



Automate | Optimize | Scale

CASE STUDY

Solvent Recovery for Asphalt Testing in Transportation Infrastructure



Industry: Transportation & Asphalt Testing

Unit Installed: SSB-6 Solvent Saver System (Air-Cooled)

The Challenge

The Minnesota Department of Transportation (MnDOT) plays a critical role in designing and testing asphalt for road infrastructure across the state. Their team conducts both lab-based and field-based evaluations to determine pavement types and seasonal restrictions.

As part of their testing process, MnDOT uses n-propyl bromide (nPB) to separate oils and other residues from asphalt samples. This generates a small but consistent volume of solvent waste—approximately 6 gallons twice a month. Previously, separating the solvent from the waste mixture was time-consuming and costly, requiring frequent purchases of new solvent and off-site disposal.

MnDOT needed a compact, reliable, and easy-to-operate system that could recover solvent in-house, reduce costs, and streamline their testing workflow.

The Solution

Maratek installed the **SSB-6 Solvent Saver System**, a compact air-cooled batch unit ideal for **low-volume recovery**.

The system enabled MnDOT to:

- Efficiently separate nPB from asphalt oils and waste
- Recycle solvent directly on-site with minimal operator input
- Reduce reliance on purchasing new solvent
- Avoid off-site disposal costs and logistics
- Maintain a clean and consistent testing process
- The unit's simple operation allowed staff to reuse the same drum until full, minimizing interruptions and maximizing convenience.

The Result

- **Cost Savings:** MnDOT significantly reduced solvent purchasing and disposal costs, even with low monthly volumes.
- **Time Efficiency:** Staff saved hours each month by automating the separation process.
- **Operational Simplicity:** The SSB-6's batch design fit seamlessly into MnDOT's workflow.
- **Sustainability:** On-site recycling reduced environmental impact and aligned with state sustainability goals.
- **Long-Term Reliability:** The system has performed consistently since 2012, with minimal maintenance and high user satisfaction.

Hear from The Client

"Our unit is working very well. We only recycle about 6 gallons twice a month, but Maratek has helped us save money and lessen the time required to separate n-propyl bromide from the oils and waste in our mixture."

— Ray Betts, Minnesota Department of Transportation

Why Maratek?

With over 50 years of experience and 1,500+ systems installed, Maratek is trusted by government agencies for its compact, reliable, and cost-effective solvent recovery solutions. The SSB-6 helped MnDOT streamline operations, reduce costs, and support sustainable infrastructure development.