

Annual Report 2011

Mission Statement

The Program provides a community of cooperation and education to enhance the sharing of resources to improve quality and maximize the efforts of Regional Laboratory Services in providing a high level of service to our member hospitals and communities.

Values

Integrity	We act honestly, ethically and impartially at all times.
Professionalism	We encourage self-improvement and aim for scientific excellence.
Quality Assurance	We ensure that all our work is carried out in accordance with recognized standards.
Teamwork	We recognize the participation, initiative and cooperation of all the laboratories as being essential to our success.
Client Focus	We strive to recognize and anticipate the needs of clients by working openly and cooperatively to meet those expectations.

Board of Directors

Doug Moynihan	Atikokan General Hospital
Wade Petranik	Dryden Regional Health Centre
Mark Balcaen	Lake of the Woods District Hospital
Paul Chatelain	Red Lake Margaret Cochenour Memorial Hospital
Wayne Woods	Riverside Health Care Facilities, Inc.
Dave Murray	Sioux Lookout MenoYaWin Health Centre

Regional Office

Kenora-Rainy River Regional Laboratory Program, Inc.
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Phone: 807-223-8264 Fax: 807-223-7342

Chief Operating Officer:	Wade Petranik
Laboratory Director:	Dr. J. Kerry MacDonald
Executive Director:	Anna Robinson
Executive Assistant:	Marilyn Rustan

Organizational Chart (See Appendix A)

Executive Summary

Health care is a complex field. With each passing year, new discoveries, new technologies, new specialties and new treatments seem to increase this complexity. It is our responsibility to enhance our knowledge and ability to deal with these ongoing challenges.

Regardless of change, the Kenora Rainy River Regional Program is committed to the pursuit of quality by providing exceptional support services to our Laboratories. This means a culture of continuous improvement in planning and building a cohesive Laboratory network, where individuals, teams and the right technologies are in place to meet patient needs. Success requires a common vision, shared values, innovation and a collective buy-in by all Laboratory staff to deliver diverse services, expertise and programs.

The key enabler to the Program's success is its unique culture. It's a culture derived from the commonality of history, six Hospitals and the values they espoused in delivering Laboratory Services back in 1992. This culture continues to inspire innovation, excellence and foster collaboration – between individuals, teams, programs, health authority partners, governments and others – to ensure new knowledge and Laboratory solutions can be applied as widely and effectively as possible.

As evidence of the Program's commitment to quality, the Executive Director oversees compliance with the OLA requirements of the quality management system and acts an independent resource by providing an unbiased assessment bi-annually of each Laboratory's processes. The Program also monitors the appropriateness and cost effectiveness of our services.

Regional educational activities are driven by the Program as a commitment to lifelong learning. Besides the annual Fall Symposium the Program continues to develop Newsletters to share information with both Laboratory and non-Laboratory professionals.

The Laboratory Director continues to sit on the OLA Advisory Committee and the Executive Director (E.D.) of the Program remains a Council member for CMLTO. The E.D. was re-elected President of CMLTO for 2011.

Detailed Description of Activities

Equipment / Test Menus

The Program is responsive to the Clinician's needs for analyses to assist in the diagnosis, treatment, monitoring and prevention of disease. It is also cognizant of changes necessary to improve service delivery and operational efficiencies.

Point-of-care testing (POCT) remains in the forefront of the Program's plans for several sites noting it has the potential to significantly reduce call backs and enhance the quality of care. Anti-factor Xa continues to be evaluated for monitoring unfractionated heparin in patients.

An RFP was developed in April to secure a Chemistry/Immunoassay analyzer for each of 5 Laboratories. This was an enormous project taking up a huge amount of HR hours to prepare, circulate, respond to questions and collate findings for presentations. The contract was awarded in February 2012.

Almost every patient that comes into one of our hospitals is served by the Laboratory Medicine Department, with more than 1 million patient tests every year. These laboratories provide high quality test results to facilitate rapid diagnostic processes and treatment in the Emergency Room, as well as for ambulatory and hospitalized patients.

Education

The Program organizes continuing medical and technical education in a variety of forums: conferences, teleconferences, workshops, presentations and lectures. It is committed to helping the medical and technical personnel be the best they can be.

Details of this year's Symposium are outlined in **Appendix B**.

This year the Program continued in its educational commitment by producing a series of newsletters for physicians and technologists to provide authoritative information, advice and instruction on the utility of specific laboratory tests. **Appendix C**.

