



North American Pipe Corporation

Company Overview:

Yelomine for Temporary Bypass in Canada

Presented by:

Michal Pawelczak– Engineer



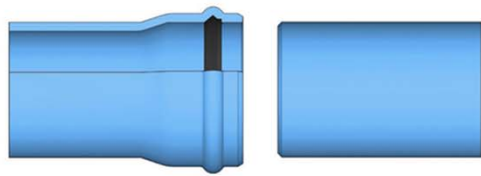
North American Locations:



- | | |
|----------------------------|--------------------|
| 1. Houston, TX (Corporate) | 9. Janesville, WI |
| 2. Wichita Falls, TX | 10. Shelby, MI |
| 3. Yucca, AZ | 11. Laval, QC |
| 4. Lodi, CA | 12. Woodbridge, ON |
| 5. McPherson, KS | 13. Winnipeg, MB |
| 6. Booneville, MS | 14. Calgary, AB |
| 7. Greensboro, GA | 15. Abbotsford, BC |
| 8. Leola, PA | 16. Langley, BC |

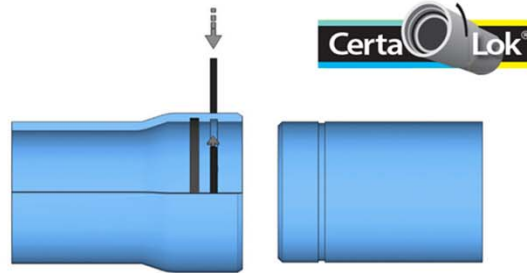


Solutions Portfolio:



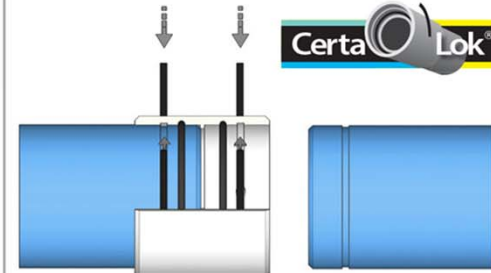
IB: (Bell & Spigot)

- Water, Sewer, & Reclaim
- Open cut installation
- CIOD: AWWA C900
- IPS: ASTM D2241
- PSM: ASTM D3034/F679
- Rieber Gasket/ASTM F477



RJIB: (Restrained Joint Integral Bell)

- Water, Sewer, & Reclaim
- Trenchless or open-cut installation
- CIOD: C900 Cert-Lok®
- IPS: D2241 Cert-Lok®
- Cert-Flo™ Gravity Sewer
- Yelomine® – temporary bypass
- 4" through 12"
- Cert-Com™ electrical/communication
- O-ring or Profile Gasket/ASTM F477



RJ: (Restrained Joint Coupled)

- Water, Sewer, & Reclaim
- Trenchless or open-cut installation
- CIOD: C900 Cert-Lok®
- IPS: D2241 Cert-Lok®
- 2" through 24"
- O-ring or Profile Gasket/ASTM F477

