



Newsletter

October 2003

Trial success for pipe repair system

WRITTEN BY MARK BEYER

It's a long way from negotiating corporate finance deals on St Georges Terrace to repairing broken sewer pipes in the back blocks of Jandakot, but John Hassen is revelling in the change.

The former Price Waterhouse partner is getting his hands dirty as chief executive of ShieldLinerCo, a Perth company that has developed an innovative trenchless pipe repair system.

The technology has numerous potential applications, for water and gas utilities and in industries such as mining.

This is reflected in the companies that have financed ShieldLiner's research and development.

National Power Services (WA), the operations and maintenance company half-owned by Alinta, is a major backer, along with Premium Corporation, a civil contractor with extensive experience in pipe-related contracts for the Water Corporation.

Premium director Trevor Gosatti said his family invested in the technology because of the potential it offered.

"We could see the potential for it to be among the best in the world," he said.

"We knew of the problems with the existing systems and we could see that ShieldLiner could deal with it."

ShieldLinerCo passed a major milestone early this month when



■ ShieldLiner Chief Executive John Hassen (left) and Premium Corporation Director Trevor Gosatti at the field trial of ShieldLiner's pipe repair system.

it successfully completed the first field trials of its ShieldLiner system, which lines, seals, repairs and reinforces pipes in one process.

A key attraction is that the liner bonds with the existing pipe and is therefore much stronger and more durable than alternative pipe repair systems, which effectively create a new pipe within the existing damaged pipe.

The technology also offers the potential for faster lining rates and lower lining costs.

Having conducted successful field trials, Mr Hassen is meeting with potential users of the technology so that further development can be customised to suit specific applications.

He said the company's intention was to sell licences for the technology in specific countries while at the same time maintaining a contracting operation in Australia.

The company has already invested substantial sums obtaining patent protection for its technology.

The repair and relining of under-ground pipes is a multi-million dollar industry.

It addresses problems caused by the intrusion of tree roots and the infiltration of groundwater into pipes.

Replacing old or damaged pipes can be very expensive and in many cases impossible because of built structures above the pipes.

Mr Hassen, who spent several years advising emerging enterprises after leaving Price Waterhouse in 1997, was instrumental in establishing ShieldLiner Co in 2002.

His co-directors include Neil Graham, the inventor of the ShieldLiner technology, Julian Land, who recently retired as CSIRO's principal commercial adviser, and Mr Gosatti, whose company has a turnover of more than \$10 million per year and employs approximately 50 people.

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Pipe within a pipe is a winning solution

When Water Corporation engineers set about planning refurbishment of a 3.8-kilometres section of the Kingsway collector sewer in the Nedlands area of Perth, they encountered an unusual problem – about 250 metres of the pipe ran beneath the Hollywood Private Hospital, and there were access manholes in some hospital wards.

The pipeline route also lay below dense housing, business premises and a number of busy roads including Stirling Highway, and ran close to a school.

Further complicating factors were the fragile condition of the existing concrete pipe, which was severely corroded, and the fact that it was fairly shallow and laying at only slight gradients.

Traditional methods of tackling the refurbishment: Excavation and micro tunnelling, presented daunting problems, so a new approach was taken. The solution was Enviroliner, described by its makers as ‘a pipe within a pipe.’

Enviroliner is a resin-impregnated flexible tube that is inverted into an existing pipe using hydrostatic pressure. It is a smooth, seamless, jointless liner that is strong and creates minimal flow friction.

The result on the Kingsway section was a great success, with the project completed recently below budget, at an actual cost of just under \$1.8 million, and in only 12 weeks compared with a possible six months using traditional methods. The project has been entered for this year’s WA Engineering Excellence awards.

Perth Region Project Manager Manicka Vasagar said the pipe liner technology had been used for up to 30 years overseas, to some extent in the eastern states and only once or twice in WA, mainly to repair isolated structural failures in pipes. The Kingsway project was thought to be unique in restoring a long section of pipe suffering from corrosion.

The project was part of a major ongoing program to repair or replace some of Perth’s ageing concrete sewers that have suffered corrosion



■ The pipe liner is installed using a specially built access platform.

due to hydrogen sulphide attack caused by high temperatures generated within the system in our hot climate.

