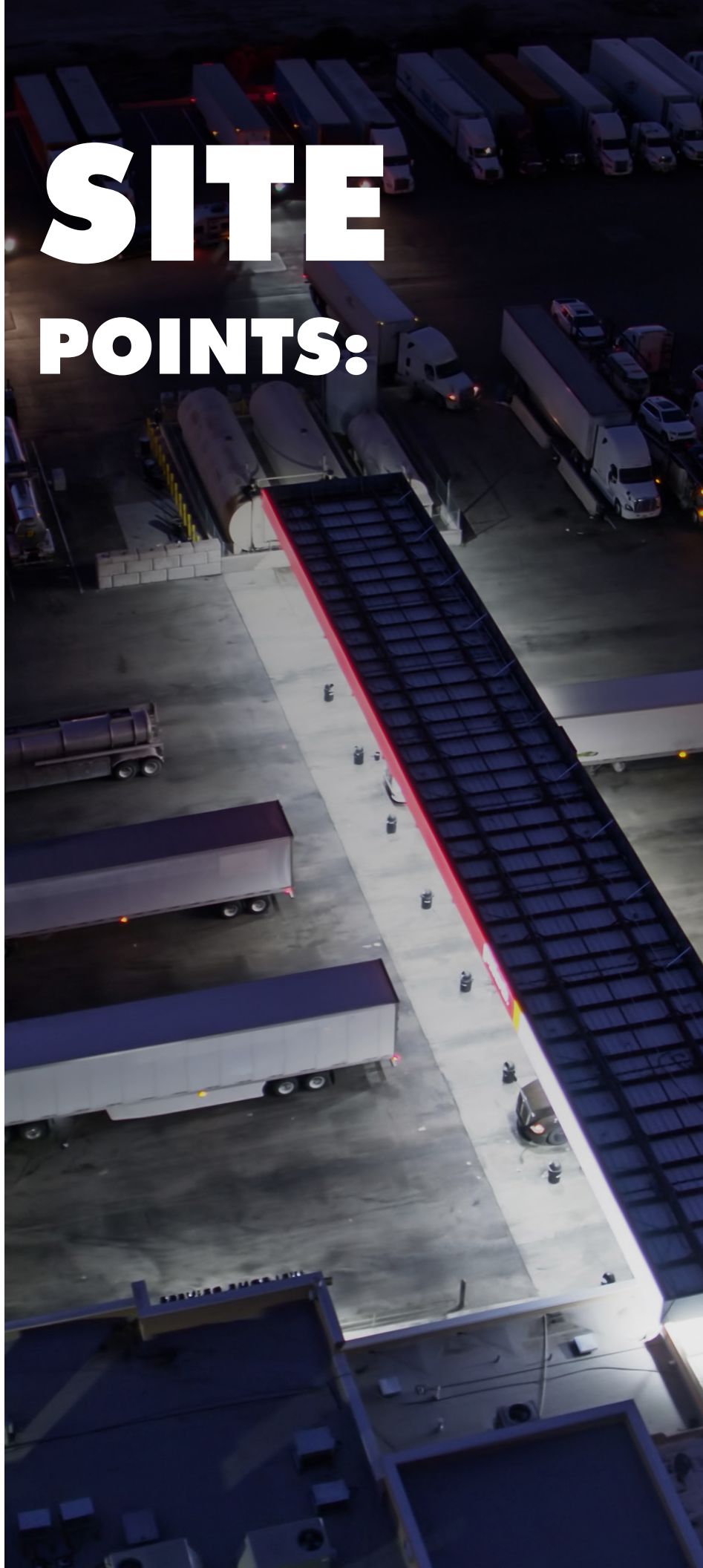


FUEL PRESSURE

SITE POINTS:

An Ounce of
Prevention is
Worth 10,000
Gallons of Cure

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GONE ARE THE DAYS

when the only way to measure the fuel level in an underground storage tank (UST) was to insert a long stick, “read” the height of the fuel, and then consult a tank-strapping chart to extrapolate how much more fuel the UST could accommodate or how long it might be until the fuel runs out.

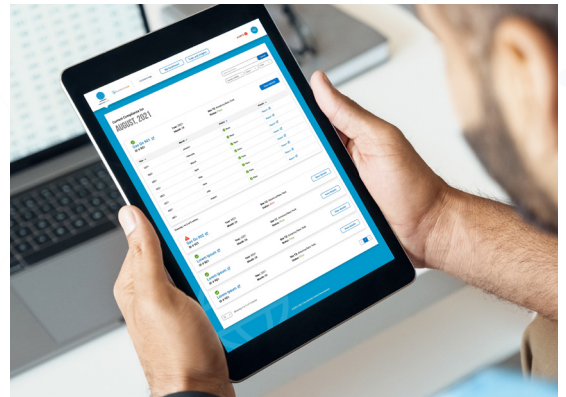
Thankfully, there have been many noteworthy mechanical and digital advances in automated tank gauging (ATG) and fuel monitoring in recent years.

Unfortunately, the data these next-level systems gather and monitor are often still disjointed and largely reactive, with each monitoring component its own little ecosystem with no universal connectivity.

