysis for each parameter reported;
- h. The date of the final report; and
- i. The laboratory director's or designee's signature.

R9-14-620. Changes to a License

- A. During the term of a license, a licensee may request to have one or more parameters added to the license.
- B. To request to have one or more parameters added to a license, a licensee shall submit to the Department:
 - 1. A written request that includes:
 - a. The name, address, and telephone number of the licensee submitting the request;
 - b. The name, address, and telephone number of the laboratory for which the addition is requested; and
 - c. Identification of each parameter requested to be added;
 - 2. The applicable method and instrumentation fees, as determined according to Tables ~~1 and 2 in Exhibit I~~ 6.2.A, 6.2.B, 6.2.C, 6.2.D, 6.2.E, and 6.3, payable to the Arizona Department of Health Services by credit card; certified check; business check; or money order; or, if the owner is an Arizona state agency, purchase order;
 - 3. If the addition results in a different Level of license, the difference between the application fee paid with the most recent application and the application fee for the new Level of license required under R9-14-607(A)(2), payable to the Arizona Department of Health Services as provided in subsection (B)(2); and
 - 4. The following for each parameter requested to be added:
 - a. The limit of detection, if applicable;
 - b. A copy of a proficiency testing report; and
 - c. A copy of the standard operating procedure.
- C. The Department may conduct a laboratory inspection during the substantive review period for a request to have one or more parameters added to a license.
- D. The Department shall process a request to have one or more parameters added to a license as provided in R9-14-621.
- E. A licensee may ~~request~~ submit up to three requests for deletion of parameters ~~at no charge three times~~ during a license period ~~at no charge~~, but shall pay \$17 per parameter request for the fourth and each subsequent request for deletion of parameters submitted requested during a the license period.

R9-14-621. Time-frames

- A. The overall time-frame described in A.R.S. § 41-1072 for each type of approval granted by the Department under this Article is set forth in Table ~~4~~ 6.1.
 - 1. An applicant and the Department may agree in writing to extend the substantive review time-frame and the overall time-frame.
 - 2. An extension of the substantive review time-frame and the overall time-frame may not exceed 25% of the overall time-frame.
- B. The administrative completeness review time-frame described in A.R.S. § 41-1072 for each type of approval granted by the Department under this Article is set forth in Table ~~4~~ 6.1 and begins on the date that the Department receives an application or request for approval.
 - 1. The Department shall send a notice of administrative completeness or deficiencies to an applicant within the administrative completeness review time-frame.
 - a. A notice of deficiencies shall list each deficiency and the information or items needed to complete the application or request for approval.
 - b. The administrative completeness review time-frame and the overall time-frame are suspended from the date that a notice of deficiencies is sent until the date that the Department receives all of the missing information or items from an applicant.
 - 2. If an applicant fails to submit to the Department all of the information and items listed in a notice of deficiencies within 60 days after the date that the Department sent the notice of deficiencies, the Department shall consider the application or request for approval withdrawn ~~and deny the license or other approval requested~~.
 - 3. If the Department issues a license or other approval to an applicant during the administrative completeness review time-frame, the Department shall not issue a separate written notice of administrative completeness.
- C. The substantive review time-frame described in A.R.S. § 41-1072 is set forth in Table ~~4~~ 6.1 and begins on the date of a notice of administrative completeness.



1. As part of the substantive review for an initial license application, the Department may conduct a laboratory inspection, investigation, or proficiency testing, or a combination of the three, as described in R9-14-605.
 - a. The Department shall commence a laboratory inspection, investigation, or proficiency testing, or combination of the three, no more than 30 days after notice of administrative completeness has been mailed for an in-state laboratory or no more than 60 days after notice of administrative completeness has been mailed for an out-of-state laboratory.
 - b. The Department and an applicant may mutually agree in writing to schedule a laboratory inspection, proficiency testing, or investigation later than the date required under subsection (C)(1)(a).
2. The Department shall send written notification of approval or denial of a license or other approval to an applicant within the substantive review time-frame.
3. During the substantive review time-frame, the Department may make one comprehensive written request for additional information, unless the Department and applicant have agreed in writing to allow the Department to submit supplemental requests for information.
4. If the Department issues a comprehensive written request or a supplemental request for information, the substantive review time-frame and the overall time-frame are suspended from the date that the Department issues the request until the date that the Department receives all of the information requested.
5. If an applicant fails to submit to the Department all of the information and items listed in a comprehensive written request or a supplemental request for information within 60 days after the date that the Department sent the comprehensive written request or supplemental request for information, the Department shall deny the license or other approval requested.
6. The Department shall grant a license or other approval unless:
 - a. An applicant fails to submit requested information or a requested item as described in subsection (B)(2) or (C)(5);
 - b. For an initial license application or a regular license renewal application where the regular license is not suspended, the Department determines that grounds to deny the license exist under A.R.S. § 36-495.09;
 - c. For a regular license renewal application where the regular license is suspended, the Department determines that the licensee is not in full compliance with the corrective action plan; A.R.S. Title 36, Chapter 4.3; or this Article;
 - d. For a request for approval of an alternate method or method alteration, the Department determines that the alternate method or method alteration does not meet the standard for approval under ~~R9-14-610(C)(4)~~ R9-14-610(E); or
 - e. For a request for approval of an exemption under R9-14-615(D), the Department determines that the request does not meet the standard for approval under R9-14-615(F).
7. If the Department denies a license or other approval, the Department shall send to the applicant a written notice of denial setting forth the reasons for denial and all other information required by A.R.S. § 41-1076.

Table 4-6.1. Time-frames (in days)

Type of Approval	Statutory Authority	Overall Time-frame	Administrative Completeness Review Time-frame	Substantive Review Time-frame
Initial License—In-State Laboratory	A.R.S. §§ 36-495.01, 36-495.03, 36-495.06, 36-495.07	201	21	180
Initial License—Out-of-State Laboratory	A.R.S. §§ 36-495.01, 36-495.03, 36-495.06, 36-495.07	231	21	210
Regular License Renewal—In-State Laboratory	A.R.S. §§ 36-495.01, 36-495.03, 36-495.06, 36-495.07	37	14	23
Regular License Renewal—Out-of-State Laboratory	A.R.S. §§ 36-495.01, 36-495.03, 36-495.06, 36-495.07, 36-495.14	67	14	53
Regular License Renewal—In-State Laboratory with Provisional License	A.R.S. §§ 36-495.01, 36-495.03, 36-495.05, 36-495.06, 36-495.07	70	21	49



Regular License Renewal-Out-of-State Laboratory with Provisional License	A.R.S. §§ 36-495.01, 36-495.03, 36-495.05, 36-495.06, 36-495.07, 36-495.14	100	21	79
Request for Approval of an Alternate Method or Method Alteration-Required or Authorized by EPA/ADEQ	A.R.S. §§ 36-495.01, 36-495.06	105	15	90
Request for Approval of an Alternate Method or Method Alteration-Not Required or Authorized by EPA/ADEQ- <u>Due to an Approved Method Not Being Available</u>	A.R.S. §§ 36-495.01, 36-495.06	210	30	180
Request for Approval of an Exemption under R9-14-615(D)	A.R.S. § 36-495.01	60	15	45
Request to Have One or More Parameters Added to a License under R9-14-620 – In-State Laboratory	A.R.S. §§ 36-495.01, 36-495.03, 36-495.06, 36-495.07	91	21	70
Request to Have One or More Parameters Added to a License under R9-14-620 – Out-of-State Laboratory	A.R.S. §§ 36-495.01, 36-495.03, 36-495.06, 36-495.07	121	21	100

EXHIBIT I. ~~APPROVED METHODS; METHOD FEES; INSTRUMENTATION FEES~~ Repealed

Table 1. ~~Approved Methods; Method Fees~~

SECTION A. DRINKING WATER PARAMETERS			
1. Microbiology of Drinking Water			
Description	Reference	Method/s	Fee Per Method
<i>Aeromonas</i>	Z1	1605	\$228
Coliforms, Fecal	C2	9221E	\$228
		9222D	\$228
	C1	Hach 8001	\$228
Coliforms, Total, by Colilert (ONPG-MUG)	C2	9223B	\$152
Coliforms, Total, by Colisure	C2	9223B	\$152
Coliforms, Total, by Membrane Filtration	C2	9222B	\$228
		9222C	\$228
Coliforms, Total and <i>E. coli</i> , by Membrane Filtration	Z8	1604	\$228
Coliforms, Total, by Multiple Tube Fermentation	C2	9221B and C	\$228
	C1	Hach 8001	\$228
Coliforms, Total, by Presence/Absence	C2	9221D	\$228
<i>Escherichia coli</i>	X	Tube Procedure	\$228
		Membrane Filter Procedure	\$228
<i>Cryptosporidium</i>	P4	1622	\$381
<i>Giardia</i> and <i>Cryptosporidium</i>	P5	1623	\$381



Heterotrophic Plate Count	C2	9215B	\$152
	Z4	SimPlate	\$152
Microscopic Particulate Analysis	P1	910/9-92-029	\$228
Viruses	P2	600/R-95/178	\$381
2. Inorganic Chemistry and Physical Properties of Drinking Water			
Description	Reference	Method/s	Fee Per Method
Alkalinity	C2	2320B	\$19
Asbestos	H1	100.1	\$503
	H2	100.2	\$503
Bromate	A6	317.0	\$76
	A7	326.0	\$76
	Z	300.1	\$26
		321.8	\$152
Bromide	A2	300.0	\$26
	A6	317.0	\$76
	A7	326.0	\$76
	Z	300.1	\$26
Calcium	A1	200.7	\$10
	C	3111B	\$26
		3500-Ca D	\$76
Carbon, Dissolved Organic	A9	415.3	\$76
	C2	5310B	\$39
		5310C	\$39
		5310D	\$39
Carbon, Total Organic	A9	415.3	\$76
	C2	5310B	\$39
		5310C	\$39
		5310D	\$39
Chloride	A2	300.0	\$26
	C2	4500-Cl B	\$39
		4500-Cl D	\$39
		4110B	\$26
Chloramine	C2	4500-Cl D	\$39
		4500-Cl F	\$39
		4500-Cl G	\$76



Chlorine	C2	4500-Cl-D	\$39
		4500-Cl-E	\$39
		4500-Cl-F	\$39
		4500-Cl-G	\$39
		4500-Cl-H	\$39
		4500-Cl-I	\$39
	C1	Hach 8168	\$39
		Hach 8167	\$39
		Hach 8370	\$39
		Hach 8021	\$39
Chlorine Dioxide	A8	327.0	\$76
	C2	4500-ClO2-C	\$39
		4500-ClO2-D	\$76
		4500-ClO2-E	\$39
Chlorite	A2	300.0	\$26
	A6	317.0	\$76
	A7	326.0	\$76
	A8	327.0	\$76
	Z	300.1	\$26
Color	C2	2120B	\$32
Corrosivity	C2	2330B	\$39
Cyanide	A2	335.4	\$76
	C2	4500-CN-B	\$7
		4500-CN-C	\$13
		4500-CN-E	\$76
		4500-CN-F	\$76
	Z9	QuikChem 10-204-00-1-X	\$76
Cyanide, Amenable	C2	4500-CN-G	\$76
Fluoride	A2	300.0	\$26
	A3	380-75WE	\$39
	C2	4500-F-B	\$39
		4500-F-C	\$26
		4500-F-D	\$39
		4500-F-E	\$39
		4110B	\$26
	C1	Hach 8029	\$39



Hardness	A1	200.7, Sum of Ca and Mg as their carbonates	\$10
	C2	2340-B, Sum of Ca and Mg as their carbonates	\$10
		2340-C	\$39
Magnesium	A1	200.7	\$10
	C	3111B	\$26
Methylene Blue Active Substances	C2	5540-C	\$39
Nitrate	A2	353.2	\$76
		300.0	\$26
	C2	4500-NO ₃ -D	\$39
		4500-NO ₃ -E	\$76
		4500-NO ₃ -F	\$76
		4110B	\$26
Nitrite	A2	353.2	\$76
		300.0	\$26
	C2	4500-NO ₂ -B	\$76
		4500-NO ₃ -E	\$76
		4500-NO ₃ -F	\$76
		4110B	\$26
Odor	C2	2150B	\$32
Orthophosphate	A2	365.1	\$76
		300.0	\$26
	C2	4500-P-E	\$76
		4500-P-F	\$76
		4110B	\$26
Ozone	C	4500-O ₃ -B	\$39
Perechlorate	Z	314.0	\$76
		314.1	\$76
		331	\$152
		332	\$152
pH (Hydrogen Ion)	A	150.1	\$39
		150.2	\$39
	C2	4500-H-B	\$39
	C1	Hach 8156	\$39
Residue, Filterable (TDS)	C2	2540-C	\$39
Sediment Concentration	Z6	D-3977-979	\$13



Silica	A1	200.7	\$10
	C2	4500-Si-C	\$76
		4500-Si-D	\$76
		4500-Si-E	\$76
Sodium	A1	200.7	\$10
	C	3111B	\$26
Specific Conductance	C2	2510B	\$39
	C1	Hach 8160	\$39
Sulfate	A2	300.0	\$26
		375.2	\$76
	C2	4500-SO4-C	\$76
		4500-SO4-D	\$76
		4500-SO4-E	\$76
		4500-SO4-F	\$76
Temperature, Degrees Celsius	C2	4110B	\$26
Turbidity, Nephelometric (NTU)	A2	180.1	\$39
	C2	2130B	\$39
UV-Absorbing Organic Constituents	C2	5910B	\$76
3. Metals in Drinking Water			
a. Sample Preparation for Metals in Drinking Water			
Description	Reference	Method/s	Fee Per Method
Acid Extractable Metals	C	3030C	\$7
Microwave Assisted Digestion	C	3030K	\$7
Nitric Acid	C	3030E	\$7
Nitric Acid/Hydrochloric Acid	C	3030F	\$7
Nitric Acid/Perchloric Acid	C	3030H	\$7
Nitric Acid/Perchloric Acid/Hydrofluoric Acid	C	3030I	\$7
Nitric Acid/Sulfuric Acid	C	3030G	\$7
Preliminary Filtration	C	3030B	\$7
b. Methods to Analyze Metals in Drinking Water			
Description	Reference	Method/s	Fee Per Method
Aluminum	A1	200.7	\$10
		200.8	\$26
		200.9	\$26
	C	3111D	\$26
		3113B	\$26



Antimony	A+	200.8	\$26
		200.9	\$26
	€	3113B	\$26
Arsenic	A+	200.8	\$26
		200.9	\$26
	€	3113B	\$26
		3114B	\$76
Barium	A+	200.7	\$10
		200.8	\$26
	€	3111D	\$26
		3113B	\$26
Beryllium	A+	200.7	\$10
		200.8	\$26
		200.9	\$26
	€	3113B	\$26
Cadmium	A+	200.7	\$10
		200.8	\$26
		200.9	\$26
	€	3113B	\$26
Chromium, Total	A+	200.7	\$10
		200.8	\$26
		200.9	\$26
	€	3113B	\$26
Copper	A+	200.7	\$10
		200.8	\$26
		200.9	\$26
	€	3111B	\$26
		3113B	\$26
Iron	A+	200.7	\$10
		200.9	\$26
	€	3111B	\$26
		3113B	\$26
Lead	A+	200.8	\$26
		200.9	\$26
	€	3113B	\$26



Manganese	A+	200.7	\$10
		200.8	\$26
		200.9	\$26
	€	3111B	\$26
		3113B	\$26
Mercury	A	245.2	\$52
	A+	245.1	\$52
		200.8	\$26
	€	3112B	\$52
Nickel	A+	200.7	\$10
		200.8	\$26
		200.9	\$26
	€	3111B	\$26
		3113B	\$26
Selenium	A+	200.8	\$26
		200.9	\$26
	€	3113B	\$26
		3114B	\$76
Silver	A+	200.7	\$10
		200.8	\$26
		200.9	\$26
	€	3111B	\$26
		3113B	\$26
Strontium	A+	200.7	\$10
	€	3500-Sr-B	\$26
		3500-Sr-C	\$20
		3500-Sr-D	\$26
Thallium	A+	200.8	\$26
		200.9	\$26
Uranium	A+	200.8	\$26
Zinc	A+	200.7	\$10
		200.8	\$26
	€	3111B	\$26
4. Organic Chemistry of Drinking Water			
a. Methods to Comply with National Primary Drinking Water Regulations			
Description	Reference	Method/s	Fee Per Method



<p>Disinfectant Byproducts, Solvents and Pesticides:</p> <p>Alachlor Atrazine Dibromochloropropane Endrin Ethylene dibromide Heptachlor Heptachlorepoide Hexachlorobenzene Hexachlorocyclopentadiene Lindane Methoxychlor Simazine 1,1,2-Trichloroethane Trichloroethylene 1,1,1-Trichloroethane Tetrachloroethylene Carbon tetrachloride Chloroform Bromodichloromethane Dibromochloromethane Bromoform Total Trihalomethanes</p>	D3	551.1 (1.0)	\$116
<p>VOCs by GC:</p> <p>Benzene Carbon Tetrachloride (mono-)Chlorobenzene o-Dichlorobenzene para-Dichlorobenzene 1,2-Dichloroethane cis-1,2-Dichloroethylene Trans-1,2-Dichloroethylene Dichloromethane 1,2-Dichloropropane Ethylbenzene Styrene Tetrachloroethylene 1,1,1-Trichloroethane Trichloroethylene Toluene 1,2,4-Trichlorobenzene 1,1-Dichloroethylene 1,1,2-Trichloroethane Vinyl chloride Xylenes, Total Chloroform Bromodichloromethane Dibromochloromethane Bromoform Total Trihalomethanes</p>	D3	502.2 (2.1)	\$152



VOCs by GC-MS: Benzene Carbon Tetrachloride (mono) Chlorobenzene o-Dichlorobenzene para-Dichlorobenzene 1,2-Dichloroethane cis-1,2-Dichloroethylene Trans-1,2-Dichloroethylene Dichloromethane 1,2-Dichloropropane Ethylbenzene Styrene Tetrachloroethylene 1,1,1-Trichloroethane Trichloroethylene Toluene 1,2,4-Trichlorobenzene 1,1-Dichloroethylene 1,1,2-Trichloroethane Vinyl Chloride Xylenes, Total Chloroform Bromodichloromethane Dibromochloromethane Bromoform Total Trihalomethanes	D3	524.2 (4.1)	\$152
EDB/DBCP	D3	504.1 (1.1)	\$116
Pesticides and PCBs by GC (Microextraction): Alachlor Atrazine Chlorodane Endrin Heptachlor Heptachlor Epoxide Hexachlorobenzene Hexachlorocyclopentadiene Lindane Methoxychlor Aroclor 1016 Aroclor 1221 Aroclor 1232 Aroclor 1242 Aroclor 1248 Aroclor 1254 Aroclor 1260 Simazine Toxaphene	D3	505 (2.1)	\$152
Phthalate and Adipate Esters by GC-PID: Di (2-ethylhexyl)adipate Di (2-ethylhexyl)phthalate	D3	506 (1.1)	\$116
Pesticides by GC-NPD Atrazine Alachlor Simazine	D3	507 (2.1)	\$116



<p>Chlorinated Pesticides by GC-ECD:</p> <p>Chlordane Endrin Heptachlor Heptachlor Epoxide Hexachlorobenzene Hexachlorocyclopentadiene Lindane Methoxychlor Aroclor 1016 Aroclor 1221 Aroclor 1232 Aroclor 1242 Aroclor 1248 Aroclor 1254 Aroclor 1260 Toxaphene</p>	D3	508 (3.1)	\$152
<p>Chlorinated Pesticides, Herbicides, Organohalides by GC-ECD:</p> <p>Alachlor Atrazine Chlorodane Endrin Heptachlor Heptachlor Epoxide Hexachlorobenzene Hexachlorocyclopentadiene Lindane Methoxychlor Aroclor 1016 Aroclor 1221 Aroclor 1232 Aroclor 1242 Aroclor 1248 Aroclor 1254 Aroclor 1260 Simazine Toxaphene</p>	D3	508.1(2.0)	\$152
<p>Organics by GC-MS:</p> <p>Alachlor Atrazine Benzo(a)pyrene Chlorodane Di (2-ethylhexyl)adipate Di (2-ethylhexyl)phthalate Endrin Heptachlor Heptachlor Epoxide Hexachlorobenzene Hexachlorocyclopentadiene Lindane Methoxychlor Aroclor 1016 Aroclor 1221 Aroclor 1232 Aroclor 1242 Aroclor 1248 Aroclor 1254 Aroclor 1260 Pentachlorophenol Simazine Toxaphene</p>	D3	525.2 (2.0)	\$152



Carbamates by HPLC/Post Column: Carbofuran Oxamyl	D3	531.1 (3.1)	\$116
	D7	531.2	\$116
Chlorinated Acids and Dalapon by GC-ECD: 2,4-D Dalapon Dinoseb Pentachlorophenol Picloram Silvex (2,4,5-TP)	D	515.1 (4.0)	\$116
	D6	515.3 (1.0)	\$116
	D8	515.4 (1.0)	\$116
Chlorinated Acids By GC-ECD 2,4-D Dinoseb Pentachlorophenol Picloram Silvex (2,4,5-TP)	D3	515.2 (1.1)	\$116
PAHs By HPLC/UV/FL: Benzo(a)pyrene	D1	550	\$116
		550.1	\$116
Haloacetic Acids and Dalapon by GC-ECD: Dalapon Monochloroacetic Acid Dichloroacetic Acid Trichloroacetic Acid Monobromoacetic Acid Dibromoacetic Acid HAA5	D2	552.1 (1.0)	\$116
	D3	552.2 (1.0)	\$116
Haloacetic Acids: Monochloroacetic Acid Dichloroacetic Acid Trichloroacetic Acid Monobromoacetic Acid Dibromoacetic Acid HAA5	D13	552.3	\$116
Disinfection Byproducts by Micro Liquid-Liquid Extraction/GC-ECD	E2	6251B	\$116
Chlorinated Acids By HPLC/PDA/UV: 2,4-D Dinoseb Pentachlorophenol Picloram Silvex (2,4,5-TP)	D2	555 (1.0)	\$116
Dioxin	E	1613	\$258
Diquat	D5	549.2 (1.0)	\$116
Endothall	D2	548.1 (1.0)	\$116
Glyphosate	D1	547	\$116
PCBs (as decachlorobiphenyl)	D	508A (1.0)	\$152
b. Additional Methods and Compounds Required by Other Programs			
Description	Reference	Method/s	Fee Per Method
Disinfectant Byproducts, Solvents and Pesticides	D3	551.1 (1.0)	\$26
VOCs by GC	D3	502.2 (2.1)	\$26
VOCs by GC-MS	D3	524.2 (4.1)	\$26



EDB/DBCP	D3	504.1 (1.1)	\$26
Pesticides and PCBs by GC (Microextraction)	D3	505 (2.1)	\$26
Phthalate and Adipate Esters by GC-PID	D3	506 (1.1)	\$26
Pesticides by GC-NPD	D3	507 (2.1)	\$26
Chlorinated Pesticides by GC-ECD	D3	508 (3.1)	\$26
Chlorinated Pesticides, Herbicides, Organohalides by GC-ECD	D3	508.1 (2.0)	\$26
Organics by GC-MS	D3	525.2 (2.0)	\$26
Carbamates by HPLC/Post Column	D3	531.1 (3.1)	\$26
	D7	531.2	\$26
Chlorinated Acids and Dalapon by GC-ECD	D	515.1 (4.0)	\$26
	D6	515.3 (1.0)	\$26
	D8	515.4 (1.0)	\$26
Chlorinated Acids By GC-ECD	D3	515.2 (1.1)	\$26
PAHs By HPLC/UV/FL	D4	550	\$26
		550.1	\$26
Haloacetic Acids and Dalapon by GC-ECD	D2	552.1 (1.0)	\$26
	D3	552.2 (1.0)	\$26
Chlorinated Acids By HPLC/PDA/UV	D2	555 (1.0)	\$26
Dioxins and Furans	E	1613	\$65
Diquat and Paraquat	D5	549.2 (1.0)	\$26
Benzidines and Nitrogen Compounds	D2	553 (1.1)	\$116
Carbonyl Compounds	D2	554 (1.0)	\$116
Phenols	Z	528	\$152
Phenylurea Compounds	Z	532	\$116
Selected Semivolatiles	Z	526	\$152
Pesticides and Flame Retardants by GCMS	D9	527	\$152
Explosives and Related Compounds	D10	529	\$152
Acetanilide Degradation Products	D11	535 (1.1)	\$194
Acetanilide Parent Compound	D3	525.2 (2.0)	\$26
Nitrosamines by MS/MS	D12	521	\$194
5. Radiochemistry of Drinking Water			
Description	Reference	Method/s	Fee Per Method



Cesium	B	Cesium-134	\$206
	C2	7500-Cs-B	\$206
		7120	\$206
	H	R-1110-76	\$206
		R-1111-76	\$206
	L	901	\$206
		901.1	\$206
Gamma Emitting Isotopes	U	4.5.2.3	\$206
	W	Gamma Spectra	\$206
	C2	7500-Cs-B	\$206
		7500-1B	\$206
		7120	\$206
	L	901.1	\$206
		901	\$206
		902	\$206
Gross Alpha	W	Gamma Spectra	\$206
	B	Gross Alpha	\$206
	C2	7110B	\$206
		7110C	\$206
	H	R-1120-76	\$206
	L	900	\$206
	V	00-01	\$206
		00-02	\$206
Gross Beta	W	Gross Alpha	\$206
	B	Gross Beta	\$206
	C2	7110B	\$206
	H	R-1120-76	\$206
	L	900	\$206
	V	00-01	\$206
	W	Gross Beta	\$206



Iodine	B	Precipitation Method, Distillation Method	\$206
	C2	7500-1-B	\$206
		7500-1-C	\$206
		7500-1-D	\$206
		7420	\$206
	L	902	\$206
		901.1	\$206
	U	4.5.2.3	\$206
	W	Gamma Spectra	\$206
Radium 226	B	Radon Emanation, Precipitation Method	\$206
	C2	7500-Ra-B	\$206
		7500-Ra-C	\$206
	H	R-1140-76	\$206
		R-1141-76	\$206
	L	903	\$206
		903.1	\$206
	U	Ra-05	\$206
	V	Ra-03	\$206
		Ra-04	\$206
	W	Radium 226	\$206
Radium 228	B	Radium 228	\$206
	C2	7500-Ra-D	\$206
	H	R-1142-76	\$206
	L	904	\$206
	V	Ra-05	\$206
	W	Radium 228	\$206
Strontium	B	Strontium	\$206
	C2	7500-Sr-B	\$206
	H	R-1160-76	\$206
	L	905	\$206
	U	Sr-01	\$206
		Sr-02	\$206
	V	Sr-04	\$206
	W	Strontium	\$206