IB

rieber gasketed integral bell

RJIB

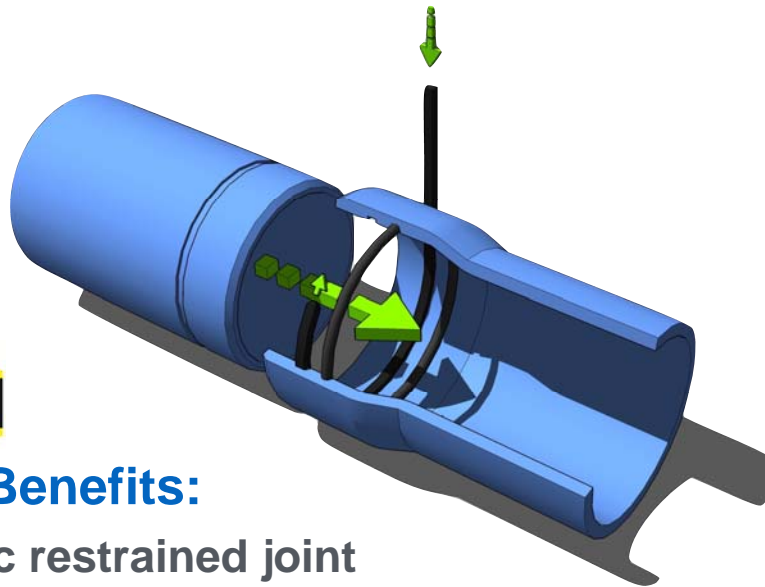
restrained-joint integral bell

RJ

restrained-joint coupled

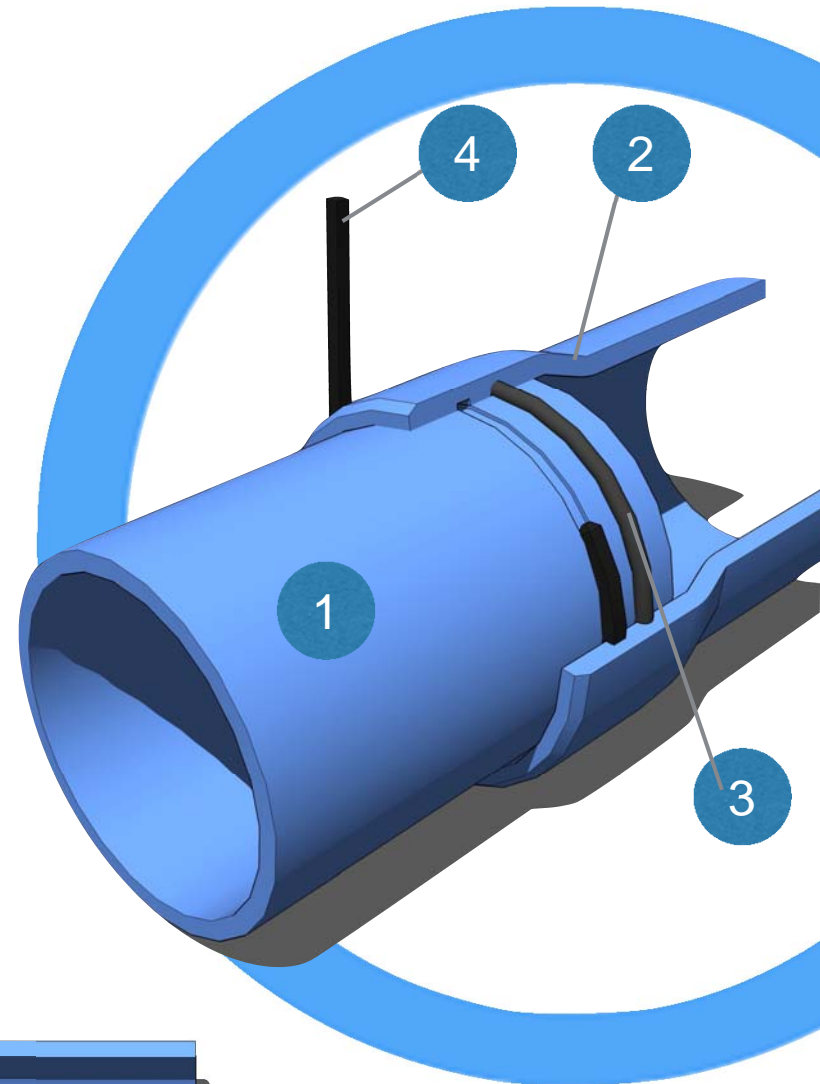
Certa-Lok PVC Pipe:

Certa-Lok RJIB Joint:

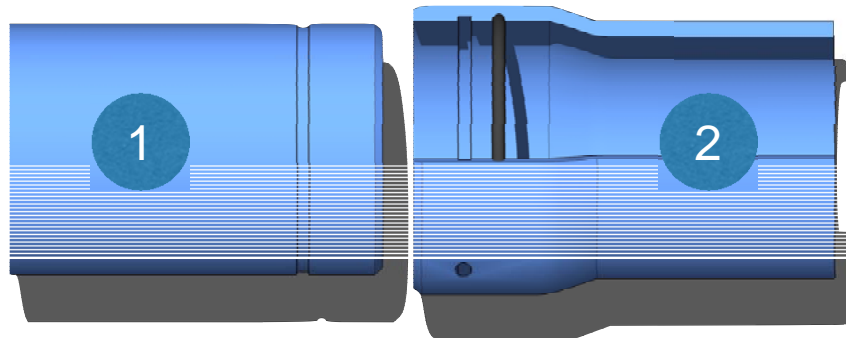


Features & Benefits:

- non metallic restrained joint
- pressure & gravity pipe
- trenchless or open-cut installations
- Profiled gasket available in styrene (SBR)



- 1 Certa-Lok RJIB Pipe
- 2 RJIB Bell End
- 3 Fluid-Tite Gasket
- 4 Certa-Lok Spline



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Certa-Lok PVC Pipe:

RJIB Portfolio of Products . . .

| Pressure: CIOD | Pipe Sizes | Class | Pressure Rating |
|---|----------------|--------|-----------------|
| C900/RJIB Certa-Lok® | 6" through 12" | DR18 | 235 psi |
| | 6" through 12" | DR18 | 235 psi |
| Gravity Sewer: IPS | Pipe Sizes | Class | Pipe Stiffness |
| Certa-Flo™ | 10", 12" | SDR 26 | 115 psi |
| | 4", 6", 8" | SDR 21 | 224 psi |
| Pressure: IPS | Pipe Sizes | Class | Pressure Rating |
| D2241/RJIB Certa-Lok® *Yelomine® | 4", 6", 8" | SDR 21 | 200 psi |
| | 4", 6" | SDR 17 | 250 psi |



* Yelomine® is a unique, modified PVC compound designed to be sunlight & impact resistant for reliable aboveground and temporary bypass use.

| Electrical/Communication | Pipe Sizes | Schedule |
|--|---------------|----------|
| Certa-Com™ (meets NEMA TC-2) | 3" through 6" | 40 |
| | 8" | 80 |

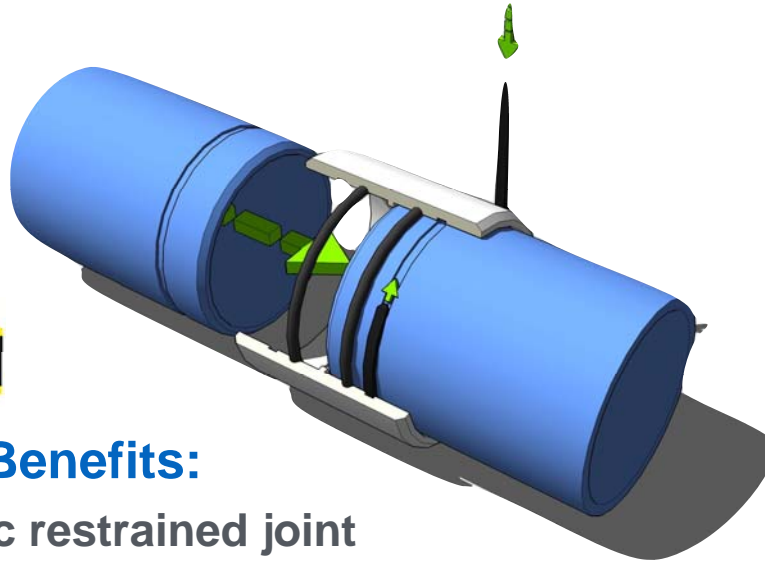


Certa-Com™ PVC pipe features Certa-Lok®, the industry original non-metallic mechanically restrained joint system designed for use in electrical and communication conduit systems. Certa-Com™ PVC pipe is made in iron pipe size (IPS) outside diameters and meets all performance requirements of NEMA TC-2 and UL 651.



