

Sensorlink

PipeMonit Case Stories

Edd Tveit

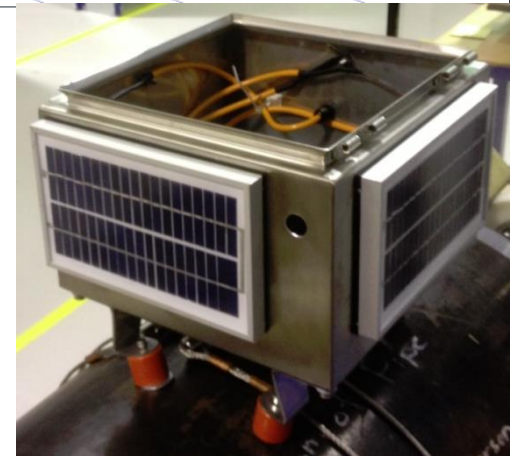
Director Business Development

Email: edd@Sensorlink.no

Field experience from a PipeMonit Installation in Canada

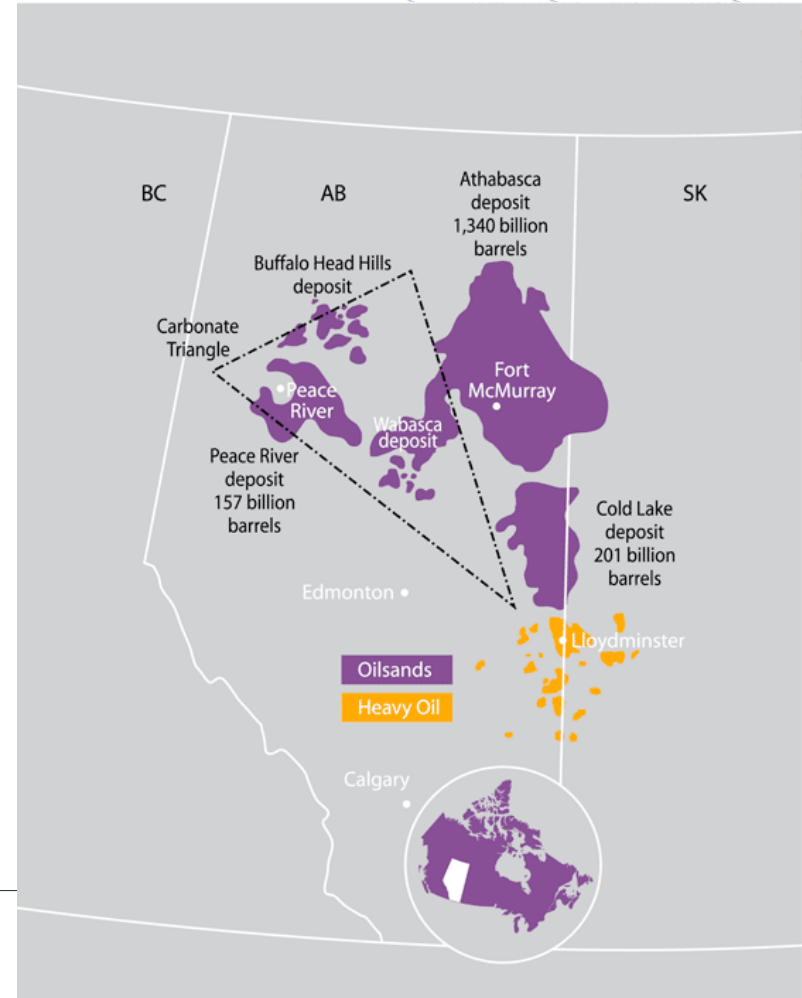
Business case:

- Large slurry lines used to transport oil sand wears out rapidly. To prolong life time, pipelines are made in flanged sections and rotated when bottom of pipeline has reach a minimum wall thickness.
- Intensive manual UT inspections required
- Automatic and accurate projections of wall loss per production hours wanted to reduce manual work and to optimize rotation planning