Tritium	B	Tritium	\$206
	C2	7500-3H-B	\$206
	H	R-1171-76	\$206
	L	906	\$206
	V	H-02	\$206
	W	Tritium	\$206
Uranium	C2	7500-U-B	\$206
	I	D5174-91	\$206
	H	R-1180-76	\$206
		R-1181-76	\$206
		R-1182-76	\$206
	L	908	\$206
		908.1	\$206
	U	U-02	\$206
		U-04	\$206
	V	00-07	\$206
	W	Uranium	\$206

SECTION B. WASTEWATER PARAMETERS

1. Microbiology of Wastewater

Description	Reference	Method/s	Fee Per Method
<i>Ascaris lumbricoides</i>	C2	40550	\$228
	P3	UofA2000	\$228
Coliforms, Fecal, by Membrane Filter	C2	9222D	\$228
Coliforms, Fecal, by Multiple Tube Fermentation (may be used for sludge)	C2	9221E	\$228
Coliforms, Total, by Membrane Filter	C2	9222B	\$228
Coliforms, Total, by Multiple Tube Fermentation	C2	9221B	\$228
<i>Entamoeba histolytica</i>	C2	40550	\$228
	C	9711C	\$228
Enteric viruses	I	D4994-89	\$381
<i>Escherichia coli</i> (NPDES) by Colilert MPN, in conjunction with SM 9221B and 9221C	C2	9223B	\$152
<i>Escherichia coli</i> (NPDES) in conjunction with SM 9221B and 9221C	C2	9221F	\$152
<i>Giardia</i> and <i>Cryptosporidium</i>	C2	9711B	\$381
	P2	600/R-95/178	\$381
<i>Helminth Ova</i> in sludge	Z5	600/1-87-014	\$381
<i>Salmonella</i> in sludge	C2	9260D	\$228
<i>Streptococcus</i> , Fecal, by Membrane Filter	C2	9230C	\$194



Streptococcus, Fecal, by Multiple Tube Fermentation	C2	9230B	\$194
Tapeworm, Common	C2	40550	\$228
Viruses	C2	9510	\$381
	P	Methods for Virology	\$381
	P2	600/R-95/178	\$381
2. Wastewater Inorganic Chemistry, Nutrients and Demand			
Description	Reference	Method/s	Fee Per Method
Acidity	C2	2310B	\$39
	C1	Hach 8010	\$39
Alkalinity, Total	A	310.2	\$19
	C2	2320B	\$19
Ammonia	A2	350.1	\$39
	C2	4500-NH3-B	\$39
		4500-NH3-C	\$39
		4500-NH3-D	\$39
		4500-NH3-E	\$39
		4500-NH3-G	\$39
	C1	Hach 8038	\$39
Biochemical Oxygen Demand	C2	5210B	\$152
	C1	Hach 8043	\$152
Boron	A1	200.7	\$10
	C2	4500-B-B	\$76
Bromide	A2	300.0	\$26
Calcium	A1	200.7	\$10
	C	3111B	\$26
		3500-Ca-D	\$39
	C1	Hach 8222	\$39
Carbon, Total Organic (TOC)	C2	5310-B	\$39
		5310-C	\$39
		5310-D	\$39
Chemical Oxygen Demand	A	410.3	\$39
	A2	410.4	\$76
	C2	5220-C	\$39
		5220-D	\$76
	C1	Hach 8000	\$39
		Hach 8230	\$39



Chloride	A2	300.0	\$26
	C2	4500-Cl-B	\$39
		4500-Cl-C	\$39
		4500-Cl-E	\$39
	C1	Hach 8225	\$39
Chlorine, Free	C1	Hach 8021	\$39
Chlorine, Total Residual	C2	4500-Cl-B	\$39
		4500-Cl-C	\$39
		4500-Cl-D	\$39
		4500-Cl-F	\$39
		4500-Cl-G	\$39
	C1	Hach 8167	\$39
		Hach 8168	\$39
		Hach 10014	\$39
Color	C2	2120-B	\$32
		2120-C	\$32
		2120-E	\$32
Cyanide, Amenable to Chlorination	A	335.1	\$76
	C2	4500-CN-G	\$76
Cyanide, Available	Y	OIA 1677	\$76
Cyanide, Total	A	335.3	\$76
	C2	4500-CN-B and either (a) 4500-CN-C, (b) 4500-CN-D, or (c) 4500-CN-E	\$89
Fluoride	A2	300.0	\$26
	C2	4500-F-B	\$39
		4500-F-C	\$39
		4500-F-D	\$39
		4500-F-E	\$39
	C1	Hach 8029	\$39
Hardness	A	130.1	\$10
	A1	200.7	\$10
	C2	2340B	\$39
		2340C	\$39
	C1	Hach 8226	\$39



Kjeldahl, Total Nitrogen	A	351.1	\$76
		351.4	\$76
	A2	351.2	\$76
	C2	Combination of 4500-NH3-B and either (a) 4500-Norg-B or (b) 4500-N org-C	\$115
		4500-NH3-C	\$39
	Z10	PAI-DK01	\$76
	Z11	PAI-DK02	\$76
	Z12	PAI-DK03	\$76
Methylene Blue Active Substances	C2	5540C	\$39
Nitrate (as N)	A	352.1	\$76
	A2	300.0	\$26
Nitrate-Nitrite (as N)	A2	300.0	\$26
		353.2	\$76
	C2	4500-NO3-E	\$76
		4500-NO3-F	\$76
		4500-NO3-H	\$76
Nitrite (as N)	A	354.1	\$76
	A2	300.0	\$26
	C2	4500-NO2-B	\$76
	C1	Hach 8507	\$76
Oil and Grease and Total Petroleum Hydrocarbons	C2	5520B	\$76
	K1	1664A	\$76
Orthophosphate	A	365.3	\$76
	A2	300.0	\$26
		365.1	\$76
	C2	4500-P-E	\$76
		4500-P-F	\$76
	C1	Hach 8048	\$39
Oxygen consumption Rate (SOUR)	C2	2710B	\$39
Oxygen, Dissolved	C2	4500-O-C	\$26
		4500-O-G	\$26
	C1	Hach 8229	\$26
pH (Hydrogen Ion)	A	150.1	\$39
	C2	4500-H-B	\$39
	C1	Hach 8156	\$39
Phenols	A	420.1	\$116
	C1	Hach 8047	\$116



Phosphorus, Total	A	365.3	\$76
		365.4	\$76
	A2	365.1	\$76
	C2	4500-P-B	\$76
		4500-P-E	\$76
		4500-P-F	\$76
	C1	Hach 8190	\$76
Potassium	A	258.1	\$26
	A1	200.7	\$10
	C	3111B	\$26
		3500-K-D	\$26
Residue, Filterable (TDS)	C2	2540C	\$39
Residue, Nonfilterable (TSS)	C2	2540D	\$39
	C1	Hach 8158	\$39
Residue, Settleable Solids	A	160.5	\$39
	C2	2540F	\$39
Residue, Total	A	160.3	\$39
	C2	2540B	\$39
Residue, Volatile	A	160.4	\$39
Silica, Dissolved	A	370.1	\$76
	A1	200.7	\$10
	C	4500-Si-D	\$76
	C2	4500-SiO2-C	\$76
Sodium	A1	200.7	\$10
	C	3111B	\$26
Sodium Azide	C2	4110C	\$76
Specific Conductance	A	120.1	\$39
	C2	2510B	\$39
	C1	Hach 8160	\$39
Sulfate	A	375.1	\$76
	A2	300.0	\$26
	C2	4500-SO4-C	\$76
		4500-SO4-D	\$76
	C1	Hach 8051	\$39
Sulfide (includes total and soluble)	C2	4500-S-D	\$76
		4500-S-F	\$39
	C1	Hach 8131	\$39
Sulfite	C2	4500-SO3-B	\$76
	C1	Hach 8071	\$39



Temperature, Degrees Celsius	C2	2550B	\$13
Total, Fixed and Volatile Solids in Solid and Semi-solid Samples in Sludge	C2	2540G	\$39
Turbidity, NTU	A2	180.1	\$39
	C2	2130B	\$39
3. Metals in Wastewater			
a. Sample Preparation for Metals in Wastewater			
Description	Reference	Method/s	Fee Per Method
Acid Extractable Metals	C	3030C	\$7
Microwave Digestion	Z7	CEM Microwave Digestion	\$7
Nitric Acid	C	3030E	\$7
Nitric Acid/Hydrochloric Acid	C	3030F	\$7
Nitric Acid/Perchloric Acid	C	3030H	\$7
Nitric Acid/Perchloric Acid/Hydrofluoric Acid	C	3030I	\$7
Nitric Acid/Sulfuric Acid	C	3030G	\$7
Preliminary Filtration	C	3030B	\$7
b. Methods to Analyze Metals in Wastewater			
Description	Reference	Method/s	Fee Per Method
Aluminum	A1	200.7	\$10
		200.8	\$26
		200.9	\$26
	C	3113B	\$26
		3111D	\$26
Antimony	A1	200.7	\$10
		200.8	\$26
		200.9	\$26
	C	3111B	\$26
		3113B	\$26
Arsenic	A	206.5	\$39
	A1	200.7	\$10
		200.8	\$26
		200.9	\$26
	C	3113B	\$26
		3500-A5-C	\$76
	C1	Hach 8013	\$39
Barium	A1	200.7	\$10
		200.8	\$26
	C	3111D	\$26
		3113B	\$26



Beryllium	A1	200.7	\$10
		200.8	\$26
		200.9	\$26
	C	3111D	\$26
		3113B	\$26
		3500-Be D	\$76
Cadmium	A1	200.7	\$10
		200.8	\$26
		200.9	\$26
	C	3111B	\$26
		3111C	\$26
		3113B	\$26
		3500-Cd D	\$76
Chromium (VI) Hexavalent	A	218.4	\$26
	C	3500-Cr D	\$39
		3111C	\$26
	C1	Hach 8023	\$39
Chromium, Total	A1	200.7	\$10
		200.8	\$26
		200.9	\$26
	C	3111B	\$26
		3111C	\$26
		3113B	\$26
		3500-Cr D	\$76
	C1	Hach 8023	\$39
Cobalt	A1	200.7	\$10
		200.8	\$26
		200.9	\$26
	C	3111B	\$26
		3111C	\$26
		3113B	\$26
Copper	A1	200.7	\$10
		200.8	\$26
		200.9	\$26
	C	3111B	\$26
		3111C	\$26
		3113B	\$26
		3500-Cu D	\$76
	C1	Hach 8506	\$39



Gold	A	231.2	\$26
	€	3111B	\$26
Iridium	A	235.2	\$26
	€	3111B	\$26
Iron	A+	200.7	\$10
		200.9	\$26
	€	3111B	\$26
		3111C	\$26
		3113B	\$26
		3500-Fe-D	\$76
	€1	Hach 8008	\$39
Lead	A+	200.7	\$10
		200.8	\$26
		200.9	\$26
	€	3111B	\$26
		3111C	\$26
		3113B	\$26
		3500-Pb-D	\$76
	€1	Hach 8033	\$39
Lithium	A+	200.7	\$10
Magnesium	A+	200.7	\$10
	€	3111B	\$26
		3500-Mg-D	\$76
Manganese	A+	200.7	\$10
		200.8	\$26
		200.9	\$26
	€	3111B	\$26
		3113B	\$26
		3500-Mn-D	\$76
	€1	Hach 8034	\$39
Mercury	A	245.2	\$52
	A+	245.1	\$52
	A4	4631E	\$152
	€	3112B	\$52
Molybdenum	A+	200.7	\$10
		200.8	\$26
	€	3111D	\$26
		3113B	\$26



Nickel	A+	200.7	\$10
		200.8	\$26
		200.9	\$26
	€	3111B	\$26
		3111C	\$26
		3113B	\$26
	€+	Hach 8037	\$39
Osmium	A	252.2	\$26
	€	3111D	\$26
Palladium	A	253.2	\$26
	€	3111B	\$26
Platinum	A	255.2	\$26
	€	3111B	\$26
Rhodium	A	265.2	\$26
	€	3111B	\$26
Ruthenium	A	267.2	\$26
	€	3111B	\$26
Selenium	A+	200.7	\$10
		200.8	\$26
		200.9	\$26
	€	3113B	\$26
		3114B	\$76
Silver	A+	200.7	\$10
		200.8	\$26
		200.9	\$26
	€	3111B	\$26
		3111C	\$26
		3113B	\$26
Strontium	A+	200.7	\$10
	€	3111B	\$26
		3500-Sr-B	\$26
		3500-Sr-C	\$20
		3500-Sr-D	\$26
Thallium	A	279.2	\$26
	A+	200.7	\$10
		200.8	\$26
		200.9	\$26
	€	3111B	\$26



Tin	A1	200.7	\$10
		200.9	\$26
	C	3111B	\$26
		3113B	\$26
Titanium	A	283.2	\$26
	C	3111D	\$26
Vanadium	A1	200.7	\$10
		200.8	\$26
	C	3111D	\$26
		3500-V-D	\$76
Zinc	A	289.2	\$26
	A1	200.7	\$10
		200.8	\$26
		200.9	\$26
	C	3111B	\$26
		3111C	\$26
		3500-Zn-E	\$76
		3500-Zn-F	\$76
	C1	Hach 8009	\$39

4. Aquatic Toxicity Bioassay of Wastewater

Description	Reference	Method/s	Fee Per Method
Toxicity, Acute	M1	EPA/600/4-90/027F	\$194
	Z13	821-R-02-012	\$194
Toxicity, Chronic	N1	EPA/600/4-91/002	\$194
	Z3	821-R-02-013	\$194

5. Organic Chemicals of Wastewater

Description	Reference	Method/s	Fee Per Method
Volatile Organics for Pharmaceuticals	D3	524.2 (4.1)	\$152
Purgeable Hydrocarbons	E	601	\$76
Purgeable Aromatics	E	602	\$76
Acrolein and Acrylonitrile	E	603	\$76
		624 (Approved for screening only, not for quantification)	\$152
		1624B	\$152
Phenols	E	604	\$116
Phthalate ester-	E	606	\$116
Nitrosamines-	E	607	\$116
Organochlorine Pesticides and PCBs-	E	608	\$152
Nitroaromatics and Isophorone-	E	609	\$116



PAHs	E	610	\$116
Haloethers-	E	611	\$116
Chlorinated Hydrocarbons-	E	612	\$116
2, 3, 7, 8 Tetraachlorodibenzo p-Dioxin	E	613	\$457
Carbon , Hydrogen , and Oxygen-Containing Pesti- cides	Z2	616	\$116
Purgeables-	E	624	\$152
Base/Neutrals and Acids (all analytes excluding pes- ticides)	E	625	\$152
Base/Neutrals and Acids (pesticides only)	E	625	\$152
Tetra- through Octa-Chlorinated Dioxins and Furans	E	1613B	\$258
VOCs by Isotope Dilution GC/MS-	E	1624B	\$152
Semivolatile Organic Compounds by Isotope Dila- tion GC/MS-	E	1625B	\$152
Organophosphorus Pesticides	E	1657	\$116
VOCs Specific to the Pharmaceutical Manufacturing Industry by Isotope Dilution GC/MS-	K2	1666-(A)	\$152
Herbicides	C2	6640B	\$116
Ethylene Glycol	K	BLS-188	\$152

6. Radiochemistry of Wastewater

Description	Reference	Method/s	Fee Per Method
Gross Alpha	C2	7110B	\$206
	L	900	\$206
Gross Beta	C2	7110B	\$206
	L	900.0	\$206
Radium, Total	C2	7500-Ra-B	\$206
	L	903.0	\$206
Radium-226	C2	7500-Ra-C	\$206
	L	903.1	\$206

SECTION C. SOLID WASTE PARAMETERS

1. Microbiology of Solid Waste

Description	Reference	Method/s	Fee Per Method
Coliforms, Total, by Membrane Filter	F	9132	\$228
Coliforms, Total, by Multiple Tube Fermentation	F	9131	\$228

2. Physical Properties Testing of Solid Waste

Description	Reference	Method/s	Fee Per Method
Corrosive to Steel	F	1110A	\$63
Corrosivity—pH Determination	F	9040C	\$63
EP-Toxicity	F	1310B	\$76



Ignitability (Flashpoint Determination)	F	1010A	\$32
		1020B	\$32
Paint Filter Liquids Test	F	9095B	\$19
TCLP	F	1311	\$303
3. Sample Preparation for Metals in Solid Waste			
Description	Reference	Method/s	Fee Per Method
Dissolved in Water	F	3005A	\$7
Microwave Assisted Digestions	F	3015A	\$7
		3051	\$7
		3052	\$7
Oils, Greases, and Waxes	F	3040A	\$7
		3031	\$7
Sediments, Sludges, and Soils	F	3050B	\$7
Total Metals	F	3010A	\$7
		3020A	\$7
Total Recoverable in Water	F	3005A	\$7
4. Inorganic Chemistry and Metals of Solid Waste			
Description	Reference	Method/s	Fee Per Method
Aluminum	F	6010B	\$10
		6020	\$26
	F11	7000B	\$26
Ammonia	A	350.3	\$39
Antimony	F	6010B	\$10
		6020	\$26
		7062	\$76
	F11	7000B	\$26
	F12	7010	\$26
Arsenic	F	6010B	\$10
		7061A	\$76
		7062	\$76
		7063	\$76
		6020	\$26
	F12	7010	\$26
Barium	F	6010B	\$10
		6020	\$26
	F11	7000B	\$26
	F12	7010	\$26



Beryllium	F	6010B	\$10
		6020	\$26
	F11	7000B	\$26
	F12	7010	\$26
Bomb Preparation Method for Solid Waste	F	5050	\$7
Boron	F	6010B	\$10
Bromide	F	9056	\$26
		9211	\$39
Cadmium	F	6010B	\$10
		6020	\$26
	F11	7000B	\$26
	F12	7010	\$26
Calcium	F	6010B	\$10
	F11	7000B	\$26
Cation-Exchange Capacity of Soils	F	9080	\$34
		9081	\$34
Chloride	F	9056	\$26
		9057	\$76
		9212	\$39
		9250	\$76
		9251	\$76
		9253	\$39
Chlorine, Total, in New and Used Petroleum Products	F	9075	\$76
		9076	\$39
		9077	\$39
Chromium, Hexavalent	F	7195	\$26
		7196A	\$76
		7197	\$26
		7198	\$40
		7199	\$76
Chromium, Total	F	6010B	\$10
		6020	\$26
	F11	7000B	\$26
	F12	7010	\$26
Cobalt	F	6010B	\$10
		6020	\$26
	F11	7000B	\$26
	F12	7010	\$26



Compatibility Test for Wastes and Membranes Liners	F	9090A	\$152
Copper	F	6010B	\$10
		6020	\$26
	F11	7000B	\$26
	F12	7010	\$26
Cyanide	F	9010C	\$13
		9012B	\$76
		9213	\$76
		9014	\$76
	F9	9015	\$76
Cyanide Extraction for Solids and Oils	F10	9013A	\$39
Dermal Corrosion	F	1120	\$63
EP for Oily Wastes	F	1330A	\$76
Flashpoint Determination	F	1030	\$32
Fluoride	F	9056	\$26
		9214	\$39
Iron	F	6010B	\$10
	F11	7000B	\$26
	F12	7010	\$26
Kjeldahl Total, Nitrogen	A	351.4	\$76
Lead	F	6010B	\$10
		6020	\$26
	F11	7000B	\$26
	F12	7010	\$26
Liquid Release Test Procedure	F	9096	\$39
Lithium	F	6010B	\$10
	F11	7000B	\$26
Magnesium	F	6010B	\$10
	F11	7000B	\$26
Manganese	F	6010B	\$10
		6020	\$26
	F11	7000B	\$26
	F12	7010	\$26
Mercury	F	7470A	\$52
		7471A	\$52
		7472	\$152



Molybdenum	F	6010B	\$10
	F11	7000B	\$26
	F12	7010	\$26
Multiple EP	F	1320	\$152
Nickel	F	6010B	\$10
		6020	\$26
	F11	7000B	\$26
	F12	7010	\$26
Nitrate	F	9210	\$39
		9056	\$26
Nitrite	F	9056	\$26
Oil and Grease and Petroleum Hydrocarbons	K1	1664A	\$76
O-Phosphate-P	F	9056	\$26
Osmium	F	6010B	\$10
	F11	7000B	\$26
Paint Filter Liquids Test	F	9095B	\$19
Perechlorate	Z	314.0	\$76
pH (Hydrogen Ion)	F	9041A	\$39
		9045D	\$39
Phosphorus	F	6010B	\$10
Phosphorus, Total	A	365.3	\$76
Potassium	F	6010B	\$10
	F11	7000B	\$26
Saturated Hydraulic and Leachate Conductivity and Intrinsic Permeability	F	9100	\$152
Selenium	F	6010B	\$10
		7741A	\$26
		7742	\$76
	F12	7010	\$26
Silica	F	6010B	\$10
Silver	F	6010B	\$10
		6020	\$26
	F11	7000B	\$26
	F12	7010	\$26
Sodium	F	6010B	\$10
	F11	7000B	\$26
Sodium Azide	C2	4110C	\$76
Specific Conductance	F	9050A	\$39
SPLP	F	1312	\$303



Strontium	F	6010B	\$10
	F11	7000B	\$26
Sulfate	F	9035	\$76
		9036	\$76
		9038	\$76
		9056	\$26
Sulfides	F	9030B	\$76
		9031	\$76
		9215	\$76
		9034	\$76
Thallium	F	6010B	\$10
		6020	\$26
	F11	7000B	\$26
	F12	7010	\$26
Tin	F	6010B	\$10
	F11	7000B	\$26
Titanium	F	6010B	\$10
Vanadium	F	6010B	\$10
	F11	7000B	\$26
	F12	7010	\$26
White Phosphorus by GC	F	7580	\$116
Zinc	F	6010B	\$10
		6020	\$26
	F11	7000B	\$26
	F12	7010	\$26

5. Organics Procedures in Solid Waste

Description	Reference	Method/s	Fee Per Method
Separatory Funnel Liquid-Liquid Extraction	F	3510C	\$13
Organic Compounds in Water by Microextraction	F5	3511	\$13
Continuous Liquid-Liquid Extraction	F	3520C	\$13
SPE	F	3535	\$13
Soxhlet Extraction	F	3540C	\$13
Automated Soxhlet Extraction	F	3541	\$13
Pressurized Fluid Extraction	F	3545	\$13
Ultrasonic Extraction	F	3550B	\$13
Supercritical Fluid Extraction of Total Recoverable Petroleum Hydrocarbons	F	3560	\$13
Supercritical Fluid Extraction of PAHs	F	3561	\$13
MSE	F4	3570	\$13



Waste Dilution	F	3580A	\$13
Waste Dilution for Volatile Organics	F	3585	\$13
Alumina Cleanup	F	3610B	\$13
Alumina Column Cleanup and Separation of Petroleum Wastes	F	3611B	\$13
Florisil Cleanup	F	3620B	\$13
Silica Gel Cleanup	F	3630C	\$13
Gel Permeation Cleanup	F	3640A	\$13
Acid-Base Partition Cleanup	F	3650B	\$13
Sulfur Cleanup	F	3660B	\$13
Sulfuric Acid/Permanganate Cleanup	F	3665A	\$13
Screening for Pentachlorophenol by Immunoassay	F	4010A	\$76
Screening for 2,4 Dichlorophenoxyacetic Acid by Immunoassay	F	4015	\$76
Screening for PCBs by Immunoassay	F	4020	\$76
Screening for PCDDs and PCDFs by Immunoassay	F3	4025	\$76
Soil Screening for Petroleum Hydrocarbons by Immunoassay	F	4030	\$76
Soil Screening for PAHs by Immunoassay	F	4035	\$76
Soil Screening for Toxaphene by Immunoassay	F	4040	\$76
Soil Screening for Chlordane by Immunoassay	F	4041	\$76
Soil Screening for DDT by Immunoassay	F	4042	\$76
TNT Explosives in Soil by Immunoassay	F	4050	\$76
RDX in Soil by Immunoassay	F	4051	\$76
VOCs in Various Sample Matrices Using Equilibrium Headspace Analysis	F8	5021A	\$13
Purge and Trap for Aqueous Samples	F6	5030C	\$13
Volatile, Nonpurgeable, Water Soluble Compounds by Azeotropic Distillation	F	5031	\$13
VOCs by Vacuum Distillation	F	5032	\$13
Closed System Purge and Trap and Extraction for Volatile Organics in Soil and Waste Samples	F2	5035A	\$13
Analysis for Desorption of Sorbent Cartridges from VOST	F	5041A	\$13
EDB and DBCP by Microextraction and GC	F	8011	\$116
C ₁₀ —C ₃₂ Hydrocarbons	K	8015AZ-1	\$116
Nonhalogenated Organics Using GC/FID	F7	8015D	\$116
Aromatic and Halogenated Volatiles by GC Using Photoionization and/or Electrolytic Conductivity Detectors	F	8021B	\$152
Acrylonitrile by GC	F	8031	\$76
Acrylamide by GC	F	8032A	\$76



Acetonitrile by GC with Nitrogen-Phosphorus Detection	F	8033	\$76
Phenols by GC	F	8041	\$116
Phthalate Esters by GC/ECD	F	8061A	\$116
Nitrosamines by GC	F	8070A	\$116
Organochlorine Pesticides by GC	F	8081A	\$152
PCBs by GC	F	8082	\$152
Nitroaromatics and Cyclic Ketones by GC	F	8091	\$116
PAHs	F	8100	\$116
Haloethers by GC	F	8111	\$116
Chlorinated Hydrocarbons by GC: Capillary Column Technique	F	8121	\$116
Aniline and Selected Derivatives by GC	F	8131	\$116
Organophosphorus Compounds by GC	F	8141A	\$152
Chlorinated Herbicides by GC Using Methylation or Pentafluorobenzoylation Derivatization	F	8151A	\$152
VOCs by GC/MS	F	8260B	\$152
Semivolatile Organic Compounds by GC/MS	F	8270C	\$152
Semivolatile Organic Compounds (PAHs and PCBs) in Soils/Sludges and Solid Wastes Using TE/GC/MS	F	8275A	\$152
8280A: Polychlorinated Dibenzo-p-Dioxins and PCDFs by HRGC/LRMS	F	8280A	\$258
PCDDs and PCDFs by HRGC/HRMS	F	8290	\$258
PAHs	F	8310	\$116
Determination of Carbonyl Compounds by HPLC	F	8315A	\$116
Acrylamide, Acrylonitrile, and Acrolein by HPLC	F	8316	\$116
N-Methylcarbamates by HPLC	F	8318	\$116
Solvent Extractable Nonvolatile Compounds by HPLC/TS/MS or UV Detection	F	8321A	\$152
Solvent Extractable Nonvolatile Compounds by HPLC/PB/MS	F	8325	\$152
Nitroaromatics and Nitramines by HPLC	F	8330	\$116
Tetrazene by Reverse-Phase HPLC	F	8331	\$116
Nitroglycerine by HPLC	F	8332	\$116
GC/FT-IR Spectrometry for Semivolatile Organics: Capillary Column	F	8410	\$116
Analysis of Bis (2-chloroethyl) Ether and Hydrolysis Products by Direct Aqueous Injection GC/FT-IR	F	8430	\$116
Total Recoverable Petroleum Hydrocarbons by Infrared Spectrophotometry	F	8440	\$116
Colorimetric Screening Method for TNT in Soil	F	8515	\$76
TOX	F	9020B	\$76



