IN REPLY REFER TO:

United States Department of the Interior

U.S. GEOLOGICAL SURVEY
Box 25046 M.S. 407
Denver Federal Center
Denver, Colorado 80225

NATIONAL WATER QUALITY LABORATORY TECHNICAL MEMORANDUM 1997.09

June 11, 1997

To: Chief, Office of Water Quality
Assistant Chief, Office of Water Quality
Assistant Chief Hydrologist for Technical Support
Regional Hydrologists
Chief, NAWQA
Chief, Office of Ground Water
Assistant Chief, Office of Ground Water
Chief, National Water Information System
Chief, Office of Hydrologic Research
Chiefs, Branches of Regional Research
District Chiefs
Regional Water Quality Specialists
Assistant Regional Hydrologists for NAWQA
District Water Quality Specialists
Chiefs, NAWQA Study Units
Chief, Quality Water Service Unit, Ocala
Chief, Yucca Mountain Project
QA Manager, Yucca Mountain Project
Chief, Branch of Technical Development & Quality Systems
Employees, National Water Quality Laboratory

From: Peter F. Rogerson, Chief
National Water Quality Laboratory
Branch of Analytical Services

Subject: Replacement or Elimination of NWQL Procedures

Authors: Peter F. Rogerson, Chief, NWQL (rogerson) (303)467-8003
Harold Ardourel, Ass't Chief, Inorganics (ardourel) (303)467-8105
Ralph White, Ass't Chief, Organics (wrwhite) (303)467-8190

Revision: None

BACKGROUND

The National Water Quality Laboratory (NWQL) distributed Technical Memorandum 97-02, Proposed Replacement or Elimination of NWQL Procedures, on November 25, 1996. I wish to

thank everyone for examining our proposed changes and working with us to resolve each issue. This memorandum specifies the NWQL procedures to be replaced or eliminated. Please understand that, if required, most of these eliminated tests can be made available on a request basis.

SCOPE

The NWQL will eliminate the following low ionic strength (LIS) tests and replace them with the equivalent regular level tests with the following caveat:

The NWQL understands the need to offer elemental data reporting levels that are comparable to the levels offered by the indicated low-level methods. In order to do this, the NWQL will report data down to the calculated method detection limit (MDL) on a request basis for the regular-level GFAA methods. The regular-level GFAA MDL's are comparable to the current (1997) low-level reporting limits. Contact Glenda Brown, (GEBROWN) (303)467-8122, for information on how to obtain a custom report.

[LIS, low-ionic strength; GFAA, graphite furnace atomic absorption; ICP/MS, inductively coupled plasma/mass spectrometry; DCP, direct-current plasma; ICP, inductively coupled plasma; AA, atomic absorption]

NAME	LAB CODE*	PARAMETER CODE	REPLACE WITH	LAB CODE (PARAM. CODE)
Acidity, LIS	1266	71825 B	Acidity, Regular	1 (71825 A)
Alkalinity, LIS	1270	90410 B	Alkalinity, Regular	70 (90410 A)
Cadmium, LIS, GFAA	1250	01025 E	Cadmium, GFAA or ICP/MS	1554 (01025 F) or 1788 (01025 G)
Chromium, LIS, GFAA	1251	01030 D	Chromium, GFAA or ICP/MS	1936 (01030 I) or 1789 (01030 G)
Cobalt, LIS, GFAA	1252	01035 E	Cobalt, GFAA or ICP/MS	1556 (01035 F) or 1790 (01035 G)
Copper, LIS, GFAA	1253	01040 E	Copper, GFAA or ICP/MS	1558 (01040 F) or 1791 (01040 G)
Lead, LIS, GFAA	1254	01049 E	Lead, GFAA or ICP/MS	1560 (01049 F) or 1792 (01049 G)
Manganese, LIS, GFAA	1255	01056 D	Manganese, ICP/MS	1793 (01056 G)
Nickel, LIS, GFAA	1256	01065 D	Nickel, GFAA or ICP/MS	1562 (01065 F) or 1795 (01065 G)
Zinc, LIS, GFAA	1257	01090 D	Zinc, ICP or ICP/MS	671 (01090 B) or 1798 (01090 G)
Aluminum, LIS, DCP	1267	01106 D	Aluminum, ICP or ICP/MS	2111 (01106 F) or 1784 (01106 G)

Calcium, LIS, AA	831	00915 B	Calcium, ICP	659 (00915 D)
Calcium, LIS, ICP	1273	00915 E	Calcium, ICP	659 (00915 D)
Iron, LIS, ICP	1271	01046 E	Iron, ICP	645 (01046 D)
Magnesium, LIS, AA	832	00925 A	Magnesium, ICP	663 (00925 C)
Magnesium, LIS, ICP	1274	00925 D	Magnesium, ICP	663 (00925 C)
Manganese, LIS, ICP	1272	01056 E	Manganese, ICP	648 (01056 C)
Silica, LIS, ICP	1275	00955 E	Silica, ICP	667 (00955 D)
Sodium, LIS, AA	834	00930 A	Sodium, ICP	675 (00930 C)
Sodium, LIS, ICP	1276	00930 D	Sodium, ICP	675 (00930 C)

*The lab codes for the eliminated tests will become invalid.

