Leak Survey Forecasting

PICARRO

APPLICATION BRIEF

One of the biggest challenges gas operators face is managing unplanned work. During the annual leak survey cycle, anything that can help keep labor utilization of survey and repair crews constant (and avoid “lumpy” demand that often incurs overtime expenses) is generally welcomed. By more accurately predicting leak survey and repair labor requirements, significant O&M savings can be achieved through these scheduling efficiencies.

Relying solely on historical or static data makes it challenging to accurately forecast leak survey and repair labor and expenses – and relying on historical leak find rates (or even leak rates predicted by DIMP models) gets less and less reliable the longer it has been since that area has been surveyed, which in some cases can be up to five years.

Leveraging real-time methane data, Picarro’s forecasting analytics offer a high-resolution, predictive model of future leak survey and repair labor requirements. This means a highly accurate understanding of survey and repair requirements before labor is scheduled and deployed.

Examples of how Picarro’s forecasting analytics is helping utilities manage their leak survey operations include:

- Accurate forecasting of annual O&M expenses associated with leak survey and repair.
- Improved scheduling of leak survey and repair field resources.
- Efficient scoping of work requirements for sub-contractors.
- Effective insight and management to reduce leak survey backlogs.
- Provide projected number of Picarro leak indications to inform labor allocation and enables more efficient scheduling of investigation of these leak indications.

These forecasting capabilities are enabled by methane data collected by the Picarro mobile hardware for either of the following reasons:

1. Methane data collected in the past in areas from prior Picarro compliance leak survey and

2. Methane data collected in areas for purposes other than leak survey (i.e. for emissions quantification, risk mapping, etc.).

In other words, methane data can be collected in an area and used for multiple purposes (including forecasting for future leak survey in that area).