POX	F	9021	\$76
TOX by Neutron Activation Analysis	F	9022	\$114
EOX in Solids	F	9023	\$114
TOCs	F	9060A	\$76
Phenolics	F	9065	\$152
		9066	\$152
		9067	\$152
HEM for Aqueous Samples	F	9070A	\$76
HEM for Sludge, Sediment, and Solid Samples	F	9071B	\$76
PCBs in Waste Oil	F1	600/4-81-045	\$152
6. Bulk Asbestos Analysis of Solid Waste			
Description	Reference	Method/s	Fee Per Method
Bulk Asbestos Analysis	G	9002	\$228
	H	Bulk Asbestos	\$228
Fiber Counting	G	7400	\$228
		7402	\$228
7. Radiochemistry of Solid Waste			
Description	Reference	Method/s	Fee Per Method
Alpha-Emitting Radium Isotopes	F	9315	\$206
Gross Alpha and Beta	F	9310	\$206
Radium-228	F	9320	\$206
SECTION D. AIR AND STACK PARAMETERS			
1. Ambient Air Primary and Secondary Pollutants			
Description	Reference	Method/s	Fee Per Method
Carbon Monoxide	Q	Appendix C	\$393
Formaldehyde	F	8520	\$393
Hydrocarbons	Q	Appendix E	\$393
Lead	Q	Appendix G	\$393
Nitrogen Dioxide	Q	Appendix F	\$393
Ozone	Q	Appendix D	\$393
		Appendix H	\$393
Particulate Matter	Q	Appendix B	\$393
		Appendix J	\$393
		Appendix K	\$393
Sulfur Oxides	Q	Appendix A	\$393
2. Stationary and Stack Sources			
Description	Reference	Method/s	Fee Per Method
Carbon Dioxide, Oxygen, and Excess Air	Q	Method 3	\$393



Carbon Monoxide	Q	Method 10	\$393
		Method 10A	\$393
		Method 10B	\$393
Carbonyl Sulfide, Hydrogen Sulfide, and Carbon Disulfide	Q	Method 15	\$393
Fluoride	Q	Method 13A	\$393
		Method 13B	\$393
		Method 14	\$393
Fugitive Emissions	Q	Method 22	\$393
Gaseous Organic Compounds	Q	Method 18	\$393
		Method 25	\$393
		Method 25A	\$393
		Method 25B	\$393
Hydrogen Sulfide	Q	Method 11	\$393
Inorganic Lead	Q	Method 12	\$393
Moisture Content	Q	Method 4	\$393
Nitrogen Oxide	Q	Method 7	\$393
		Method 7A	\$393
		Method 7B	\$393
		Method 7C	\$393
		Method 7D	\$393
		Method 7E	\$393
		Method 19	\$393
		Method 20	\$393
Particulate Emissions by Asphalt Processing	Q	Method 5A	\$152
Particulate Emissions by Fiberglass Insulation	Q	Method 5E	\$152
Particulate Emissions by Nonsulfate	Q	Method 5F	\$152
Particulate Emissions by Nonsulfuric Acid	Q	Method 5B	\$152
Particulate Emissions by Pressure Filters	Q	Method 5D	\$152
Particulate Emissions by Stationary Sources	Q	Method 5	\$152
		Method 17	\$152
Particulate Emissions by Sulfur Dioxide	Q	Method 19	\$152
Particulate Emissions by Wood Heaters	Q	Method 5G	\$152
		Method 5H	\$152
Petroleum Products, Heat of Combustion	I	D240-92	\$76
		D240-87	\$76
Petroleum Products, Hydrometer Method	I	D287-92	\$76
Petroleum Products, Sulfur	I	D4294-90	\$152



Sulfur and Total Reduced Sulfur	Q	Method 15A	\$393
		Method 16	\$393
		Method 16A	\$393
		Method 16B	\$393
Sulfur Dioxide	Q	Method 6	\$393
		Method 6A	\$393
		Method 6B	\$393
		Method 6C	\$393
		Method 8	\$393
		Method 19	\$393
		Method 20	\$393
Sulfuric Acid Mist	Q	Method 8	\$393
Vapor Tightness, Gasoline Delivery Tank	Q	Method 27	\$393
Volatile Matter Density, Solids and Water	Q	Method 24	\$393
		Method 24A	\$393
VOCs	Q	Method 21	\$393
	S1	TO 15	\$152
Wood Heaters, Certification and Burn Rates	Q	Method 28	\$393
		Method 28A	\$393
3. ADEQ Emission Test			
Description	Reference	Method/s	Fee Per Method
Particulate Emissions, Dry Matter	R	Method A2	\$393
Particulate Emissions, Sulfuric Acid Mist/Sulfur Oxides	R	Method A1	\$393
4. National Emission Standards for Hazardous Air Pollutants			
Description	Reference	Method/s	Fee Per Method
Arsenic	S	Method 108	\$393
		Method 108A	\$393
		Method 108B	\$393
		Method 108C	\$393
Beryllium	S	Method 103	\$393
		Method 104	\$393
Mercury	S	Method 101	\$393
		Method 101A	\$393
		Method 102	\$393
		Method 105	\$393
Polonium 210	S	Method 111	\$393



Vinyl Chloride	S	Method 106	\$393
		Method 107	\$393
		Method 107A	\$393
SECTION E. METHODS DIRECTOR APPROVED UNDER R9-14-610(C)			
Description	Reference	Method/s	Fee Per Method
Chromatographic Method	-	Any	\$116
Mass Spectrometric Method	-	Any	\$152
Toxicity Method	-	Any	\$194
Other Method	-	Any	\$75

Table 2. Instrumentation Fees

Description	Subtype, if any	Fee Per Instrument
Atomic Absorption	Cold Vapor	\$76
	Flame Burner	\$76
	Graphite Furnace	\$76
	Hydride Generator	\$76
	Other	\$76
Counters for Radioactivity	-	\$76
Gas Chromatograph	Electron Capture	\$76
	Flame Ionization	\$76
	Flame Photometric	\$76
	Halide Specific	\$76
	Nitrogen/Phosphorus	\$76
	Photoionization	\$76
	Other	\$76
Gas Chromatograph/Mass Spectrometer	High Resolution	\$194
	Other than High Resolution	\$152
High Pressure Liquid Chromatograph	Ultraviolet	\$76
	Fluorescence	\$76
	Other	\$76
High Pressure Liquid Chromatograph/Mass Spectrometer	-	\$152
Inductively Coupled Plasma	-	\$76
Inductively Coupled Plasma/Mass Spectrometer	-	\$152
Ion Chromatograph	-	\$76
Automated Autoanalyzer	-	\$76
Mercury Analyzer	-	\$76
Organic Halide, Total	-	\$76



Transmission Electron Microscope	-	\$396
X-Ray Diffraction Unit	-	\$76

EXHIBIT II. ~~ALTERNATE DEFAULT LIMITS~~ Repealed

Table 1. Default Limits

QUALITY CONTROL PARAMETERS WITHOUT ACCEPTANCE CRITERIA SPECIFIED IN THE METHOD	DEFAULT LIMITS
Matrix Spike/LFM (processed or non-processed)	LCS/LFB
LCS/LFB (processed or non-processed)/Second source reference standard	CCV/continuing IPC
LOQ/MRL (non-processed)	CCV/continuing IPC or $\pm 50\%$
LOQ/MRL (processed)	LCS/LFB or $\pm 50\%$
QCS (non-processed)	ICV/continuing IPC/manufacture's limits
QCS (processed)	LCS/LFB/manufacture's limits
IDOC limits	LFB/LCS
LFB/LCS/LFM/duplicate RPD	IDOC limits/ $\leq 20\%$
Non-CCC compounds	CCC limits
ICV/CCV	$\pm 10\%$

- A.** For 8000 methods that do not specify the QC limits for Matrix Spike/LCS, a licensee may use the default limit of $\pm 30\%$.
- B.** For 500, 600, 1600, and 8000 series methods that do not specify surrogates or acceptance limits for surrogates, a licensee may use the default limits of 70-130%.
- C.** For 500, 600, 1600, and 8000 series methods that do not specify internal standards or acceptance limits for internal standards, a licensee may use the default limits of 70-130%.
- D.** For methods that do not list a precision measurement, a licensee may use 20% RPD.
- E.** For methods that do not specify the LOQ/MRL, a licensee may use the default limit of $\pm 50\%$.

Table 6.2.A. Approved Methods and Method Fees for Drinking Water Parameters

1. Microbiology of Drinking Water			
Description	Reference	Method/s	Fee Per Method
<u>Aeromonas</u>	<u>A4.35</u>	<u>1605</u>	<u>\$228</u>
<u>Coliforms, Fecal</u>	<u>C</u>	<u>9221E (2006)</u>	<u>\$228</u>
		<u>9222D (2006)</u>	<u>\$228</u>
<u>Coliforms, Total and <i>E. coli</i>, by Colilert (ONPG-MUG)</u>	<u>C and Z</u>	<u>9223B (2004) and IDEXX</u>	<u>\$152</u>
<u>Coliforms, Total, and <i>E. coli</i>, by Colisure</u>	<u>C2 and Z7</u>	<u>9223B (2004) and IDEXX</u>	<u>\$152</u>
<u>Coliforms, Total, by Membrane Filtration</u>	<u>C</u>	<u>9222B (2006)</u>	<u>\$228</u>
		<u>9222C (2006)</u>	<u>\$228</u>
<u>Coliforms, Total and <i>E. coli</i>, by Membrane Filtration</u>	<u>A4.36</u>	<u>1604</u>	<u>\$228</u>
<u>Coliforms, Total, and <i>E. coli</i> by Colitag</u>	<u>C and Z5</u>	<u>9223B (2004) and CPI</u>	<u>\$152</u>
<u>Coliforms, Total, and <i>E. coli</i> by Modified Colitag</u>	<u>C and D8</u>	<u>9223B (2004) and Modified Colitag</u>	<u>\$152</u>
<u>Coliforms, Total, and <i>E. coli</i> by E.colite</u>	<u>C and Z8</u>	<u>9223B (2004) and Charm Sciences, Inc.</u>	<u>\$152</u>
<u>Coliforms, Total, and <i>E. coli</i> by m-ColiBlue24 Test</u>	<u>C and Z6</u>	<u>9222H (2006) and Hach 10029</u>	<u>\$228</u>
<u>Coliforms, Total, and <i>E. coli</i> by Readycult Coliforms 100 Presence/Absence</u>	<u>C and Z14</u>	<u>9223B (2004) and EM Science</u>	<u>\$152</u>
<u>Coliforms, Total, and <i>E. coli</i> by MF using Chromocult Coliform Agar</u>	<u>C and Z15</u>	<u>9223B (2004) and EM Science</u>	<u>\$152</u>



<u>Coliforms, Total, by Multiple Tube Fermentation</u>	<u>C</u>	<u>9221B and C (2006)</u>	<u>\$228</u>
<u>Coliforms, Total, by Presence/Absence</u>	<u>C</u>	<u>9221D (2006)</u>	<u>\$228</u>
<u>Escherichia coli</u>	<u>C</u>	<u>9222G (2006)</u>	<u>\$228</u>
	<u>X</u>	<u>Tube Procedure</u>	<u>\$228</u>
		<u>Membrane Filter Procedure</u>	<u>\$228</u>
<u>Cryptosporidium</u>	<u>A4.32</u>	<u>1622</u>	<u>\$381</u>
<u>Giardia and Cryptosporidium</u>	<u>A4.39</u>	<u>1623</u>	<u>\$381</u>
	<u>A4.33</u>	<u>1623.1</u>	<u>\$381</u>
<u>Heterotrophic Plate Count</u>	<u>C</u>	<u>9215B (2004)</u>	<u>\$152</u>
	<u>Z3</u>	<u>SimPlate</u>	<u>\$152</u>
<u>Heterotrophic Plate Count (For Bottled Water Only)</u>	<u>C</u>	<u>9215D (2004)</u>	<u>\$152</u>
<u>Microscopic Particulate Analysis</u>	<u>P1</u>	<u>910/9-92-029</u>	<u>\$228</u>
<u>Viruses</u>	<u>P2</u>	<u>600/R-95/178</u>	<u>\$381</u>
<u>Coliphage</u>	<u>A4.37</u>	<u>1601</u>	<u>\$228</u>
	<u>A4.38</u>	<u>1602</u>	<u>\$228</u>

2. Inorganic Chemistry and Physical Properties of Drinking Water

<u>Description</u>	<u>Reference</u>	<u>Method/s</u>	<u>Fee Per Method</u>
<u>Alkalinity</u>	<u>C</u>	<u>2320B (2011)</u>	<u>\$19</u>
<u>Asbestos</u>	<u>A4.30</u>	<u>100.1 (9/83)</u>	<u>\$503</u>
	<u>A4.31</u>	<u>100.2 (6/94)</u>	<u>\$503</u>
<u>Bromate</u>	<u>A4.1</u>	<u>317.0 (2.0)</u>	<u>\$76</u>
	<u>A4.3</u>	<u>326.0 (1.0)</u>	<u>\$76</u>
		<u>300.1 (1.0)</u>	<u>\$26</u>
	<u>A5</u>	<u>321.8 (1.0)</u>	<u>\$152</u>
		<u>302.0 (1.0)</u>	<u>\$26</u>
	<u>A2</u>	<u>300.0 (2.1)</u>	<u>\$26</u>
<u>Bromide</u>	<u>A4.1</u>	<u>317.0 (2.0)</u>	<u>\$76</u>
	<u>A4.3</u>	<u>326.0 (1.0)</u>	<u>\$76</u>
	<u>A5</u>	<u>300.1 (1.0)</u>	<u>\$26</u>
		<u>200.7 (4.4)</u>	<u>\$10</u>
<u>Calcium</u>	<u>A1</u>	<u>200.5 (4.2)</u>	<u>\$10</u>
	<u>C</u>	<u>3111B (2011)</u>	<u>\$26</u>
		<u>3500-Ca B (2011)</u>	<u>\$76</u>
		<u>415.3 (1.1)</u>	<u>\$76</u>
<u>Carbon, Dissolved Organic</u>	<u>A4.12</u>	<u>415.3 (1.2)</u>	<u>\$76</u>
	<u>C</u>	<u>5310B (2011)</u>	<u>\$39</u>
		<u>5310C (2011)</u>	<u>\$39</u>
		<u>5310D (2011)</u>	<u>\$39</u>
		<u>415.3 (1.1)</u>	<u>\$76</u>
<u>Carbon, Total Organic</u>	<u>A4.13</u>	<u>415.3 (1.2)</u>	<u>\$76</u>
	<u>C</u>	<u>5310B (2011)</u>	<u>\$39</u>
		<u>5310C (2011)</u>	<u>\$39</u>
		<u>5310D (2011)</u>	<u>\$39</u>
		<u>300.0 (2.1)</u>	<u>\$26</u>
<u>Chloride</u>	<u>A2</u>	<u>300.1 (1.0)</u>	<u>\$26</u>
	<u>C</u>	<u>4500-Cl B (2011)</u>	<u>\$39</u>
		<u>4500-Cl D (2011)</u>	<u>\$39</u>
		<u>4110B (2011)</u>	<u>\$26</u>
		<u>4500-Cl F (2011)</u>	<u>\$39</u>
<u>Chloramine</u>	<u>C</u>	<u>4500-Cl G (2011)</u>	<u>\$76</u>



<u>Chlorate</u>	<u>A5</u>	<u>300.1 (1.0)</u>	<u>\$26</u>
<u>Chlorine, Total Residual and Free</u>	<u>A4.44</u>	<u>334.0 (9/2000)</u>	<u>\$39</u>
	<u>C</u>	<u>4500-Cl D (2011)</u>	<u>\$39</u>
		<u>4500-Cl E (2011)</u>	<u>\$39</u>
		<u>4500-Cl F (2011)</u>	<u>\$39</u>
		<u>4500-Cl G (2011)</u>	<u>\$39</u>
		<u>4500-Cl H (2011)</u>	<u>\$39</u>
		<u>4500-Cl I (2011)</u>	<u>\$39</u>
<u>Chlorine Dioxide</u>	<u>A4.4</u>	<u>327.0 (1.1)</u>	<u>\$76</u>
	<u>C</u>	<u>4500-ClO₂ E (2011)</u>	<u>\$39</u>
	<u>C7</u>	<u>ChlordioX Plus</u>	<u>\$79</u>
	<u>A2</u>	<u>300.0 (2.1)</u>	<u>\$26</u>
	<u>A4.1</u>	<u>317.0 (2.0)</u>	<u>\$76</u>
	<u>A4.3</u>	<u>326.0 (1.0)</u>	<u>\$76</u>
	<u>A4.4</u>	<u>327.0 (1.1)</u>	<u>\$76</u>
<u>Chlorite</u>	<u>A5</u>	<u>300.1 (1.0)</u>	<u>\$26</u>
	<u>C</u>	<u>4500-ClO₂ E (2011)</u>	<u>\$39</u>
	<u>C7</u>	<u>ChlordioX Plus</u>	<u>\$79</u>
	<u>C</u>	<u>2120B (2011)</u>	<u>\$32</u>
<u>Color</u>	<u>C</u>	<u>2330B (2010)</u>	<u>\$39</u>
<u>Corrosivity</u>	<u>C</u>	<u>2330B (2010)</u>	<u>\$39</u>
<u>Cyanide</u>	<u>A2</u>	<u>335.4 (1.0)</u>	<u>\$76</u>
	<u>A6</u>	<u>QuikChem 10-204-00-1-X (2.1)</u>	<u>\$76</u>
	<u>C</u>	<u>4500-CN B (2011)</u>	<u>\$7</u>
		<u>4500-CN C (2011)</u>	<u>\$13</u>
		<u>4500-CN E (2011)</u>	<u>\$76</u>
		<u>4500-CN F (2011)</u>	<u>\$76</u>
	<u>E7</u>	<u>Kelada-01</u>	<u>\$76</u>
	<u>A4.26</u>	<u>OIA-1677 DW</u>	<u>\$76</u>
<u>Cyanide, Available/Amenable</u>	<u>C</u>	<u>4500-CN G (2011)</u>	<u>\$76</u>
	<u>I</u>	<u>D6888-04</u>	<u>\$76</u>
	<u>A2</u>	<u>300.0 (2.1)</u>	<u>\$26</u>
<u>Fluoride</u>	<u>A3</u>	<u>380-75WE (2/76)</u>	<u>\$39</u>
	<u>A5</u>	<u>300.1 (1.0)</u>	<u>\$26</u>
	<u>C</u>	<u>4500-F B (2011)</u>	<u>\$39</u>
		<u>4500-F C (2011)</u>	<u>\$26</u>
		<u>4500-F D (2011)</u>	<u>\$39</u>
		<u>4500-F E (2011)</u>	<u>\$39</u>
		<u>4110B (2011)</u>	<u>\$26</u>
	<u>A1</u>	<u>200.7 (4.4), Sum of Ca and Mg as their carbonates</u>	<u>\$10</u>
<u>Hardness</u>	<u>C</u>	<u>2340 B (2011), Sum of Ca and Mg as their carbonates</u>	<u>\$10</u>
		<u>2340 C (2011)</u>	<u>\$39</u>
	<u>A1</u>	<u>200.7 (4.4)</u>	<u>\$10</u>
<u>Magnesium</u>	<u>A4.10</u>	<u>200.8 (5.4)</u>	<u>\$26</u>
		<u>200.5 (4.2)</u>	<u>\$10</u>
	<u>C</u>	<u>3111B (2011)</u>	<u>\$26</u>
		<u>3500-Mg B (1997)</u>	<u>\$76</u>
<u>Methylene Blue Active Substances</u>	<u>C</u>	<u>5540 C (2011)</u>	<u>\$39</u>



<u>Nitrate</u>	<u>A2</u>	<u>300.0 (2.1)</u>	<u>\$26</u>
		<u>353.2 (2.0)</u>	<u>\$76</u>
	<u>A5</u>	<u>300.1 (1.0)</u>	<u>\$26</u>
	<u>C</u>	<u>4500-NO₃ D (2011)</u>	<u>\$39</u>
		<u>4500-NO₃ E (2011)</u>	<u>\$76</u>
		<u>4500-NO₃ F (2011)</u>	<u>\$76</u>
		<u>4110B (2011)</u>	<u>\$26</u>
<u>Nitrite</u>	<u>A2</u>	<u>300.0 (2.1)</u>	<u>\$26</u>
		<u>353.2 (2.0)</u>	<u>\$76</u>
	<u>A5</u>	<u>300.1 (1.0)</u>	<u>\$26</u>
	<u>C</u>	<u>4500-NO₂ B (2011)</u>	<u>\$76</u>
		<u>4500-NO₃ E (2011)</u>	<u>\$76</u>
		<u>4500-NO₃ F (2011)</u>	<u>\$76</u>
		<u>4110B (2011)</u>	<u>\$26</u>
<u>Odor</u>	<u>C</u>	<u>2150B (2011)</u>	<u>\$32</u>
<u>Orthophosphate</u>	<u>A2</u>	<u>300.0 (2.1)</u>	<u>\$26</u>
		<u>365.1 (2.0)</u>	<u>\$76</u>
	<u>A5</u>	<u>300.1 (1.0)</u>	<u>\$26</u>
	<u>C</u>	<u>4500-P E (2011)</u>	<u>\$76</u>
		<u>4500-P F (2011)</u>	<u>\$76</u>
		<u>4110B (2011)</u>	<u>\$26</u>
<u>Ozone</u>	<u>C</u>	<u>4500-O₃ B (2011)</u>	<u>\$39</u>
<u>Perchlorate</u>	<u>A4.2</u>	<u>314.1 (1.0)</u>	<u>\$76</u>
	<u>A4.5</u>	<u>331.0 (1.0)</u>	<u>\$76</u>
	<u>A4.11</u>	<u>332.0 (1.0)</u>	<u>\$76</u>
	<u>A5</u>	<u>314.0 (1.0)</u>	<u>\$76</u>
<u>pH (Hydrogen Ion)</u>	<u>A</u>	<u>150.1</u>	<u>\$39</u>
		<u>150.2</u>	<u>\$39</u>
	<u>C</u>	<u>4500-H B (2011)</u>	<u>\$39</u>
<u>Residue, Filterable (TDS)</u>	<u>C</u>	<u>2540C (2011)</u>	<u>\$39</u>
<u>Sediment Concentration</u>	<u>I</u>	<u>D 3977-97</u>	<u>\$13</u>
<u>Silica</u>	<u>A1</u>	<u>200.7 (4.4)</u>	<u>\$10</u>
	<u>A4.10</u>	<u>200.5 (4.2)</u>	<u>\$10</u>
	<u>C</u>	<u>4500-SiO₂ C (2011)</u>	<u>\$76</u>
		<u>4500-SiO₂ D (2011)</u>	<u>\$76</u>
		<u>4500-SiO₂ E (2011)</u>	<u>\$76</u>
<u>Sodium</u>	<u>A1</u>	<u>200.7 (4.4)</u>	<u>\$10</u>
	<u>A4.10</u>	<u>200.5 (4.2)</u>	<u>\$10</u>
	<u>C</u>	<u>3111B (2011)</u>	<u>\$26</u>
<u>Specific Conductance</u>	<u>C</u>	<u>2510B (2011)</u>	<u>\$39</u>
<u>Sulfate</u>	<u>A2</u>	<u>300.0 (2.1)</u>	<u>\$26</u>
		<u>375.2 (2.0)</u>	<u>\$76</u>
	<u>A5</u>	<u>300.1 (1.0)</u>	<u>\$26</u>
	<u>C</u>	<u>4500-SO₄ C (2011)</u>	<u>\$76</u>
		<u>4500-SO₄ D (2011)</u>	<u>\$76</u>
		<u>4500-SO₄ E (2011)</u>	<u>\$76</u>
		<u>4500-SO₄ F (2011)</u>	<u>\$76</u>
		<u>4110B (2011)</u>	<u>\$26</u>
<u>Temperature, Degrees Celsius</u>	<u>C</u>	<u>2550 (2010)</u>	<u>\$13</u>
<u>Turbidity, Nephelometric (NTU)</u>	<u>A2</u>	<u>180.1 (2.0)</u>	<u>\$39</u>
	<u>C</u>	<u>2130B (2011)</u>	<u>\$39</u>



UV-Absorption at 254 nm	<u>A4.12</u>	<u>415.3 (1.1)</u>	<u>\$76</u>
	<u>A4.13</u>	<u>415.3 (1.2)</u>	<u>\$76</u>
	<u>C</u>	<u>5910B (2011)</u>	<u>\$76</u>
3. Metals in Drinking Water			
a. Sample Preparation for Metals in Drinking Water			
<u>Description</u>	<u>Reference</u>	<u>Method/s</u>	<u>Fee Per Method</u>
<u>Acid Extractable Metals</u>	<u>C</u>	<u>3030C (2004)</u>	<u>\$7</u>
<u>Microwave Assisted Digestion</u>	<u>C</u>	<u>3030K (2004)</u>	<u>\$7</u>
<u>Nitric Acid</u>	<u>C</u>	<u>3030E (2004)</u>	<u>\$7</u>
<u>Nitric Acid/Hydrochloric Acid</u>	<u>C</u>	<u>3030F (2004)</u>	<u>\$7</u>
<u>Nitric Acid/Perchloric Acid</u>	<u>C</u>	<u>3030H (2004)</u>	<u>\$7</u>
<u>Nitric Acid/Perchloric Acid/Hydrofluoric Acid</u>	<u>C</u>	<u>3030I (2004)</u>	<u>\$7</u>
<u>Nitric Acid/Sulfuric Acid</u>	<u>C</u>	<u>3030G (2004)</u>	<u>\$7</u>
<u>Preliminary Filtration</u>	<u>C</u>	<u>3030B (2004)</u>	<u>\$7</u>
b. Methods to Analyze Metals in Drinking Water			
<u>Description</u>	<u>Reference</u>	<u>Method/s</u>	<u>Fee Per Method</u>
<u>Aluminum</u>	<u>A1</u>	<u>200.7 (4.4)</u>	<u>\$10</u>
		<u>200.8 (5.4)</u>	<u>\$26</u>
		<u>200.9 (2.2)</u>	<u>\$26</u>
	<u>A4.10</u>	<u>200.5 (4.2)</u>	<u>\$10</u>
	<u>C</u>	<u>3111D (2011)</u>	<u>\$26</u>
		<u>3113B (2010)</u>	<u>\$26</u>
<u>Antimony</u>	<u>A1</u>	<u>200.8 (5.4)</u>	<u>\$26</u>
		<u>200.9 (2.2)</u>	<u>\$26</u>
	<u>A4.10</u>	<u>200.5 (4.2)</u>	<u>\$10</u>
	<u>C</u>	<u>3113B (2010)</u>	<u>\$26</u>
<u>Arsenic</u>	<u>A1</u>	<u>200.8 (5.4)</u>	<u>\$26</u>
		<u>200.9 (2.2)</u>	<u>\$26</u>
	<u>A4.10</u>	<u>200.5 (4.2)</u>	<u>\$10</u>
		<u>3113B (2010)</u>	<u>\$26</u>
		<u>3114B (2011)</u>	<u>\$76</u>
<u>Barium</u>	<u>A1</u>	<u>200.7 (4.4)</u>	<u>\$10</u>
		<u>200.8 (5.4)</u>	<u>\$26</u>
	<u>A4.10</u>	<u>200.5 (4.2)</u>	<u>\$10</u>
		<u>3111D (2011)</u>	<u>\$26</u>
		<u>3113B (2010)</u>	<u>\$26</u>
<u>Beryllium</u>	<u>A1</u>	<u>200.7 (4.4)</u>	<u>\$10</u>
		<u>200.8 (5.4)</u>	<u>\$26</u>
		<u>200.9 (2.2)</u>	<u>\$26</u>
	<u>A4.10</u>	<u>200.5 (4.2)</u>	<u>\$10</u>
		<u>3113B (2010)</u>	<u>\$26</u>
<u>Cadmium</u>	<u>A1</u>	<u>200.7 (4.4)</u>	<u>\$10</u>
		<u>200.8 (5.4)</u>	<u>\$26</u>
		<u>200.9 (2.2)</u>	<u>\$26</u>
	<u>A4.10</u>	<u>200.5 (4.2)</u>	<u>\$10</u>
		<u>3113B (2010)</u>	<u>\$26</u>
<u>Chromium, Hexavalent by IC</u>	<u>A4.43</u>	<u>218.7 (1.0)</u>	<u>\$116</u>