The following three tests have been eliminated because of low demand:

[VOI, Volatile-on-Ignition; Btm., bottom; TKN, Total Kjeldahl Nitrogen]

NAME	LAB CODE*	PARAMETER CODE	REPLACE WITH	LAB CODE (PARAM. CODE)
Solids, VOI, Filtered	229	00520 A	Delete. No Requests.	-
Solids, VOI, Btm. Material	516	00496 A	Custom Analysis Only	-
Nitrogen, Antek	1989	00602 C	Nitrogen, TKN	1986 (00625 D)

*The lab codes for the eliminated tests will become invalid.

These tests are available from a contract laboratory through the NWQL. For information on how to submit samples to the contractor, along with additional information such as sample batch size limitations, please contact Bob Brock (RDBROCK) (303)467-8097.

[COD, chemical oxygen demand; USEPA, U.S. Environmental Protection Agency]

NAME	LAB CODE*	PARAMETER CODE	REPLACE WITH
Antimony, Bottom Material	534	01098 A	Contract
Barium, Bottom Material	521	01008 A	Contract
Beryllium, Bottom Material	522	01013 A	Contract
COD, bottom material	532	00339 A	Contract
Cyanide, bottom material	1235	00721 B	Contract
Molybdenum, Bottom Material	523	01063 A	Contract

Strontium, Bottom Material	530	01083 A	Contract
Calcium, Whole Water (USEPA)	324	00916 A	Contract
Magnesium, Whole Water (USEPA)	325	00927 A	Contract
Sodium, Whole Water (USEPA)	326	00929 A	Contract
Potassium, Whole Water (USEPA)	327	00937 A	Contract
Digestion for Ca, Mg, Na, K (USEPA)	124	(preparation procedure only)	Contract

*The lab codes for these tests will become invalid.

The NWQL has discontinued the following two tests because the parameters are unstable and cannot be preserved. The NWQL recommends using the U.S. Environmental Protection Agency (USEPA)-approved Hach field tests (or equivalent):

NAME	LAB CODE*	PARAMETER CODE	REPLACE WITH
Sulfide, Whole Water	89	00745 A	Field test: Hach #8131
Chromium, Hexavalent, Filtered Water	16	01032 A	Field Test: Hach #8023

*The lab codes for these discontinued tests will become invalid.

The following four tests have been discontinued because of low demand. These analyses can be provided through contract. For information on how to submit samples to the contractor, along with additional information such as sample batch size limitations, please contact Bob Brock (RDBROCK) (303)467-8097.

NAME	LAB CODE*	PARAMETER CODE	REPLACE WITH
Carbon, Inorganic, Whole Water	19	00685 A	Contract
Carbon, Inorganic, Filtered Water	306	00691 A	Contract
Oil & Grease, Bottom Material	531	00557 A	Contract
Tannin and Lignin	138	32240 A	Contract

*The lab codes for these discontinued tests will become invalid.

The four filtered-water pesticide schedules listed below have been eliminated. The NWQL recommends use of the corresponding whole-water schedules. If a project requires the use of filtered-water pesticide determinations, please contact Ralph White (WRWHITE) (303)467-8190. These schedules can be made available on a limited basis.

[OP, organophosphate; OC, organochlorine; PCB, polychlorinated biphenyls]

ELIMINATE: Filtered water Schedule No.*	REPLACE WITH: Whole water Schedule No.
Schedule 1316 (OPs)	Schedule 1319 (OPs)
Schedule 1321 (OCs)	Schedule 1324 (OCs)
Schedule 1331 (OCs + OPs)	Schedule 1334 (OCs + OPs)
Schedule 1361 (PCBs)	Schedule 1364 (PCBs)

*These filtered-water schedules will become invalid.

The technically obsolete pesticide schedule listed below has been eliminated:

ELIMINATE:	REPLACE WITH:
Schedule 1359* (carbamates)	Schedule 2050 Schedule 2051

*This schedule will become invalid.

The two unused radiochemical determinations listed below have been eliminated:

NAME	LAB CODE*	PARAMETER CODE	REPLACE WITH: LAB CODE (PARAMETER CODE)
Radium-228 Filtered	850	81366 A	LC 1364 (81366 C)
Radon-222	490	82305 A	LC 1369 (82330 B)

*The lab codes for these determinations will become invalid.

Effect on Data Base: None

Supersedes: None

Key Words: Eliminate Procedures, Trace Metals, Solids, Nitrogen Antek, Sulfide, Hexavalent Chromium, Oil and Grease, Carbon, Filtered, Pesticides, Carbamates, Radium-228, Radon-222

Distribution: See above plus the Netnews usgs.labnews & .water.quality, WRD Secretaries; Field and Project Offices; Hydrologic Technicians; and http://wwwnwql.cr.usgs.gov/