“The relining method was preferred considering the impact on customers and the environment as well as the time and cost factor,” said Manicka.

“We were able to make optimum use of the most valuable and enduring asset – the hole in the ground – and make the old pipe as good as new. People living and working along the route had little or no visible sign of the major work going on.

“Potential disruption to patients and staff at the hospital was eliminated, and road traffic was not interrupted.

“Another huge benefit was that the risk of a sewage spill into the Swan River was avoided.”

The project involved a series of innovations, including the construction of special scaffolding to insert the liner into the pipe, a purpose-built conveyor to remove air from the sleeve and impregnate it with resin before being fed into the pipe via manholes, and provision of a special pump to handle by-passes of the ‘live’ pipe.

Between 200 and 280 metres of relining were completed each day. Manicka said there was a belief in the industry that these lengths could not be installed at one time, and that the project would not be completed in the comparatively short time allowed.

“The outcome could be an Australian record for installation of this technology,” he said.

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Trenchless Technology competency standards update

Background

The Trenchless Technology project was initiated by the ASTT and the CCF to establish a training regime specifically for Trenchless Technology (TT). Funding was provided by ASTT, BCITF and CCF for discrete components of the project.

It was identified some time ago that TT was emerging as a major industry sector in its own right within the civil construction stream. TT has become one of the major methods for installing, upgrading, repairing, replacing and maintaining utilities and communications services, as the process eliminates or reduces the need for open excavation depending on the method used.

TT work activities are closely aligned and most often associated with civil construction works. Previously, there had not been a formal process in place to either identify current skills or improve/increase skills for those working in the trenchless technology industry. This includes the lack of any formal entry level training for those wishing to join the field of trenchless technology.

Throughout the project, CCF has consulted closely with the Australian National Training Authority (ANTA) and its project consultants on the development of Trenchless Technology competencies and the inclusion of a Trenchless Technology qualification in the Civil Construction stream. CCF also liaised with the Australian Drilling Industry Training Committee (ADITC) re competencies they have developed.

At a meeting to sign off their training package to go to ANTA for endorsement, the ADITC endorsed the HDD and REHAB competencies developed by CCF to be imported into the drilling packages when required.

This provided 3 immediate win-win outcomes:

- The TT competencies developed through this project received further endorsement.
- The TT competencies reside in the civil sector as the primary industry sector
- The ADITC drilling package endorsement project was not held up through a potential turf dispute over competencies.

The complete civil construction training package is in the final stages of a review process, in terms of all competencies and qualifications, through a CTA/ANTA project.

As a major player in the review process, CCF was able to provide the ANTA project consultants with a copy of the TT

competencies developed through this project and they were included in the training package review process.

Also, at the final meeting of the National Steering Committee/Stream Advisory Committee for Civil Construction, a new qualification was agreed to come on line - Certificate 3 in Civil Construction (Trenchless Technology).

Despite some challenges along the way, including a steep learning curve with respect to the complexities inherent in TT, we believe the outcomes of the Trenchless Technology project will provide a great benefit for the industry.

The TT sector now has a set of competency standards and a qualification which will be nationally endorsed in the very near future; and we have managed to make TT a home in the civil construction sector.

Current

At the present time, CCF is working on writing the learning materials for the three (3) HDD competencies. This will provide a resource to commence training delivery once the new competencies and qualification are declared. Funding for this component is again from ASTT, ANTA and CCF.

Listed below is the Qualification structure for the Certificate 3 in Civil Construction (Trenchless Technology)

Certificate III in Trenchless Technology (26 units in total)

Mandatory Units:

- BCCCM1001B Conduct workplace communication
- BCCCM1002B Follow OH&S policies and procedures
- BCCCM1003B Plan and organise work
- BCCCM1004B Carry out measurements and calculations
- BCCCM1005B Handle construction materials and safely dispose of non-toxic materials
- BCCCM2001B Use civil construction hand and power tools
- BCCCM2002B Use small plant and equipment
- BCCCM2003B Read and interpret plans and specifications
- BCCCM2004B Drain and dewater site
- BCCCM2005B Carry out manual excavation
- BCCCM2006B Support plant operations
- BCCCM2007B Spread and compact materials manually
- BCCCM2008B Carry out basic levelling
- BCCCM2009B Work in confined spaces
- BCCCM2010B Install trench support
- BCCCM2012B Carry out concrete work