<u>Chromium, Total</u>	<u>A1</u>	<u>200.7 (4.4)</u>	<u>\$10</u>
		<u>200.8 (5.4)</u>	<u>\$26</u>
		<u>200.9 (2.2)</u>	<u>\$26</u>
	<u>A4.10</u>	<u>200.5 (4.2)</u>	<u>\$10</u>
	<u>C</u>	<u>3113B (2010)</u>	<u>\$26</u>
<u>Cobalt</u>	<u>A1</u>	<u>200.8 (5.4)</u>	<u>\$26</u>
<u>Copper</u>	<u>A1</u>	<u>200.7 (4.4)</u>	<u>\$10</u>
		<u>200.8 (5.4)</u>	<u>\$26</u>
		<u>200.9 (2.2)</u>	<u>\$26</u>
	<u>A4.10</u>	<u>200.5 (4.2)</u>	<u>\$10</u>
	<u>C</u>	<u>3111B (2011)</u>	<u>\$26</u>
		<u>3113B (2010)</u>	<u>\$26</u>
<u>Iron</u>	<u>A1</u>	<u>200.7 (4.4)</u>	<u>\$10</u>
		<u>200.9 (2.2)</u>	<u>\$26</u>
	<u>A4.10</u>	<u>200.5 (4.2)</u>	<u>\$10</u>
	<u>C</u>	<u>3111B (2011)</u>	<u>\$26</u>
		<u>3113B (2010)</u>	<u>\$26</u>
<u>Lead</u>	<u>A1</u>	<u>200.8 (5.4)</u>	<u>\$26</u>
		<u>200.9 (2.2)</u>	<u>\$26</u>
	<u>A4.10</u>	<u>200.5 (4.2)</u>	<u>\$10</u>
	<u>C</u>	<u>3113B (2010)</u>	<u>\$26</u>
<u>Manganese</u>	<u>A1</u>	<u>200.7 (4.4)</u>	<u>\$10</u>
		<u>200.8 (5.4)</u>	<u>\$26</u>
		<u>200.9 (2.2)</u>	<u>\$26</u>
	<u>C</u>	<u>3111B (2011)</u>	<u>\$26</u>
		<u>3113B (2010)</u>	<u>\$26</u>
<u>Mercury</u>	<u>A</u>	<u>245.2</u>	<u>\$52</u>
	<u>A1</u>	<u>245.1 (3.0)</u>	<u>\$52</u>
		<u>200.8 (5.4)</u>	<u>\$26</u>
	<u>C</u>	<u>3112B (2011)</u>	<u>\$52</u>
<u>Molybdenum</u>	<u>A1</u>	<u>200.8 (5.4)</u>	<u>\$26</u>
<u>Nickel</u>	<u>A1</u>	<u>200.7 (4.4)</u>	<u>\$10</u>
		<u>200.8 (5.4)</u>	<u>\$26</u>
		<u>200.9 (2.2)</u>	<u>\$26</u>
	<u>A4.10</u>	<u>200.5 (4.2)</u>	<u>\$10</u>
	<u>C</u>	<u>3111B (2011)</u>	<u>\$26</u>
		<u>3113B (2010)</u>	<u>\$26</u>
<u>Selenium</u>	<u>A1</u>	<u>200.8 (5.4)</u>	<u>\$26</u>
		<u>200.9 (2.2)</u>	<u>\$26</u>
	<u>A4.10</u>	<u>200.5 (4.2)</u>	<u>\$10</u>
	<u>C</u>	<u>3113B (2010)</u>	<u>\$26</u>
		<u>3114B (2011)</u>	<u>\$76</u>
<u>Silver</u>	<u>A1</u>	<u>200.7 (4.4)</u>	<u>\$10</u>
		<u>200.8 (5.4)</u>	<u>\$26</u>
		<u>200.9 (2.2)</u>	<u>\$26</u>
	<u>A4.10</u>	<u>200.5 (4.2)</u>	<u>\$10</u>
	<u>C</u>	<u>3111B (2011)</u>	<u>\$26</u>
		<u>3113B (2010)</u>	<u>\$26</u>



<u>Strontium</u>	<u>A1</u>	<u>200.7 (4.4)</u>	<u>\$10</u>
		<u>200.8 (5.4)</u>	<u>\$26</u>
		<u>3500-Sr B (2011)</u>	<u>\$26</u>
	<u>C</u>	<u>3500-Sr C (2011)</u>	<u>\$20</u>
		<u>3500-Sr D (2011)</u>	<u>\$26</u>
<u>Thallium</u>	<u>A1</u>	<u>200.8 (5.4)</u>	<u>\$26</u>
		<u>200.9 (2.2)</u>	<u>\$26</u>
<u>Uranium</u>	<u>A1</u>	<u>200.8 (5.4)</u>	<u>\$26</u>
	<u>C</u>	<u>7500 U-C (2011)</u>	<u>\$206</u>
<u>Vanadium</u>	<u>I</u>	<u>D3972-97, 02</u>	<u>\$206</u>
		<u>D5174-97, 02</u>	<u>\$206</u>
	<u>A1</u>	<u>200.8 (5.4)</u>	<u>\$26</u>
<u>Zinc</u>	<u>A1</u>	<u>200.7 (4.4)</u>	<u>\$10</u>
		<u>200.8 (5.4)</u>	<u>\$26</u>
	<u>A4.10</u>	<u>200.5 (4.2)</u>	<u>\$10</u>
	<u>C</u>	<u>3111B (2011)</u>	<u>\$26</u>

4. Organic Chemistry of Drinking Water

a. Methods to Comply with National Primary Drinking Water Regulations

<u>Description</u>	<u>Reference</u>	<u>Method/s</u>	<u>Fee Per Method</u>
<u>Disinfectant Byproducts, Solvents and Pesticides:</u> <u>Alachlor</u> <u>Atrazine</u> <u>Dibromochloropropane</u> <u>Endrin</u> <u>Ethylene dibromide</u> <u>Heptachlor</u> <u>Heptachlorepoxyde</u> <u>Hexachlorobenzene</u> <u>Hexachlorocyclopentadiene</u> <u>Lindane</u> <u>Methoxychlor</u> <u>Simazine</u> <u>1,1,2-Trichloroethane</u> <u>Trichloroethylene</u> <u>1,1,1-Trichloroethane</u> <u>Tetrachloroethylene</u> <u>Carbontetrachloride</u> <u>Chloroform</u> <u>Bromodichloromethane</u> <u>Dibromochloromethane</u> <u>Bromoform</u> <u>Total Trihalomethanes</u>	<u>D3</u>	<u>551.1 (1.0)</u>	<u>\$116</u>



<p>VOCs by GC:</p> <p><u>Benzene</u></p> <p><u>Carbon Tetrachloride</u></p> <p><u>(mono) Chlorobenzene</u></p> <p><u>o-Dichlorobenzene</u></p> <p><u>para-Dichlorobenzene</u></p> <p><u>1,2-Dichloroethane</u></p> <p><u>cis-1,2-Dichloroethylene</u></p> <p><u>Trans-1,2-Dichloroethylene</u></p> <p><u>Dichloromethane</u></p> <p><u>1,2-Dichloropropane</u></p> <p><u>Ethylbenzene</u></p> <p><u>Styrene</u></p> <p><u>Tetrachloroethylene</u></p> <p><u>1,1,1-Trichloroethane</u></p> <p><u>Trichloroethylene</u></p> <p><u>Toluene</u></p> <p><u>1,2,4-Trichlorobenzene</u></p> <p><u>1,1-Dichloroethylene</u></p> <p><u>1,1,2-Trichloroethane</u></p> <p><u>Vinyl chloride</u></p> <p><u>Xylenes, Total</u></p> <p><u>Chloroform</u></p> <p><u>Bromodichloromethane</u></p> <p><u>Dibromochloromethane</u></p> <p><u>Bromoform</u></p> <p><u>Total Trihalomethanes</u></p>	D3	502.2 (2.1)	\$152
<p>VOCs by GC-MS:</p> <p><u>Benzene</u></p> <p><u>Carbon Tetrachloride</u></p> <p><u>(mono) Chlorobenzene</u></p> <p><u>o-Dichlorobenzene</u></p> <p><u>para-Dichlorobenzene</u></p> <p><u>1,2-Dichloroethane</u></p> <p><u>cis-1,2-Dichloroethylene</u></p> <p><u>Trans-1,2-Dichloroethylene</u></p> <p><u>Dichloromethane</u></p> <p><u>1,2-Dichloropropane</u></p> <p><u>Ethylbenzene</u></p> <p><u>Styrene</u></p> <p><u>Tetrachloroethylene</u></p> <p><u>1,1,1-Trichloroethane</u></p> <p><u>Trichloroethylene</u></p> <p><u>Toluene</u></p> <p><u>1,2,4-Trichlorobenzene</u></p> <p><u>1,1 Dichloroethylene</u></p> <p><u>1,1,2-Trichloroethane</u></p> <p><u>Vinyl Chloride</u></p> <p><u>Xylenes, Total</u></p> <p><u>Chloroform</u></p> <p><u>Bromodichloromethane</u></p> <p><u>Dibromochloromethane</u></p> <p><u>Bromoform</u></p> <p><u>Total Trihalomethanes</u></p>	A4.19	524.4	\$152
<p><u>Benzene</u></p> <p><u>Carbon Tetrachloride</u></p> <p><u>(mono) Chlorobenzene</u></p> <p><u>o-Dichlorobenzene</u></p> <p><u>para-Dichlorobenzene</u></p> <p><u>1,2-Dichloroethane</u></p> <p><u>cis-1,2-Dichloroethylene</u></p> <p><u>Trans-1,2-Dichloroethylene</u></p> <p><u>Dichloromethane</u></p> <p><u>1,2-Dichloropropane</u></p> <p><u>Ethylbenzene</u></p> <p><u>Styrene</u></p> <p><u>Tetrachloroethylene</u></p> <p><u>1,1,1-Trichloroethane</u></p> <p><u>Trichloroethylene</u></p> <p><u>Toluene</u></p> <p><u>1,2,4-Trichlorobenzene</u></p> <p><u>1,1 Dichloroethylene</u></p> <p><u>1,1,2-Trichloroethane</u></p> <p><u>Vinyl Chloride</u></p> <p><u>Xylenes, Total</u></p> <p><u>Chloroform</u></p> <p><u>Bromodichloromethane</u></p> <p><u>Dibromochloromethane</u></p> <p><u>Bromoform</u></p> <p><u>Total Trihalomethanes</u></p>	D3	524.2 (4.1)	\$152



<u>VOCs by GC:</u> <u>Benzene</u> <u>Carbon Tetrachloride</u> <u>(mono) Chlorobenzene</u> <u>o-Dichlorobenzene</u> <u>para-Dichlorobenzene</u> <u>1,2-Dichloroethane</u> <u>cis-1,2-Dichloroethylene</u> <u>Trans-1,2-Dichloroethylene</u> <u>Dichloromethane</u> <u>1,2-Dichloropropane</u> <u>Ethylbenzene</u> <u>Styrene</u> <u>Tetrachloroethylene</u> <u>1,1,1-Trichloroethane</u> <u>Trichloroethylene</u> <u>Toluene</u> <u>1,2,4-Trichlorobenzene</u> <u>1,1-Dichloroethylene</u> <u>1,1,2-Trichloroethane</u> <u>Vinyl chloride</u> <u>Xylenes, Total</u> <u>Chloroform</u> <u>Bromodichloromethane</u> <u>Dibromochloromethane</u> <u>Bromoform</u> <u>Total Trihalomethanes</u> <u>Dibromochloropropane</u> <u>Ethylenedibromide</u>	<u>A4.20</u>	<u>524.3 (1.0)</u>	<u>\$152</u>
<u>EDB/DBCP</u>	<u>D3</u>	<u>504.1 (1.1)</u>	<u>\$116</u>
<u>Pesticides and PCBs by GC (Microextraction):</u> <u>Alachlor</u> <u>Atrazine</u> <u>Chlorodane</u> <u>Endrin</u> <u>Heptachlor</u> <u>Heptachlor Epoxide</u> <u>Hexachlorobenzene</u> <u>Hexachlorocyclopentadiene</u> <u>Lindane</u> <u>Methoxychlor</u> <u>Aroclor 1016</u> <u>Aroclor 1221</u> <u>Aroclor 1232</u> <u>Aroclor 1242</u> <u>Aroclor 1248</u> <u>Aroclor 1254</u> <u>Aroclor 1260</u> <u>Simazine</u> <u>Toxaphene</u>	<u>D3</u>	<u>505 (2.1)</u>	<u>\$152</u>
<u>Phthalate and Adipate Esters by GC-PID:</u> <u>Di (2-ethylhexyl)adipate</u> <u>Di (2-ethylhexyl)phthalate</u>	<u>D3</u>	<u>506 (1.1)</u>	<u>\$116</u>
<u>Pesticides by GC-NPD</u> <u>Atrazine</u> <u>Alachlor</u> <u>Simazine</u>	<u>D3</u>	<u>507 (2.1)</u>	<u>\$116</u>



<u>Chlorinated Pesticides by GC-ECD:</u> <u>Chlordane</u> <u>Endrin</u> <u>Heptachlor</u> <u>Heptachlor Epoxide</u> <u>Hexachlorobenzene</u> <u>Hexachlorocyclopentadiene</u> <u>Lindane</u> <u>Methoxychlor</u> <u>Aroclor 1016</u> <u>Aroclor 1221</u> <u>Aroclor 1232</u> <u>Aroclor 1242</u> <u>Aroclor 1248</u> <u>Aroclor 1254</u> <u>Aroclor 1260</u> <u>Toxaphene</u>	<u>D3</u>	<u>508 (3.1)</u>	<u>\$152</u>
<u>Chlorinated Pesticides, Herbicides.</u> <u>Organohalides by GC-ECD:</u> <u>Alachlor</u> <u>Atrazine</u> <u>Chlorodane</u> <u>Endrin</u> <u>Heptachlor</u> <u>Heptachlor Epoxide</u> <u>Hexachlorobenzene</u> <u>Hexachlorocyclopentadiene</u> <u>Lindane</u> <u>Methoxychlor</u> <u>Aroclor 1016</u> <u>Aroclor 1221</u> <u>Aroclor 1232</u> <u>Aroclor 1242</u> <u>Aroclor 1248</u> <u>Aroclor 1254</u> <u>Aroclor 1260</u> <u>Simazine</u> <u>Toxaphene</u>	<u>D3</u>	<u>508.1(2.0)</u>	<u>\$152</u>
<u>Organics by GC-MS:</u> <u>Alachlor</u> <u>Atrazine</u> <u>Benzo(a)pyrene</u> <u>Chlorodane</u> <u>Di (2-ethylhexyl)adipate</u> <u>Di (2-ethylhexyl)phthalate</u> <u>Endrin</u> <u>Heptachlor</u> <u>Heptachlor Epoxide</u> <u>Hexachlorobenzene</u> <u>Hexachlorocyclopentadiene</u> <u>Lindane</u> <u>Methoxychlor</u> <u>Aroclor 1016</u> <u>Aroclor 1221</u> <u>Aroclor 1232</u> <u>Aroclor 1242</u> <u>Aroclor 1248</u> <u>Aroclor 1254</u> <u>Aroclor 1260</u> <u>Pentachlorophenol</u> <u>Simazine</u> <u>Toxaphene</u>	<u>D3</u>	<u>525.2 (2.0)</u>	<u>\$152</u>
<u>1, 4-Dioxane by GC/MS</u>	<u>A4.21</u>	<u>522</u>	<u>\$152</u>



<u>Carbamates by HPLC/Post Column:</u> <u>Carbofuran</u> <u>Oxamyl</u>	<u>A4.8</u>	<u>531.2 (1.0)</u>	<u>\$116</u>
	<u>D3</u>	<u>531.1 (3.1)</u>	<u>\$116</u>
<u>Chlorinated Acids and Dalapon by GC-ECD:</u> <u>2,4-D</u> <u>Dalapon</u> <u>Dinoseb</u> <u>Pentachlorophenol</u> <u>Picloram</u> <u>Silvex (2,4,5-TP)</u>	<u>A4.6</u>	<u>515.4 (1.0)</u>	<u>\$116</u>
	<u>A5</u>	<u>515.3 (1.0)</u>	<u>\$116</u>
	<u>D</u>	<u>515.1 (4.0)</u>	<u>\$116</u>
<u>Chlorinated Acids By GC-ECD</u> <u>2,4-D</u> <u>Dinoseb</u> <u>Pentachlorophenol</u> <u>Picloram</u> <u>Silvex (2,4,5-TP)</u>	<u>D3</u>	<u>515.2 (1.1)</u>	<u>\$116</u>
<u>Haloacetic Acids, Bromate and Dalapon</u> <u>By IC-ESI-MS/MS</u>	<u>A4.18</u>	<u>557 (1.0)</u>	<u>\$152</u>
<u>Perfluorinated Compounds by LC/MS/MS</u>	<u>A4.40</u>	<u>537 (1.1)</u>	<u>\$152</u>
<u>Hormones by LC/MS/MS</u>	<u>A4.42</u>	<u>539</u>	<u>\$152</u>
<u>PAHs By HPLC/UV/FL:</u> <u>Benzo(a)pyrene</u>	<u>D1</u>	<u>550 (7/90)</u>	<u>\$116</u>
		<u>550.1 (7/90)</u>	<u>\$116</u>
<u>Haloacetic Acids and Dalapon by GC-ECD:</u> <u>Dalapon</u> <u>Monochloroacetic Acid</u> <u>Dichloroacetic Acid</u> <u>Trichloroacetic Acid</u> <u>Monobromoacetic Acid</u> <u>Dibromoacetic Acid</u> <u>HAA5</u>	<u>D2</u>	<u>552.1 (1.0)</u>	<u>\$116</u>
	<u>D3</u>	<u>552.2 (1.0)</u>	<u>\$116</u>
<u>Haloacetic Acids:</u> <u>Monochloroacetic Acid</u> <u>Dichloroacetic Acid</u> <u>Trichloroacetic Acid</u> <u>Monobromoacetic Acid</u> <u>Dibromoacetic Acid</u> <u>Dalapon</u> <u>HAA5</u>	<u>A4.9</u>	<u>552.3 (1.0)</u>	<u>\$116</u>
<u>Disinfection Byproducts by Micro Liquid-Liquid Extraction/</u> <u>GC-ECD</u>	<u>C8</u>	<u>6251B (1994)</u>	<u>\$116</u>
<u>Chlorinated Acids By HPLC/PDA/UV:</u> <u>2,4-D</u> <u>Dinoseb</u> <u>Pentachlorophenol</u> <u>Picloram</u> <u>Silvex (2,4,5-TP)</u>	<u>D2</u>	<u>555 (1.0)</u>	<u>\$116</u>
<u>1,4 Dioxane by GC/MS</u>	<u>A4.21</u>	<u>522 (1.0)</u>	<u>\$152</u>
<u>Dioxin</u>	<u>A4.22</u>	<u>1613 Rev B (10/94)</u>	<u>\$258</u>
<u>Diquat</u>	<u>A5</u>	<u>549.2 (1.0)</u>	<u>\$116</u>
<u>Endothall</u>	<u>D2</u>	<u>548.1 (1.0)</u>	<u>\$116</u>
<u>Glyphosate</u>	<u>D1</u>	<u>547 (7/90)</u>	<u>\$116</u>
<u>PCBs (as decachlorobiphenyl)</u>	<u>D</u>	<u>508A (1.0)</u>	<u>\$152</u>
<u>b. Additional Methods and Compounds Required by Other Programs</u>			
<u>Description</u>	<u>Reference</u>	<u>Method/s</u>	<u>Fee Per Method</u>
<u>Disinfectant Byproducts, Solvents and Pesticides</u>	<u>D3</u>	<u>551.1 (1.0)</u>	<u>\$26</u>
<u>VOCs by GC</u>	<u>D3</u>	<u>502.2 (2.1)</u>	<u>\$26</u>
<u>VOCs by GC-MS</u>	<u>A4.20</u>	<u>524.3 (1.0)</u>	<u>\$26</u>
	<u>D3</u>	<u>524.2 (4.1)</u>	<u>\$26</u>
<u>EDB/DBCP</u>	<u>D3</u>	<u>504.1 (1.1)</u>	<u>\$26</u>



<u>Pesticides and PCBs by GC (Microextraction)</u>	<u>D3</u>	<u>505 (2.1)</u>	<u>\$26</u>
<u>Phthalate and Adipate Esters by GC-PID</u>	<u>D3</u>	<u>506 (1.1)</u>	<u>\$26</u>
<u>Pesticides by GC-NPD</u>	<u>D3</u>	<u>507 (2.1)</u>	<u>\$26</u>
<u>Chlorinated Pesticides by GC-ECD</u>	<u>D3</u>	<u>508 (3.1)</u>	<u>\$26</u>
<u>Chlorinated Pesticides, Herbicides, Organohalides by GC-ECD</u>	<u>D3</u>	<u>508.1(2.0)</u>	<u>\$26</u>
<u>Organics by GC-MS</u>	<u>D3</u>	<u>525.2 (2.0)</u>	<u>\$26</u>
<u>Carbamates by HPLC/Post Column</u>	<u>A4.8</u>	<u>531.2 (1.0)</u>	<u>\$26</u>
	<u>D3</u>	<u>531.1 (3.1)</u>	<u>\$26</u>
<u>Chlorinated Acids and Dalapon by GC-ECD</u>	<u>A4.6</u>	<u>515.4 (1.0)</u>	<u>\$26</u>
	<u>A5</u>	<u>515.3 (1.0)</u>	<u>\$26</u>
	<u>D</u>	<u>515.1 (4.0)</u>	<u>\$26</u>
<u>Chlorinated Acids By GC-ECD</u>	<u>D3</u>	<u>515.2 (1.1)</u>	<u>\$26</u>
<u>PAHs By HPLC/UV/FL</u>	<u>D1</u>	<u>550 (7/90)</u>	<u>\$26</u>
		<u>550.1 (7/90)</u>	<u>\$26</u>
<u>Haloacetic Acids and Dalapon by GC-ECD</u>	<u>D2</u>	<u>552.1 (1.0)</u>	<u>\$26</u>
	<u>D3</u>	<u>552.2 (1.0)</u>	<u>\$26</u>
<u>Chlorinated Acids By HPLC/PDA/UV</u>	<u>D2</u>	<u>555 (1.0)</u>	<u>\$26</u>
<u>Dioxins and Furans</u>	<u>A4.22</u>	<u>1613 Rev B (10/94)</u>	<u>\$65</u>
<u>Paraquat</u>	<u>A5</u>	<u>549.2 (1.0)</u>	<u>\$26</u>
<u>Benzidines and Nitrogen Compounds</u>	<u>D2</u>	<u>553 (1.1)</u>	<u>\$116</u>
<u>Carbonyl Compounds</u>	<u>D2</u>	<u>554 (1.0)</u>	<u>\$116</u>
<u>Phenols</u>	<u>A5</u>	<u>528 (1.0)</u>	<u>\$152</u>
<u>Phenylurea Compounds</u>	<u>A5</u>	<u>532 (1.0)</u>	<u>\$116</u>
<u>Selected Semivolatiles</u>	<u>A5</u>	<u>526 (1.0)</u>	<u>\$152</u>
<u>Pesticides and Flame Retardants by GCMS</u>	<u>A4.7</u>	<u>527 (1.0)</u>	<u>\$152</u>
<u>Explosives and Related Compounds</u>	<u>A4.15</u>	<u>529 (1.0)</u>	<u>\$152</u>
<u>Acetanilide Degradation Products</u>	<u>A4.16</u>	<u>535 (1.1)</u>	<u>\$194</u>
<u>Acetanilide Parent Compound</u>	<u>D3</u>	<u>525.2 (2.0)</u>	<u>\$26</u>
<u>Nitrosamines by MS/MS</u>	<u>A4.14</u>	<u>521 (1.0)</u>	<u>\$194</u>

5. Radiochemistry of Drinking Water

<u>Description</u>	<u>Reference</u>	<u>Method/s</u>	<u>Fee Per Method</u>
<u>Cesium</u>	<u>B</u>	<u>p. 4</u>	<u>\$206</u>
	<u>C</u>	<u>7500-Cs B (2011)</u>	<u>\$206</u>
		<u>7120 (2011)</u>	<u>\$206</u>
	<u>I</u>	<u>R-1110-76</u>	<u>\$206</u>
		<u>R-1111-76</u>	<u>\$206</u>
	<u>L</u>	<u>901</u>	<u>\$206</u>
		<u>901.1</u>	<u>\$206</u>
	<u>U</u>	<u>Ga-01-R</u>	<u>\$206</u>
<u>W</u>	<u>p. 92</u>	<u>\$206</u>	
<u>Gamma Emitters</u>	<u>C</u>	<u>7500-Cs B (2011)</u>	<u>\$206</u>
		<u>7500-I B (2011)</u>	<u>\$206</u>
		<u>7120 (2011)</u>	<u>\$206</u>
	<u>L</u>	<u>901.1</u>	<u>\$206</u>
		<u>901.0</u>	<u>\$206</u>
		<u>902.0</u>	<u>\$206</u>
	<u>U</u>	<u>Ga-01-R</u>	<u>\$206</u>
	<u>W</u>	<u>p. 92</u>	<u>\$206</u>