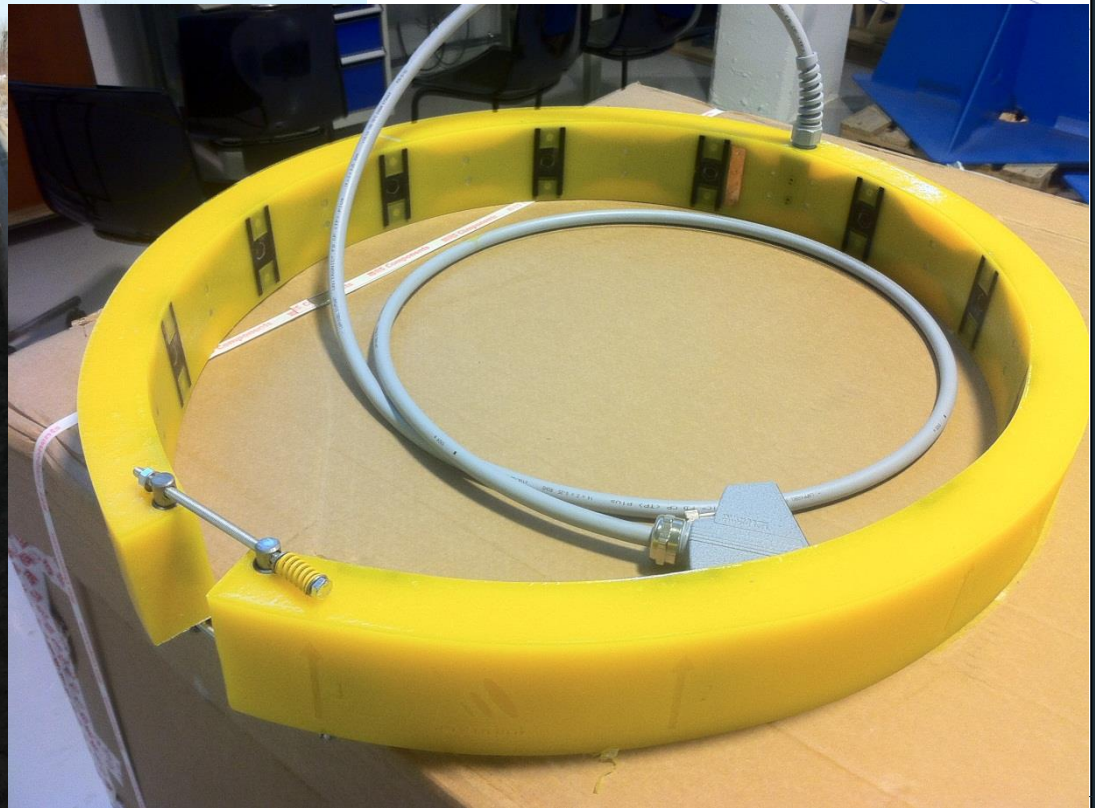
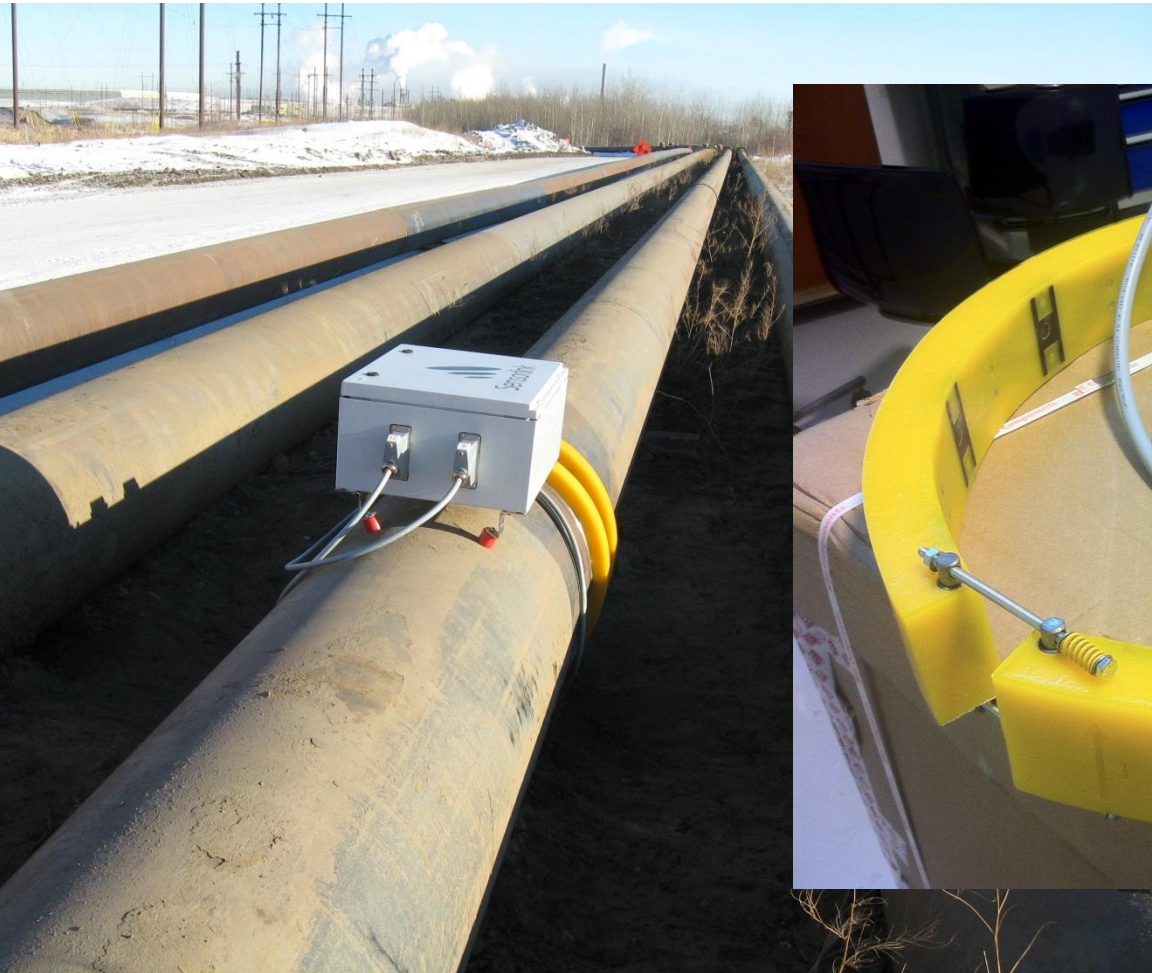
Technical Solution