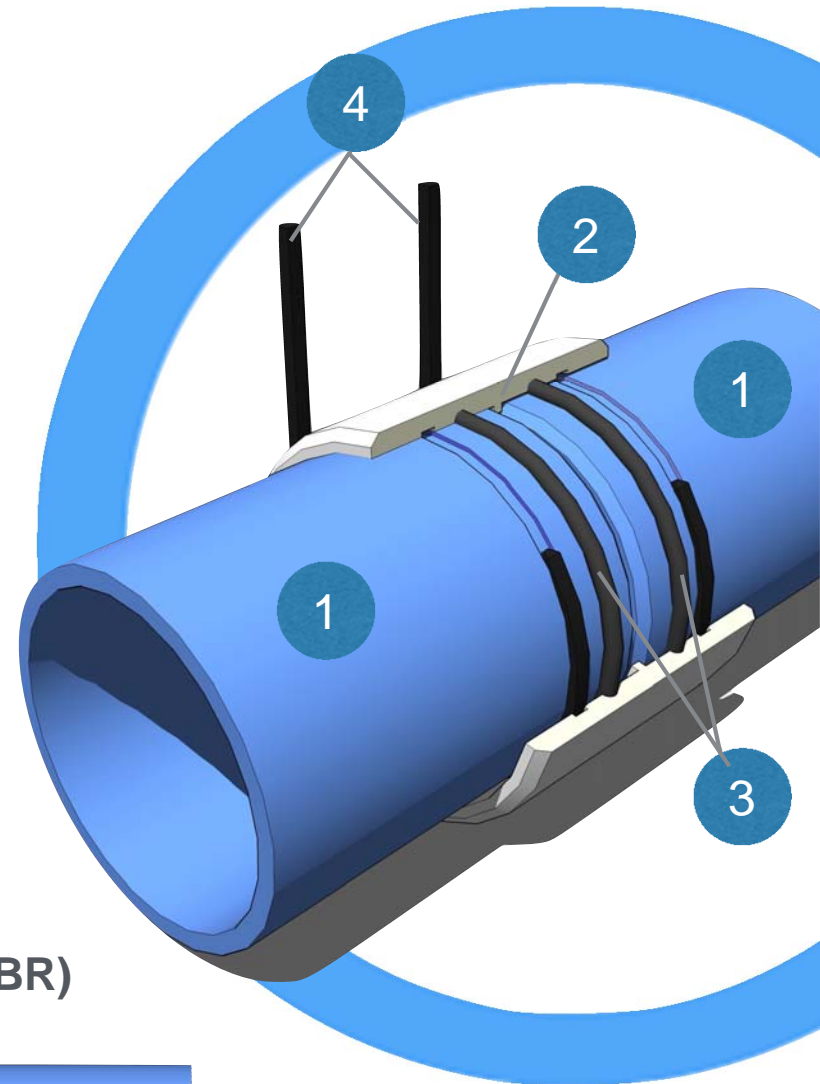
Certa-Lok PVC Pipe:

Certa-Lok RJ Coupled Joint:

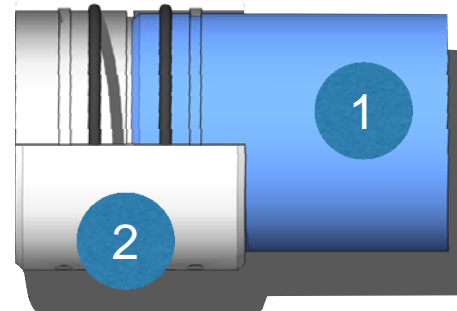
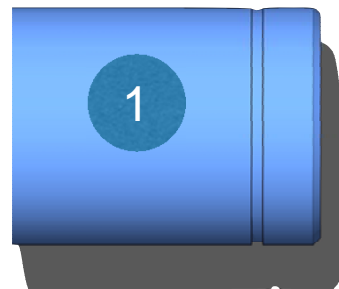


Features & Benefits:

- non metallic restrained joint
- pressure & gravity pipe
- trenchless or open-cut installations
- O-ring gasket available in styrene (SBR) & nitrile (NBR)



- 1 Certa-Lok Pipe
- 2 Certa-Lok Coupling
- 3 O-Ring Gasket
- 4 Certa-Lok Splines



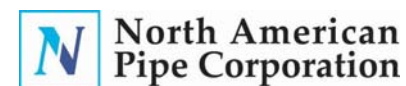
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Certa-Lok PVC Pipe: RJ Coupled Portfolio of Products . . .

| Pressure: CIOD | Pipe Sizes | Class | Pressure Rating |
|--|---------------------|----------|-----------------|
| C900/RJ Certa-Lok® | 4" through 12" | DR 18 | 235 psi |
| | 4" through 12" | DR 14 | 305 psi |
| C905/RJ Certa-Lok® | 14" through 24" | DR 25 | 165 psi |
| | 14" through 24" | DR 18 | 235 psi |
| Pressure: IPS | Pipe Sizes | Class | Pressure Rating |
| D2241/RJIB Certa-Lok® *Yelomine® | 6" through 12", 16" | SDR 26 | 160 psi |
| | 4" through 12", 16" | SDR 21 | 200 psi |
| | 2" through 8" | SDR 17 | 250 psi |
| | 4" through 8" | SDR 13.5 | 315 psi |
| | 4" through 8" | DR 12.43 | 350 psi |



* Yelomine® is a unique, modified PVC compound designed to be sunlight & impact resistant for reliable aboveground and temporary bypass use.