- BCCCM2014B Identify, locate and protect underground services
- BCCRC2003B Install sub-soil drainage
- BCCCM3002B Control construction site water table
- BCCCM3005B Carry out site based risk control processes

Electives:

- BCCCM2013B Control traffic with a stop-slow bat
- BCCRC2008B Lay pipes
- BCCTT3001B Conduct fluid assisted directional boring
- BCCTT3002B Conduct impact moling, ramming, and augering
- BCCTT3003B Control micro tunnelling and pipe jacking
- BCCTT3004B Undertake on-line replacement for existing pipeline systems
- BCCTT3005B Undertake localised repair and sealing of existing pipeline systems
- BCCTT3006B Cure in-place linings for existing pipeline systems
- BCCTT3007B Spray linings for existing pipeline systems
- BCCTT3008B Install close-fit linings for existing pipeline systems
- BCCTT3009B Install slip lining in existing pipeline systems
- BCCTT3010B Renovate large diameter pipes and chambers
- BCGCM2002B Cut material using Oxy-LPG acetylene equipment
- BCGCM2007B Operate elevated work platforms
- BCGCM2AKAB Erect and dismantle restricted height scaffolding
- BCGCM2AOAB Operate a truck mounted loading crane

- Please note that BCG unit numbers are currently temporary as they are under review.

Rules:

- Complete all mandatory units and six electives.
- Three electives may be replaced with relevant AQF3 units from: - another civil qualification; or another Training Package.
- One of the three AQF3 units may be interchanged for selection of an alternate AQF2 or AQF4 Civil Construction unit.

CCF extends its sincere thanks to the ASTT, BCITF and the TT project team for its support and patience with the challenges this project has put before us.

Article by Mike Morris

Civil Contractors Federation - Perth

Grundoburst in China

Australasian Company, TT Asia Pacific supplies first 80 Ton GrundoBurst 800G Pipe Bursting Machine into China

TT Asia Pacific, headed by Tom Hughes and supported by his staff has supplied the first of potentially many pipe bursting machines out of Australia and into China. The machines originally from the Tracto-Technik Group in Germany cover a broad range of pipe sizes and materials from 50mm with the 400G (40 ton pullback) machine and upto 600mm with the larger 1000G (100 ton pullback) machine installing new, size for size systems and upsizing systems where required in suitable conditions.

The unique features of Click together QuickLock rods (No screwing together of rods) and the patented Roller-Blade technology for cutting through a variety of attachments and ductile pipe systems as well as excellent service and support, convinced the Chinese Contracting group that they were receiving the best value-for-money system available world wide.



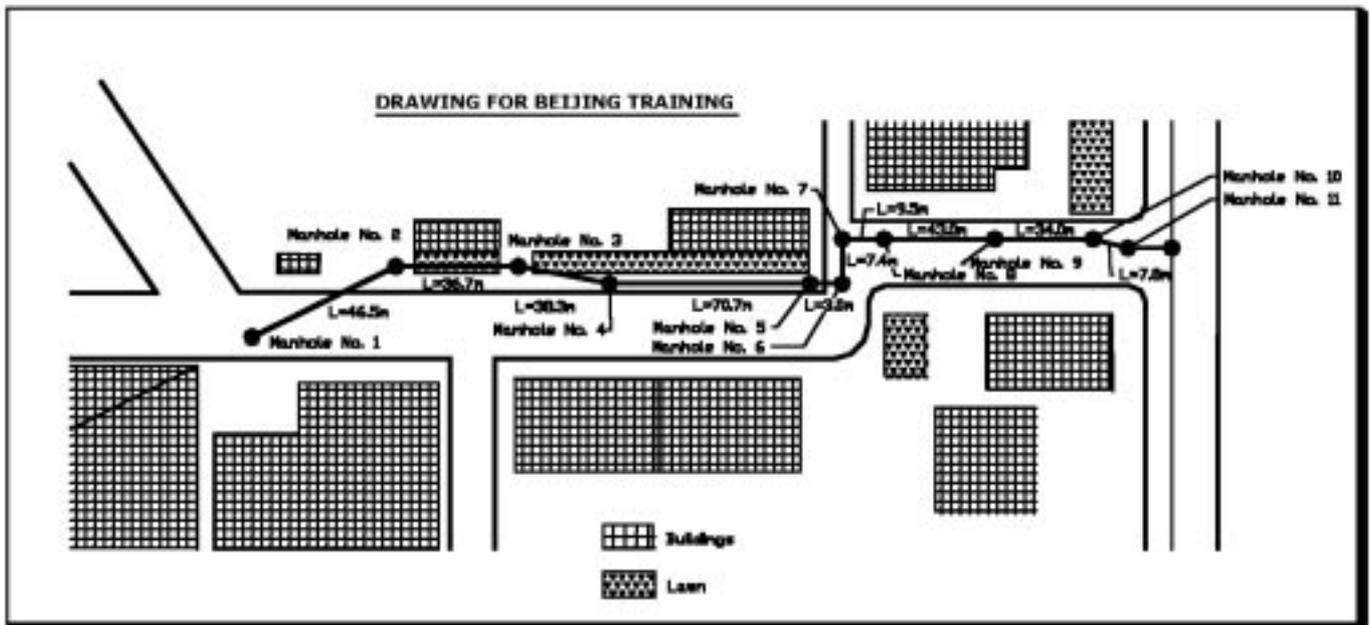
■ 800G machine and Power Pack ready for another Burst outside the Beijing Union University.

