PETRO-LINE

"the PETROSLEEVE System repairs your pipeline without stopping the flow"
PETROSLEEVE

Where & How has it Been Used

- Canada – USA – Mexico
- Over 1,500 Installations
- Variety of Pipeline Owners
- NPS 4 to NPS 42
- Gas, NGL, Oil, Sour Gas
- Corrosion, Cracks, Dents, Arc Burns
“Platte saved significant dollars by avoiding the time and expenses associated with nitrogen purges and pipe cutouts”*

*52nd Annual Pipeline Conference
San Antonio, Texas
COST SAVINGS TO OWNERS

• One NPS 36 PETROSLLEEVE saved Foothills/TCPL Pipeline millions in shut-down & repair costs

August, 2001
PETROSLEEVE STEEL REINFORCEMENT SYSTEM

- Permanent Repair for Pipeline Defects
- Designed to be Installed without Interrupting Pipeline Service
- Designed to be Installed with **NO** Welding to the Carrier Pipe
Compression has been used as an age old Engineering Solution.
ENGINEERING DESIGN

Operating Pipeline Stress Condition
Forces are required to overcome pipe operating expansion.
Pipe Stress (red line) after Sleeve Installation (Stress Concentrating Defect)

PETROSLEEVE installation can achieve full compression throughout all operating ranges.
INSTALLATION

- Application of Epoxy
- Assembly
CALCULATED HEATING
COMPLETED SLEEVE INSTALLATIONS

1 hour Installation time
Strains Recorded During PETROSLEEVE Installation

Microstrain

Installation Process & Pressure

-800
-600
-400
-200
0
200
400
600

0 kPa
1200 kPa - Sleeve Installed (Not Welded)
2250 kPa - Sleeve Installed (Not Welded)
2750 kPa - Sleeve Installed Complete
0 kPa
CYCLIC TESTING

• 36,000 Cycles (2 Tests)
PRESSURE CYCLING RESULTS

Strains Inside Pipe Under Sleeve at 6:00 Position

- 36,500 Cycles
- 100 psig to 1168 psig
PRESSURE CYCLING RESULTS

Post Metallurgical Exam

NO GROWTH
LONG TERM CONTAINMENT TESTING

OBJECTIVES:
• 4 through-wall defects, covered by PETROSLEEVE
• Long Term Pressure Test

RESULTS – TO DATE:
• 4 through-wall defects, No Leaks observed
INSTALLATION OVER GIRTH WELDS

- Grooved Sleeve for Installation over Girth Weld
INSTALLATION OVER LONG SEAMS

- Spiral Seam Ground for Sleeve Installation
- Machined Groove in Sleeve for Protruding Long Seam
EIP MODEL SOFTWARE

• EIP provided @ no charge for licensed users
SLEEVE MANUFACTURING

- Strict QC Controls
- Easily Shipped Throughout North America
PETROSLEEVE – INSTALLATION KITS

• Epoxy Kits
• Installation Kits

Provided with every sleeve
Petrosleeve - Tools

Specially designed tools to ensure an appropriate installation every time.
Petro-line Construction Group
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