



TRI AUSTRALASIA

A Texas Research International Company

AUSTIN, TX - USA • ANAHIEM, CA - USA • ANDERSON, SC - USA • GOLD COAST - AUSTRALIA • SUZHOU - CHINA

Testing - Research - Consulting and Field Services

CQA Training Week

LINER INTEGRITY SURVEYS/ASSESSMENTS (LISA)

Tuesday, 15 May 2018

**CONSTRUCTION QA/QC for GEOSYNTHETIC INSTALLATIONS
and COMPACTED CLAY LINER & GCL INSTALLATION**

Wednesday, Thursday, 16 & 17 May 2018

GEOSYNTHETIC INSTITUTE (GSI) - CQA INSPECTORS CERTIFICATION PROGRAM

- CQA CERTIFICATION EXAM

Friday, 18 May 2018

CQA FOR GEOSYNTHETIC INSTALLATIONS Short Course Outline

- History and Principles of Liner and Cover Systems
- CQA Principles and Philosophy
- Geosynthetic Manufacturing
- Destructive Seam Testing
- Geomembrane Specifications
- Geosynthetic Clay Liners
- Geotextile Filters / Cushions
- Geosynthetic Drains Protection and Soil Cover
- Geosynthetic Reinforcement
- Soils Fundamentals
- Geotechnical Test Procedures and Strategies
- Slope Stability Basics
- Interface Friction – Direct Shear Testing
- CQA of Compacted Clay Liners
- CQA Paperwork and Record Keeping

LINER INTEGRITY SURVEY / ASSESSMENTS Short Course Outline

- Liner Integrity Methods, Terminology, History and Background
- Applications
- Methods
- Hole Statistics
- Boundary Conditions and Design Considerations
- Standards and Specifications
- Case Histories
- Liner Integrity Application and Leak Location Equipment Demonstration

LOCATION

Burleigh Heads, Queensland

TRI Instructors

Sam Allen - Vice President TRI Environmental

Sam is the Vice President of TRI/Environmental, Inc. (TRI), an international, independent third party geosynthetic testing and research firm. Presently he serves as the Immediate Past-Chairman of the American Society for Testing and Materials (ASTM) Committee D35 on Geosynthetic Materials. He received the ASTM Award of Merit in 2010 and holds the status of ASTM Fellow. Sam also serves as the Convener of ISO TC221, Working Group 5 on Geosynthetic Durability and is also currently serving the IGS Council as the Chair of the Education Committee.

Abigail Beck, M.S, P.E. – Director of Liner Integrity Services

Abigail is a Senior Engineer for TRI/Environmental, Inc. and directs all Leak Location services worldwide. Abigail has performed and overseen 8 million square meters of various soil-covered, water-covered and exposed liner surveys. Her contribution to the field of electrical resistivity testing includes numerous published technical papers, educational seminars and presentations world-wide. She is currently chairing the ASTM committee on electrical leak location for the recent revisions and additions to the ASTM Standard Guide and Practices.

Warren Hornsey, Pr. Eng. - Director, TRI Australasia

Warren is the Director of TRI Australasia based on the Gold Coast in Queensland and is directly responsible for all geosynthetic testing and support in the Australasian region. Warren has 20 year's experience in geosynthetic design, manufacture and R&D and is a past Chairman of Standards Australia CE20 committee on geosynthetics and committee member of the International Geosynthetics Society. He has published over 20 geosynthetic related papers.



Recommended reading for Short Course & Exam
Waste Containment Facilities, Second Edition – 2007
by David Daniel and Robert Koerner (Author)



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Short Course Registration

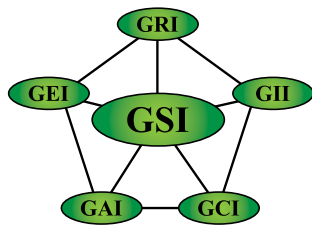
(For registrations before Monday, 17 April, 2017)

CQC/CQA Short Course

15 May, 1 registrant per company	\$950.00/person
15 May, 2 registrants per company	\$850.00/person
15 May, 3 + registrants per company	\$775.00/person

Liner Integrity Survey Short Course

16-17 May, 1 registrant per company	\$575.00/person
16-17 May, 2 registrants per company	\$550.00/person
16-17 May, 3 + registrants per company	\$525.00/person



Geosynthetic Institute

CQA EXAM REGISTRATION

(For registrations before Monday, 17 April, 2017)

18 May, Geosynthetic Materials & Compacted Clay Liners	US\$500.00
18 May, Geosynthetic Materials only	US\$400.00
18 May, Compacted Clay Liners only	US\$400.00
18 May, Renewal	US\$300.00

Note

The GCI exam is part of the GCI CQA technician certification program. Because of this, one MUST register with the Geosynthetic Institute (GSI) and pay their required certification fee in order to take this exam.

TRI does NOT collect this fee, it must be paid directly to GSI. www.geosynthetic-institute.org/applications.htm

Short Course Registration/Payment

Please remit payment by EFT to:

TRI Australasia Pty Ltd
Westpac Bank, Burleigh Waters
BSB: 034 610 - Account Number: 289 484

Name	
Position	
Company	
Address	
Phone	
Email	
Amount Paid (\$)	
I have registered with GSI & paid the GCI certification fee, and I will take the Geosynthetic CQA Exam 18th May, 2018	
I have registered with GSI & paid the GCI certification fee, and I will take the Compacted Clay Liner CQA Exam 18th May, 2018	

Return Registration via email to: Warren Hornsey, whornsey@tri-env.com

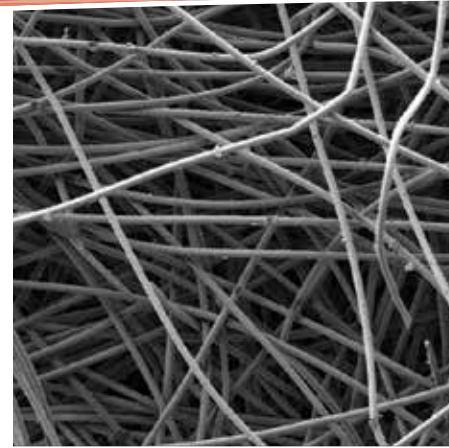
Exam Registration/Payment

ALL students wishing to sit for the exam(s) **MUST** register for certification through the Geosynthetics Certification Institute and pay the applicable fees directly to GSI (www.geosynthetic-institute.org/applications.htm). GSI registration must be received by the GSI 7-10 days before the exam(s)

Information regarding exams.

1. Students are **REQUIRED** to bring a government-issued photo ID prior to entering the testing room. They must also supply the Proctor with a photocopy of the ID when turning in the test.
2. Time allowed:
Students will be given two hours to take the geosynthetic test. There are 140 questions and you must answer 70% of the questions correctly in order to pass. Please note that there is only one correct answer for each question.

You will be given one hour to take the compacted clay liner test; there are 30 questions and you must answer 70% of the questions correctly in order to pass. Please note that there is only one correct answer for each question.
3. The test is a multiple-choice test. The student must circle the correct answer (and only one answer) for each question. They must not select multiple answers for the same question.
4. For any other queries regarding the GSI exams contact Jamie Koerner at jrkoerner@verizon.net



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www.tri-env.com.au