<u>Gross Alpha</u>	<u>B</u>	<u>EPA 00-02</u>	<u>\$206</u>
	<u>C</u>	<u>7110C (2011)</u>	<u>\$206</u>
	<u>L</u>	<u>900.0</u>	<u>\$206</u>
	<u>V</u>	<u>00-01</u>	<u>\$206</u>
		<u>00-02</u>	<u>\$206</u>
<u>Gross Alpha and Beta</u>	<u>B</u>	<u>p. 1</u>	<u>\$206</u>
	<u>C</u>	<u>7110B (2011)</u>	<u>\$206</u>
	<u>J</u>	<u>R-1120-76</u>	<u>\$206</u>
	<u>L</u>	<u>900.0</u>	<u>\$206</u>
	<u>V</u>	<u>00-01</u>	<u>\$206</u>
	<u>W</u>	<u>p. 1</u>	<u>\$206</u>
<u>Iodine</u>	<u>B</u>	<u>p. 6, p. 9</u>	<u>\$206</u>
	<u>C</u>	<u>7120 (2011)</u>	<u>\$206</u>
		<u>7500-I B (2011)</u>	<u>\$206</u>
		<u>7500-I C (2011)</u>	<u>\$206</u>
		<u>7500-I D (2011)</u>	<u>\$206</u>
	<u>L</u>	<u>901.1</u>	<u>\$206</u>
		<u>902.0</u>	<u>\$206</u>
	<u>U</u>	<u>Ga-01-R</u>	<u>\$206</u>
	<u>W</u>	<u>p. 92</u>	<u>\$206</u>
<u>Radium 226</u>	<u>B</u>	<u>p. 13, p. 16</u>	<u>\$206</u>
	<u>C</u>	<u>7500-Ra B (2011)</u>	<u>\$206</u>
		<u>7500-Ra C (2011)</u>	<u>\$206</u>
	<u>L</u>	<u>903.0</u>	<u>\$206</u>
		<u>903.1</u>	<u>\$206</u>
	<u>U</u>	<u>Ra-04</u>	<u>\$206</u>
		<u>Ra-05</u>	<u>\$206</u>
	<u>V</u>	<u>EPA Ra-03</u>	<u>\$206</u>
		<u>EPA Ra-04</u>	<u>\$206</u>
	<u>W</u>	<u>p. 19</u>	<u>\$206</u>
<u>Radium 228</u>	<u>B</u>	<u>p. 24</u>	<u>\$206</u>
	<u>C</u>	<u>7500-Ra D (2011)</u>	<u>\$206</u>
	<u>L</u>	<u>904.0</u>	<u>\$206</u>
	<u>V</u>	<u>Ra-05</u>	<u>\$206</u>
	<u>W</u>	<u>p. 19</u>	<u>\$206</u>
<u>Strontium</u>	<u>B</u>	<u>p. 29</u>	<u>\$206</u>
	<u>C</u>	<u>7500-Sr B (2011)</u>	<u>\$206</u>
	<u>J</u>	<u>R-1160-76</u>	<u>\$206</u>
	<u>L</u>	<u>905.0</u>	<u>\$206</u>
	<u>U</u>	<u>Sr-01</u>	<u>\$206</u>
		<u>Sr-02</u>	<u>\$206</u>
	<u>V</u>	<u>Sr-04</u>	<u>\$206</u>
	<u>W</u>	<u>p. 65</u>	<u>\$206</u>
<u>Tritium</u>	<u>B</u>	<u>p. 34</u>	<u>\$206</u>
	<u>C</u>	<u>7500-³H B (2011)</u>	<u>\$206</u>
	<u>J</u>	<u>R-1171-76</u>	<u>\$206</u>
	<u>L</u>	<u>906.0</u>	<u>\$206</u>
	<u>V</u>	<u>H-02</u>	<u>\$206</u>
	<u>W</u>	<u>p.87</u>	<u>\$206</u>

<u>Uranium</u>	<u>A1</u>	<u>200.8 (5.4)</u>	<u>\$26</u>
	<u>A7</u>	<u>D5174-97.02</u>	<u>\$206</u>
	<u>C</u>	<u>7500-U B (2011)</u>	<u>\$206</u>
		<u>7500-U C (2011)</u>	<u>\$206</u>
		<u>R-1180-76</u>	<u>\$206</u>
	<u>I</u>	<u>R-1181-76</u>	<u>\$206</u>
		<u>R-1182-76</u>	<u>\$206</u>
	<u>L</u>	<u>908.0</u>	<u>\$206</u>
		<u>908.1</u>	<u>\$206</u>
	<u>U</u>	<u>U-02</u>	<u>\$206</u>
		<u>U-04</u>	<u>\$206</u>
	<u>V</u>	<u>00-07</u>	<u>\$206</u>
	<u>W</u>	<u>p. 33</u>	<u>\$206</u>

Table 6.2.B. Approved Methods and Method Fees for Wastewater Parameters

1. Microbiology of Wastewater and Sewage Sludge			
Description	Reference	Method/s	Fee Per Method
<u>Ascaris lumbricoides</u>	<u>C8</u>	<u>10550</u>	<u>\$228</u>
	<u>P3</u>	<u>UofA2000</u>	<u>\$228</u>
<u>Coliforms, Fecal, number per 100 ml or number per gram dry weight, by Membrane Filter</u>	<u>C</u>	<u>9222D (2006)</u>	<u>\$228</u>
<u>Coliforms, Fecal, by Multiple Tube Fermentation (may be used for sewage sludge), number per 100 ml by MPN</u>	<u>C</u>	<u>9221C, E (2006)</u>	<u>\$228</u>
<u>Coliforms, Total, by Membrane Filter</u>	<u>C</u>	<u>9222B (2006)</u>	<u>\$228</u>
<u>Coliforms, Total, by Multiple Tube Fermentation</u>	<u>C</u>	<u>9221B (2006)</u>	<u>\$228</u>
<u>Control of pathogens and vectors in sewage</u>	<u>E3</u>	<u>625/R-92/013</u>	<u>\$76</u>
<u>Cryptosporidium</u>	<u>A4.32</u>	<u>1622</u>	<u>\$381</u>
	<u>A4.39</u>	<u>1623</u>	<u>\$381</u>
<u>Cryptosporidium and Giardia</u>	<u>C</u>	<u>9711B (2011)</u>	<u>\$381</u>
	<u>P2</u>	<u>600/R-95/178</u>	<u>\$381</u>
<u>E. coli, number per 100 ml, MPN multiple tube</u>	<u>C</u>	<u>9222B (2006)</u>	<u>\$228</u>
<u>E. coli, number per 100 ml, MPN multiple tube/multiple well</u>	<u>C</u>	<u>9223B (2004)</u>	<u>\$228</u>
<u>E. coli by m-ColiBlue</u>	<u>C1 and Z6</u>	<u>Hach 10029</u>	<u>\$228</u>
<u>Enterococci, number per 100 ml MF</u>	<u>C</u>	<u>9230C (2007)</u>	<u>\$228</u>
<u>Escherichia coli by Colilert MPN, in conjunction with SM 9221B and 9221C</u>	<u>C</u>	<u>9223B (2004)</u>	<u>\$152</u>
<u>Escherichia coli in conjunction with SM 9221B and 9221C</u>	<u>C</u>	<u>9221F (2006)</u>	<u>\$152</u>
<u>Entamoeba histolytica</u>	<u>C</u>	<u>9711C (2011)</u>	<u>\$228</u>
<u>Enteric viruses</u>	<u>I</u>	<u>D4994-89</u>	<u>\$381</u>
<u>Enteric viruses in sewage sludge</u>	<u>E3</u>	<u>EPA 625/R-92/103</u>	<u>\$381</u>
<u>Fecal Coliforms by Colilert-18 (APP and Reuse only)</u>	<u>C</u>	<u>9020B (2005)/9223B (2004)</u>	<u>\$152</u>
<u>Fecal Coliforms by Colilert-18 (NPDES-ATP Permits only)</u>	<u>C</u>	<u>9020B (2005)/9223B (2004)</u>	<u>\$152</u>
<u>Fecal Coliforms in sewage sludge by MTF</u>	<u>Z1</u>	<u>EPA 1681</u>	<u>\$228</u>
<u>Helminth Ova in sludge</u>	<u>Z4</u>	<u>600/1-87-014</u>	<u>\$381</u>
<u>Salmonella in sludge MPN</u>	<u>E5</u>	<u>9260D (1988)</u>	<u>\$228</u>
<u>Salmonella in Sewage Sludge (Biosolids) by Modified MSRV</u>	<u>A4.34</u>	<u>1682</u>	<u>\$228</u>
<u>Streptococcus, Fecal, by Membrane Filter</u>	<u>C</u>	<u>9230C (2007)</u>	<u>\$194</u>
<u>Streptococcus, Fecal, by Multiple Tube Fermentation</u>	<u>C</u>	<u>9230B (2007)</u>	<u>\$194</u>
<u>Viruses</u>	<u>C</u>	<u>9510 (2011)</u>	<u>\$381</u>
	<u>P</u>	<u>Methods for Virology</u>	<u>\$381</u>
	<u>P2</u>	<u>600/R-95/178</u>	<u>\$381</u>



2. Wastewater Inorganic Chemistry, Nutrients and Demand

Description	Reference	Method/s	Fee Per Method
Acid Mine Drainage	A4.27	1627	\$303
Acidity	C	2310B (2011)	\$39
Alkalinity, Total	A	310.2 (1974)	\$19
	C	2320B (2011)	\$19
Ammonia	A2	350.1 (2.0)	\$39
	C	4500-NH ₃ B (2011)	\$39
		4500-NH ₃ C (2011)	\$39
		4500-NH ₃ D (2011)	\$39
		4500-NH ₃ E (2011)	\$39
		4500-NH ₃ G (2011)	\$39
	C1	Hach 10205	\$39
Ammonia in sludge only	E5	4500-NH ₃ B&C (1990)	\$39
Biochemical Oxygen Demand/Carbonaceous Biochemical Oxygen Demand	C	5210B (2011)	\$152
	C3	Hach 10360	\$152
Boron	A1	200.7 (4.4)	\$10
		200.8 (5.4)	\$26
	A4.10	200.5 (4.2)	\$10
	C	4500-B B (2011)	\$76
Bromide	A2	300.0 (2.1)	\$26
	A5	300.1 (1.0)	\$26
Calcium	A1	200.7 (4.4)	\$10
		200.8 (5.4)	\$26
	A4.10	200.5 (4.2)	\$10
	C	3111B (2011)	\$26
		3500-Ca B (2011)	\$39
	C		
Carbon, Total Organic (TOC)	C	5310 B (2011)	\$39
		5310 C (2011)	\$39
		5310D (2011)	\$39
Chemical Oxygen Demand	A	410.3 (1978)	\$39
	A2	410.4 (2.0)	\$76
	C	5220 B (2011)	\$39
		5220 C (2011)	\$39
		5220 D (2011)	\$76
	C1	Hach 8000	\$39
	C		
Chloride	A2	300.0 (2.1)	\$26
	A5	300.1 (1.0)	\$26
	C	4500-Cl B (2011)	\$39
		4500-Cl C (2011)	\$39
		4500-Cl D (2011)	\$39
Chlorine, Total Residual	C	4500-Cl E (2011)	\$39
		4500-Cl F (2011)	\$39
		4500-Cl G (2011)	\$39
		4500-Cl B (2011)	\$39
		4500-Cl C (2011)	\$39
		4500-Cl D (2011)	\$39
	C1	Hach 10014	\$39
Color	C	2120 B (2011)	\$32



<u>Cyanide, Available</u>	<u>C</u>	4500-CN G (2011)	\$76
	<u>E7</u>	Kelada-01	\$76
	<u>Y</u>	OIA-1677-09 (8/99)	\$76
<u>Cyanide, Free</u>	<u>Y</u>	OIA-1677-09 (8/99)	\$76
<u>Cyanide, Total</u>	<u>A2</u>	335.4 (1.0)	\$76
	<u>A6</u>	QuickChem 10-204-00-1-X (2.1)	\$76
	<u>C</u>	Combination of 4500-CN B (2011) and 4500-CN C (2011), followed by 4500-CN D (2011), 4500-CN E (2011), or 4500-CN F (2011)	\$89
	<u>E7</u>	Kelada-01	\$76
	<u>A2</u>	300.0 (2.1)	\$26
	<u>A5</u>	300.1 (1.0)	\$26
	<u>Fluoride</u>	<u>C</u>	4500-F B (2011)
4500-F C (2011)			\$39
4500-F D (2011)			\$39
4500-F E (2011)			\$39
<u>Hardness</u>	<u>A</u>	130.1 (1976)	\$10
	<u>A1</u>	200.7 (4.4)	\$10
		200.8 (5.4)	\$26
	<u>A4.10</u>	200.5 (4.2)	\$10
	<u>C</u>	2340B (2011)	\$39
		2340C (2011)	\$39
<u>Kjeldahl, Total Nitrogen</u>	<u>A</u>	351.1 (1978)	\$76
	<u>A2</u>	351.2 (2.0)	\$76
	<u>C</u>	Combination of 4500-NH ₃ B (2011) and either 4500-N _{org} B (2011) or 4500-N _{org} -C (2011)	\$115
		4500-NH ₃ C (2011)	\$39
		4500-NH ₃ D (2011)	\$39
		4500-NH ₃ E (2011)	\$39
		4500-NH ₃ F (2011)	\$39
		4500-NH ₃ G (2011)	\$39
		4500-NH ₃ H (2011)	\$39
	<u>Z9</u>	PAI-DK01 (12/94)	\$76
	<u>Z10</u>	PAI-DK02 (12/94)	\$76
	<u>Z11</u>	PAI-DK03 (12/94)	\$76
<u>Methylene Blue Active Substances</u>	<u>C</u>	5540C (2011)	\$39
<u>Nitrate (as N)</u>	<u>A</u>	352.1 (1971)	\$76
	<u>A2</u>	300.0 (2.1)	\$26
	<u>A5</u>	300.1 (1.0)	\$26
	<u>C</u>	3500-NO ₃ D (2011)	\$39
	<u>A2</u>	300.0 (2.1)	\$26
		353.2 (2.0)	\$76
<u>Nitrate-Nitrite (as N)</u>	<u>A5</u>	300.1 (1.0)	\$26
	<u>C</u>	4500-NO ₃ E (2011)	\$76
		4500-NO ₃ F (2011)	\$76
		4500-NO ₃ H (2011)	\$76



<u>Nitrite (as N)</u>	<u>A2</u>	<u>300.0 (2.1)</u>	<u>\$26</u>
		<u>353.2 (2.0)</u>	<u>\$76</u>
	<u>A5</u>	<u>300.1 (1.0)</u>	<u>\$26</u>
	<u>C</u>	<u>4500-NO₂ B (2011)</u>	<u>\$76</u>
		<u>4500-NO₃ E (2011)</u>	<u>\$76</u>
		<u>4500-NO₃ F (2011)</u>	<u>\$76</u>
<u>Oil and Grease and Total Petroleum Hydrocarbons</u>	<u>A4.24</u>	<u>1664 Rev B</u>	<u>\$76</u>
	<u>C</u>	<u>5520B (2011)</u>	<u>\$76</u>
<u>Orthophosphate</u>	<u>A</u>	<u>365.3 (2.0)</u>	<u>\$76</u>
	<u>A2</u>	<u>300.0 (2.1)</u>	<u>\$26</u>
		<u>365.1 (2.0)</u>	<u>\$76</u>
	<u>A5</u>	<u>300.1 (1.0)</u>	<u>\$26</u>
	<u>C</u>	<u>4500-P E (2011)</u>	<u>\$76</u>
		<u>4500-P F (2011)</u>	<u>\$76</u>
<u>Oxygen-consumption Rate (SOUR)</u>	<u>C</u>	<u>2710B (2011)</u>	<u>\$39</u>
<u>Oxygen, Dissolved</u>	<u>C</u>	<u>4500-O B (2011)</u>	<u>\$26</u>
		<u>4500-O C (2011)</u>	<u>\$26</u>
		<u>4500-O D (2011)</u>	<u>\$26</u>
		<u>4500-O E (2011)</u>	<u>\$26</u>
		<u>4500-O F (2011)</u>	<u>\$26</u>
		<u>4500-O G (2011)</u>	<u>\$26</u>
	<u>C1</u>	<u>1002-8-2009</u>	<u>\$26</u>
	<u>C3</u>	<u>Hach 10360</u>	<u>\$26</u>
<u>pH (Hydrogen Ion)</u>	<u>A</u>	<u>150.2</u>	<u>\$39</u>
	<u>C</u>	<u>4500-H B (2011)</u>	<u>\$39</u>
<u>Phenols</u>	<u>A</u>	<u>420.1 (1978)</u>	<u>\$116</u>
	<u>A2</u>	<u>420.4 (1.0)</u>	<u>\$116</u>
	<u>C</u>	<u>5530 B (2010)</u>	<u>\$116</u>
		<u>5530 D (2010)</u>	<u>\$116</u>
<u>Phosphorus, Total</u>	<u>A</u>	<u>365.3 (1978)</u>	<u>\$76</u>
		<u>365.4 (1974)</u>	<u>\$76</u>
	<u>A1</u>	<u>200.7 (4.4)</u>	<u>\$10</u>
	<u>A2</u>	<u>365.1 (2.0)</u>	<u>\$76</u>
	<u>C</u>	<u>4500-P B (2011)</u>	<u>\$76</u>
		<u>4500-P E (2011)</u>	<u>\$76</u>
		<u>4500-P F (2011)</u>	<u>\$76</u>
		<u>4500-P G (2011)</u>	<u>\$76</u>
		<u>4500-P H (2011)</u>	<u>\$76</u>
	<u>A1</u>	<u>200.7 (4.4)</u>	<u>\$10</u>
		<u>200.8 (5.4)</u>	<u>\$26</u>
		<u>3111B (2011)</u>	<u>\$26</u>
	<u>C</u>	<u>3500-K B (2011)</u>	<u>\$26</u>
<u>Residue, Filterable (TDS)</u>	<u>C</u>	<u>2540C (2011)</u>	<u>\$39</u>
<u>Residue, Nonfilterable (TSS)</u>	<u>E8</u>	<u>I-1750-85</u>	<u>\$39</u>
<u>Residue, Settleable Solids</u>	<u>C</u>	<u>2540D (2011)</u>	<u>\$39</u>
<u>Residue, Total</u>	<u>C</u>	<u>2540F (2011)</u>	<u>\$39</u>
<u>Residue, Volatile</u>	<u>C</u>	<u>2540B (2011)</u>	<u>\$39</u>
	<u>A</u>	<u>160.4 (1971)</u>	<u>\$39</u>
	<u>C</u>	<u>2540E (2011)</u>	<u>\$39</u>



<u>Silica, Dissolved</u>	<u>A1</u>	<u>200.7 (4.4)</u>	<u>\$10</u>
		<u>200.8 (5.4)</u>	<u>\$26</u>
	<u>A4.10</u>	<u>200.5 (4.2)</u>	<u>\$10</u>
	<u>C</u>	<u>4500-SiO₂ B (2011)</u>	<u>\$76</u>
		<u>4500-SiO₂ C (2011)</u>	<u>\$76</u>
		<u>4500-SiO₂ E (2011)</u>	<u>\$76</u>
		<u>4500-SiO₂ F (2011)</u>	<u>\$76</u>
	<u>A1</u>	<u>200.7 (4.4)</u>	<u>\$10</u>
		<u>200.8 (5.4)</u>	<u>\$26</u>
	<u>A4.10</u>	<u>200.5 (4.2)</u>	<u>\$10</u>
<u>Sodium</u>	<u>C</u>	<u>3500-Na B (2011)</u>	<u>\$26</u>
		<u>3500-Na D (2011)</u>	<u>\$26</u>
		<u>3111B (2011)</u>	<u>\$26</u>
<u>Sodium Azide</u>	<u>C</u>	<u>4110C (2011)</u>	<u>\$76</u>
<u>Specific Conductance</u>	<u>A</u>	<u>120.1 (1982)</u>	<u>\$39</u>
	<u>C</u>	<u>2510B (2011)</u>	<u>\$39</u>
<u>Sulfate</u>	<u>A2</u>	<u>300.0 (2.1)</u>	<u>\$26</u>
		<u>375.2 (2.0)</u>	<u>\$76</u>
	<u>A5</u>	<u>300.1 (1.0)</u>	<u>\$26</u>
	<u>C</u>	<u>4500-SO₄ C (2011)</u>	<u>\$76</u>
		<u>4500-SO₄ D (2011)</u>	<u>\$76</u>
		<u>4500-SO₄ E (2011)</u>	<u>\$76</u>
		<u>4500-SO₄ F (2011)</u>	<u>\$76</u>
		<u>4500-SO₄ G (2011)</u>	<u>\$76</u>
	<u>C</u>	<u>4500-S²⁻ B (2011)</u>	<u>\$39</u>
		<u>4500-S²⁻ D (2011)</u>	<u>\$76</u>
		<u>4500-S²⁻ F (2011)</u>	<u>\$39</u>
	<u>C1</u>	<u>4500-S²⁻ G (2011)</u>	<u>\$39</u>
		<u>Hach 8131</u>	<u>\$39</u>
<u>Sulfite</u>	<u>C</u>	<u>4500-SO₃ B (2011)</u>	<u>\$76</u>
<u>Temperature, Degrees Celsius</u>	<u>C</u>	<u>2550B (2010)</u>	<u>\$13</u>
<u>Total, Fixed and Volatile Solids in Solid and Semisolid Samples in Sludge</u>	<u>C</u>	<u>2540G (2011)</u>	<u>\$39</u>
<u>Turbidity, NTU</u>	<u>A2</u>	<u>180.1 (2.0)</u>	<u>\$39</u>
	<u>C</u>	<u>2130B (2011)</u>	<u>\$39</u>
<u>3. Metals in Wastewater</u>			
<u>a. Sample Preparation for Metals in Wastewater</u>			
<u>Description</u>	<u>Reference</u>	<u>Method/s</u>	<u>Fee Per Method</u>
<u>Acid Extractable Metals</u>	<u>C</u>	<u>3030C (2004)</u>	<u>\$7</u>
<u>Digestion for Metals</u>	<u>C</u>	<u>3030D (2004)</u>	<u>\$7</u>
<u>Microwave Digestion</u>	<u>E6</u>	<u>CEM Microwave Digestion</u>	<u>\$7</u>
<u>Nitric Acid</u>	<u>C</u>	<u>3030E (2004)</u>	<u>\$7</u>
<u>Nitric Acid/Hydrochloric Acid</u>	<u>C</u>	<u>3030F (2004)</u>	<u>\$7</u>
<u>Nitric Acid/Perchloric Acid</u>	<u>C</u>	<u>3030H (2004)</u>	<u>\$7</u>
<u>Nitric Acid/Perchloric Acid/Hydrofluoric Acid</u>	<u>C</u>	<u>3030I (2004)</u>	<u>\$7</u>
<u>Nitric Acid/Sulfuric Acid</u>	<u>C</u>	<u>3030G (2004)</u>	<u>\$7</u>
<u>Preliminary Filtration</u>	<u>C</u>	<u>3030B (2004)</u>	<u>\$7</u>
<u>b. Methods to Analyze Metals in Wastewater</u>			
<u>Description</u>	<u>Reference</u>	<u>Method/s</u>	<u>Fee Per Method</u>



<u>Aluminum</u>	<u>A1</u>	<u>200.7 (4.4)</u>	<u>\$10</u>
		<u>200.8 (5.4)</u>	<u>\$26</u>
		<u>200.9 (2.2)</u>	<u>\$26</u>
	<u>A4.10</u>	<u>200.5 (4.2)</u>	<u>\$10</u>
	<u>C</u>	<u>3113B (2010)</u>	<u>\$26</u>
		<u>3111D (2011)</u>	<u>\$26</u>
<u>Antimony</u>	<u>A1</u>	<u>200.7 (4.4)</u>	<u>\$10</u>
		<u>200.8 (5.4)</u>	<u>\$26</u>
		<u>200.9 (2.2)</u>	<u>\$26</u>
	<u>A4.10</u>	<u>200.5 (4.2)</u>	<u>\$10</u>
	<u>A4.25</u>	<u>1638</u>	<u>\$26</u>
	<u>C</u>	<u>3111B (2011)</u>	<u>\$26</u>
		<u>3113B (2010)</u>	<u>\$26</u>
<u>Arsenic</u>	<u>A</u>	<u>206.5 (1978)</u>	<u>\$39</u>
	<u>A1</u>	<u>200.7 (4.4)</u>	<u>\$10</u>
		<u>200.8 (5.4)</u>	<u>\$26</u>
		<u>200.9 (2.2)</u>	<u>\$26</u>
	<u>A4.10</u>	<u>200.5 (4.2)</u>	<u>\$10</u>
	<u>C</u>	<u>3113B (2010)</u>	<u>\$26</u>
		<u>3500-As B (2011)</u>	<u>\$76</u>
<u>Barium</u>	<u>A1</u>	<u>200.7 (4.4)</u>	<u>\$10</u>
		<u>200.8 (5.4)</u>	<u>\$26</u>
	<u>A4.10</u>	<u>200.5 (4.2)</u>	<u>\$10</u>
	<u>C</u>	<u>3111D (2011)</u>	<u>\$26</u>
		<u>3113B (2010)</u>	<u>\$26</u>
<u>Beryllium</u>	<u>A1</u>	<u>200.7 (4.4)</u>	<u>\$10</u>
		<u>200.8 (5.4)</u>	<u>\$26</u>
		<u>200.9 (2.2)</u>	<u>\$26</u>
	<u>A4.10</u>	<u>200.5 (4.2)</u>	<u>\$10</u>
	<u>C</u>	<u>3111D (2011)</u>	<u>\$26</u>
		<u>3111E (2011)</u>	<u>\$26</u>
		<u>3113B (2010)</u>	<u>\$26</u>
<u>Cadmium</u>	<u>A1</u>	<u>200.7 (4.4)</u>	<u>\$10</u>
		<u>200.8 (5.4)</u>	<u>\$26</u>
		<u>200.9 (2.2)</u>	<u>\$26</u>
	<u>A4.10</u>	<u>200.5 (4.2)</u>	<u>\$10</u>
	<u>A4.25</u>	<u>1638</u>	<u>\$26</u>
	<u>C</u>	<u>3111B (2011)</u>	<u>\$26</u>
		<u>3111C (2011)</u>	<u>\$26</u>
		<u>3113B (2010)</u>	<u>\$26</u>
		<u>3500-Cd D (2011)</u>	<u>\$76</u>
<u>Chromium (VI) Hexavalent</u>	<u>A1</u>	<u>218.6 (3.3)</u>	<u>\$26</u>
	<u>C</u>	<u>3500-Cr B (2011)</u>	<u>\$39</u>
		<u>3111C (2011)</u>	<u>\$26</u>