The next evolutionary step of site monitoring is a system that can not only pull information from an ATG, but collate, centralize, and interpret that data on a minute-by-minute basis—and automatically recognize potential points of failure before an actual failure can occur.

These systems would also parse this breadth of operational data across compliance, alarms, and fuel inventory, and then proactively suggest ways that data could be used to, for instance, identify the best day or time to order more fuel, improve nozzle flow before customers complain, or be alerted to a fuelsystem component that may be close to breaking down or becoming out of compliance.

At a typical forecourt fueling site, there are three significant pressure points—Fuel Supply, Compliance, and Maintenance—that must be monitored constantly. Any slippage in performance in these areas will put the site at risk of incurring excessive downtime, operational disruptions, out-of-compliance fines, or even, in the worst-case scenario, a complete site shutdown.



PRESSURE POINT 1 — FUEL SUPPLY

A forecourt that consistently runs out of fuel won't be in business very long. Given ever-changing supply and demand conditions, site operators need complete visibility into the fuel level in every UST at all times of the day. Often, however, fuel retailers are at the mercy of their carriers, who will schedule deliveries designed to make them profitable, not necessarily support the site owner. This is why 'stuffing the tank' and runouts are not uncommon.



Another piece of the inventory puzzle is fuel reconciliation. When a delivery occurs, the operator must be confident that the amount of fuel that finds its way into the UST is what was actually ordered, since everyone wants to get what they pay for. Traditionally, the only way to confirm the delivery amount was trusting a potentially erroneous ATG reading and matching it against the bill of lading (BOL), or allowing a threshold of variance per delivery.

PRESSURE POINT 2 — COMPLIANCE

Staying in compliance is both an imperative and a headache for retail fueling sites. Storing and tracking testing, permits, certifications, and inspection information and staying up-to-date on any changes in requirements is time-consuming, but there are dire consequences for falling out of compliance.

To maintain compliance, site operators must identify cause and effect when an out-of-compliance condition occurs.

To do this, they must have an almost supernatural ability to find an issue before it becomes a problem. For example, when frequent outages occur, it often causes air to get into the fuel supply lines, which will put the system out of compliance and create other maintenance costs.



Site operators typically farm out compliance testing and tracking to third-party vendors. While these companies do a yeoman's job, relying on third parties for compliance information moves site operators another level away from having true visibility into and control of their operations. This is especially tricky given the burden of proof relies solely on the site operator when a regulator turns up on site for an inspection.

Compliance is a complex mix of moving pieces, from record-keeping to constant reporting deadlines, inspections, and corrective actions.

PRESSURE POINT 3 — MAINTENANCE

Industry-wide labor shortages, including maintenance departments, continue to plague fuel retailers. Given this, when a line-leak alarm is sounded, how can a site operator know when, or even if, a service tech is available to come out and resolve it?

Additionally, by their very nature, maintenance routines can be inefficient. After a call is made to the service provider to schedule a site visit, the technician must travel to the location, troubleshoot the situation, and identify the best way to fix the problem, which can be problematic if they don't know the root cause.

The most efficient and profitable retail fueling sites are those that create a symbiotic relationship between the Fuel Inventory, Compliance, and Maintenance areas of their operations. This is only possible, however, if these three departments have the right data and tools at their disposal to proactively identify and address issues long before they affect customers.



BRINGING IT ALL TOGETHER – A UNIFIED VIEW

The next generation of fuel management solutions can collect, centralize, and analyze fuel sites' data via a single access point, putting actionable operational insights at the fingertips of the user.

Using the power of artificial intelligence (AI) and advanced data analytics, these solutions enable operators to gain a full picture of real events and fuel losses at a site that pose an efficiency, business, or compliance risk, with notifications and workflows to manage each issue to resolution.

Instead of logging into multiple systems, the latest software solutions enable fuel managers to truly manage by exception on a single platform, remotely diagnose key issues, and automate traditionally repetitive tasks, such as relying on site staff to enter daily variance totals on a spreadsheet, calling sites for inventory levels to order fuel, or running manual weekly reports to review ATG alarms.



Easy to connect and deploy, these tools perform two previously unattainable tasks when it comes to optimized fuel-site management:

- 1 They give users fingertip access to all key points of Fuel Supply, Compliance, Alarm, and Wetstock data on one platform
- 2 They take advantage of next-generation AI algorithms and machine learning to compile and analyze historical operational trends, creating a proactive system that alerts site operators to issues before they can become costly problems.

While technology will undoubtedly continue to evolve, today's smart fuel retailers are shifting from a reactive to proactive mindset, armed with the tools needed to run a more efficient, compliant, and profitable fueling operation.



ABOUT LEIGHTON O'BRIEN

Leighton O'Brien is a leading global fuel-analytics technology provider that enables retail fuel networks to reduce environmental risk, prolong asset lifespan and optimize capital spend.

Leighton O'Brien operates in 34 countries through direct operations and partnerships with 80+ licensed distributors.

For more information visit leightonobrien.com.

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