The Laboratory Director continues to provide onsite education to a variety of health care providers. The presentations included topics such as Octaplex.

The time given to provide these resource activities and support its users is extensive.

Onsite Visits

In addition to monthly or bi-monthly teleconference meetings with the Laboratory Managers, onsite visits have occurred in the region by the Laboratory Director and/or the Executive Director, 3 times. **Appendix D**.

The Laboratory Managers also meet with the Laboratory Director and Executive Director bi-annually for 2-day sessions to deal with strategic planning, new initiatives and complex projects. These meetings provide guidance to the Laboratories in order to meet the clinical needs and established goals in each facility.

In keeping with the Program's cycle of external peer assessment, the Executive Director visited each site to perform an assessment of their Quality Management Systems. Non-conformances to the requirements were documented allowing Laboratories enough time prior to their Self Assessment with Ontario Laboratory Accreditation (OLA) requirements to correct any non-conformances.

A regional Microbiology Committee actively meets to provide a forum for technologists working in this discipline to connect with their peers and discuss related issues. This has led to quality improvements to individual operations and the regional manuals.

Both the Laboratory Director and Executive Director participate, site specific, on an Immunohaematology Committee as per OLA requirements to provide assistance with any transfusion medicine issues.

Recruitment

The Program is committed to the training students pursuing a career as medical laboratory technologists (MLT). This year LWDH, RHCF and SLMHC each accepted a MLT student from Cambrian College for clinical training. In addition, some sites also accepted an MLA/T student from Confederation College. To date, each site has rated this experience as being most positive.

The Executive Director of the Program sits on the Professional Advisory Committee (PAG) for Cambrian College. The Executive Director is also the Chair of the PAG for the MLA/T Program at Confederation College.

The Pathologists also provided training to a fifth year Pathology resident when called upon.

EQA Challenges

The Quality Management System - Laboratory Services (QMP-LS) and DigitalPT provide external quality assurance (EQA) programs specifically designed for Ontario laboratories. The goal is to provide a confidential assessment by which a laboratory can compare its internal test results to those of other laboratories.

A Regional review of EQA challenges is performed annually to assess performance to previous years. **Appendix E.**

This year there were 15 letters of non-conformance received:

	Non-conformances
Statistical/method bias	0
Technical -misinterpretation of results, calculation errors, QC limits sample mix-up, random error	6
Materials - defective reagents/unsupported reagents, mishandling QMP-LS samples	6
Failure to follow SOP	1
Equipment function	1
Organizational Factors- communication, MLT training, missing SOP information	1
Unexplained Error	3

Corrective actions for the most part included re-education and training of staff, or analytical performance which required and contacting manufacturers regarding problems with materials.

Audits

The Laboratories continue to strive for excellence in the most efficient and cost effective manner. Continuous improvement is achieved by planning for quality, measuring the effectiveness and continuously improving our processes and outcomes.

Audits are an intrinsic part of quality management and an essential OLA management tool to be used for verifying objective evidence of processes, to assess how successfully processes have been implemented, for judging the effectiveness of achieving any defined target levels, to provide evidence concerning reduction and elimination of problem areas. As a result and for the benefit of four sites without a Quality Coordinator, the Program leads quality auditing to globally assess evidence using key Quality Indicators

These metrics include, but are not limited to:

- Test and patient volumes
- Patient wait times
- Turnaround times for operational processes
- Quality assurance metrics, for example rejected specimen rates, edited report rates, external proficiency testing results, blood culture contamination rates.
- Customer satisfaction – customer satisfaction assessment surveys and complaint
- Specimens received by the laboratory unlabelled or mislabeled, inadequate or incomplete specimens received by the laboratory, failure to follow collection process (e.g. collection procedure not followed.
- Patient identification
- Failure or delay to receive laboratory test results (e.g. delayed specimen receipt, delayed testing, reports not sent to physician, lost reports.)

Approximately 30 audits were performed by each site in 2011. The statistical data from these audits were submitted by the Laboratory Manager as part of a Management Review to Senior Administration so are not part of this Report.

