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XrM54 Participating Laboratories

Lab Code	Lab Name	Matrix Code
AFOH01	USAFSAM/OEA	XrM
CDHS01	California Department of Public Health	XrM
CESL01	Lawrence Livermore National Laboratory - EMRL	XrM
ERCL01	Washington State Public Health Laboratories	XrM
FDHE01	Florida Dept of Health Environmental Laboratory	XrM
FDOH01	Florida Dept. of Health, Mobile Environmental Radiological Lab	XrM
HPAL01	Los Alamos National Laboratory	XrM
IEMA01	Illinois Emergency Management Agency Radiochemistry Laboratory	XrM
MART03	Radioactive Material Analysis Laboratory	XrM
ODHL01	Ohio Department of Health Laboratory	XrM
SMER01	State of Michigan EGLE Radiological Lab	XrM
TDHL01	Texas Department of State Health Services Laboratory	XrM
TMAO01	EBERLINE Analytical Corporation	XrM
WSHL01	Wisconsin State Laboratory of Hygiene	XrM

Study Reference Values

MAPEP-26-XrM54

Radiological Reference Date: 04/01/2026

Analyte	Ref Value	Ref Unc	Units
Radiological			
Iodine-131	198	4	(Bq/Sample)

The XrM54 is a RADeCO radioiodine BG-300 charcoal filter cartridge.

Sample Statistical Summary

MAPEP-26-XrM54

Radiological Reference Date: 04/01/2026

Analyte	T(1)	Grand(2) Mean	Std Dev	Ref Value	Ref Unc	Units
Radiological						
Iodine-131	14	200	16	198	4	(Bq/Sample)

Note: (1) T = Total number of laboratories reporting analyte.
(2) Mean excludes values outside of a bias range of +/- 30%.

The XrM54 is a RAdECo radioiodine BG-300 charcoal filter cartridge.



Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-26-XrM54

(AFOH01) USAFSAM/OEA

2510 Fifth Street, Area B

Wright-Patterson AFB, OH 45433-7913

Radiological

Sample ID	Nuclide	Known Activity	Experimental Activity	Bias (%)
MAPEP-26-XrM54	I-131	198 +/- 4 Bq/sample	330 +/- 11 Bq/sample	66.7

Radiological Reference Date: April 1, 2026



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Laboratory Results For MAPEP-26-XrM54

(CDHS01) California Department of Public Health

Drinking Water & Radiation Lab.

Richmond, CA 94804-6403

Radiological

Sample ID	Nuclide	Known Activity	Experimental Activity	Bias (%)
MAPEP-26-XrM54	I-131	198 +/- 4 Bq/sample	315 +/- 4.09 Bq/sample	59.1

Radiological Reference Date: April 1, 2026



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Laboratory Results For MAPEP-26-XrM54

(CESL01) Lawrence Livermore National Laboratory - EMRL

7000 East Avenue

Livermore, CA 94551

Radiological

Sample ID	Nuclide	Known Activity	Experimental Activity	Bias (%)
MAPEP-26-XrM54	I-131	198 +/- 4 Bq/sample	1.85E+02 +/- 3.30E+00	-6.6

Radiological Reference Date: April 1, 2026



Laboratory Results For MAPEP-26-XrM54
(ERCL01) Washington State Public Health Laboratories
1610 N.E. 150th Street
Shoreline, WA 98155-9701

Radiological

Sample ID	Nuclide	Known Activity	Experimental Activity	Bias (%)
MAPEP-26-XrM54	I-131	198 +/- 4 Bq/sample	178 +/- 3 Bq/sample	-10.1

Radiological Reference Date: April 1, 2026

*Laboratory Results For MAPEP-26-XrM54*

(FDHE01) Florida Dept of Health Environmental Laboratory
2100 All Childrens Way
Orlando, FL 32818-5271

Radiological

Sample ID	Nuclide	Known Activity	Experimental Activity	Bias (%)
MAPEP-26-XrM54	I-131	198 +/- 4 Bq/sample	191 +/- 9 Bq/sample	-3.5