The Certa-Lok™ Advantage:

Yelomine . . .

PVC Pipe for Above Ground & By-pass Use:

IPS = ASTM D2241 Pressure Rated 2" to 16"

- Yelomine (RJ & RJIB)
- UV Resistant
- Impact Resistant

| YM IPS Outside Diameters | |
|--------------------------|--------|
| Pipe Size | OD |
| 2" | 2.375" |
| 3" | 3.50" |
| 4" | 4.50" |
| 6" | 6.625" |
| 8" | 8.625" |
| 10" | 10.75" |
| 12" | 12.75" |
| 14" | 14.00" |
| 16" | 16.00" |

| ASTM Pressure Classes | |
|-----------------------|----------------|
| SDR | Pressure Class |
| 12.43 | 350 psi |
| 13.5 | 315 psi |
| 17 | 250 psi |
| 21 | 200 psi |
| 26 | 160 psi |
| 32.5 | 125 psi |



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See product specification sheets for specific ratings by diameter.

The Certa-Lok Advantage:

Fast assembly . . .

less than 30 seconds per joint!



assemble joint



insert spline

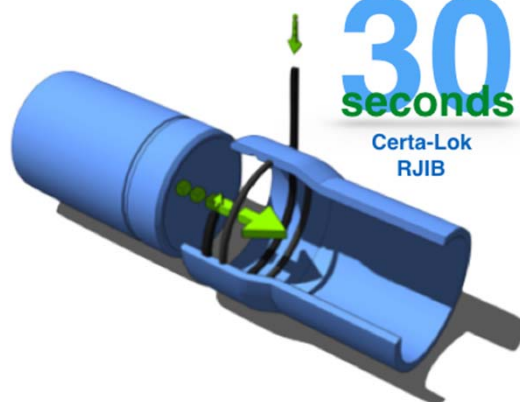


on to the next joint

1

2

3



30
seconds

Certa-Lok
RJIB



The Certa-Lok Advantage:

Non-Trenchless Applications for Certa-Lok:

Yelomine for Temporary Water & Sewer Mains

- Certa-Lok pipe is available with Yelomine, a UV resistant, high impact compound for above ground use. Available in 2"-16" in 160 psi through 350 psi.
- Certa-Lok with Yelomine has impact strength up to 6-times greater than standard PVC pipe.



The Certa-Lok Advantage:

The Yelomine Process and Product:

Yelomine for Temporary Bypass

- Yelomine Tapped Couplings
- Fabricated Fittings
- Nipple Pieces
- Adapters (Flange, Vic, SW, MIP, FIP)
- Perm – vs – Non Perm Couplings



Competition to Yelomine:

Aquamine PVC Piping System

- Aquamine is an almost identical copy of the Yelomine System. Victaulic owns the AM product line but does not manufacture anything. System is available from 2"-12"
- Aquamine and Yelomine is interchangeable except in 8". We do make an adapter coupling in 8" to connect the two systems.



Victaulic®
Piping Systems Solutions

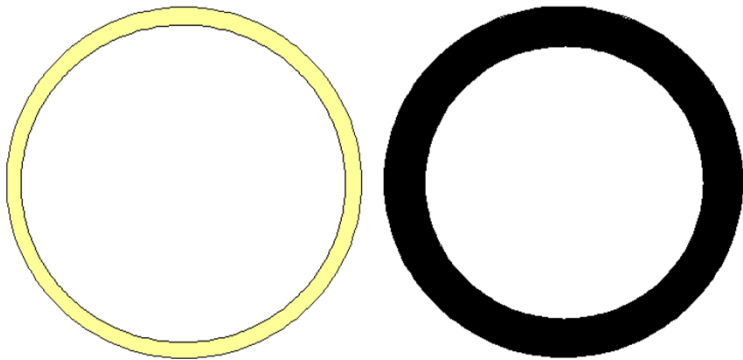


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Competition to Yelomine:

Fusible HDPE Piping Systems

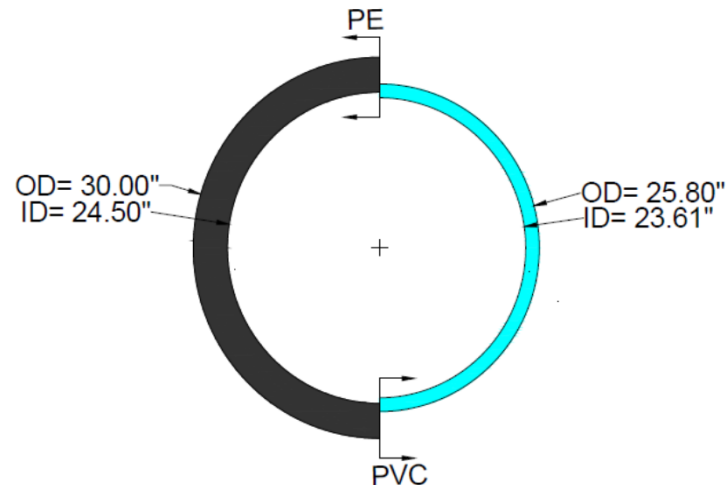
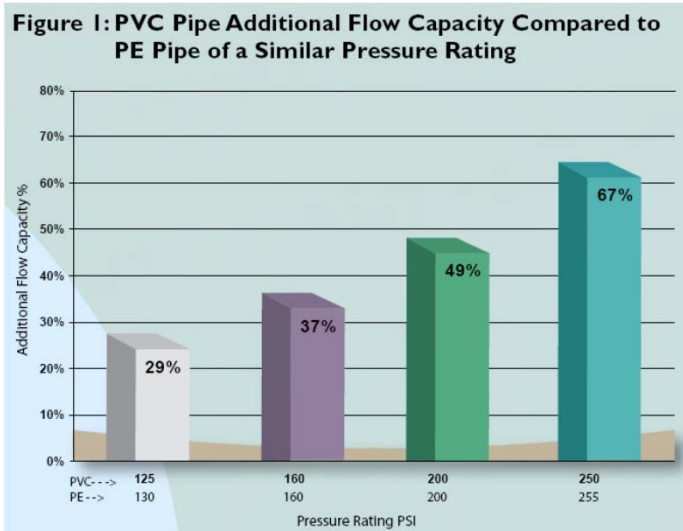
- HDPE is often used in temporary bypass as well. Perception is that it is more durable than PVC due to wall thickness.



Competition to Yelomine:

Fusible HDPE Piping Systems

- PVC offers superior flow rates vs HDPE due to wall thickness. Thinner walls increase flow area, decrease frictional loss, and significantly improve pumping efficiency.
- No special tools / machines needed to install PVC
- Availability issues due to Gas industry demand.



Yelomine in Canada

Yelomine for Temporary Water & Sewer Mains

- Yelomine is currently specified as the basis of design for temporary by-pass in Quebec. We currently sell roughly \$700,000 annually into this market.
- We currently have exclusive distribution with HiTech Piping LTD in Pointe-Claire, QC. They stock several sizes of pipe and fittings.
- HiTech has 5 inside salespeople and 4 outside salespeople that cover Quebec, Ontario (up to Kingston), and the Maritimes. They have traditionally sold into the temporary by-pass and mining industries.
- Aquamine is a strong competitor in the Ontario market and has a significant amount of market share there. They prefer the blue pipe color.



The Certa-Lok Advantage:

Other Applications for Certa-Lok:



municipal



well



agriculture



plumbing



mining



turf



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The Certa-lok Advantage

Yelomine in the Mining Industry

- Yelomine is used for above ground as well as below ground mining applications.
- Yelomine is used in sprinkler as well as drip for the leach mining of gold, copper, and other precious metals.
- Yelomine is used in underground mining for supplying water and dewatering. The majority of this business is for coal mining.
- We have sold material into the mining industry in Canada in areas like Val-d'Or and British Columbia.



The Certa-Lok Advantage:

Non-Trenchless Applications for Certa-Lok:

Yelomine for Bridge / Waterway Crossings

- Certa-Lok pipe is available with Yelomine, a UV resistant, high impact compound for above ground use
- Certa-Lok with Yelomine has impact strength up to 6-times greater than standard PVC pipe.



The Certa-Lok Advantage:

Tools for Certa-Lok:

Special tools for installation and taking apart C/L

- Certa-Lok offers a spline insertion tool. Not usually needed on smaller sizes but some may chose to use this.
- Eagle Claw is a tool used to pull together and push pipe out of the bell or coupling. Again usually not needed on the smaller sizes but some choose to use.



Questions?