The Puhuananguy Sewer Rehabilitation Project - Beijing, China — July 2003.

Late 2002, The Beijing Municipal Administration contracted well known and respected company Beijing Chuanganya Trenchless Technology and Engineering Co Ltd to co-ordinate the total reconstruction of over 300 Metres of an existing concrete sewer

main, some 270 metres of this was to be done by Trenchless Pipe Bursting.

The existing 400mm concrete pipe of 30mm wall thickness was laid on a solid slump concrete base of 700mm width and 150mm thickness at the invert with steel reinforced concrete caps at each pipe joint, every two metres apart.



Grundoburst in China - continued

The main ranged in depth from 1.5 metres to 3.5 metres, and went through no less than 10 manholes and had 7 direction changes, the project was made further challenging by the fact that the main ran through a narrow street between the Beijing Union University and local residential highrise units.

The Chuanganya Trenchless Technology and Engineering company, researched Pipe Bursting equipment manufacturers in great detail world wide, evaluating,

1. Cost of equipment
2. Equipment specifications
3. Performance/history/job reports of equipment
4. Technical support
5. After sales service.

After completing a rigorous and comprehensive study of the equipment available, and evaluating the suppliers, the company chose the TT Group's Grundoburst 800G 80 Tonne Pull back force machine from TT Asia Pacific. The 800G stood out from the competition for many reasons, but the main virtues that made the decision easier were,

1. The quality of the equipment
2. The patented Quicklock Interlocking Rods that enable quick and efficient operation.
3. The ability of the machine to pull the Expander and new pipe into the extended frame of the machine.
4. Technical support and after sales service.

The original Sewer Main was laid in 1982 and in recent years has shown signs of serious gas corrosion and has required two major repairs in the 3 to 3.5 metre depth sections. It was decided that the capacity of the main had to be maintained or preferably improved, it was then decided that the new replacement would be a 450mm SDR 21 PE 80 Polyethylene pipe.

In July, with field engineers from TT Asia Pacific and Local TT Distributor McAllen (Tianjin) on site, the project started, commencing from manhole



■ 800G machine and Power Pack ready for another Burst outside the Beijing Union University.

one (1) through to manhole ten (10) with the longest section of 84 metres and an 8 degree bend at manhole two (2).

The project was completed well within the capabilities of the Grundoburst 800G machine, proving itself to be an excellent investment for the future for the company.

Mr. Wang Guohui - Managing Director of The Beijing Chuanganya Trenchless Technology and Engineering Co Ltd and his General Manager Miss Bai Xiaohong had chosen a very

challenging project to train on the 800G and also introduce the first large capacity Hydraulic Pipe Bursting machine into China.

They were most pleased with the performance of the TTG equipment and the training and support from TT Asia Pacific.

For more details on these or any other trenchless technology equipment please do not hesitate to contact Tom or Peter at TT Asia Pacific on (07) 5561 4999 or email: info@tt-asiapacific.com

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If so, please book your ad with Jeff Pace on (08) 9420 2826, email: jeffpace@astt.com.au or contact Michael Boyce on (08) 9382 8222, email: mboyce@mediahighway.com.au for the production of your ad.