Radiological Reference Date: April 1, 2026

*Laboratory Results For MAPEP-26-XrM54*

(FDOH01) Florida Dept. of Health, Mobile Environmental Radiological Lab
2100 All Childrens Way
Orlando, FL 32818-5271

Radiological

Sample ID	Nuclide	Known Activity	Experimental Activity	Bias (%)
MAPEP-26-XrM54	I-131	198 +/- 4 Bq/sample	200 +/- 9.97 Bq/sample	1.0

Radiological Reference Date: April 1, 2026



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Laboratory Results For MAPEP-26-XrM54

(HPAL01) Los Alamos National Laboratory

Scott Engeman, z277361 MS G761

Los Alamos, NM 87545-1663

Radiological

Sample ID	Nuclide	Known Activity	Experimental Activity	Bias (%)
MAPEP-26-XrM54	I-131	198 +/- 4 Bq/sample	202 +/- 7.48 Bq/sample	2.0

Radiological Reference Date: April 1, 2026

*Laboratory Results For MAPEP-26-XrM54*

(IEMA01) Illinois Emergency Management Agency Radiochemistry Laboratory
1301 Knotts St.
Springfield, IL 62703

Radiological

Sample ID	Nuclide	Known Activity	Experimental Activity	Bias (%)
MAPEP-26-XrM54	I-131	198 +/- 4 Bq/sample	197 +/- 1.9 Bq/sample	-0.5

Radiological Reference Date: April 1, 2026



Laboratory Results For MAPEP-26-XrM54
(MART03) Radioactive Material Analysis Laboratory
ORNL
Oak Ridge, TN 37830

Radiological

Sample ID	Nuclide	Known Activity	Experimental Activity	Bias (%)
MAPEP-26-XrM54	I-131	198 +/- 4 Bq/sample	195.5 +/- 3.7 Bq/sample	-1.3

Radiological Reference Date: April 1, 2026



Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-26-XrM54

(ODHL01) Ohio Department of Health Laboratory

8995 E Main Street

Reynoldsburg, OH 43068

Radiological

Sample ID	Nuclide	Known Activity	Experimental Activity	Bias (%)
MAPEP-26-XrM54	I-131	198 +/- 4 Bq/sample	199 +/- 8.78 Bq/sample	0.5

Radiological Reference Date: April 1, 2026



Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-26-XrM54

(SMER01) State of Michigan EGLE Radiological Lab

815 Filley St.

Lansing, MI 48906

Radiological

Sample ID	Nuclide	Known Activity	Experimental Activity	Bias (%)
MAPEP-26-XrM54	I-131	198 +/- 4 Bq/sample	236 +/- 17 Bq/sample	19.2

Radiological Reference Date: April 1, 2026

*Laboratory Results For MAPEP-26-XrM54*

(TDHL01) Texas Department of State Health Services Laboratory
1100 W 49th Street
Austin, TX 78756

Radiological

Sample ID	Nuclide	Known Activity	Experimental Activity	Bias (%)
MAPEP-26-XrM54	I-131	198 +/- 4 Bq/sample	198.9 +/- 3.1 Bq/sample	0.5

Radiological Reference Date: April 1, 2026



Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-26-XrM54
(TMAO01) EBERLINE Analytical Corporation
601 A SCARBORO RD
OAK RIDGE, TN 37830-

Radiological

Sample ID	Nuclide	Known Activity	Experimental Activity	Bias (%)
MAPEP-26-XrM54	I-131	198 +/- 4 Bq/sample	131.372 +/- 13.016 Bq/sample	-33.7

Radiological Reference Date: April 1, 2026



Laboratory Results For MAPEP-26-XrM54
(WSHL01) Wisconsin State Laboratory of Hygiene
2601 Agriculture Drive
Madison, WI 53718

