

PERFORMANCE EVALUATION

First Choice for Quality |



Quarterly Study

WSMIC09-2

15-Apr-2009 through 29-May-2009

RT1068

RTC Labcode

WY00006

US EPA Labcode

Energy Laboratories
Terry Friedlan
400 West Boxelder Rd.
Gillette WY 82718

Thank you for participating in study WSMIC09-2. Additional information about this study may be found online at www.rt-corp.com. If you have any questions or comments about this study please contact me.

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This report may contain data that are not covered by the A2LA accreditation.

Sincerely,

A handwritten signature in black ink, appearing to read "Chris Rucinski", is written over a light blue horizontal line.

Christopher Rucinski
Quality Director

2931 Soldier Springs Road
Laramie, WY 82070
(307) 742-5452
www.rt-corp.com







Dataset

WSMIC09-2 MLI

Dataset Analyst

Ingram, Mary

Accreditors

Evaluations of this dataset will be sent to the accreditor(s) listed below using your laboratory's labcode listed above each accrediting agency. If any of the information listed below is incorrect, please contact RTC immediately.

Accrediting Labcode **WY00006**

USEPA Region VIII

370 Aaron Urdiales
1595 Wynkoop Street (ENF-W-NP)
Denver CO 80202
UNITED STATES

217 Jim Gindelberger
1595 Wynkoop Street
Denver CO 80202-1129
UNITED STATES

606 Sandra Spence
1595 Wynkoop Street
Denver CO 80202-1129
UNITED STATES

Accrediting Labcode **WY00006**

Wyoming DEQ

Water Quality Division

206 Edward Mock
122 W. 25th Street
Cheyenne WY 82002
UNITED STATES

Microbiology

Analysis

SimPlate® (2000) - Analyst: M. Ingram

Method Number 60032602

	Result Units	Assigned Value	Accept.	Z	Evaluation
Heterotrophic Plate Count, MPN 2555 / MIC-002 - Lot 014325 /Analyst: MLI/ Analysis Date: 5/20/09	239 MPN	194.00	115 to 304		Acceptable



Microbiology

Analyte

Total coliforms 1, 3, 4

2500

Series-L

SM/APHA 9223 B 18th ED (1992) - 20037609

Technology Code: COLILERT

Analyst: M. Ingram

Presence/Absence	Result	Assigned Value	Evaluation	Analyst	Analysis Date
Presence/Absence - Sample 1	Present	Present	Acceptable	N/A	
Presence/Absence - Sample 2	Absent	Absent	Acceptable	N/A	
Presence/Absence - Sample 3	Present	Present	Acceptable	N/A	
Presence/Absence - Sample 4	Present	Present	Acceptable	N/A	
Presence/Absence - Sample 5	Present	Present	Acceptable	N/A	
Presence/Absence - Sample 6	Present	Present	Acceptable	N/A	
Presence/Absence - Sample 7	Absent	Absent	Acceptable	N/A	
Presence/Absence - Sample 8	Absent	Absent	Acceptable	N/A	
Presence/Absence - Sample 9	Absent	Absent	Acceptable	N/A	
Presence/Absence - Sample 10	Present	Present	Acceptable	N/A	

Presence/Absence Evaluation

Series-L

Method TechnologyCode	False Positives	False Negatives	Acceptance
SM/APHA 9223 B 18th ED (1992) COLILERT	0	0	Acceptable

Total coliforms
2500

MPN	Result	Units	Acceptance Limits	Assigned Value	Evaluation	Analyst	Analysis Date
MPN - Sample 1	63.0	MPN/100mL	20 to 104	100	Acceptable	N/A	
MPN - Sample 2	0	MPN/100mL	0.0 to 0.0	0.00	Acceptable	N/A	
MPN - Sample 3	331	MPN/100mL	140 to 700	300	Acceptable	N/A	
MPN - Sample 4	63.0	MPN/100mL	40 to 121	100	Acceptable	N/A	
MPN - Sample 5	350	MPN/100mL	140 to 700	300	Acceptable	N/A	
MPN - Sample 6	74.0	MPN/100mL	40.0 to 140	100	Acceptable	N/A	
MPN - Sample 7	0	MPN/100mL	0.0 to 0.0	0.00	Acceptable	N/A	
MPN - Sample 8	0	MPN/100mL	0.0 to 0.0	0.00	Acceptable	N/A	
MPN - Sample 9	0	MPN/100mL	0.0 to 0.0	0.00	Acceptable	N/A	
MPN - Sample 10	313	MPN/100mL	177 to 606	300	Acceptable	N/A	

MPN Evaluation

Series-L

Method TechnologyCode	False Positives	False Negatives	Acceptance
SM/APHA 9223 B 18th ED (1992) COLILERT	0	0	Acceptable

