



# Final Report

Minnesota Department of Health  
Public Health Laboratory  
Environmental Laboratory Section  
601 Robert St. N., P.O. Box 64899  
St. Paul, MN 55164-0899  
651-201-5300

PWSID: 1020029 Program Code: HC Type: B  
System Name: Spring Lake Park  
City: Spring Lake Park  
Date Received: 08/27/20 13:00 Collector Name: Ken Prokott  
Rep. Temp. (°C): 14.6 Collector ID: None

### MDH Sample Number: 20H2223-01

Location ID: E01 Collect Date: 08/27/20 Field Residual Chlorine Result: None  
Sampling Point: Terrace Park Treatment Plant Collect Time: 11:00 Field Fluoride Result: None  
Matrix: Drinking Water Field pH Result: None  
Field PO<sub>4</sub> Result: None

Results were produced by the Minnesota Department of Health, except where noted.

#### Radiochemical Parameters

Analyte	Result	Reporting Limit	Counting Uncertainty	Units	Batch	Prepared	Analyzed	Init.	Method	Qualifiers
Gross Alpha	7.0	3.0	2.8930	pCi/L	B0J0691	10/08/20 11:21	10/22/20 00:00	JJF	EPA 900.0	
Radium-226	1.9	1.0	0.3952	pCi/L	B0I0751	09/01/20 12:01	10/05/20 00:00	KAC	EPA 903.0/904.0	

### MDH Sample Number: 20H2223-01RE1

Location ID: E01 Collect Date: 08/27/20 Field Residual Chlorine Result: None  
Sampling Point: Terrace Park Treatment Plant Collect Time: 11:00 Field Fluoride Result: None  
Matrix: Drinking Water Field pH Result: None  
Field PO<sub>4</sub> Result: None

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#### Radiochemical Parameters

Analyte	Result	Reporting Limit	Counting Uncertainty	Units	Batch	Prepared	Analyzed	Init.	Method	Qualifiers
Radium-228	2.2	1.0	1.0981	pCi/L	B0I0963	09/14/20 09:45	09/22/20 16:36	KAC	EPA 903.0/904.0	

FINAL REPORT

Report ID: 10232020 92243

Generated: 10/23/2020 9:22:40AM

Authorized by:

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Paul Moyer, Environmental Laboratory Manager  
Public Health Laboratory, Minnesota Department of Health



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PWSID: 1020029

## MDH Sample Number: 20H2223-02

Location ID: E05  
Sampling Point: Arthur Street Treatment Plant

Collect Date: 08/27/20  
Collect Time: 10:15  
Matrix: Drinking Water

Field Residual Chlorine Result: None  
Field Fluoride Result: None  
Field pH Result: None  
Field PO<sub>4</sub> Result: None

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### Radiochemical Parameters

Analyte	Result	Reporting Limit	Counting Uncertainty	Units	Batch	Prepared	Analyzed	Init.	Method	Qualifiers
Gross Alpha	8.7	3.0	3.1764	pCi/L	B0J0691	10/08/20 11:21	10/22/20 00:00	JJF	EPA 900.0	
Radium-226	4.1	1.0	0.5832	pCi/L	B0I0751	09/01/20 12:01	10/05/20 00:00	KAC	EPA 903.0/904.0	

## MDH Sample Number: 20H2223-02RE1

Location ID: E05  
Sampling Point: Arthur Street Treatment Plant

Collect Date: 08/27/20  
Collect Time: 10:15  
Matrix: Drinking Water

Field Residual Chlorine Result: None  
Field Fluoride Result: None  
Field pH Result: None  
Field PO<sub>4</sub> Result: None

Results were produced by the Minnesota Department of Health, except where noted.

### Radiochemical Parameters

Analyte	Result	Reporting Limit	Counting Uncertainty	Units	Batch	Prepared	Analyzed	Init.	Method	Qualifiers
Radium-228	6.1	1.0	2.6753	pCi/L	B0I0963	09/14/20 09:45	09/22/20 16:36	KAC	EPA 903.0/904.0	MC

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Batch B0I0751 - Radiochemistry Ra-226 Ra-228 Prep

Blank (B0I0751-BLK1)

Prepared: 09/01/20 12:01 Analyzed: 10/05/20 00:00

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Radium-226	<	1.0	pCi/L							KAC	
Radium-228	<	1.0	pCi/L							KAC	W6

LCS (B0I0751-BS1)