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Brisbane sees the light (technology used in Down

Client: Leightons
Location: Inner City Bypass,
Brisbane, QLD
Project: Relining of 153 metres of
700mm Sewer Pipeline

Collex Nodig, an Australian based pipeline rehabilitation company, recently completed a sewer rehabilitation project, which established a new "first" for UV cured, fibreglass lining technology in Australia. The project located in Brisbane, QLD, involved the installation of 153 metres of 700mm "Berolina" liner - a product manufactured by BKP-Berolina of Berlin, and introduced in 2001 to Australia by our company. The following case study is a prime example of how this technology provides a long-term structural solution to failing pipelines.

There were some significant obstacles involved with this project that needed to be overcome. The pipeline ran at a depth of approximately 9 metres. The upstream manhole was located beside a tidal creek, and the main ran directly under a busy freeway to a downstream manhole in a major arterial road. The original concrete host pipe was approximately 750mm in diameter, but the main had already been rehabilitated 2 years previously by a spiral wound PVC lining system. The pipeline showed obvious signs of infiltration in numerous places, with variations in the internal diameter of the pipeline, a number of undulations in the line which totally submersed the inspection camera for almost 50 metres and also some significant off-set joints and sections that were falling apart.

Before we undertook this project, we knew without doubt that the success or



■ Towing in liner.



■ Curing.

failure of this project would have a significant affect on the future viability of this product with Brisbane Water and we wanted to demonstrate that this process would work where other lining systems had failed. We worked closely with the people from Berolina in designing the liner to suit the conditions presented with this very difficult job.

Due to heavy flows, it was necessary to have a clear weather window so that Brisbane Water could manage the bypass operations safely and effectively. We had agreed to a timeline of 25 hours in total to carry out the work. After a few false starts due to adverse weather conditions, we arrived on site to commence work on Wednesday, 9th of July, 2003. Brisbane Water had the bypass in place by 11:00 am that morning and we began cleaning the line. In the initial survey that we were provided, there was evidence of some minor debris in the pipeline for the first 30 metres, but after a few hours of cleaning work, it became evident that there was significantly more debris in the line than everyone involved had expected. A CCTV camera was lowered into the pipeline to follow the high-pressure water cleaning nozzle, and it showed blockages of up to 80% in sections. Removal of this was complicated by the undulations in the line. What we had expected to take only a few hours turned into a 24-hour task! It also became evident that the PVC liner had deteriorated further since the last survey work and sections of the main were coming away from the host pipe wall as cleaning was being done. In some sections it was completely missing.

We were reasonably confident that all debris had been removed from the

pipeline, however significant water remained in the pipeline. A decision was made to proceed with the liner, although it was recognised that there was a possibility of some water remaining behind the liner. A winch was setup at the downstream manhole and the liner was prepared for towing in.

Winching of the liner took approximately 1 hour with tonnage not exceeding 1.8 tons at any time. We were concerned that the liner could have been damaged on some of the off set joints or broken PVC sections which were protruding, however the liner insertion went without complications. There were 5 people assisting with the lowering of the liner and they were quite relieved to see the last few metres going in as it was quite difficult lowering this dimension liner into a 9 metre deep manhole. Within a few hours, we had installed packers at either end, and we commenced inflation of the liner. We were confident that the inflation would disperse the majority of the residual water. We had positioned our tankers with suction hoses at either end of the line to assist with this task. We ended up taking approximately 60,000 litres of water out of the manhole, which was dispersed from the host pipe. After further calibration of the liner we



■ Finished pipe.

UV light cured lining Under ‘First’)



■ Coupling.

installed our light train with an infrared inspection camera positioned on the front. The ability to inspect the liner internally before and during curing is one of the many advantages this technology offers, and it was reassuring in this instance to see that the liner was inflated tightly against the host pipe for its entire length. We increased the calibration pressure to ensure we would also overcome any potential groundwater infiltrating through the many defects in the host pipe and then commenced curing. The light train was turned on at 9:00pm on Friday night, some 60 hours behind our original schedule due to the major cleaning issues. Curing was completed by 5:00am the following morning.