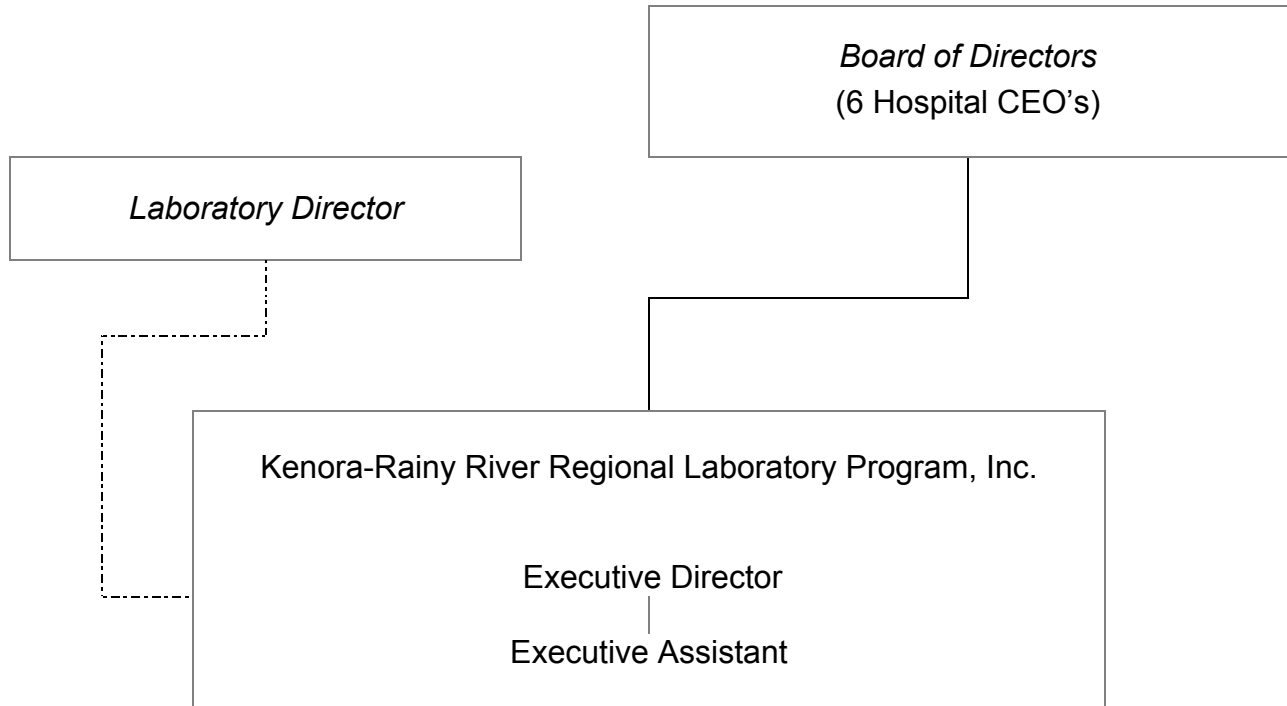
In summary, the Laboratories are meeting defined target levels. Any corrective action items have been acted on expeditiously and again the Laboratories are in position to meet the OLA requirements.

Goals for 2011:

- Implement anti-Factor Xa testing (*deferred to 2012*)
- Transition Laboratories to Ontario Laboratory Accreditation Version 5.1(*complete*)
- Prepare RFP for Chemistry, Immunoassay and Transfusion Medicine equipment replacement (*completed Feb. 2012*)
- Identify educational opportunities using regional staff surveys and QMPLS patterns of practice ie. Malaria (*complete*)

Goals for 2012:

- Meet OLA self assessment
- Develop a Competency based program for all disciplines to meet OLA
- Develop a Competency based program for pathologists
- Examine IT solutions for monitoring POCT to meet OLA
- Assess Blood Gas Analyzers (warranty versus replacement)
- Implement anti-Factor Xa testing
- Establish an EQA program for Malaria
- Recruitment of Executive Director, KRR RLP

Organizational Chart

Annual Fall Symposium 2011

Summary

The 20th Annual Fall Symposium, “Effective Teambuidling”, was held September 13, 14 & 15, 2011, at Totem Resorts in Sioux Narrows, Ontario.

Thirty-two (32) delegates attended this year’s Symposium:

- | | | |
|--|----|---------------------------------------|
| ▪ Atikokan General Hospital: | 2 | |
| ▪ Dryden Regional Health Centre: | 1 | |
| ▪ Lake of the Woods District Hospital: | 12 | <i>(Includes Laboratory Director)</i> |
| ▪ Red Lake MC Memorial Hospital: | 1 | |
| ▪ Riverside Health Care Facilities: | 9 | |
| ▪ Sioux Lookout Meno-Ya-Win Health Centre: | 5 | |
| ▪ KRR RLP | 2 | |

The educational format consisted of five (5) guest speakers who provided presentations relating to laboratory management and medicine.