<u>Chromium, Total</u>	<u>A1</u>	<u>200.7 (4.4)</u>	<u>\$10</u>
		<u>200.8 (5.4)</u>	<u>\$26</u>
		<u>200.9 (2.2)</u>	<u>\$26</u>
	<u>A4.10</u>	<u>200.5 (4.2)</u>	<u>\$10</u>
	<u>C</u>	<u>3111B (2011)</u>	<u>\$26</u>
		<u>3111C (2011)</u>	<u>\$26</u>
		<u>3113B (2010)</u>	<u>\$26</u>
		<u>3500-Cr B (2011)</u>	<u>\$76</u>
<u>Cobalt</u>	<u>A1</u>	<u>200.7 (4.4)</u>	<u>\$10</u>
		<u>200.8 (5.4)</u>	<u>\$26</u>
		<u>200.9 (2.2)</u>	<u>\$26</u>
	<u>A4.10</u>	<u>200.5 (4.2)</u>	<u>\$10</u>
	<u>C</u>	<u>3111B (2011)</u>	<u>\$26</u>
		<u>3111C (2011)</u>	<u>\$26</u>
		<u>3113B (2010)</u>	<u>\$26</u>
<u>Copper</u>	<u>A1</u>	<u>200.7 (4.4)</u>	<u>\$10</u>
		<u>200.8 (5.4)</u>	<u>\$26</u>
		<u>200.9 (2.2)</u>	<u>\$26</u>
	<u>A4.10</u>	<u>200.5 (4.2)</u>	<u>\$10</u>
	<u>A4.25</u>	<u>1638</u>	<u>\$26</u>
	<u>C</u>	<u>3111B (2011)</u>	<u>\$26</u>
		<u>3111C (2011)</u>	<u>\$26</u>
		<u>3113B (2010)</u>	<u>\$26</u>
		<u>3500-Cu B (2011)</u>	<u>\$76</u>
		<u>3500-Cu C (2011)</u>	<u>\$76</u>
<u>Gold</u>	<u>A</u>	<u>231.2 (1978)</u>	<u>\$26</u>
	<u>A1</u>	<u>200.8 (5.4)</u>	<u>\$26</u>
	<u>C</u>	<u>3111B (2011)</u>	<u>\$26</u>
<u>Iridium</u>	<u>A</u>	<u>235.2 (1978)</u>	<u>\$26</u>
	<u>C</u>	<u>3111B (2011)</u>	<u>\$26</u>
<u>Iron</u>	<u>A1</u>	<u>200.7 (4.4)</u>	<u>\$10</u>
		<u>200.8 (5.4)</u>	<u>\$26</u>
		<u>200.9 (2.2)</u>	<u>\$26</u>
	<u>A4.10</u>	<u>200.5 (4.2)</u>	<u>\$10</u>
	<u>C</u>	<u>3111B (2011)</u>	<u>\$26</u>
		<u>3111C (2011)</u>	<u>\$26</u>
		<u>3113B (2010)</u>	<u>\$26</u>
		<u>3500-Fe B (2011)</u>	<u>\$76</u>
<u>Lead</u>	<u>A1</u>	<u>200.7 (4.4)</u>	<u>\$10</u>
		<u>200.8 (5.4)</u>	<u>\$26</u>
		<u>200.9 (2.2)</u>	<u>\$26</u>
	<u>A4.10</u>	<u>200.5 (4.2)</u>	<u>\$10</u>
	<u>A4.25</u>	<u>1638</u>	<u>\$26</u>
	<u>C</u>	<u>3111B (2011)</u>	<u>\$26</u>
		<u>3111C (2011)</u>	<u>\$26</u>
		<u>3113B (2010)</u>	<u>\$26</u>
		<u>3500-Pb B (2011)</u>	<u>\$76</u>
<u>Lithium</u>	<u>A1</u>	<u>200.7 (4.4)</u>	<u>\$10</u>



<u>Magnesium</u>	<u>A1</u>	<u>200.7 (4.4)</u>	<u>\$10</u>
		<u>200.8 (5.4)</u>	<u>\$26</u>
	<u>A4.10</u>	<u>200.5 (4.2)</u>	<u>\$10</u>
	<u>C</u>	<u>3111B (2011)</u>	<u>\$26</u>
<u>Manganese</u>	<u>A1</u>	<u>200.7 (4.4)</u>	<u>\$10</u>
		<u>200.8 (5.4)</u>	<u>\$26</u>
		<u>200.9 (2.2)</u>	<u>\$26</u>
	<u>A4.10</u>	<u>200.5 (4.2)</u>	<u>\$10</u>
	<u>C</u>	<u>3111B (2011)</u>	<u>\$26</u>
		<u>3113B (2010)</u>	<u>\$26</u>
		<u>3500-Mn B (2011)</u>	<u>\$76</u>
<u>Mercury</u>	<u>A</u>	<u>245.2 (1974)</u>	<u>\$52</u>
	<u>A1</u>	<u>200.7 (4.4)</u>	<u>\$10</u>
		<u>245.1 (3.0)</u>	<u>\$52</u>
	<u>A4.17</u>	<u>1631E</u>	<u>\$152</u>
	<u>A4.23</u>	<u>245.7 (2.0)</u>	<u>\$15</u>
	<u>C</u>	<u>3112B (2011)</u>	<u>\$52</u>
<u>Molybdenum</u>	<u>A1</u>	<u>200.7 (4.4)</u>	<u>\$10</u>
		<u>200.8 (5.4)</u>	<u>\$26</u>
	<u>A4.10</u>	<u>200.5 (4.2)</u>	<u>\$10</u>
	<u>C</u>	<u>3111D (2011)</u>	<u>\$26</u>
		<u>3113B (2010)</u>	<u>\$26</u>
<u>Nickel</u>	<u>A1</u>	<u>200.7 (4.4)</u>	<u>\$10</u>
		<u>200.8 (5.4)</u>	<u>\$26</u>
		<u>200.9 (2.2)</u>	<u>\$26</u>
	<u>A4.10</u>	<u>200.5 (4.2)</u>	<u>\$10</u>
	<u>A4.25</u>	<u>1638</u>	<u>\$26</u>
	<u>C</u>	<u>3111B (2011)</u>	<u>\$26</u>
		<u>3111C (2011)</u>	<u>\$26</u>
		<u>3113B (2010)</u>	<u>\$26</u>
<u>Osmium</u>	<u>A</u>	<u>252.2 (1978)</u>	<u>\$26</u>
	<u>C</u>	<u>3111D (2011)</u>	<u>\$26</u>
<u>Palladium</u>	<u>A</u>	<u>253.2 (1978)</u>	<u>\$26</u>
	<u>C</u>	<u>3111B (2011)</u>	<u>\$26</u>
<u>Platinum</u>	<u>A</u>	<u>255.2 (1978)</u>	<u>\$26</u>
	<u>C</u>	<u>3111B (2011)</u>	<u>\$26</u>
<u>Rhodium</u>	<u>A</u>	<u>265.2 (1978)</u>	<u>\$26</u>
	<u>C</u>	<u>3111B (2011)</u>	<u>\$26</u>
<u>Ruthenium</u>	<u>A</u>	<u>267.2 (1978)</u>	<u>\$26</u>
	<u>C</u>	<u>3111B (2011)</u>	<u>\$26</u>
<u>Selenium</u>	<u>A1</u>	<u>200.7 (4.4)</u>	<u>\$10</u>
		<u>200.8 (5.4)</u>	<u>\$26</u>
		<u>200.9 (2.2)</u>	<u>\$26</u>
	<u>A4.10</u>	<u>200.5 (4.2)</u>	<u>\$10</u>
	<u>C</u>	<u>3113B (2010)</u>	<u>\$26</u>
		<u>3114B (2011)</u>	<u>\$76</u>



<u>Silver</u>	<u>A1</u>	<u>200.7 (4.4)</u>	<u>\$10</u>
		<u>200.8 (5.4)</u>	<u>\$26</u>
		<u>200.9 (2.2)</u>	<u>\$26</u>
	<u>A4.10</u>	<u>200.5 (4.2)</u>	<u>\$10</u>
	<u>C</u>	<u>3111B (2011)</u>	<u>\$26</u>
		<u>3111C (2011)</u>	<u>\$26</u>
<u>3113B (2010)</u>		<u>\$26</u>	
<u>Strontium</u>	<u>A1</u>	<u>200.7 (4.4)</u>	<u>\$10</u>
	<u>C</u>	<u>3111B (2011)</u>	<u>\$26</u>
		<u>3500-Sr B (2011)</u>	<u>\$26</u>
		<u>3500-Sr C (2011)</u>	<u>\$20</u>
		<u>3500-Sr D (2011)</u>	<u>\$26</u>
<u>Thallium</u>	<u>A</u>	<u>279.2 (1978)</u>	<u>\$26</u>
	<u>A1</u>	<u>200.7 (4.4)</u>	<u>\$10</u>
		<u>200.8 (5.4)</u>	<u>\$26</u>
		<u>200.9 (2.2)</u>	<u>\$26</u>
	<u>A4.10</u>	<u>200.5 (4.2)</u>	<u>\$10</u>
	<u>A4.25</u>	<u>1638</u>	<u>\$26</u>
	<u>C</u>	<u>3111B (2011)</u>	<u>\$26</u>
<u>Tin</u>	<u>A1</u>	<u>200.7 (4.4)</u>	<u>\$10</u>
		<u>200.8 (5.4)</u>	<u>\$26</u>
		<u>200.9 (2.2)</u>	<u>\$26</u>
	<u>A4.10</u>	<u>200.5 (4.2)</u>	<u>\$10</u>
	<u>C</u>	<u>3111B (2011)</u>	<u>\$26</u>
<u>3113B (2010)</u>	<u>\$26</u>		
<u>Titanium</u>	<u>A</u>	<u>283.2 (1978)</u>	<u>\$26</u>
	<u>A1</u>	<u>200.7 (4.4)</u>	<u>\$10</u>
		<u>200.8 (5.4)</u>	<u>\$26</u>
	<u>C</u>	<u>3111D (2011)</u>	<u>\$26</u>
<u>Vanadium</u>	<u>A1</u>	<u>200.7 (4.4)</u>	<u>\$10</u>
		<u>200.8 (5.4)</u>	<u>\$26</u>
	<u>A4.10</u>	<u>200.5 (4.2)</u>	<u>\$10</u>
	<u>C</u>	<u>3111D (2011)</u>	<u>\$26</u>
	<u>3500-V B (2011)</u>	<u>\$76</u>	
<u>Zinc</u>	<u>A</u>	<u>289.2 (1978)</u>	<u>\$26</u>
	<u>A1</u>	<u>200.7 (4.4)</u>	<u>\$10</u>
		<u>200.8 (5.4)</u>	<u>\$26</u>
	<u>A4.10</u>	<u>200.5 (4.2)</u>	<u>\$10</u>
	<u>A4.25</u>	<u>1638</u>	<u>\$26</u>
	<u>C</u>	<u>3111B (2011)</u>	<u>\$26</u>
		<u>3111C (2011)</u>	<u>\$26</u>
		<u>3500 Zn B (2011)</u>	<u>\$76</u>
<u>4. Aquatic Toxicity Bioassay of Wastewater</u>			
<u>Description</u>	<u>Reference</u>	<u>Method/s</u>	<u>Fee Per Method</u>
<u>Toxicity, Acute</u>	<u>M1</u>	<u>EPA/600/4-90/027F</u>	<u>\$194</u>
	<u>Z12</u>	<u>821-R-02-012</u>	<u>\$194</u>
<u>Toxicity, Chronic</u>	<u>N1</u>	<u>EPA/600/4-91/002</u>	<u>\$194</u>
	<u>Z2</u>	<u>821-R-02-013</u>	<u>\$194</u>
	<u>Z13</u>	<u>Lozarchak, J. 2001</u>	<u>\$194</u>
<u>5. Organic Chemicals of Wastewater</u>			



Description	Reference	Method/s	Fee Per Method
<u>Volatile Organics for Pharmaceuticals</u>	<u>D3</u>	<u>524.2 (4.1)</u>	<u>\$152</u>
<u>Purgeable Hydrocarbons</u>	<u>E</u>	<u>601</u>	<u>\$76</u>
<u>Purgeable Aromatics</u>	<u>E</u>	<u>602</u>	<u>\$76</u>
<u>Acrolein and Acrylonitrile</u>	<u>E</u>	<u>603</u>	<u>\$76</u>
		<u>624</u>	<u>\$152</u>
<u>Phenols</u>	<u>E</u>	<u>604</u>	<u>\$116</u>
<u>Benzidines</u>	<u>E</u>	<u>605</u>	<u>\$116</u>
<u>Phthalate ester</u>	<u>E</u>	<u>606</u>	<u>\$116</u>
<u>Nitrosamines</u>	<u>E</u>	<u>607</u>	<u>\$116</u>
<u>Organochlorine Pesticides and PCBs</u>	<u>E</u>	<u>608</u>	<u>\$152</u>
	<u>E2</u>	<u>608.1</u>	<u>\$152</u>
		<u>608.2</u>	<u>\$152</u>
	<u>E4</u>	<u>608 (3M)</u>	<u>\$152</u>
<u>Nitroaromatics and Isophorone</u>	<u>E</u>	<u>609</u>	<u>\$116</u>
<u>PAHs</u>	<u>E</u>	<u>610</u>	<u>\$116</u>
<u>Haloethers</u>	<u>E</u>	<u>611</u>	<u>\$116</u>
<u>Chlorinated Hydrocarbons</u>	<u>E</u>	<u>612</u>	<u>\$116</u>
<u>2, 3, 7, 8-Tetrachlorodibenzo-p-Dioxin</u>	<u>E</u>	<u>613</u>	<u>\$457</u>
<u>Chlorinated Herbicides</u>	<u>E2</u>	<u>615</u>	<u>\$116</u>
<u>Organohalide Pesticides and PCB</u>	<u>E2</u>	<u>617</u>	<u>\$116</u>
<u>Triazine Pesticides</u>	<u>E2</u>	<u>619</u>	<u>\$116</u>
<u>Thiophosphate Pesticides</u>	<u>E2</u>	<u>622.1</u>	<u>\$116</u>
<u>Purgeables</u>	<u>E</u>	<u>624</u>	<u>\$152</u>
<u>Base/Neutrals and Acids (all analytes excluding pesticides)</u>	<u>E</u>	<u>625</u>	<u>\$152</u>
<u>Base/Neutrals and Acids (pesticides only)</u>	<u>E</u>	<u>625</u>	<u>\$152</u>
<u>Carbamate and Urea Compounds</u>	<u>E2</u>	<u>632</u>	<u>\$116</u>
<u>Tetra- through Octa-Chlorinated Dioxins and Furans</u>	<u>A4.22</u>	<u>1613 Rev B (10/94)</u>	<u>\$258</u>
<u>VOCs by Isotope Dilution GC/MS</u>	<u>E</u>	<u>1624B</u>	<u>\$152</u>
<u>Semivolatile Organic Compounds by Isotope Dilution GC/MS</u>	<u>E</u>	<u>1625B</u>	<u>\$152</u>
<u>Organophosphorus Pesticides</u>	<u>E1</u>	<u>1657</u>	<u>\$116</u>
	<u>E2</u>	<u>614</u>	<u>\$116</u>
		<u>614.1</u>	<u>\$116</u>
		<u>622</u>	<u>\$116</u>
<u>VOCs Specific to the Pharmaceutical Manufacturing Industry by Isotope Dilution GC/MS</u>	<u>K1</u>	<u>1666 (A)</u>	<u>\$152</u>
<u>Herbicides</u>	<u>C</u>	<u>6640B (2006)</u>	<u>\$116</u>
<u>Ethylene Glycol</u>	<u>K</u>	<u>BLS-188</u>	<u>\$152</u>
<u>6. Radiochemistry of Wastewater</u>			
Description	Reference	Method/s	Fee Per Method
<u>Alpha-Total pCi per liter</u>	<u>C</u>	<u>7110B (2011)</u>	<u>\$206</u>
	<u>L</u>	<u>900.0</u>	<u>\$206</u>
<u>Alpha Counting Error, pCi per liter</u>	<u>C</u>	<u>7110B (2011)</u>	<u>\$206</u>
<u>Beta-Total pCi per liter</u>	<u>C</u>	<u>7110B (2011)</u>	<u>\$206</u>
	<u>L</u>	<u>900.0</u>	<u>\$206</u>
<u>Beta Counting Error, pCi</u>	<u>C</u>	<u>7110B (2011)</u>	<u>\$206</u>
<u>Radium, Total pCi per liter</u>	<u>C</u>	<u>7500-Ra B (2011)</u>	<u>\$206</u>
	<u>L</u>	<u>903.0</u>	<u>\$206</u>
<u>Radium</u>	<u>C</u>	<u>7500-Ra C (2011)</u>	<u>\$206</u>
	<u>L</u>	<u>903.1</u>	<u>\$206</u>

Table 6.2.C. Approved Methods and Method Fees for Waste Parameters

1. Microbiology of Waste			
Description	Reference	Method/s	Fee Per Method
<u>Coliforms, Total, by Membrane Filter</u>	<u>F</u>	<u>9132</u>	<u>\$228</u>
<u>Coliforms, Total, by Multiple Tube Fermentation</u>	<u>F</u>	<u>9131</u>	<u>\$228</u>
2. Sample Preparation for Waste			
Description	Reference	Method/s	Fee Per Method
<u>Acid Digestion of Water</u>	<u>F</u>	<u>3005A</u>	<u>\$7</u>
<u>Alkaline Digestion for Hex Chome</u>	<u>F</u>	<u>3060A</u>	<u>\$7</u>
<u>Bomb Preparation Method for Solid Waste</u>	<u>F</u>	<u>5050</u>	<u>\$7</u>
<u>EP for Oily Wastes</u>	<u>F</u>	<u>1330A</u>	<u>\$76</u>
<u>EP Toxicity</u>	<u>F</u>	<u>1310B</u>	<u>\$76</u>
<u>Microwave Assisted Digestions</u>	<u>F</u>	<u>3015A</u>	<u>\$7</u>
		<u>3051A</u>	<u>\$7</u>
		<u>3052</u>	<u>\$7</u>
		<u>3546</u>	<u>\$7</u>
<u>Multiple EP</u>	<u>F</u>	<u>1320</u>	<u>\$152</u>
<u>Oils, Greases, and Waxes</u>	<u>F</u>	<u>3040A</u>	<u>\$7</u>
<u>Oils</u>	<u>F</u>	<u>3031</u>	<u>\$7</u>
<u>Sediments, Sludges, and Soils</u>	<u>F</u>	<u>3050B</u>	<u>\$7</u>
<u>SPLP</u>	<u>F</u>	<u>1312</u>	<u>\$303</u>
<u>TCLP</u>	<u>F</u>	<u>1311</u>	<u>\$303</u>
<u>Total Metals</u>	<u>F</u>	<u>3010A</u>	<u>\$7</u>
		<u>3020A</u>	<u>\$7</u>
<u>Total Recoverable in Water</u>	<u>F</u>	<u>3005A</u>	<u>\$7</u>
3. Inorganic Chemistry and Metals of Solid Waste			
Description	Reference	Method/s	Fee Per Method
<u>Aluminum</u>	<u>F</u>	<u>6010C</u>	<u>\$10</u>
		<u>6020A</u>	<u>\$26</u>
		<u>7000B</u>	<u>\$26</u>
		<u>6010D</u>	<u>\$10</u>
<u>Ammonia</u>	<u>F and F13</u>	<u>6020B</u>	<u>\$26</u>
		<u>350.3</u>	<u>\$39</u>
<u>Antimony</u>	<u>A</u>	<u>6010C</u>	<u>\$10</u>
		<u>6020A</u>	<u>\$26</u>
		<u>7062</u>	<u>\$76</u>
		<u>7000B</u>	<u>\$26</u>
		<u>7010</u>	<u>\$26</u>
		<u>6010D</u>	<u>\$10</u>
	<u>F and F13</u>	<u>6020B</u>	<u>\$26</u>
		<u>6010C</u>	<u>\$10</u>
		<u>6020A</u>	<u>\$26</u>
		<u>7010</u>	<u>\$26</u>
		<u>7061A</u>	<u>\$76</u>
		<u>7062</u>	<u>\$76</u>
<u>Arsenic</u>	<u>F</u>	<u>7063</u>	<u>\$76</u>
		<u>6010D</u>	<u>\$10</u>
		<u>6020B</u>	<u>\$26</u>
		<u>6020B</u>	<u>\$26</u>



<u>Barium</u>	F	<u>6010C</u>	<u>\$10</u>
		<u>6020A</u>	<u>\$26</u>
		<u>7000B</u>	<u>\$26</u>
		<u>7010</u>	<u>\$26</u>
		<u>6010D</u>	<u>\$10</u>
<u>Beryllium</u>	F and F13	<u>6020B</u>	<u>\$26</u>
		<u>6010C</u>	<u>\$10</u>
		<u>6020A</u>	<u>\$26</u>
		<u>7000B</u>	<u>\$26</u>
		<u>7010</u>	<u>\$26</u>
<u>Boron</u>	F	<u>6010D</u>	<u>\$10</u>
		<u>6020B</u>	<u>\$26</u>
		<u>6010C</u>	<u>\$10</u>
		<u>6020A</u>	<u>\$26</u>
		<u>7000B</u>	<u>\$26</u>
<u>Bromide</u>	F and F13	<u>6010D</u>	<u>\$10</u>
		<u>9056A</u>	<u>\$26</u>
		<u>9211</u>	<u>\$39</u>
		<u>6010C</u>	<u>\$10</u>
		<u>6020A</u>	<u>\$26</u>
<u>Cadmium</u>	F	<u>7000B</u>	<u>\$26</u>
		<u>7010</u>	<u>\$26</u>
		<u>6010D</u>	<u>\$10</u>
		<u>6020B</u>	<u>\$26</u>
		<u>6010C</u>	<u>\$10</u>
<u>Calcium</u>	F and F13	<u>6020A</u>	<u>\$26</u>
		<u>7000B</u>	<u>\$26</u>
		<u>6010D</u>	<u>\$10</u>
		<u>6020B</u>	<u>\$26</u>
		<u>9080</u>	<u>\$34</u>
<u>Cation-Exchange Capacity of Soils</u>	F	<u>9081</u>	<u>\$34</u>
		<u>9056A</u>	<u>\$26</u>
		<u>9057</u>	<u>\$76</u>
		<u>9212</u>	<u>\$39</u>
		<u>9250</u>	<u>\$76</u>
<u>Chloride</u>	F	<u>9251</u>	<u>\$76</u>
		<u>9253</u>	<u>\$39</u>
		<u>9075</u>	<u>\$76</u>
		<u>9076</u>	<u>\$39</u>
		<u>9077</u>	<u>\$39</u>
<u>Chlorine, Total, in New and Used Petroleum Products</u>	F	<u>7195</u>	<u>\$26</u>
		<u>7196A</u>	<u>\$76</u>
		<u>7197</u>	<u>\$26</u>
		<u>7198</u>	<u>\$40</u>
		<u>7199</u>	<u>\$76</u>
<u>Chromium, Hexavalent</u>	F	<u>6010C</u>	<u>\$10</u>
		<u>6020A</u>	<u>\$26</u>
		<u>7000B</u>	<u>\$26</u>
		<u>7010</u>	<u>\$26</u>
		<u>6010D</u>	<u>\$10</u>
<u>Chromium, Total</u>	F and F13	<u>6020B</u>	<u>\$26</u>



<u>Cobalt</u>	F	<u>6010C</u>	<u>\$10</u>
		<u>6020A</u>	<u>\$26</u>
		<u>7000B</u>	<u>\$26</u>
		<u>7010</u>	<u>\$26</u>
		<u>6010D</u>	<u>\$10</u>
<u>Compatibility Test for Wastes and Membrane Liners</u>	F and F13	<u>6020B</u>	<u>\$26</u>
		<u>9090A</u>	<u>\$152</u>
<u>Copper</u>	F	<u>6010C</u>	<u>\$10</u>
		<u>6020A</u>	<u>\$26</u>
		<u>7000B</u>	<u>\$26</u>
		<u>7010</u>	<u>\$26</u>
		<u>6010D</u>	<u>\$10</u>
		<u>6020B</u>	<u>\$26</u>
		<u>1110A</u>	<u>\$63</u>
<u>Corrosive to Steel</u>	F		
<u>Corrosivity pH Determination</u>	F	<u>9040C</u>	<u>\$63</u>
<u>Cyanide</u>	F	<u>9010C</u>	<u>\$13</u>
		<u>9012B</u>	<u>\$76</u>
		<u>9213</u>	<u>\$76</u>
		<u>9014</u>	<u>\$76</u>
		<u>9015</u>	<u>\$76</u>
<u>Cyanide Extraction for Solids and Oils</u>	F9		
<u>Dermal Corrosion</u>	F10	<u>9013A</u>	<u>\$39</u>
<u>Ignitability of Solids</u>	F	<u>1120</u>	<u>\$63</u>
<u>Flash Point by Pensky Martens Cup</u>	F	<u>1030</u>	<u>\$32</u>
<u>Flash Point by Set-a Flash</u>	F	<u>1010A</u>	<u>\$32</u>
<u>Fluoride</u>	F	<u>1020B</u>	<u>\$32</u>
<u>Iron</u>	F	<u>9056A</u>	<u>\$26</u>
		<u>9214</u>	<u>\$39</u>
		<u>6010C</u>	<u>\$10</u>
		<u>6020A</u>	<u>\$26</u>
		<u>7000B</u>	<u>\$26</u>
		<u>7010</u>	<u>\$26</u>
		<u>6010D</u>	<u>\$10</u>
<u>Kjeldahl Total Nitrogen</u>	F and F13	<u>6020B</u>	<u>\$26</u>
<u>Lead</u>	A	<u>351.4</u>	<u>\$76</u>
		<u>6010C</u>	<u>\$10</u>
		<u>6020A</u>	<u>\$26</u>
		<u>7000B</u>	<u>\$26</u>
		<u>7010</u>	<u>\$26</u>
		<u>6010D</u>	<u>\$10</u>
<u>Liquid Release Test Procedure</u>	F and F13	<u>6020B</u>	<u>\$26</u>
		<u>9096</u>	<u>\$39</u>
<u>Lithium</u>	F	<u>6010C</u>	<u>\$10</u>
		<u>7000B</u>	<u>\$26</u>
		<u>6010D</u>	<u>\$10</u>
<u>Magnesium</u>	F and F13	<u>6010C</u>	<u>\$10</u>
		<u>6020A</u>	<u>\$26</u>
		<u>7000B</u>	<u>\$26</u>
		<u>6010D</u>	<u>\$10</u>
		<u>6020B</u>	<u>\$26</u>