- >50 measuring stations
- 24", 28" and 30 inch slurry pipelines
- 24 UT channels per station
- GSM communication
- Power: Alkaline Batteries



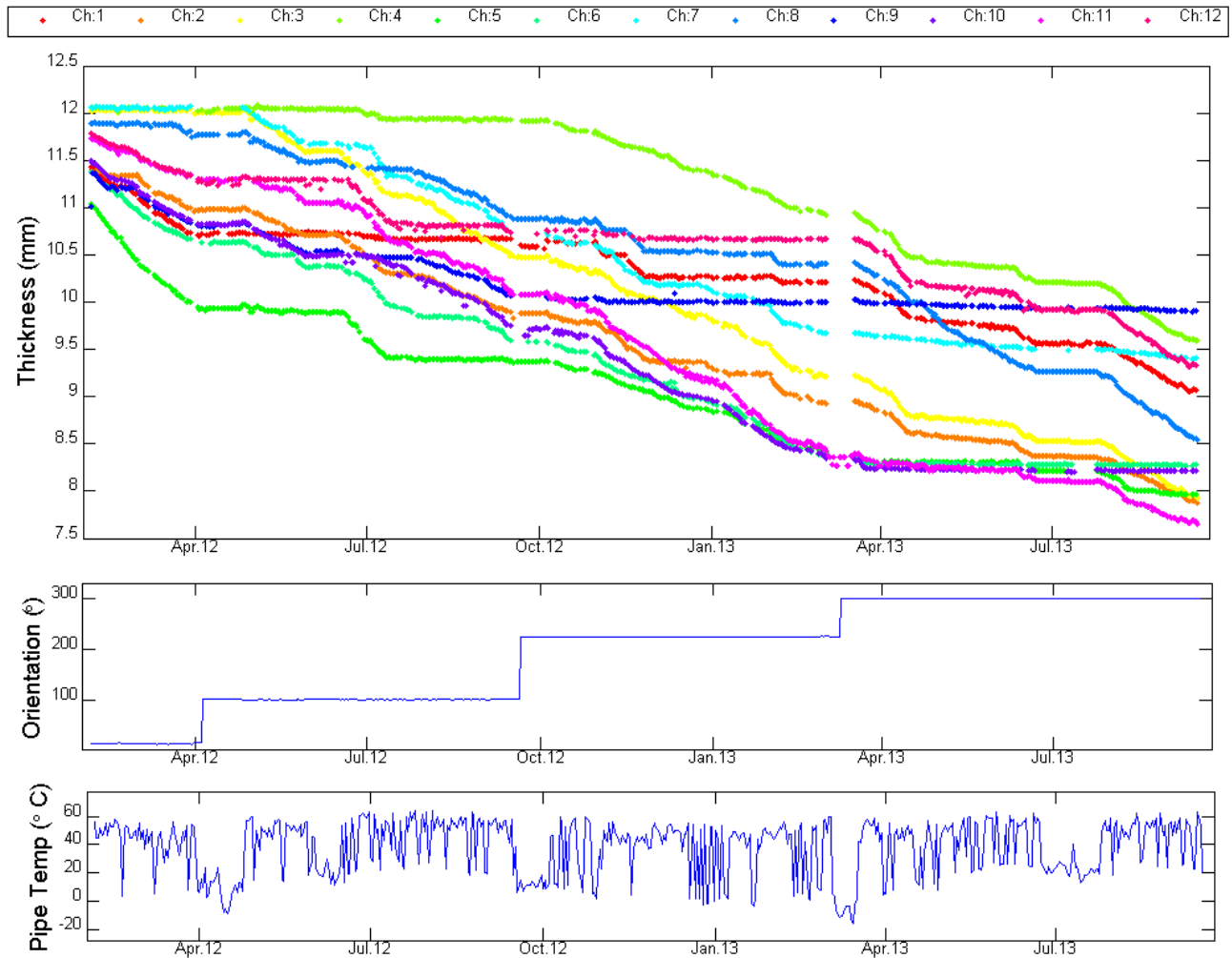
Source: Canadian Centre for Energy Information