The exhibition itself included 20 Booths with 33 vendors.

Tuesday, September 13

<p>1700 – 1800 hours</p> 	<p style="text-align: center;">Delegates, Exhibitors and Guest Speakers!</p> <p style="text-align: center;">Join us in the Main Lodge for “Totally Techie Totem Trek”</p> <p style="text-align: center;">Meet your feisty team of “athletes” and learn the “rules”!</p> <p style="text-align: center;">Teams will vie back and forth throughout the Symposium for the top place finish, medals and bragging rights!</p> <p>Dress Code: Casual <u>Cash Bar</u></p>
<p>1800 hours</p>	<p style="text-align: center;">Dinner</p> <p style="text-align: center;">Dining Room of Main Lodge</p> <p style="text-align: right;"><u>Cash Bar</u></p>
<p>1930 hours</p>	<p style="text-align: center;">Official Opening</p> <p style="text-align: center;"><i>of</i></p> <p style="text-align: center;">20th Annual Fall Symposium</p> <p style="text-align: center;">& Exhibits</p> <p style="text-align: center;"><i>Appetizers will be served</i></p> <p style="text-align: center;"><i>Main Lodge</i></p> <p style="text-align: right;"><u>Cash Bar</u></p>

Wednesday, September 14

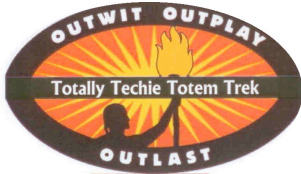
<p>0900 – 1000 hours</p>	<p style="text-align: center;">Virtual Case Studies</p> <p style="text-align: center;">Pamela Bryski Capital Equipment Consultant</p> <p>With the use of “Turning Point” keypads, Pam will show examples of how to better understand the LH500 instrument results and predict cell abnormalities.</p> <p>This interactive session has been designed to allow each delegate the opportunity to participate in determining the final diagnosis based on instrument results.</p>
<p>1000 – 1100 hours</p>	<p style="text-align: center;">Sponsored by: Beckman Coulter Canada</p> <p>Refreshment Break & Exhibits</p>
<p>1100 – 1200 hours</p>	<p style="text-align: center;">Heparin Monitoring</p> <p style="text-align: center;">Marc Lauzon Hemostasis Product Manager</p> <p>The basic concepts of the clinical use, the mechanism of action of heparin, heparin monitoring practices will be discussed.</p> <p>The presentation will highlight the principal technical aspects of both the 2-stage HemosIL Heparin assay versus the one-stage HemosIL Liquid Heparin assay.</p>

Sponsored by:
Beckman Coulter Canada

Wednesday, September 14


1200 – 1300 hours	Lunch & Exhibits
1300 – 1400 hours	<p style="text-align: center;">Detection of ESBL's and Other Resistance Factors</p> <p style="text-align: center;">Barbara Willey, ART Infection Control and Methods Development Technologist Mount Sinai Hospital</p> <p>Drug resistance continues to emerge as a significant public health threat in both the hospital and community. Clinical Laboratory personnel should be concerned about treatment failures and have the knowledge of which antimicrobial agents to test.</p> <p>Learn about the diverse nature of ESBL's and other resistance factors as well as the struggle between new drug development and evolution of multi-resistance in bacteria.</p> <p style="text-align: center;">Sponsored by: Pro-Lab Diagnostics Inc.</p>
1400 – 1500 hours	Refreshment Break & Exhibits
1500 – 1600 hours	<p style="text-align: center;">Development of a Competency Assessment Program for Microbiology</p> <p>A formal defined competency program provides the laboratory with a valuable tool for identifying and correcting issues of employee competency. Just as valuable is the use of competency assessment as an ongoing part of the laboratory's quality assurance program to ensure that high-quality results are reported.</p> <p>All delegates are welcome to join round table discussions to define a competency program for Microbiology. Be part of the solution to create assessments that are meaningful, instructive, and able to detect areas of concern.</p>

Wednesday, September 14

<p>1800 – 2000 hours</p>	<p>Join us for Dinner and an evening of Entertainment</p> <p>Dress Code: Casual Cash Bar</p>
<p>2000 hours</p>	<p style="text-align: center;">Evening Activities!</p> <p style="text-align: center;">“Totally Techie Totem Trek”</p> <div style="text-align: center;">  </div> <p style="text-align: center;">In this wilderness adventure, teams will outwit, outplay and outlast the other in some amazing challenges.</p>