We had agreed to cut the liner back 600mm at either end and remove the section of PVC liner at this location as well. Although there is no annular space with Berolina, we were installing this inside a PVC liner, and could not be certain that the annulus space behind the



■ Insertion.

ribbed liner was fully grouted to the original concrete host pipe. It was essential that the client was guaranteed of no further migration of groundwater and surrounding soil into the pipeline, so we installed a patch repair at this location.

A post CCTV survey was carried out and the outcome exceeded all expectations. The liner had inflated tightly against the host pipe for its entire length. There were no signs of any damage to the liner during the

winching process, and there were no defects in the liner other than those contributed by the deteriorated host pipe. Brisbane Water are now looking at other areas where this process has similar applications in their system and with another successful installation behind us, Collex Nodig's position in the Australian pipe relining market looks "brighter" than ever.

**Article supplied by
Trevor Groeneveld**



■ Winching.

COLLEX NODIG

Pipeline Renovation




Adding value through:

- Safety accreditation
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Total Service Solutions for:

- Pipeline cleaning & CCTV
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COLLEX NODIG


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EnviroNZ 03 Conference - Auckland

The Australasian Society for Trenchless Technology held its inaugural combined Conference and Exhibition with the New Zealand Water and Wastes Association and the Pacific Water Association last month at the Aotea Centre, Auckland.

Attendance was estimated at around 600 with many delegates coming from overseas. The event was supported by a trade display which had around 100 exhibitors.

Conference Programme

The structure of the paper presentations was such that it consisted of five streams, four of which were water industry related and the fifth stream being totally dedicated to trenchless technology. Grant Binns, the ASTT New Zealand Councillor and the person who had the responsibility for the trenchless component of the event was not sure what to expect when the first session commenced. When asked what he thought the attendance would be, he responded by saying, "I hope we get at least 30 attending these sessions as the goal is to promote trenchless technology to those who are not familiar with it." Well Grant was totally blown away when the first session began and approx 100 delegates sat themselves down. Grant's main concern then escalated to "Do we have enough chairs?" On average, all sessions were attended by some 75 delegates which is a reflection of the interest that is for ever present with the trenchless industry.

It was really no wonder that the technical sessions were well attended because the topics covered were all extremely interesting and topical. These were as follows:

- ❖ Junction sealing and house service line rehabilitation by J. Monro.
- ❖ Delivering sewer fix projects by S. Basu.
- ❖ CIPP selection criteria for large pipes and risk management of installation by F. Wylie.
- ❖ Sewer rehabilitation by A. DeFresne.
- ❖ Long distance and curved pipejacking by J. Broomfield.
- ❖ Addressing the issue of the annulus between a conduit liner and the host pipe by R. Cadden.



■ Part of the large crowd gathered for the NoDig Live demonstration.

- ❖ Repair of large diameter interceptor using an innovative by-pass technique and high performance calcium aluminate concrete by M. Lawson.
- ❖ Overview of pipejacking and microtunnelling techniques by B. Fourie
- ❖ Challenges in tunnelling a 750mm sewer by T. Liew.
- ❖ Lasers and machine vision for pipeline precision measurement by J. Logan.
- ❖ Partnering - The Wanganui experience so far by D. Taylor.
- ❖ Infrastructure tendering by G. Binns.
- ❖ Benefits of combined tendering by water authorities by I. Knabel and N. L'Oste-Brown.
- ❖ Investing in new technology by G. Binns.

Sponsorship

A special thankyou goes to the following key sponsors namely Rib Loc, Interflow and Iplex Pipelines. Their financial support has greatly assisted the ASTT with its goal of achieving the promotion of trenchless technology throughout Australasia, thanks guys.

Exhibition

As previously mentioned, there were approximately 100 exhibitors at the trade exhibition. The following ASTT members that contributed to the expo include:

AB Equipment, ADS Environmental Solutions, Autex Reline, AWT New Zealand, GHD, JB Pipeline Services, JB Sales International, Pipeworks Rehabilitation Solutions, Plastic Systems, Rib Loc Australia, Smythe Contractors, Tyco, and TunnelTeq. I apologise if I have accidentally

omitted anybody from this listing.

Industry Breakfast

Outside the main program, a well attended industry breakfast was held prior to the official opening where attendees were briefed on the many benefits that trenchless technology can be applied to.