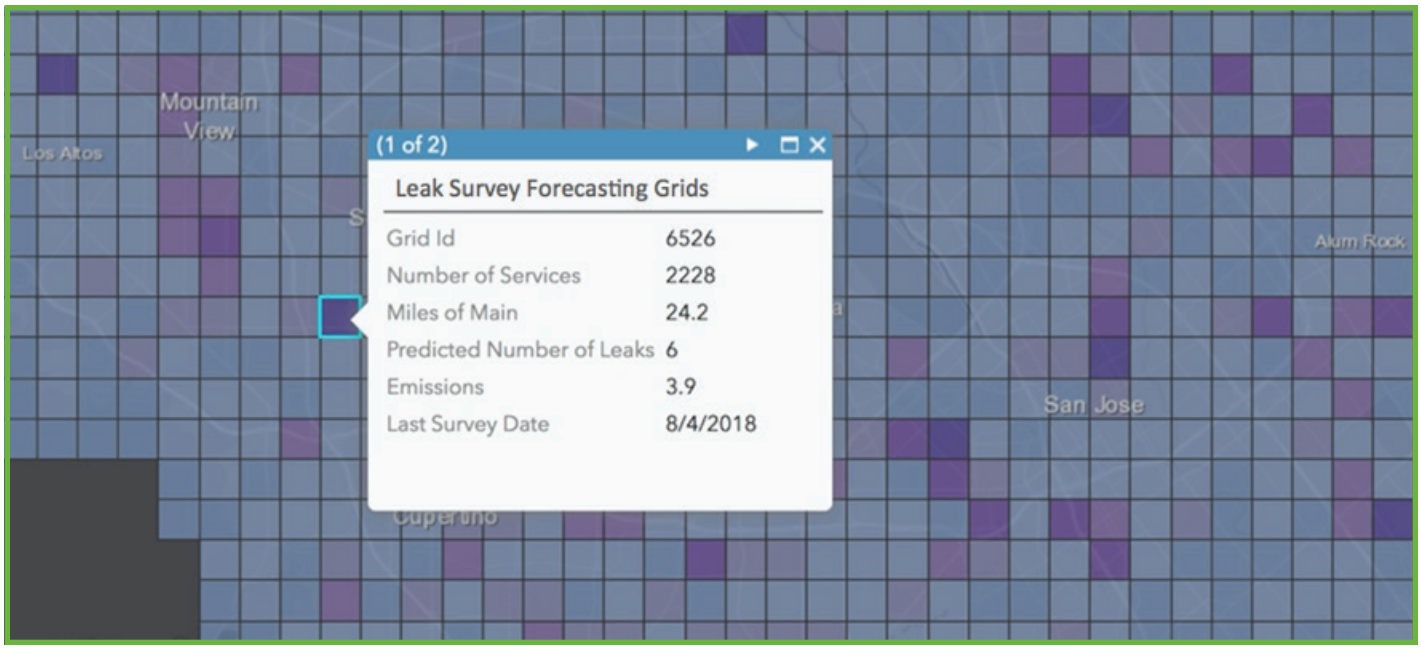

Figure 1. Picarro's Leak Survey Forecasting dashboards allow utilities to predict the number of leaks that will be found during the next leak survey cycle based on Picarro's methane data, and often, combined with other additional data sources.

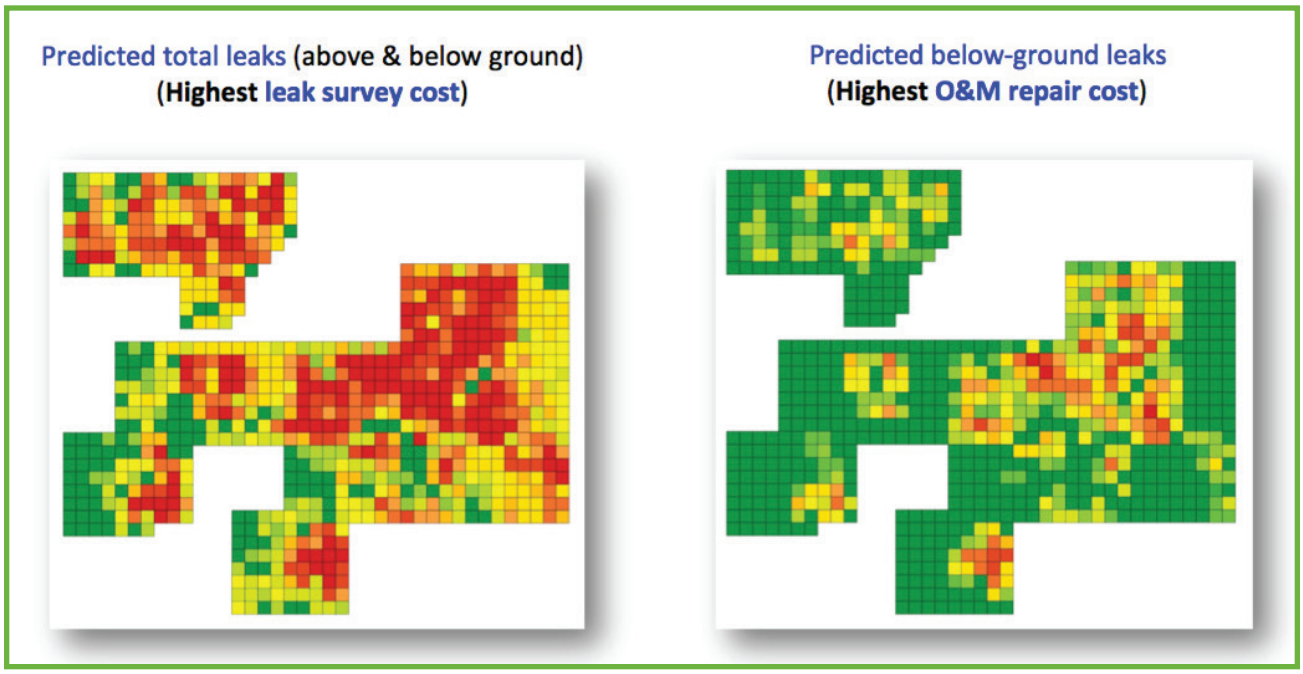

Figure 2. A Picarro's Leak Survey Forecasting dashboards allow mapping of, for example, areas with highest number of total predicted leaks which drive the highest leak survey cost – due to time spent grading leaks (left) and areas with the highest number of predicted below-ground leaks, which drive the highest repair cost – due to repair cost being driven by costly below-ground leak repairs (right). These forecasting maps help operations managers plan their compliance survey cycle, so that each week, a mixture of high and low leak density areas can be scheduled for survey to avoid "lumpy" labor demands, especially for repair crews.

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