Total coliforms
2500



Analyte

Escherichia coli 1, 4

2525

Series-L

SM/APHA 9223 B 18th ED (1992) - 20037609

Technology Code: COLILERT

Analyst: M. Ingram

Presence/Absence	Result	Assigned Value	Evaluation	Analyst	Analysis Date
Presence/Absence - Sample 1	Present	Present	Acceptable	N/A	
Presence/Absence - Sample 2	Absent	Absent	Acceptable	N/A	
Presence/Absence - Sample 3	Absent	Absent	Acceptable	N/A	
Presence/Absence - Sample 4	Present	Present	Acceptable	N/A	
Presence/Absence - Sample 5	Absent	Absent	Acceptable	N/A	
Presence/Absence - Sample 6	Present	Present	Acceptable	N/A	
Presence/Absence - Sample 7	Absent	Absent	Acceptable	N/A	
Presence/Absence - Sample 8	Absent	Absent	Acceptable	N/A	
Presence/Absence - Sample 9	Absent	Absent	Acceptable	N/A	
Presence/Absence - Sample 10	Absent	Absent	Acceptable	N/A	

Presence/Absence Evaluation

Series-L

Escherichia coli
2525

Method TechnologyCode	False Positives	False Negatives	Acceptance
SM/APHA 9223 B 18th ED (1992) COLILERT	0	0	Acceptable

MPN	Result	Units	Acceptance Limits	Assigned Value	Evaluation	Analyst	Analysis Date
MPN - Sample 1	63.0	MPN/100mL	20 to 108	100	Acceptable	N/A	
MPN - Sample 2	0	MPN/100mL	0.0 to 0.0	0.00	Acceptable	N/A	
MPN - Sample 3	0	MPN/100mL	0.0 to 0.0	0.00	Acceptable	N/A	
MPN - Sample 4	63.0	MPN/100mL	40 to 124	100	Acceptable	N/A	
MPN - Sample 5	0	MPN/100mL	0.0 to 0.0	0.00	Acceptable	N/A	
MPN - Sample 6	74.0	MPN/100mL	43.8 to 104	100	Acceptable	N/A	
MPN - Sample 7	0	MPN/100mL	0.0 to 0.0	0.00	Acceptable	N/A	
MPN - Sample 8	0	MPN/100mL	0.0 to 0.0	0.00	Acceptable	N/A	
MPN - Sample 9	0	MPN/100mL	0.0 to 0.0	0.00	Acceptable	N/A	
MPN - Sample 10	0	MPN/100mL	0 to 0	0.00	Acceptable	N/A	

MPN Evaluation

Series-L

Escherichia coli
2525

Method TechnologyCode	False Positives	False Negatives	Acceptance
SM/APHA 9223 B 18th ED (1992) COLILERT	0	0	Acceptable



End of WSMIC09-2 MLI



Dataset

WSMIC09-2 TLC

Dataset Analyst

Constable, Tracey

Accreditors

Evaluations of this dataset will be sent to the accreditor(s) listed below using your laboratory's labcode listed above each accrediting agency. If any of the information listed below is incorrect, please contact RTC immediately.

Accrediting Labcode WY00006

USEPA Region VIII

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Accrediting Labcode WY00006

Wyoming DEQ

Water Quality Division

206 Edward Mock
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Cheyenne WY 82002
UNITED STATES



Microbiology

Analyte

Total coliforms 1, 3, 4

2500

Series-L

SM/APHA 9223 B 18th ED (1992) - 20037609

Technology Code: COLILERT

Analyst: T. Constable

Presence/Absence	Result	Assigned Value	Evaluation	Analyst	Analysis Date
Presence/Absence - Sample 1	Present	Present	Acceptable	TLC	5/20/09
Presence/Absence - Sample 2	Absent	Absent	Acceptable	TLC	5/20/09
Presence/Absence - Sample 3	Present	Present	Acceptable	TLC	5/20/09
Presence/Absence - Sample 4	Present	Present	Acceptable	TLC	5/20/09
Presence/Absence - Sample 5	Present	Present	Acceptable	TLC	5/20/09
Presence/Absence - Sample 6	Present	Present	Acceptable	TLC	5/20/09
Presence/Absence - Sample 7	Absent	Absent	Acceptable	TLC	5/20/09
Presence/Absence - Sample 8	Absent	Absent	Acceptable	TLC	5/20/09
Presence/Absence - Sample 9	Absent	Absent	Acceptable	TLC	5/20/09
Presence/Absence - Sample 10	Present	Present	Acceptable	TLC	5/20/09

Presence/Absence Evaluation

Series-L

	Method TechnologyCode	False Positives	False Negatives	Acceptance
Total coliforms 2500	SM/APHA 9223 B 18th ED (1992) COLILERT	0	0	Acceptable

MPN	Result	Units	Acceptance Limits	Assigned Value	Evaluation	Analyst	Analysis Date
MPN - Sample 1	98.0	MPN/100mL	20 to 104	100	Acceptable	TLC	5/20/09
MPN - Sample 2	0	MPN/100mL	0.0 to 0.0	0.00	Acceptable	TLC	5/20/09
MPN - Sample 3	384	MPN/100mL	140 to 700	300	Acceptable	TLC	5/20/09
MPN - Sample 4	41.0	MPN/100mL	40 to 121	100	Acceptable	TLC	5/20/09
MPN - Sample 5	318	MPN/100mL	140 to 700	300	Acceptable	TLC	5/20/09
MPN - Sample 6	74.0	MPN/100mL	40.0 to 140	100	Acceptable	TLC	5/20/09
MPN - Sample 7	0	MPN/100mL	0.0 to 0.0	0.00	Acceptable	TLC	5/20/09
MPN - Sample 8	0	MPN/100mL	0.0 to 0.0	0.00	Acceptable	TLC	5/20/09
MPN - Sample 9	0	MPN/100mL	0.0 to 0.0	0.00	Acceptable	TLC	5/20/09
MPN - Sample 10	420	MPN/100mL	177 to 606	300	Acceptable	TLC	5/20/09