No-Dig Live

This event was no exception, there was half a day set aside for the field demonstration. The actual demonstrations were held outside the Aotea Centre which made it extremely easy for the delegates to view. The No-Dig Live demonstration allowed several leading companies to show their latest equipment in working mode to delegates.

Organising Committee

Also it would be remiss of me to not acknowledge the huge effort that the small team of people made to bring the ASTT component of this event to us. These were Philip McFarlane, Don Berry, Andy Spittal, Murray Keys, Tim Balemi, Grant Binns and from NZWWA, Len Clapham and Liz Alexander.

What Next

At the conference, a meeting was held with Len Clapham, Chief Executive Officer of the NZWWA, Menno Henneveld, Chairman of the ASTT and myself where we discussed the success of this inaugural experiment. We all agreed that our objectives were achieved and that we would undertake a similar exercise again. It was agreed that the ASTT and NZWWA would undertake another combined conference and exhibition in Auckland around September/October 2005.

Article by Jeff Pace

Meet your new Councillors



Hi, I am Tom Galek.

I have recently been elected as Councillor for South Australia to the Australasian Society of Trenchless Technology.

I am currently working as a Senior Planning Engineer, Wastewater Systems for the South Australian Water Corporation (SA Water) and have been with the Corporation since 1987 after migrating to Australia from Poland.

Shortly I will occupy the position of Principal Engineer Networks Design for SA Water and will be responsible for all water supply and wastewater network designs throughout South Australia.

In the past I have worked with Mr Fred Flood (the former SA Councillor for ASTT) on projects involving:

- Infrastructure rehabilitation by utilising various sewer lining techniques - eg Rib Loc and Insituform,
- Sewer construction using microtunneling,
- Installation of new sewers and drains using directional drilling, and
- Arranging Closed Circuit Television inspection programs.

I would like to continue to encourage the use of trenchless technologies - where they provide benefits - and I am looking forward to filling my Councillor's role.



Hi, I am Ken Walter.

"I am currently employed by the Water Corporation as the Manager Strategic Projects Branch in the Engineering and Contracts Division. Our main function is project management of the Corporation's asset creation process.

My interest in trenchless issues began in the late 70's with manual tunnelling and basic no dig methods of pipe installation.

In 1991 my enthusiasm was again raised when we undertook an R&D project to install small diameter sewers by guided boring methods.

Although not a complete success this led to the change in our thinking to less disruption to our customers while installing services in built up areas.

ASTT has been part of my life since 1992 and I have attended conferences in Melbourne, Sydney, Brisbane, Perth and Taipei, have presented papers at three of these, and was the Program Chairman for the highly successful ISTT conference in Perth.

It is my wish to continue as an advocate for all forms of trenchless systems in our industry and to support their use where they provide benefits socially and financially. I look forward to a continuing involvement with ASTT. "

Members are reminded that they may contact their local Councillor to discuss ASTT matters. Local Councillors are:

WESTERN AUSTRALIA

Mr Ken Walter
Phone: (08) 9420 2479
E-mail: ken.walter@watercorporation.com.au

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STOP PRESS

The 6th National Conference and Exhibition will be held in Melbourne over 27 to 29 September, 2004. The venue will be the Melbourne Exhibition and Conference Centre. "Expressions of Interest" and the "Call for Papers" will be posted out throughout Australia and New Zealand within the next few weeks.

The Conference Organiser Committee currently comprises the following members:

John De Grazia (Victorian Councillor) - Melbourne Water

Stewart Burn - CSIRO

Chris Geehman - South East Water

Tony Norrish - GHD

David Harrington - Sideliner

David Collins - Sideliner

David Dodemaide - Interflow

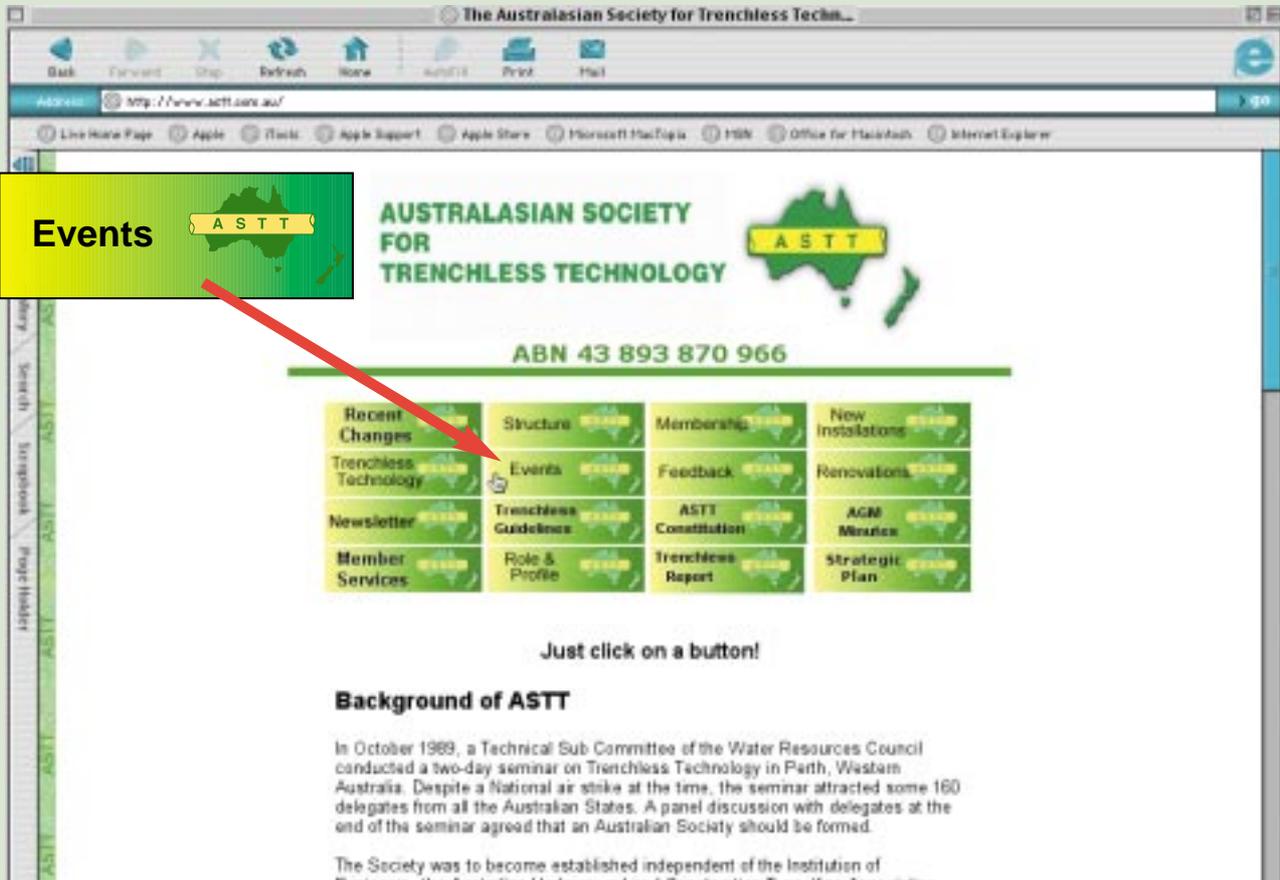
Ahmet Hashim - City West Water

Chris Frangos - Kembla Watertech

For those that have been previously involved in organising similar conferences, you will recognise that a reasonable amount of effort is required for a conference of this magnitude. The Organising Committee is keen to encourage anyone else that would like to contribute to do so as soon as possible. Please contact John DeGrazia if you can assist in any way. Phone (03) 9235 2574.

The Conference Organising Committee headed by the John De Grazia, the Victorian Councillor has advised that they have now appointed International Conferences and Events Australia Pty Ltd, known as ICE Australia to once again look after the interests of the ASTT and assist us with our event. For those that do not know, ICE Australia was the PCO that successfully guided us with our 5th National Conference and Exhibition that was held in Sydney last year. They can be contacted on (02) 9544 9134 should you have any enquiries relating to the Melbourne Conference and Exhibition.

Shortly also, ICE Australia will be creating a dedicated website for this event. When this site is created, the ASTT will ensure that there is a direct link to it from the ASTT's web site, refer the Events link on the ASTT site.



Acknowledgement of ASTT Corporate Members

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