Field experience from slurry lines



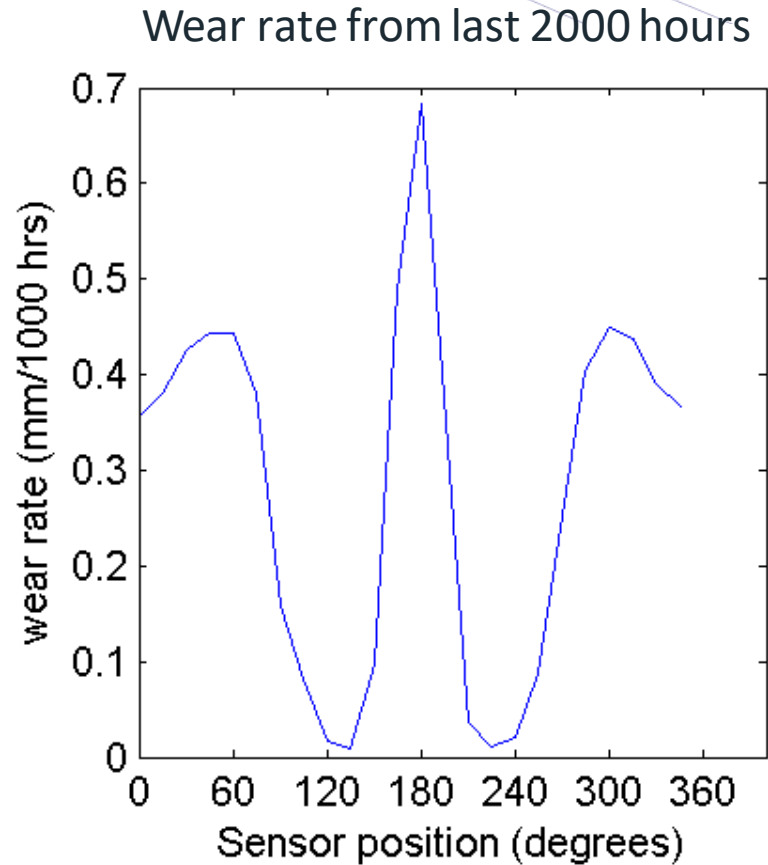
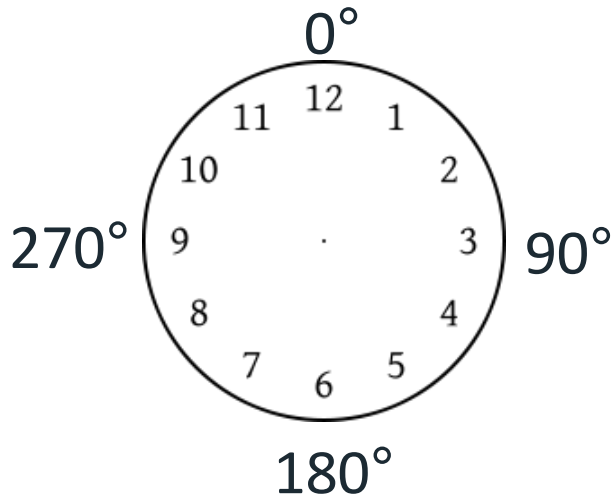
Results from slurry line monitoring

- Pipe rotated 3 times
- Wear rate up to 0.5mm/month



Wear rate profile

- High wear at bottom and top
- Symmetric around 6 o'clock



Conclusion

- Pipe thickness updated daily
 - Accurate wear rate (mm/1000 Hrs) determined
 - Optimized rotations can prolong lifetime up to 2-3 times
 - Better understanding of pipeline wear -> optimize pipeline design and material selection
 - Reduced inspection cost
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