

# GASOLINE BLENDING OPTIMIZATION ENERGY SECTOR CASE STUDY



TRIDENT  
CONSULTING  
*make it happen™*

One of Canada's largest integrated refining and upgrading complexes, producing 130,000 barrels/day of gasoline, diesel, and other petroleum products engaged Trident to mitigate gasoline quality giveaway and improve their hydrocarbon loss control program.

**60%**

**REDUCTION IN REID  
VAPOR PRESSURE  
GIVEAWAY**

**\$11,300,000**

**ANNUALIZED  
SAVINGS**

**44%**

**REDUCTION IN  
GASOLINE OCTANE  
GIVEAWAY**

## HOW WE MADE IT HAPPEN

### Hydrocarbon loss control:

- Designed and implemented monthly refinery-wide mass balance process and loss control team to identify and mitigate oil losses
- Improved tank gauge accuracy by 12% by introducing new gauging procedures that adhered to American Petroleum Institute (API) guideline, and implementing operator training, checklists, and new gauging equipment
- Improved railcar loading measurement accuracy on refinery by-products by 91% by implementing API procedures and operator measurement tracking
- Installed third-party meter proving and S&W oversight programs to identify custody transfer losses
- Implemented meter factor control charts to reduce fence line measurement gain/loss risk

### Quality giveaway reduction:

- Developed ethanol uplift regression model to increase prediction accuracy of final octane by 30% on E10 blended gasoline
- Increased component testing frequency to improve Octane and RVP prediction accuracy across all gasoline grades by 40%
- Implemented blending performance dashboards and weekly review meetings with blending stakeholders to develop actions and changes to eliminate root causes of giveaway
- Eliminated Octane and RVP buffer culture and mindset through improved prediction accuracy and accountability for giveaway results

*"From Day 1, Trident was instrumental in building engagement and the cross-functional communication and cooperation required to ensure the engagement realized its goals. Together, we were committed to implementing best practices within our Gasoline Blending to ultimately further the sustainability of our operations."*

*- Vice President, Refinery Operations*

WE'RE HERE TO MAKE IT HAPPEN™.  
CONTACT US TODAY AT [info@trident.com](mailto:info@trident.com).