<u>Manganese</u>	F	<u>6010C</u>	<u>\$10</u>
		<u>6020A</u>	<u>\$26</u>
		<u>7000B</u>	<u>\$26</u>
		<u>7010</u>	<u>\$26</u>
		<u>6010D</u>	<u>\$10</u>
<u>Mercury</u>	F and F13	<u>6020B</u>	<u>\$26</u>
		<u>6010C</u>	<u>\$10</u>
		<u>6020A</u>	<u>\$26</u>
		<u>7470A</u>	<u>\$52</u>
		<u>7471B</u>	<u>\$52</u>
<u>Molybdenum</u>	F	<u>7472</u>	<u>\$152</u>
		<u>7473</u>	<u>\$152</u>
		<u>7474</u>	<u>\$152</u>
		<u>6010D</u>	<u>\$10</u>
		<u>6020B</u>	<u>\$26</u>
<u>Nickel</u>	F and F13	<u>6010C</u>	<u>\$10</u>
		<u>7000B</u>	<u>\$26</u>
		<u>7010</u>	<u>\$26</u>
		<u>6010D</u>	<u>\$10</u>
		<u>6020B</u>	<u>\$26</u>
<u>Nitrate</u>	F	<u>9210A</u>	<u>\$39</u>
		<u>9056A</u>	<u>\$26</u>
		<u>9056A</u>	<u>\$26</u>
		<u>9216</u>	<u>\$39</u>
		<u>1664B</u>	<u>\$76</u>
<u>Nitrite</u>	<u>A4.24</u>	<u>9056A</u>	<u>\$26</u>
<u>Oil and Grease and Petroleum Hydrocarbons</u>	<u>F</u>	<u>7000B</u>	<u>\$26</u>
<u>O-Phosphate-P</u>	<u>F</u>	<u>9095B</u>	<u>\$19</u>
<u>Osmium</u>	<u>A5</u>	<u>314.0</u>	<u>\$76</u>
<u>Paint Filter Liquids Test</u>	<u>F</u>	<u>6850</u>	<u>\$152</u>
<u>Perchlorate</u>	<u>F</u>	<u>9041A</u>	<u>\$39</u>
<u>pH (Hydrogen Ion)</u>	<u>F</u>	<u>9045D</u>	<u>\$39</u>
<u>Phosphorus</u>	<u>F</u>	<u>6010C</u>	<u>\$10</u>
<u>Phosphorus, Total</u>	<u>F and F13</u>	<u>6010D</u>	<u>\$10</u>
<u>Potassium</u>	<u>A</u>	<u>365.3</u>	<u>\$76</u>
<u>Saturated Hydraulic and Leachate Conductivity and Intrinsic Permeability</u>	F	<u>6010C</u>	<u>\$10</u>
		<u>6020A</u>	<u>\$26</u>
		<u>7000B</u>	<u>\$26</u>
		<u>6010D</u>	<u>\$10</u>
		<u>6020B</u>	<u>\$26</u>
	<u>F</u>	<u>9100</u>	<u>\$152</u>



<u>Selenium</u>	<u>F</u>	<u>6010C</u>	<u>\$10</u>
		<u>6020A</u>	<u>\$26</u>
		<u>7010</u>	<u>\$26</u>
		<u>7741A</u>	<u>\$26</u>
		<u>7742</u>	<u>\$76</u>
<u>Silica</u>	<u>F and F13</u>	<u>6010D</u>	<u>\$10</u>
	<u>F</u>	<u>6020B</u>	<u>\$26</u>
		<u>6010C</u>	<u>\$10</u>
<u>Silver</u>	<u>F and F13</u>	<u>6010D</u>	<u>\$10</u>
	<u>F</u>	<u>6010C</u>	<u>\$10</u>
		<u>6020A</u>	<u>\$26</u>
		<u>7000B</u>	<u>\$26</u>
		<u>7010</u>	<u>\$26</u>
<u>Sodium</u>	<u>F and F13</u>	<u>6010D</u>	<u>\$10</u>
	<u>F</u>	<u>6020B</u>	<u>\$26</u>
		<u>6010C</u>	<u>\$10</u>
		<u>6020A</u>	<u>\$26</u>
		<u>7000B</u>	<u>\$26</u>
<u>Sodium Azide</u>	<u>F and F13</u>	<u>6010D</u>	<u>\$10</u>
<u>Specific Conductance</u>	<u>F</u>	<u>6020B</u>	<u>\$26</u>
<u>Strontium</u>	<u>C</u>	<u>4110C (2011)</u>	<u>\$76</u>
	<u>F</u>	<u>9050A</u>	<u>\$39</u>
	<u>F</u>	<u>6010C</u>	<u>\$10</u>
<u>Sulfate</u>	<u>F and F13</u>	<u>7000B</u>	<u>\$26</u>
	<u>F</u>	<u>6010D</u>	<u>\$10</u>
		<u>9035</u>	<u>\$76</u>
		<u>9036</u>	<u>\$76</u>
		<u>9038</u>	<u>\$76</u>
<u>Sulfides</u>	<u>F</u>	<u>9056A</u>	<u>\$26</u>
		<u>9030B</u>	<u>\$76</u>
		<u>9031</u>	<u>\$76</u>
		<u>9034</u>	<u>\$76</u>
		<u>9215</u>	<u>\$76</u>
<u>Thallium</u>	<u>F</u>	<u>6010C</u>	<u>\$10</u>
		<u>6020A</u>	<u>\$26</u>
		<u>7000B</u>	<u>\$26</u>
		<u>7010</u>	<u>\$26</u>
<u>Tin</u>	<u>F and F13</u>	<u>6010D</u>	<u>\$10</u>
	<u>F</u>	<u>6020B</u>	<u>\$26</u>
		<u>6010C</u>	<u>\$10</u>
		<u>7000B</u>	<u>\$26</u>
		<u>7010</u>	<u>\$26</u>
<u>Titanium</u>	<u>F and F13</u>	<u>6010D</u>	<u>\$10</u>
<u>Vanadium</u>	<u>F</u>	<u>6010C</u>	<u>\$10</u>
	<u>F</u>	<u>6010C</u>	<u>\$10</u>
		<u>6020A</u>	<u>\$26</u>
		<u>7000B</u>	<u>\$26</u>
		<u>7010</u>	<u>\$26</u>
<u>Water</u>	<u>F and F13</u>	<u>6010D</u>	<u>\$10</u>
	<u>F</u>	<u>6020B</u>	<u>\$26</u>
		<u>9000</u>	<u>\$32</u>
		<u>9001</u>	<u>\$32</u>



White Phosphorus by GC	F	7580	\$116
<u>Zinc</u>	F	6010C	\$10
		6020A	\$26
		7000B	\$26
		7010	\$26
	F and F13	6010D	\$10
		6020B	\$26

4. Organics Procedures in Waste

<u>Description</u>	<u>Reference</u>	<u>Method/s</u>	<u>Fee Per Method</u>
<u>Separatory Funnel Liquid-Liquid Extraction</u>	F	3510C	\$13
<u>Organic Compounds in Water by Microextraction</u>	F5	3511	\$13
<u>Continuous Liquid-Liquid Extraction</u>	F	3520C	\$13
<u>SPE</u>	F	3535A	\$13
<u>Soxhlet Extraction</u>	F	3540C	\$13
<u>Automated Soxhlet Extraction</u>	F	3541	\$13
<u>Pressurized Fluid Extraction</u>	F	3545A	\$13
<u>Ultrasonic Extraction</u>	F	3550C	\$13
<u>Supercritical Fluid Extraction of Total Recoverable Petroleum Hydrocarbons</u>	F	3560	\$13
<u>Supercritical Fluid Extraction of PAHs</u>	F	3561	\$13
<u>SFE of PCBs and Organochlorine Pesticides</u>	F	3562	\$13
<u>MSE</u>	F4	3570	\$13
<u>Waste Dilution</u>	F	3580A	\$13
<u>Waste Dilution for Volatile Organics</u>	F	3585	\$13
<u>Alumina Cleanup</u>	F	3610B	\$13
<u>Alumina Column Cleanup and Separation of Petroleum Wastes</u>	F	3611B	\$13
<u>Florisil Cleanup</u>	F	3620C	\$13
<u>Silica Gel Cleanup</u>	F	3630C	\$13
<u>Gel-Permeation Cleanup</u>	F	3640A	\$13
<u>Acid-Base Partition Cleanup</u>	F	3650B	\$13
<u>Sulfur Cleanup</u>	F	3660B	\$13
<u>Sulfuric Acid/Permanganate Cleanup</u>	F	3665A	\$13
<u>Screening Solids for VOCs</u>	F	3815	\$76
<u>Hexadecane Extraction and Screening for Purgeable Organics</u>	F	3820	\$76
<u>Screening for Pentachlorophenol by Immunoassay</u>	F	4010A	\$76
<u>Screening for 2,4-Dichlorophenoxyacetic Acid by Immunoassay</u>	F	4015	\$76
<u>Screening for PCBs by Immunoassay</u>	F	4020	\$76
<u>Screening for PCDDs and PCDFs by Immunoassay</u>	F3	4025	\$76
<u>Soil Screening for Petroleum Hydrocarbons by Immunoassay</u>	F	4030	\$76
<u>Soil Screening for PAHs by Immunoassay</u>	F	4035	\$76
<u>Soil Screening for Toxaphene by Immunoassay</u>	F	4040	\$76
<u>Soil Screening for Chlordane by Immunoassay</u>	F	4041	\$76
<u>Soil Screening for DDT by Immunoassay</u>	F	4042	\$76
<u>TNT Explosives in Soil by Immunoassay</u>	F	4050	\$76
<u>RDX in Soil by Immunoassay</u>	F	4051	\$76
<u>Screening Environmental Samples for Planar Organic Compounds</u>	F	4425	\$76
<u>Triazine Herbicides by Quantitative Immunoassay</u>	F	4670	\$76



<u>VOCs in Various Sample Matrices Using Equilibrium Head-space Analysis</u>	<u>F8</u>	<u>5021A</u>	<u>\$13</u>
<u>Purge-and-Trap for Aqueous Samples</u>	<u>F6</u>	<u>5030C</u>	<u>\$13</u>
<u>Volatile, Nonpurgeable, Water-Soluble Compounds by Azeotropic Distillation</u>	<u>F</u>	<u>5031</u>	<u>\$13</u>
<u>VOCs by Vacuum Distillation</u>	<u>F</u>	<u>5032</u>	<u>\$13</u>
<u>Closed-System Purge-and-Trap and Extraction for Volatile Organics in Soil and Waste Samples</u>	<u>F2</u>	<u>5035A</u>	<u>\$13</u>
<u>Analysis for Desorption of Sorbent Cartridges from VOST</u>	<u>F</u>	<u>5041A</u>	<u>\$13</u>
<u>EDB and DBCP by Microextraction and GC</u>	<u>F</u>	<u>8011</u>	<u>\$116</u>
<u>C₁₀–C₃₂ Hydrocarbons</u>	<u>K</u>	<u>8015AZ 1</u>	<u>\$116</u>
<u>Nonhalogenated Organics Using GC/FID</u>	<u>F7</u>	<u>8015D</u>	<u>\$116</u>
<u>Aromatic and Halogenated Volatiles by GC Using Photoionization and/or Electrolytic Conductivity Detectors</u>	<u>F</u>	<u>8021B</u>	<u>\$152</u>
<u>Acrylonitrile by GC</u>	<u>F</u>	<u>8031</u>	<u>\$76</u>
<u>Acrylamide by GC</u>	<u>F</u>	<u>8032A</u>	<u>\$76</u>
<u>Acetonitrile by GC with Nitrogen-Phosphorus Detection</u>	<u>F</u>	<u>8033</u>	<u>\$76</u>
<u>Phenols by GC</u>	<u>F</u>	<u>8041A</u>	<u>\$116</u>
<u>Phthalate Esters by GC/ECD</u>	<u>F</u>	<u>8061A</u>	<u>\$116</u>
<u>Nitrosamines by GC</u>	<u>F</u>	<u>8070A</u>	<u>\$116</u>
<u>Organochlorine Pesticides by GC</u>	<u>F</u>	<u>8081B</u>	<u>\$152</u>
<u>Elemental Quantitation by GC/AED</u>	<u>F</u>	<u>8085</u>	<u>\$116</u>
<u>PCBs by GC</u>	<u>F</u>	<u>8082A</u>	<u>\$152</u>
<u>Nitroaromatics and Cyclic Ketones by GC</u>	<u>F</u>	<u>8091</u>	<u>\$116</u>
<u>Explosives by GC</u>	<u>F</u>	<u>8095</u>	<u>\$116</u>
<u>PAHs</u>	<u>F</u>	<u>8100</u>	<u>\$116</u>
<u>Haloethers by GC</u>	<u>F</u>	<u>8111</u>	<u>\$116</u>
<u>Chlorinated Hydrocarbons by GC: Capillary Column Technique</u>	<u>F</u>	<u>8121</u>	<u>\$116</u>
<u>Aniline and Selected Derivatives by GC</u>	<u>F</u>	<u>8131</u>	<u>\$116</u>
<u>Organophosphorus Compounds by GC</u>	<u>F</u>	<u>8141B</u>	<u>\$152</u>
<u>Chlorinated Herbicides by GC Using Methylation or Pentafluorobenzoylation Derivatization</u>	<u>F</u>	<u>8151A</u>	<u>\$152</u>
<u>VOCs by GC/MS, including n-Hexane</u>	<u>F</u>	<u>8260B</u>	<u>\$152</u>
	<u>F12 and F13</u>	<u>8260C/8000D</u>	<u>\$152</u>
<u>VOCs by VD/GC/MS</u>	<u>F</u>	<u>8261</u>	<u>\$152</u>
<u>Semivolatile Organic Compounds by GC/MS</u>	<u>F</u>	<u>8270C</u>	<u>\$152</u>
	<u>F and F13</u>	<u>8270D/8000D</u>	<u>\$152</u>
<u>Semivolatile Organic Compounds (PAHs and PCBs) in Soils/Sludges and Solid Wastes Using TE/GC/MS</u>	<u>F</u>	<u>8275A</u>	<u>\$152</u>
<u>8280A: Polychlorinated Dibenzo-p-Dioxins and PCDFs by HRGC/LRMS</u>	<u>F</u>	<u>8280B</u>	<u>\$258</u>
<u>PCDDs and PCDFs by HRGC/HRMS</u>	<u>F</u>	<u>8290A</u>	<u>\$258</u>
<u>PAHs</u>	<u>F</u>	<u>8310</u>	<u>\$116</u>
<u>Determination of Carbonyl Compounds by HPLC</u>	<u>F</u>	<u>8315A</u>	<u>\$116</u>
<u>Acrylamide, Acrylonitrile, and Acrolein by HPLC</u>	<u>F</u>	<u>8316</u>	<u>\$116</u>
<u>N-Methylcarbamates by HPLC</u>	<u>F</u>	<u>8318A</u>	<u>\$116</u>
<u>Solvent-Extractable Nonvolatile Compounds by HPLC/TS/MS or UV Detection</u>	<u>F</u>	<u>8321B</u>	<u>\$152</u>
<u>Solvent Extractable Nonvolatile Compounds by HPLC/PB/MS</u>	<u>F</u>	<u>8325</u>	<u>\$152</u>
<u>Nitroaromatics and Nitramines by HPLC</u>	<u>F</u>	<u>8330A</u>	<u>\$116</u>
<u>Nitroaromatics, Nitramines, and Nitrate Esters</u>	<u>F11</u>	<u>8330B</u>	<u>\$116</u>
<u>Tetrazene by Reverse Phase HPLC</u>	<u>F</u>	<u>8331</u>	<u>\$116</u>
<u>Nitroglycerin by HPLC</u>	<u>F</u>	<u>8332</u>	<u>\$116</u>



<u>GC/FT-IR Spectrometry for Semivolatile Organics: Capillary Column</u>	<u>F</u>	<u>8410</u>	<u>\$116</u>
<u>Analysis of Bis (2-chloroethyl) Ether and Hydrolysis Products by Direct Aqueous Injection GC/FT-IR</u>	<u>F</u>	<u>8430</u>	<u>\$116</u>
<u>Total Recoverable Petroleum Hydrocarbons by Infrared Spectrophotometry</u>	<u>F</u>	<u>8440</u>	<u>\$116</u>
<u>Screening for RDX/MDX in Soil</u>	<u>F</u>	<u>8510</u>	<u>\$76</u>
<u>Colorimetric Screening Method for TNT in Soil</u>	<u>F</u>	<u>8515</u>	<u>\$76</u>
<u>Screening for Total VOH in Water</u>	<u>F</u>	<u>8535</u>	<u>\$76</u>
<u>PCP by UV Colorimetry</u>	<u>F</u>	<u>8540</u>	<u>\$108</u>
<u>TOX</u>	<u>F</u>	<u>9020B</u>	<u>\$76</u>
<u>POX</u>	<u>F</u>	<u>9021</u>	<u>\$76</u>
<u>TOX by Neutron Activation Analysis</u>	<u>F</u>	<u>9022</u>	<u>\$114</u>
<u>EOX in Solids</u>	<u>F</u>	<u>9023</u>	<u>\$114</u>
<u>TOCs</u>	<u>F</u>	<u>9060A</u>	<u>\$76</u>
<u>Phenolics</u>	<u>F</u>	<u>9065</u>	<u>\$152</u>
		<u>9066</u>	<u>\$152</u>
		<u>9067</u>	<u>\$152</u>
<u>HEM for Aqueous Samples</u>	<u>F</u>	<u>9070A</u>	<u>\$76</u>
<u>HEM for Sludge, Sediment, and Solid Samples</u>	<u>F</u>	<u>9071B</u>	<u>\$76</u>
<u>Screening for TRPH in Soil</u>	<u>F</u>	<u>9074</u>	<u>\$76</u>
<u>Screening for PCBs in Soil</u>	<u>F</u>	<u>9078</u>	<u>\$76</u>
<u>Screening for PCBs in Oil</u>	<u>F</u>	<u>9079</u>	<u>\$76</u>
<u>PCBs in Waste Oil</u>	<u>A4.28</u>	<u>600/4-81-045</u>	<u>\$152</u>
<u>5. Bulk Asbestos Analysis of Waste</u>			
<u>Description</u>	<u>Reference</u>	<u>Method/s</u>	<u>Fee Per Method</u>
<u>Bulk Asbestos Analysis</u>	<u>A4.29</u>	<u>Bulk Asbestos</u>	<u>\$228</u>
	<u>G</u>	<u>9002</u>	<u>\$228</u>
	<u>G1 and A4.29</u>	<u>Bulk Asbestos</u>	<u>\$228</u>
<u>Fiber Counting</u>	<u>G</u>	<u>7400</u>	<u>\$228</u>
		<u>7402</u>	<u>\$228</u>
<u>6. Radiochemistry of Waste</u>			
<u>Description</u>	<u>Reference</u>	<u>Method/s</u>	<u>Fee Per Method</u>
<u>Alpha-Emitting Radium Isotopes</u>	<u>F</u>	<u>9315</u>	<u>\$206</u>
<u>Gross Alpha and Beta</u>	<u>F</u>	<u>9310</u>	<u>\$206</u>
<u>Radium-228</u>	<u>F</u>	<u>9320</u>	<u>\$206</u>

Table 6.2.D. Approved Methods and Method Fees for Air and Stack Parameters

<u>1. Ambient Air Primary and Secondary Pollutants</u>			
<u>Description</u>	<u>Reference</u>	<u>Method/s</u>	<u>Fee Per Method</u>
<u>Carbon Monoxide</u>	<u>O</u>	<u>Appendix C</u>	<u>\$393</u>
<u>Formaldehyde</u>	<u>F</u>	<u>8520</u>	<u>\$393</u>
<u>Lead</u>	<u>O</u>	<u>Appendix G</u>	<u>\$393</u>
<u>Nitrogen Dioxide</u>	<u>O</u>	<u>Appendix F</u>	<u>\$393</u>
<u>Ozone</u>	<u>O</u>	<u>Appendix D</u>	<u>\$393</u>



<u>Particulate Matter</u>	<u>Q</u>	<u>Appendix B</u>	<u>\$393</u>
		<u>Appendix J</u>	<u>\$393</u>
		<u>Appendix L</u>	<u>\$393</u>
		<u>Appendix O</u>	<u>\$393</u>
<u>Sulfur Oxides</u>	<u>Q</u>	<u>Appendix A</u>	<u>\$393</u>
2. Stationary and Stack Sources			
<u>Description</u>	<u>Reference</u>	<u>Method/s</u>	<u>Fee Per Method</u>
<u>Carbon Dioxide, Oxygen, and Excess Air</u>	<u>Q</u>	<u>Method 3C</u>	<u>\$393</u>
<u>Carbon Monoxide</u>	<u>Q</u>	<u>Method 10</u>	<u>\$393</u>
		<u>Method 10A</u>	<u>\$393</u>
		<u>Method 10B</u>	<u>\$393</u>
<u>Carbonyl Sulfide, Hydrogen Sulfide, and Carbon Disulfide</u>	<u>Q</u>	<u>Method 15</u>	<u>\$393</u>
<u>Fluoride</u>	<u>Q</u>	<u>Method 13A</u>	<u>\$393</u>
		<u>Method 13B</u>	<u>\$393</u>
		<u>Method 14</u>	<u>\$393</u>
<u>Fugitive Emissions</u>	<u>Q</u>	<u>Method 22</u>	<u>\$393</u>
<u>Gaseous Organic Compounds</u>	<u>Q</u>	<u>Method 18</u>	<u>\$393</u>
		<u>Method 25</u>	<u>\$393</u>
		<u>Method 25A</u>	<u>\$393</u>
		<u>Method 25B</u>	<u>\$393</u>
<u>Hydrogen Sulfide</u>	<u>Q</u>	<u>Method 11</u>	<u>\$393</u>
<u>Inorganic Lead</u>	<u>Q</u>	<u>Method 12</u>	<u>\$393</u>
<u>Mercury, Total Vapor Phase</u>	<u>Q1</u>	<u>PS-12B</u>	<u>\$393</u>
<u>Moisture Content</u>	<u>Q</u>	<u>Method 4</u>	<u>\$393</u>
<u>Nitrogen Oxide</u>	<u>Q</u>	<u>Method 7</u>	<u>\$393</u>
		<u>Method 7A</u>	<u>\$393</u>
		<u>Method 7B</u>	<u>\$393</u>
		<u>Method 7C</u>	<u>\$393</u>
		<u>Method 7D</u>	<u>\$393</u>
		<u>Method 7E</u>	<u>\$393</u>
		<u>Method 20</u>	<u>\$393</u>
<u>Non-methane Organic Compounds</u>	<u>Q</u>	<u>Method 25C</u>	<u>\$393</u>
<u>Particulate Emissions by Asphalt Processing and Roofing</u>	<u>Q</u>	<u>Method 5A</u>	<u>\$152</u>
<u>Particulate Emissions by Fiberglass Insulation Plants</u>	<u>Q</u>	<u>Method 5E</u>	<u>\$152</u>
<u>Particulate Emissions of Nonsulfates</u>	<u>Q</u>	<u>Method 5F</u>	<u>\$152</u>
<u>Particulate Emissions by Nonsulfuric Acid</u>	<u>Q</u>	<u>Method 5B</u>	<u>\$152</u>
<u>Particulate Emissions by Pressure Filters</u>	<u>Q</u>	<u>Method 5D</u>	<u>\$152</u>
<u>Particulate Emissions by Stationary Sources</u>	<u>Q</u>	<u>Method 5</u>	<u>\$152</u>
		<u>Method 17</u>	<u>\$152</u>
<u>Particulate Emissions by Wood Heaters</u>	<u>Q</u>	<u>Method 5G</u>	<u>\$152</u>
		<u>Method 5H</u>	<u>\$152</u>
<u>Petroleum Products, Heat of Combustion</u>	<u>I</u>	<u>D240-92</u>	<u>\$76</u>
		<u>D240-87</u>	<u>\$76</u>
<u>Petroleum Products, Hydrometer Method</u>	<u>I</u>	<u>D287-92</u>	<u>\$76</u>
<u>Petroleum Products, Sulfur</u>	<u>I</u>	<u>D4294-90</u>	<u>\$152</u>
<u>Sulfur and Total Reduced Sulfur</u>	<u>Q</u>	<u>Method 15A</u>	<u>\$393</u>
		<u>Method 16</u>	<u>\$393</u>
		<u>Method 16A</u>	<u>\$393</u>
		<u>Method 16B</u>	<u>\$393</u>



<u>Sulfur Dioxide</u>	Q	<u>Method 6</u>	<u>\$393</u>
		<u>Method 6A</u>	<u>\$393</u>
		<u>Method 6B</u>	<u>\$393</u>
		<u>Method 6C</u>	<u>\$393</u>
		<u>Method 8</u>	<u>\$393</u>
		<u>Method 19</u>	<u>\$393</u>
		<u>Method 20</u>	<u>\$393</u>
<u>Sulfur Dioxide Removal and SO₂/NO Emission Rates</u>	Q	<u>Method 19</u>	<u>\$152</u>
<u>Sulfuric Acid Mist</u>	Q	<u>Method 8</u>	<u>\$393</u>
<u>Vapor Tightness, Gasoline Delivery Tank</u>	Q	<u>Method 27</u>	<u>\$393</u>
<u>Volatile Matter Density, Solids and Water from Surface Coatings</u>	Q	<u>Method 24</u>	<u>\$393</u>
		<u>Method 24A</u>	<u>\$393</u>
<u>Volatile Matter and Density of Printing Inks</u>	Q	<u>Method 24A</u>	<u>\$393</u>
<u>VOCs</u>	Q	<u>Method 21</u>	<u>\$393</u>
	S1	<u>TO-3</u>	<u>\$152</u>
		<u>TO-14A</u>	<u>\$152</u>
		<u>TO-15</u>	<u>\$152</u>
<u>VOCs in Vapor</u>	F1	<u>8260B AZ (Vapor) (0.0)</u>	<u>\$152</u>
<u>Wood Heaters, Certification and Burn Rates</u>	Q	<u>Method 28</u>	<u>\$393</u>
		<u>Method 28A</u>	<u>\$393</u>

3. ADEO Emission Test

<u>Description</u>	<u>Reference</u>	<u>Method/s</u>	<u>Fee Per Method</u>
<u>Particulate Emissions in the Presence of Sulfuric Acid Mist/ Sulfur Oxides</u>	R	<u>Method A1</u>	<u>\$393</u>

4. National Emission Standards for Hazardous Air Pollutants

<u>Description</u>	<u>Reference</u>	<u>Method/s</u>	<u>Fee Per Method</u>
<u>Arsenic</u>	S	<u>Method 108</u>	<u>\$393</u>
		<u>Method 108A</u>	<u>\$393</u>
		<u>Method 108B</u>	<u>\$393</u>
		<u>Method 108C</u>	<u>\$393</u>
<u>Beryllium</u>	S	<u>Method 103</u>	<u>\$393</u>
		<u>Method 104</u>	<u>\$393</u>
<u>Mercury</u>	S	<u>Method 101</u>	<u>\$393</u>
		<u>Method 101A</u>	<u>\$393</u>
		<u>Method 102</u>	<u>\$393</u>
		<u>Method 105</u>	<u>\$393</u>
<u>Polonium 210</u>	S	<u>Method 111</u>	<u>\$393</u>
<u>Vinyl Chloride</u>	S	<u>Method 106</u>	<u>\$393</u>
		<u>Method 107</u>	<u>\$393</u>
		<u>Method 107A</u>	<u>\$393</u>