MPN Evaluation

Series-L

	Method TechnologyCode	False Positives	False Negatives	Acceptance
Total coliforms 2500	SM/APHA 9223 B 18th ED (1992) COLILERT	0	0	Acceptable



Analyte

Escherichia coli 1, 4

2525

Series-L

SM/APHA 9223 B 18th ED (1992) - 20037609

Technology Code: COLILERT

Analyst: T. Constable

Presence/Absence	Result	Assigned Value	Evaluation	Analyst	Analysis Date
Presence/Absence - Sample 1	Present	Present	Acceptable	N/A	
Presence/Absence - Sample 2	Absent	Absent	Acceptable	N/A	
Presence/Absence - Sample 3	Absent	Absent	Acceptable	N/A	
Presence/Absence - Sample 4	Present	Present	Acceptable	N/A	
Presence/Absence - Sample 5	Absent	Absent	Acceptable	N/A	
Presence/Absence - Sample 6	Present	Present	Acceptable	N/A	
Presence/Absence - Sample 7	Absent	Absent	Acceptable	N/A	
Presence/Absence - Sample 8	Absent	Absent	Acceptable	N/A	
Presence/Absence - Sample 9	Absent	Absent	Acceptable	N/A	
Presence/Absence - Sample 10	Absent	Absent	Acceptable	N/A	

Presence/Absence Evaluation

Series-L

Escherichia coli
2525

Method TechnologyCode	False Positives	False Negatives	Acceptance
SM/APHA 9223 B 18th ED (1992) COLILERT	0	0	Acceptable

MPN	Result	Units	Acceptance Limits	Assigned Value	Evaluation	Analyst	Analysis Date
MPN - Sample 1	98.0	MPN/100mL	20 to 108	100	Acceptable	N/A	
MPN - Sample 2	0	MPN/100mL	0.0 to 0.0	0.00	Acceptable	N/A	
MPN - Sample 3	0	MPN/100mL	0.0 to 0.0	0.00	Acceptable	N/A	
MPN - Sample 4	41.0	MPN/100mL	40 to 124	100	Acceptable	N/A	
MPN - Sample 5	0	MPN/100mL	0.0 to 0.0	0.00	Acceptable	N/A	
MPN - Sample 6	74.0	MPN/100mL	43.8 to 104	100	Acceptable	N/A	
MPN - Sample 7	0	MPN/100mL	0.0 to 0.0	0.00	Acceptable	N/A	
MPN - Sample 8	0	MPN/100mL	0.0 to 0.0	0.00	Acceptable	N/A	
MPN - Sample 9	0	MPN/100mL	0.0 to 0.0	0.00	Acceptable	N/A	
MPN - Sample 10	0	MPN/100mL	0 to 0	0.00	Acceptable	N/A	

MPN Evaluation

Series-L

Escherichia coli
2525

Method TechnologyCode	False Positives	False Negatives	Acceptance
SM/APHA 9223 B 18th ED (1992) COLILERT	0	0	Acceptable



End of WSMIC09-2 TLC



Sample Information

WS-Standard Plate Count

MIC-002 / Lot {EncryptedLotCode}

	Units	Assigned Value	Study Mean	Study Std. Dev.	Gravimetric Value
Heterotrophic Plate Count, MPN 2555 Microbiology	MPN	194.00	190.00	45.20	175 ± 5

Definitions:

Assigned Value: Value attributed to a particular quantity and accepted, sometimes by convention, as having an uncertainty appropriate for a give purpose. See ISO Guide 43 for additional information.

Accept. Window: The range of values that constitute acceptable performance for a laboratory participation in this PT study.

Z: A Z-Score tells how a single data point compares to normal data. A Z-Score says not only whether a point was above or below average, but how unusual the measurement is. Generally, a method result with a Z-Score less than |2| is considered to be in control, a Z-Score between |2| and |3| is considered 'Questionable', but still within control and a Z greater than |3| is considered not acceptable and the method is out of control.

Study Mean: Statistical study mean calculated using a robust statistical model (RTC employs the 'Biweight Program'). Robust statistical techniques to minimize the influence that extreme results can have on estimates of the mean and standard deviation NOTE - These techniques assign less weight to extreme results, rather than eliminate them from a data set.

Study Std. Dev.: Standard deviation calculated from study data using robust statisticals (Biweight).

Gravimetric Value: The prepared to value, determined by gravimetric means. The uncertainty associated to this value is standard uncertainty and based on RTC's gravimetric tolerances.

Program analyte accrediting footnotes

1 NELAC

3 Other

5 NELAC Experimental

2 EPA

4 A2LA