Prepared: 09/01/20 12:01 Analyzed: 10/05/20 00:00

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Radium-226	9.3	1.0	pCi/L	10.29		90	90-110			KAC	
Radium-228	18.1	1.0	pCi/L				80-120			KAC	W6

LCS Dup (B0I0751-BSD1)

Prepared: 09/01/20 12:01 Analyzed: 10/05/20 00:00

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Radium-226	11.3	1.0	pCi/L	10.29		110	90-110	20	20	KAC	
Radium-228	13.8	1.0	pCi/L				80-120	27	20	KAC	W6

Duplicate (B0I0751-DUP1)

Source: 20H2223-01

Prepared: 09/01/20 12:01 Analyzed: 10/05/20 00:00

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Radium-226	1.6	1.0	pCi/L		1.9			13	20	KAC	
Radium-228	<	1.0	pCi/L		2.4				20	KAC	

Matrix Spike (B0I0751-MS1)

Source: 20H2223-02

Prepared: 09/01/20 12:01 Analyzed: 10/05/20 00:00

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Radium-226	15.4	1.0	pCi/L	10.29	4.1	110	80-120			KAC	
Radium-228	15.8	1.0	pCi/L		3.8		70-130			KAC	

Batch B0I0963 - Radiochemistry Ra-226 Ra-228 Prep

Blank (B0I0963-BLK1)

Prepared: 09/14/20 09:45 Analyzed: 10/14/20 00:00

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**Batch B0I0963 - Radiochemistry Ra-226 Ra-228 Prep**

**Blank (B0I0963-BLK1)**

Prepared: 09/14/20 09:45 Analyzed: 10/14/20 00:00

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Radium-226	<	1.0	pCi/L							KAC	
Radium-228	<	1.0	pCi/L							KAC	

**LCS (B0I0963-BS1)**

Prepared: 09/14/20 09:45 Analyzed: 10/14/20 00:00

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Radium-226	7.5	1.0	pCi/L	10.29		73	90-110			KAC	
Radium-228	16.1	1.0	pCi/L				80-120			KAC	

**LCS Dup (B0I0963-BSD1)**

Prepared: 09/14/20 09:45 Analyzed: 10/14/20 00:00

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Radium-226	6.0	1.0	pCi/L	10.29		59	90-110	22	20	KAC	
Radium-228	17.3	1.0	pCi/L				80-120	7	20	KAC	

**Duplicate (B0I0963-DUP1)**

Source: 20H2223-01RE1

Prepared: 09/14/20 09:45 Analyzed: 10/14/20 00:00

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Radium-226	0.9	1.0	pCi/L		<				20	KAC	
Radium-228	2.5	1.0	pCi/L		2.2			10	20	KAC	

**Matrix Spike (B0I0963-MS1)**

Source: 20H2223-02RE1

Prepared: 09/14/20 09:45 Analyzed: 10/14/20 00:00

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Radium-226	6.8	1.0	pCi/L	10.29	<	66	80-120			KAC	
Radium-228	12.5	1.0	pCi/L		6.1		70-130			KAC	

**Batch B0J0691 - Radiochemistry Alpha/Beta Prep**

**Blank (B0J0691-BLK1)**

Prepared: 10/08/20 11:21 Analyzed: 10/22/20 00:00

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Batch B0J0691 - Radiochemistry Alpha/Beta Prep

Blank (B0J0691-BLK1)

Prepared: 10/08/20 11:21 Analyzed: 10/22/20 00:00

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Gross Alpha	<	3.0	pCi/L							JJF	

LCS (B0J0691-BS1)

Prepared: 10/08/20 11:21 Analyzed: 10/22/20 00:00

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Gross Alpha	45.7	3.0	pCi/L	52.86		86	70-130			JJF	

Duplicate (B0J0691-DUP1)

Source: 20H2096-01

Prepared: 10/08/20 11:21 Analyzed: 10/22/20 00:00

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Gross Alpha	3.1	3.0	pCi/L		3.6			15	20	JJF	

Matrix Spike (B0J0691-MS1)

Source: 20H2091-03

Prepared: 10/08/20 11:21 Analyzed: 10/22/20 00:00

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Gross Alpha	82.0	3.0	pCi/L	52.86	14.4	128	70-130			JJF	

### Data Qualifiers and Definitions

- MC Result greater than the MCL.
- W6 Laboratory control sample/laboratory control sample duplicate relative percent difference exceeded the laboratory acceptance limit . Recovery met acceptance criteria.

### Work Order Comments

Collector name is Ken Prokott and collection date: 8/27/20 per N. Kadrlík. -CNN 8/27/20

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