Thursday, September 15

<p>0900 - 1000 hours</p>	<p style="text-align: center;">Transfusion Medicine Case Studies</p> <p style="text-align: center;">Denise Evanovitch Regional Field Officer ORBCoN Ontario Regional Blood Coordinating Network Southwestern Ontario McMaster University Medical Centre</p>
<p>1000 – 1100 hours</p>	<p>Refreshment Break & Exhibits</p>
<p>1100– 1200 hours</p>	<p><i>... continued</i></p> <p style="text-align: center;">Transfusion Medicine Case Studies Denise Evanovitch</p> <p style="text-align: center;">Sponsored by: Kenora-Rainy River Regional Laboratory</p>
<p>1200 – 1230 hours</p>	<p>Lunch</p>
<p>1230 - 1330 hours</p>	<p style="text-align: center;">Creating Sustainability for Laboratory Human Resources</p> <p style="text-align: center;">Bonnie Reib Managing Director, Paediatric Laboratory Medicine The Hospital for Sick Children</p> <hr/> <p style="text-align: center;">A Proposed Education/Career Path Model for Ontario Medical Laboratory Professionals</p>
	<p style="text-align: center;">Sponsored by: Life Labs</p>

		KRR RLP Fall Symposium Totem Resorts (Sioux Narrows) September 13, 14 & 15, 2011	
Income:			
	Booth Space:	\$19,900.00	
	Registration:	\$5,400.00	
	Sponsorship:	\$500.00	
	Total Income:		\$25,800.00
Expenses:			
	Totem Resorts (Accommodation, Meals, Meeting Rooms & Gratuity included)	\$28,036.40	
	Travel: Delegates	\$1,169.77	
	Speaker Expenses:		
	Bonnie Reib	1486.58	
	Denise Evanovitch	1751.92	
	Speaker Gifts & Door Prizes	\$405.51	
	Prizes	\$259.58	
	Other Expenses	\$132.41	
	Total Expenses:		\$33,242.17
2011 KRR RLP Fall Symposium			-\$7,442.17

2011 Newsletters

2011-01	Control of Anticoagulation
2011-02	Lactate: The Test
2011-03	Drug Screens
2011-04	The Pitfalls of Glucose Point of Care Testing
2011-05	Fetal Fibronectin Test
2011-06	Lipid Target Values (Revised Guidelines)
2011-07	Procedure for Ordering Emergency Uncrossmatched Blood
2011-08	Bordetella pertussis
2011-09	Vaccine Selection for the 2011 - 2012 Influenza Season Questions and Answers

Appendix D

Regional Meetings 2011

Board of Directors	Regional Laboratory Managers
February 25	January 19
May 30	April 1
September 28	July 27
	October 18 & 19

Onsite Visits 2011

Atikokan General Hospital	Dryden Regional Health Centre	Lake of the Woods District Hospital	Red Lake MCM Hospital	Riverside Health Care Facilities, Inc.	Sioux Lookout MenoYaWin Health Centre
February 16	April 5		February 9	February 22	March 1
August 30	August 16		August 3	August 24	August 10
October 26	September 28		October 5	October 11	October 25

Appendix E

GMP-LS Non-Conformances per Discipline

	2011	2010	2009	2008	2007	2006	2005	2004
Chemistry*	2	1	4	0	1	6	2	6
Drug Monitoring**	7	5	4	1	4	10	5	2
Endocrinology	1	0	0	0	0	0	0	2
Enzymes	3	1	0	1	0	1	0	0
POCT	0	0	0	0	1	0	0	0
Hematology	0	1	2	4	5	4	1	0
Coagulation	1	0	2	4	6	0	1	0
Morphology	1	5	0	1	0	7	0	0
Transfusion Medicine	2	0	2	1	2	2	4	1
Bacteriology	1	0	1	6	8	6	4	3
Cytology	0	0	0	0	0	0	0	0
Virology	0	0	0	0	1	0	0	0
Totals	18	13	15	18	28	36	17	14

* Includes Blood Gases

** Includes Drugs of Abuse

GMP-LS Non-Conformances per Laboratory

	2011	2010	2009	2008	2007	2006	2005	2004
Atikokan General	3	3	1	2	3	3	1	0
Dryden Regional Health Centre	4	1	1	2	1	5	2	2
Lake of the Woods District Hospital	3	5	7	7	5	7	3	3
Red Lake Margaret Cochenour Memorial	0	1	1	0	2	6	2	0
Riverside Health Care Facilities, Inc.	4	2	1	2	7	6	6	6
SL MenoYaWin Health Centre	4	1	4	5	10	9	3	3
Totals	18	13	15	18	28	36	17	14