5. Determination of Metals in Ambient Particulate Matter

<u>Description</u>	<u>Reference</u>	<u>Method/s</u>	<u>Fee Per Method</u>
<u>Digestion of Ambient Matter</u>	O3	<u>IO-3.1</u>	<u>\$7</u>
<u>Aluminum</u>	O1	<u>IO-3.4</u>	<u>\$10</u>
	O2	<u>IO-3.5</u>	<u>\$26</u>
	O1	<u>IO-3.4</u>	<u>\$10</u>
<u>Antimony</u>	O1	<u>IO-3.4</u>	<u>\$10</u>
	O2	<u>IO-3.5</u>	<u>\$26</u>



<u>Arsenic</u>	<u>O1</u>	<u>IO-3.4</u>	<u>\$10</u>
	<u>O2</u>	<u>IO-3.5</u>	<u>\$26</u>
	<u>Q</u>	<u>Method 29 – ICP</u> <u>Method 29 – ICPMS</u>	<u>\$10</u> <u>\$26</u>
<u>Barium</u>	<u>O1</u>	<u>IO-3.4</u>	<u>\$10</u>
	<u>O2</u>	<u>IO-3.5</u>	<u>\$26</u>
	<u>Q</u>	<u>Method 29 – ICP</u> <u>Method 29 – ICPMS</u>	<u>\$10</u> <u>\$26</u>
<u>Beryllium</u>	<u>O1</u>	<u>IO-3.4</u>	<u>\$10</u>
	<u>O2</u>	<u>IO-3.5</u>	<u>\$26</u>
	<u>Q</u>	<u>Method 29 – ICP</u> <u>Method 29 – ICPMS</u>	<u>\$10</u> <u>\$26</u>
<u>Bismuth</u>	<u>O1</u>	<u>IO-3.4</u>	<u>\$10</u>
<u>Cadmium</u>	<u>O1</u>	<u>IO-3.4</u>	<u>\$10</u>
	<u>O2</u>	<u>IO-3.5</u>	<u>\$26</u>
	<u>Q</u>	<u>Method 29 – ICP</u> <u>Method 29 – ICPMS</u>	<u>\$10</u> <u>\$26</u>
<u>Calcium</u>	<u>O1</u>	<u>IO-3.4</u>	<u>\$10</u>
<u>Cesium</u>	<u>O1</u>	<u>IO-3.4</u>	<u>\$10</u>
<u>Chromium</u>	<u>O1</u>	<u>IO-3.4</u>	<u>\$10</u>
	<u>O2</u>	<u>IO-3.5</u>	<u>\$26</u>
	<u>Q</u>	<u>Method 29 – ICP</u> <u>Method 29 – ICPMS</u>	<u>\$10</u> <u>\$26</u>
<u>Cobalt</u>	<u>O1</u>	<u>IO-3.4</u>	<u>\$10</u>
	<u>O2</u>	<u>IO-3.5</u>	<u>\$26</u>
	<u>Q</u>	<u>Method 29 – ICP</u> <u>Method 29 – ICPMS</u>	<u>\$10</u> <u>\$26</u>
<u>Copper</u>	<u>O1</u>	<u>IO-3.4</u>	<u>\$10</u>
	<u>O2</u>	<u>IO-3.5</u>	<u>\$26</u>
	<u>Q</u>	<u>Method 29 – ICP</u> <u>Method 29 – ICPMS</u>	<u>\$10</u> <u>\$26</u>
<u>Germanium</u>	<u>O1</u>	<u>IO-3.4</u>	<u>\$10</u>
<u>Gold</u>	<u>O1</u>	<u>IO-3.4</u>	<u>\$10</u>
<u>Indium</u>	<u>O1</u>	<u>IO-3.4</u>	<u>\$10</u>
<u>Iron</u>	<u>O1</u>	<u>IO-3.4</u>	<u>\$10</u>
<u>Lanthanum</u>	<u>O1</u>	<u>IO-3.4</u>	<u>\$10</u>
<u>Lead</u>	<u>O1</u>	<u>IO-3.4</u>	<u>\$10</u>
	<u>O2</u>	<u>IO-3.5</u>	<u>\$26</u>
	<u>O4</u>	<u>EQL-0510-191</u>	<u>\$26</u>
	<u>Q</u>	<u>Method 29 – ICP</u> <u>Method 29 – ICPMS</u>	<u>\$10</u> <u>\$26</u>
<u>Lithium</u>	<u>O1</u>	<u>IO-3.4</u>	<u>\$10</u>
<u>Magnesium</u>	<u>O1</u>	<u>IO-3.4</u>	<u>\$10</u>
<u>Manganese</u>	<u>O1</u>	<u>IO-3.4</u>	<u>\$10</u>
	<u>O2</u>	<u>IO-3.5</u>	<u>\$26</u>
	<u>Q</u>	<u>Method 29 – ICP</u> <u>Method 29 – ICPMS</u>	<u>\$10</u> <u>\$26</u>
<u>Mercury</u>	<u>O1</u>	<u>IO-3.4</u>	<u>\$10</u>
	<u>Q</u>	<u>Method 29 – CVAA</u>	<u>\$52</u>
<u>Molybdenum</u>	<u>O1</u>	<u>IO-3.4</u>	<u>\$10</u>
	<u>O2</u>	<u>IO-3.5</u>	<u>\$26</u>



<u>Nickel</u>	<u>O1</u>	<u>IO-3.4</u>	<u>\$10</u>
	<u>O2</u>	<u>IO-3.5</u>	<u>\$26</u>
	<u>Q</u>	<u>Method 29 – ICP</u>	<u>\$10</u>
		<u>Method 29 – ICPMS</u>	<u>\$26</u>
<u>Niobium</u>	<u>O1</u>	<u>IO-3.4</u>	<u>\$10</u>
<u>Palladium</u>	<u>O1</u>	<u>IO-3.4</u>	<u>\$10</u>
<u>Phosphorus</u>	<u>O1</u>	<u>IO-3.4</u>	<u>\$10</u>
	<u>Q</u>	<u>Method 29 – ICP</u>	<u>\$10</u>
<u>Platinum</u>	<u>O1</u>	<u>IO-3.4</u>	<u>\$10</u>
<u>Potassium</u>	<u>O1</u>	<u>IO-3.4</u>	<u>\$10</u>
<u>Rhenium</u>	<u>O1</u>	<u>IO-3.4</u>	<u>\$10</u>
<u>Rhodium</u>	<u>O1</u>	<u>IO-3.4</u>	<u>\$10</u>
<u>Ruthenium</u>	<u>O1</u>	<u>IO-3.4</u>	<u>\$10</u>
<u>Samarium</u>	<u>O1</u>	<u>IO-3.4</u>	<u>\$10</u>
<u>Selenium</u>	<u>O1</u>	<u>IO-3.4</u>	<u>\$10</u>
	<u>O2</u>	<u>IO-3.5</u>	<u>\$26</u>
	<u>Q</u>	<u>Method 29 – ICP</u>	<u>\$10</u>
		<u>Method 29 – ICPMS</u>	<u>\$26</u>
<u>Silicon</u>	<u>O1</u>	<u>IO-3.4</u>	<u>\$10</u>
<u>Silver</u>	<u>O2</u>	<u>IO-3.5</u>	<u>\$26</u>
	<u>Q</u>	<u>Method 29 – ICP</u>	<u>\$10</u>
		<u>Method 29 – ICPMS</u>	<u>\$26</u>
<u>Sodium</u>	<u>O1</u>	<u>IO-3.4</u>	<u>\$10</u>
<u>Strontium</u>	<u>O1</u>	<u>IO-3.4</u>	<u>\$10</u>
<u>Tantalum</u>	<u>O1</u>	<u>IO-3.4</u>	<u>\$10</u>
<u>Tellurium</u>	<u>O1</u>	<u>IO-3.4</u>	<u>\$10</u>
<u>Thallium</u>	<u>O1</u>	<u>IO-3.4</u>	<u>\$10</u>
	<u>O2</u>	<u>IO-3.5</u>	<u>\$26</u>
	<u>Q</u>	<u>Method 29 – ICP</u>	<u>\$10</u>
		<u>Method 29 – ICPMS</u>	<u>\$26</u>
<u>Thorium</u>	<u>O2</u>	<u>IO-3.5</u>	<u>\$26</u>
<u>Tin</u>	<u>O1</u>	<u>IO-3.4</u>	<u>\$10</u>
<u>Titanium</u>	<u>O1</u>	<u>IO-3.4</u>	<u>\$10</u>
<u>Tungsten</u>	<u>O1</u>	<u>IO-3.4</u>	<u>\$10</u>
<u>Uranium</u>	<u>O2</u>	<u>IO-3.5</u>	<u>\$26</u>
<u>Vanadium</u>	<u>O1</u>	<u>IO-3.4</u>	<u>\$10</u>
	<u>O2</u>	<u>IO-3.5</u>	<u>\$26</u>
<u>Yttrium</u>	<u>O1</u>	<u>IO-3.4</u>	<u>\$10</u>
<u>Zinc</u>	<u>O1</u>	<u>IO-3.4</u>	<u>\$10</u>
	<u>O2</u>	<u>IO-3.5</u>	<u>\$26</u>
	<u>Q</u>	<u>Method 29 – ICP</u>	<u>\$10</u>
		<u>Method 29 – ICPMS</u>	<u>\$26</u>
<u>Zirconium</u>	<u>O1</u>	<u>IO-3.4</u>	<u>\$10</u>

Table 6.2.E. Methods Director-Approved under R9-14-610(E) and Method Fees

<u>Description</u>	<u>Reference</u>	<u>Method/s</u>	<u>Fee Per Method</u>
<u>Chromatographic Method</u>	<u>±</u>	<u>Any</u>	<u>\$116</u>
<u>Mass Spectrometric Method</u>	<u>±</u>	<u>Any</u>	<u>\$152</u>
<u>Toxicity Method</u>	<u>±</u>	<u>Any</u>	<u>\$194</u>
<u>Other Method</u>	<u>±</u>	<u>Any</u>	<u>\$75</u>

Table 6.3. Instrumentation Fees

<u>Description</u>	<u>Subtype, if any</u>	<u>Fee Per Instrument</u>
<u>Atomic Absorption</u>	<u>Cold Vapor</u>	<u>\$76</u>
	<u>Flame Burner</u>	<u>\$76</u>
	<u>Graphite Furnace</u>	<u>\$76</u>
	<u>Hydride Generator</u>	<u>\$76</u>
	<u>Other</u>	<u>\$76</u>
<u>Counters for Radioactivity</u>	<u>=</u>	<u>\$76</u>
<u>Gas Chromatograph</u>	<u>Electron Capture</u>	<u>\$76</u>
	<u>Flame Ionization</u>	<u>\$76</u>
	<u>Flame Photometric</u>	<u>\$76</u>
	<u>Halide Specific</u>	<u>\$76</u>
	<u>Nitrogen/Phosphorus</u>	<u>\$76</u>
	<u>Photoionization</u>	<u>\$76</u>
	<u>Other</u>	<u>\$76</u>
<u>Gas Chromatograph/Mass Spectrometer</u>	<u>High Resolution</u>	<u>\$194</u>
	<u>Other than High Resolution</u>	<u>\$152</u>
<u>High Pressure Liquid Chromatograph</u>	<u>Ultraviolet</u>	<u>\$76</u>
	<u>Fluorescence</u>	<u>\$76</u>
	<u>Other</u>	<u>\$76</u>
<u>High Pressure Liquid Chromatograph/Mass Spectrometer</u>	<u>=</u>	<u>\$152</u>
<u>Inductively Coupled Plasma</u>	<u>=</u>	<u>\$76</u>
<u>Inductively Coupled Plasma/Mass Spectrometer</u>	<u>=</u>	<u>\$152</u>
<u>Ion Chromatograph</u>	<u>=</u>	<u>\$76</u>
<u>Automated Autoanalyzer</u>	<u>=</u>	<u>\$76</u>
<u>Mercury Analyzer</u>	<u>=</u>	<u>\$76</u>
<u>Organic Halide, Total</u>	<u>=</u>	<u>\$76</u>
<u>Transmission Electron Microscope</u>	<u>=</u>	<u>\$396</u>
<u>X-Ray Diffraction Unit</u>	<u>=</u>	<u>\$76</u>

Table 6.4. Alternate Default Limits

<u>QUALITY CONTROL PARAMETERS WITHOUT ACCEPTANCE CRITERIA SPECIFIED IN THE METHOD</u>	<u>DEFAULT LIMITS</u>
<u>Matrix Spike/LFM (processed or non-processed)</u>	<u>LCS/LFB</u>
<u>Matrix Spike/LCS for 8000 methods</u>	<u>±30%</u>
<u>LCS/LFB (processed or non-processed)/Second source reference standard</u>	<u>CCV/continuing IPC</u>
<u>LOQ/MRL (non-processed)</u>	<u>CCV/continuing IPC or ± 50%</u>
<u>LOQ/MRL (processed)</u>	<u>LCS/LFB or ± 50%</u>
<u>Methods that do not specify the LOQ/MRL</u>	<u>± 50%</u>
<u>QCS (non-processed)</u>	<u>ICV/continuing IPC/manufacture's limits</u>
<u>QCS (processed)</u>	<u>LCS/LFB/manufacture's limits</u>
<u>IDOC limits</u>	<u>LFB/LCS</u>
<u>LFB/LCS/LFM/duplicate RPD</u>	<u>IDOC limits/±20%</u>
<u>Non-CCC compounds</u>	<u>CCC limits</u>
<u>ICV/CCV</u>	<u>± 10%</u>

<u>500, 600, 1600, and 8000 series methods that do not specify surrogates or acceptance limits for surrogates</u>	<u>70-130%.</u>
<u>500, 600, 1600, and 8000 series methods that do not specify internal standards or acceptance limits for internal standards</u>	<u>70-130%.</u>
<u>Methods that do not list a precision measurement</u>	<u>20% RPD</u>

NOTICE OF FINAL RULEMAKING

TITLE 20. COMMERCE, FINANCIAL INSTITUTIONS, AND INSURANCE

CHAPTER 5. INDUSTRIAL COMMISSION OF ARIZONA

[R16-188]

PREAMBLE

- | <u>1. Article, Part, or Section Affected (as applicable)</u> | <u>Rulemaking Action</u> |
|--|---------------------------------|
| R20-5-715 | Amend |
| <u>2. Citations to agency's statutory rulemaking authority to include both the authorizing statute (general) and the implementing statute (specific):</u> | |
| Authorizing statutes: A.R.S. §§ 23-107(A)(1); 23-961.01(B) | |
| Implementing statute: A.R.S. § 23-961.01(F) | |
| <u>3. The effective date of the rule:</u> | |
| <u>a. If the agency selected a date earlier than the 60 day effective date as specified in A.R.S. § 41-1032(A), include the earlier date and state the reason or reasons the agency selected the earlier effective date as provided in A.R.S. § 41-1032(A)(1) through (5):</u> | |
| September 7, 2016. The Industrial Commission of Arizona (Commission) requests an immediate effective date under A.R.S. § 41-1032(A)(5) ("To adopt a rule that is less stringent than the rule that is currently in effect and that does not have an impact on public health, safety, welfare or environment, or that does not affect the public involvement and public participation process."). | |
| The current excess insurance requirements of R20-5-715(D) are an impediment to the formation of workers' compensation self-insurance pools, defeating the purpose of A.R.S. § 23-961.01. The proposed amendments reduce the stringency of these requirements by increasing permissible retention amounts and by decreasing the required amount of aggregate insurance coverage. The proposed amendments do not impact public health, safety, welfare or environment. Although the amendments to R20-5-715(D) loosen the excess insurance requirements, the changes should not impact the availability or effectiveness of workers' compensation for injured workers. Self-insurance pools established under A.R.S. § 23-961.01 remain subject to the Commission's approval process contemplated in A.R.S. §§ 23-961(A)(2) and 23-961.01(B). As such, self-insurance pools will continue to be required to meet rigid financial and loss control standards to demonstrate a "financial ability to pay [workers'] compensation . . . in the amount and manner and when due as provided in [A.R.S. Title 23, Chapter 6, Workers' Compensation]." The amendments should also have no effect on public involvement or the public participation process. | |
| <u>b. If the agency selected a date later than the 60 day effective date as specified in A.R.S. § 41-1032(A), include the later date and state the reason or reasons the agency selected the later effective date as provided in A.R.S. § 41-1032(B):</u> | |
| Not applicable | |
| <u>4. Citations to all related notices published in the <i>Register</i> as specified in R1-1-409(A) that pertain to the record of the final rulemaking package:</u> | |
| Notice of Rulemaking Docket Opening: 22 A.A.R. 239, February 12, 2016 | |
| Notice of Proposed Rulemaking: 22 A.A.R. 416, March 4, 2016 | |
| <u>5. The agency's contact person who can answer questions about the rulemaking:</u> | |
| Name: Scott J. Cooley, Attorney | |
| Address: Industrial Commission of Arizona
800 W. Washington St., Suite 303
Phoenix, AZ 85007 | |
| Telephone: (602) 542-5781 | |
| Fax: (602) 542-6783 | |
| E-mail: scott.cooley@azica.gov | |



6. An agency's justification and reason why a rule should be made, amended, repealed or renumbered, to include an explanation about the rulemaking:

Until 1997, Arizona law mandated that employers "secure workers' compensation to their employees" by either: (1) acquiring insurance from a carrier licensed to write workers' compensation insurance in the state or (2) obtaining authorization from the Industrial Commission of Arizona (Commission) to self-insure. *See* A.R.S. § 23-961(A). In 1997, the Arizona Legislature added "self-insurance pools" as a third mechanism for securing workers' compensation. *See* A.R.S. §§ 23-961(A), 23-961.01. Specifically, A.R.S. § 23-961.01(A) permits two or more employers who are engaged in similar industries to form a workers' compensation pool to provide for the direct payment and administration of workers' compensation claims.

A.R.S. § 23-961.01(F) directs the Commission to "adopt rules necessary for safeguarding the solvency of [self-insurance] pools and guaranteeing that injured workers receive benefits required under [A.R.S. Title 23, Chapter 6, Workers' Compensation]." The rules "shall include, at a minimum, matters pertaining to [among other things] . . . specific and aggregate excess insurance . . . necessary for participation in and administration of the workers' compensation system." A.R.S. § 23-961.01(F).

"Specific excess insurance," in this context, refers to insurance coverage purchased from an insurer who will be liable for the payment of any amount of a particular workers' compensation claim in excess of a retained predetermined amount (the specific retention) paid directly by the self-insurance pool. Once a pool has paid the specific retention for a particular claim, the specific excess insurer would be obligated to pay all remaining amounts due on that claim (with no upper limit). Specific excess insurance mitigates a pool's risk resulting from any particular claim.

"Aggregate excess insurance," in this context, refers to coverage purchased from an insurer who will be liable for the payment of any amount of the aggregate of all a pool's workers' compensation claims in excess of a retained predetermined amount (the aggregate retention) paid directly by the pool. Once the pool has paid the aggregate retention amount, the aggregate excess insurer would be obligated to pay all remaining claim liabilities on all claims (subject to policy limits). Aggregate excess insurance mitigates a pool's overall risk from all claims.

In 1998, following the enactment of A.R.S. § 23-961.01, the Commission adopted rules (Title 20, Chapter 5, Article 7) to implement the new legislation, including a rule (R20-5-715(D)) which established excess coverage and retention requirements for self-insurance pools. Specifically, the maximum permissible retention amounts were set at \$250,000 (specific retention) and "110% of collected premiums" (for aggregate retention). The minimum aggregate insurance coverage limit was set at \$5,000,000.

In 1998, when R20-5-715 was implemented, the excess insurance required by the rule was widely available in the insurance market at competitive prices. Today, however, Arizona employers have been effectively precluded from forming self-insurance pools because the required excess insurance products are either unavailable in the insurance market or are cost prohibitive. This is evidenced by the fact that no self-insurance pools under A.R.S. § 23-961.01 are currently in operation in Arizona. In short, the excess insurance requirements of R20-5-715(D) have become an impediment to the formation of self-insurance pools, frustrating the intent of A.R.S. § 23-961.01. The Commission seeks to remove these impediments by amending the rule to reflect present economic realities within the excess insurance industry.

The proposed amendments will allow self-insurance pools to acquire necessary excess coverage more easily and in a cost-effective manner. In lieu of a maximum specific retention amount of \$250,000, the proposed amendments authorize a range of specific retention amounts from \$100,000 up to \$1,250,000. In lieu of a maximum aggregate retention amount of "110% of collected premiums," the proposed amendments authorize a maximum aggregate retention amount of "150% of collected premiums." And in lieu of a minimum aggregate excess coverage limit of \$5,000,000, the proposed amendment authorizes a minimum coverage amount of \$1,000,000. Finally, the proposed amendments give the Commission flexibility to approve deviations from the authorized specific retention range where a self-insurance pool can demonstrate sufficient financial security and loss control procedures to justify a higher specific retention, consistent with the approval process contemplated in A.R.S. §§ 23-961(A)(2) and 23-961.01(B). Each of these proposed amendments seeks to ease the regulatory burden on employers who may be interested in forming self-insurance pools by authorizing excess insurance products that are more accessible in the current insurance market and that are not cost prohibitive.

The proposed amendments are designed to make self-insurance pools a viable and cost-effective option for employers to provide workers' compensation to their employees. The proposed amendments will promote the statutory objectives of A.R.S. § 23-961.01(F), while continuing to ensure that self-insurance pools are financially able to provide for the payment and administration of workers' compensation claims.

7. A reference to any study relevant to the rule that the agency reviewed and either relied on or did not rely on in its evaluation of or justification for the rule, where the public may obtain or review each study, all data underlying each study, and any analysis of each study and other supporting material:

The Commission has not reviewed or relied on a study for this rulemaking.



8. A showing of good cause why the rulemaking is necessary to promote a statewide interest if the rulemaking will diminish a previous grant of authority of a political subdivision of this state:

Not applicable

9. A summary of the economic, small business and consumer impact:

EMPLOYERS and EMPLOYEES: The proposed amendments ease the regulatory burden on employers who participate in self-insurance pools by authorizing excess insurance products that are cost-effective and more accessible in the current insurance market. Arizona employers, both large and small, who participate in a self-insurance pool will benefit economically from the proposed amendments. In addition, incentivizing the use of self-insurance pools will likely lead to increased workplace safety and a reduction in industrial injuries.

INSURERS: As a result of the proposed rulemaking, Arizona employers may elect to participate in a self-insurance pool in lieu of purchasing workers' compensation insurance under A.R.S. § 23-961(A)(1). This shift would result in a decrease in sales of workers' compensation insurance policies and an increase in sales of specific and aggregate excess insurance policies. Although some impact on the insurance industry is expected, the Commission does not believe the impact of the proposed amendments will be significant for any particular insurance carrier.

SPECIAL FUND: The proposed rulemaking may indirectly impact on the Commission's Special Fund Division/No Insurance Section (Special Fund), which provides workers' compensation benefits to injured employees of uninsured employers. If currently-uninsured employers elect to participate in a self-insurance pool as a result of the proposed rulemaking, the Special Fund would benefit because workers' compensation liabilities of the formerly-uninsured employers would be shifted from the Special Fund to self-insurance pools. The Commission, however, believes the overall impact on the Special Fund will be minimal, as it is likely that the majority of uninsured employers will not participate in a self-insurance pool.

10. A description of any changes between the proposed rulemaking, to include supplemental notices, and the final rulemaking:

Two non-substantive changes were made to subsection (D)(1)(a) of the proposed amended rule. The word "Maximum" was deleted because the proposed amendments replace the maximum permissible specific retention with an authorized range of specific retention amounts, thereby rendering the word "Maximum" superfluous. Second, due to the deletion of the word "Maximum," which began the sentence, the word "retention" was capitalized.

11. An agency's summary of the public or stakeholder comments made about the rulemaking:

No oral or written comments were submitted on this rulemaking.

12. All agencies shall list other matters prescribed by statute applicable to the specific agency or to any specific rule or class of rules. Additionally, an agency subject to Council review under A.R.S. §§ 41-1052 and 41-1055 shall respond to the following questions:

None

a. Whether the rule requires a permit, whether a general permit is used and if not, the reasons why a general permit is not used:

The amended rule does not require a permit.

b. Whether a federal law is applicable to the subject of the rule, whether the rule is more stringent than federal law and if so, citation to the statutory authority to exceed the requirements of federal law:

The subject of the rulemaking, *i.e.*, retention and policy amounts for specific and aggregate excess insurance for a self-insurance pool under A.R.S. § 23-916.01, is a matter of state law. The Commission is not aware of any applicable federal law.

c. Whether a person submitted an analysis to the agency that compares the rule's impact of the competitiveness of business in this state to the impact on business in other states:

No

13. A list of any incorporated by reference material as specified in A.R.S. § 41-1028 and its location in the rule:

None

14. Whether the rule was previously made, amended or repealed as an emergency rule. If so, cite the notice published in the Register as specified in R1-1-409(A). Also, the agency shall state where the text was changed between the emergency and the final rulemaking packages:

Not applicable

15. The full text of the rule follows:



TITLE 20. COMMERCE, FINANCIAL INSTITUTIONS, AND INSURANCE

CHAPTER 5. INDUSTRIAL COMMISSION OF ARIZONA

ARTICLE 7. SELF-INSURANCE REQUIRMENTS FOR WORKERS' COMPENSATION POOLS
ORGANIZED UNDER A.R.S. § 23-961.01

R20-5-715. Aggregate and Specific Excess Insurance Policies

ARTICLE 7. SELF-INSURANCE REQUIRMENTS FOR WORKERS' COMPENSATION POOLS
ORGANIZED UNDER A.R.S. § 23-961.01

R20-5-715. Aggregate and Specific Excess Insurance Policies

- A. A pool shall maintain aggregate and specific excess insurance policies during all periods of self-insurance.
- B. The Commission shall not consider policies of aggregate and specific excess insurance when determining a pool's ability to fulfill its financial obligations under the Arizona Workers' Compensation Act, unless the policies are issued by a casualty insurance company authorized by the Arizona Department of Insurance to transact business in Arizona.
- C. A pool or insurance company seeking to cancel or refuse renewal of aggregate and specific excess insurance policies shall provide 90 days written notice of the proposed cancellation or non-renewal to the other party to the policies and to the Commission. The written notice shall be by registered or certified mail. Failure to provide notice as required by this Section precludes cancellation or non-renewal of the policies.
- D. Policy and Retention Amounts.
 - 1. Policy and retention amounts for specific and aggregate excess insurance for a pool shall be as follows:
 - a. ~~Maximum retention~~ Retention for specific excess insurance shall not ~~be less than \$100,000 nor exceed \$250,000~~ \$1,250,000 without advance written approval by the Commission. Specific excess insurance shall be provided to the statutory limit; and
 - b. Maximum retention of aggregate excess insurance shall not exceed ~~44~~ 150% of collected premiums. Total aggregate insurance coverage shall not be less than ~~\$5,000,000~~ \$1,000,000.
 - 2. Aggregate and specific excess insurance policies shall state that payments of workers' compensation benefits on a claim made by a member employer, pool, or surety under a bond or through the use of other approved securities shall be applied toward reaching the retention level in the policy.