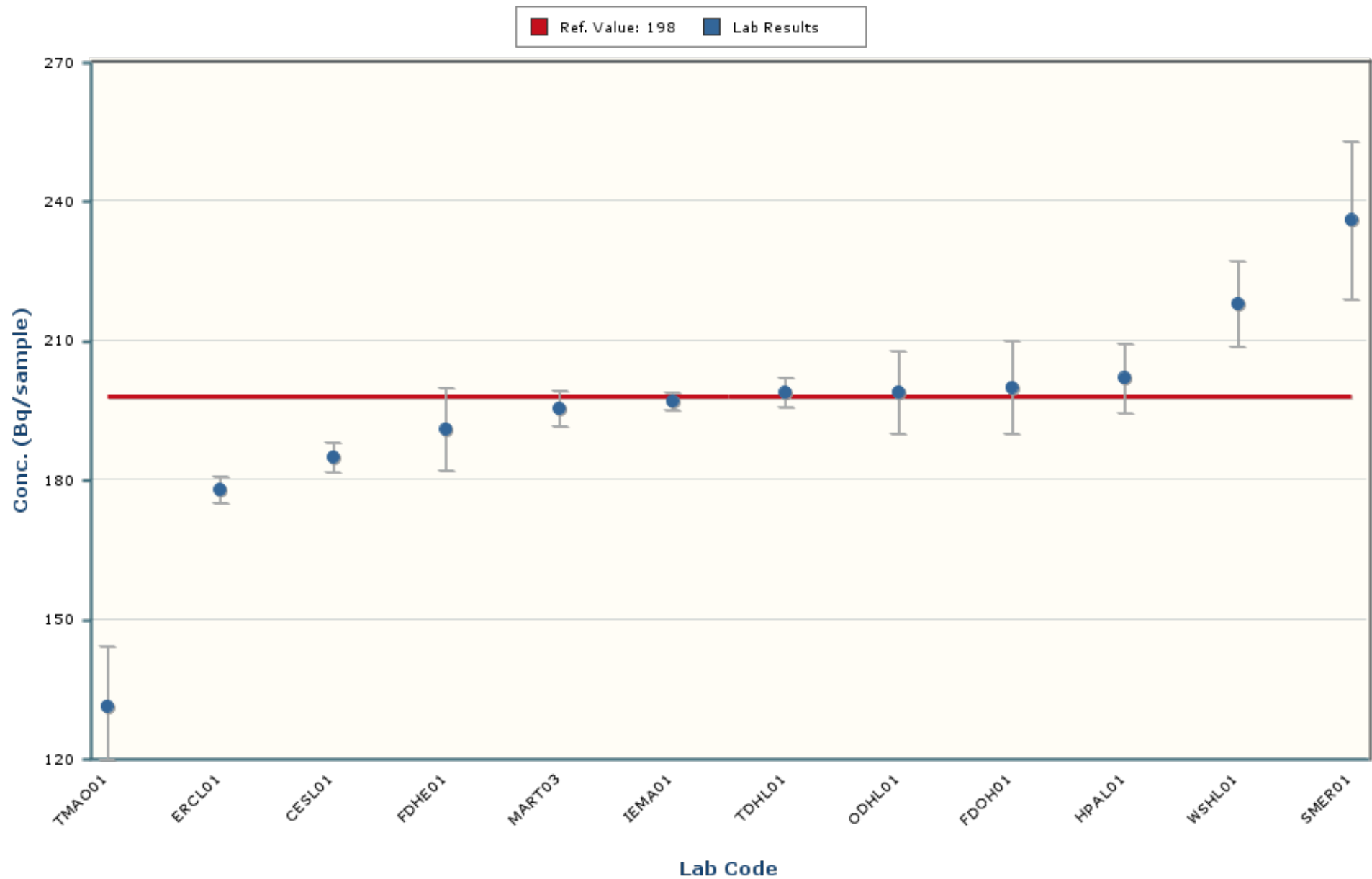
Radiological

Sample ID	Nuclide	Known Activity	Experimental Activity	Bias (%)
MAPEP-26-XrM54	I-131	198 +/- 4 Bq/sample	218 +/- 9.13 Bq/sample	10.1

Radiological Reference Date: April 1, 2026

Iodine-131

MAPEP-26-XrM54



Notes:
The error bars encompassing each result are plotted at $\pm$ one standard deviation.