Appendix E

Explanation of Discordant Results 2011

Atikokan General Hospital (AGH)					
Survey	Error	Reference Lab Result	Laboratory Result	Root Cause	Corrective Action Plan
ENZY-1101	Unexplained	ALT Vial B 47 ALT Vial C 44 ALT Vial D 75	168 176 75	Unexplained	Vendor notified
MORP-1107	Cell type misidentified	Burr cells	Did not report a "must have" result	Staff shortage Technical knowledge	Purchased webcast, wall chart and reference guide
DRUG DA 1111	Method lacks specificity	Methamphetamine negative	Positive	The drug Ecstasy interferes with Methamphetamine reactions	Continue to send out all positive drug screens for confirmation

Dryden Regional Health Centre (DRHC)					
Survey	Error	Reference Lab Result	Laboratory Result	Root Cause	Corrective Action Plan
T-Med 1105-B	Failure to follow written procedure	D.A.T Weak reaction	Negative reaction	Procedure requires use of an optical aid.	Optical aid purchased
Endo 1106	Unexplained	HCG Vial 1 434 Vial 4 349	335 264	Reagent used was near expiry	Continue to monitor
ENZY 1110 CM	Material improperly prepared	Troponin 0.85	1.10	Sample may have contained microclots which increase troponin results	Centrifuge EQA samples before testing troponin
DRUG DA 1111	Method lacks specificity	Methamphetamine Negative	Positive	The drug Ecstasy interferes with Methamphetamine reactions	Continue to send out all positive drug screens for confirmation

Appendix E

Lake of the Woods District Hospital (LoW)					
Survey	Error	Reference Lab Result	Laboratory Result	Root Cause	Corrective Action Plan
CHEM 1101	Inadequate equipment maintenance	Calcium: Vial 1 2.23 Vial 2 3.05 Vial 3 2.26	2.40 3.36 2.40	Changes made to preventative maintenance	Changes made communicated to all users
COAG 1102 DD	Sample mixed up at bench	Negative	Positive	Vial appearance closely resembles quality control vial	EQA samples color coded to distinguish samples
DRUG DA 1111	Method lacks specificity	Methamphetamine Negative	Positive	The drug Ecstasy interferes with Methamphetamine reactions	Continue to send out all positive drug screens for confirmation

Red Lake MC Memorial Hospital (RL)					
Survey	Error	Reference Lab Result	Laboratory Result	Root Cause	Corrective Action Plan
No Discordant findings for 2011					

Appendix E

Riverside Health Care Facilities, Inc. (RHCF)					
Survey	Error	Reference Lab Result	Laboratory Result	Root Cause	Corrective Action Plan
BACT 1104	Incorrect identification of organism	Corynebacterium jeikeium	Kocuria NOS	Misinterpretation of gram stain Failure to observe problem with analyzer	Gram stain reviewed with technologist New Vitek cards required to identify these organisms (ordered)
DRUG 1105 DA	Result not transcribed correctly	Methodone metabolite Positive	Negative	Result entered for wrong drug. This drug is not tested onsite.	Staff apprised of risk when manually transcribing results
DRUG DA 1111	Method lacks specificity	Methamphetamine Negative	Positive	The drug Ecstasy interferes with Methamphetamine reactions	Continue to send out all positive drug screens for confirmation
TMED B-2	Test result misinterpreted	Rh result "unable to interpret"	Positive	Failure to follow procedure. Did not apply knowledge to the situation.	Technologist reviewed the Procedure

Appendix E

Sioux Lookout MenoYaWin Health Centre (SLMHC)					
Survey	Error	Reference Lab Result	Laboratory Result	Root Cause	Corrective Action Plan
ENZY 1101 CM	Unexplained	Troponin 0.13	0.19	Random error	Monitor QC results with Peers
CHEM 1110	Unexplained	Osmolality 564	637	Random error	Monitor QC results with Peers
DRUG 1111	Technical Problem	Salicylates: Vial 1 2.04 Vial 2 1.04	1.53 0.79	Transport temperature out of range	QMPLS notified
DRUG DA 1111	Method lacks specificity	Methamphetamine Negative	positive	The drug Ecstasy interferes with Methamphetamine reactions	Continue to send out all positive drug screens for confirmation