Comprehensive asset allocation solution saves major operator millions annually, and mitigates risk, in the Eagle Ford.

With multiple variables between the wellhead and point of sale, the risk of measurement error can have a significant impact on big-picture profitability. That's why after acquiring a multi-billion-dollar asset in South Texas' Eagle Ford Shale, a major independent energy company contracted SPL—an unbiased third-party provider of custom allocation services—to enhance asset loss control and mitigate legal risk from royalty disputes.

THE CHALLENGE

In major unconventional plays like the Eagle Ford Shale, asset allocation services are becoming more important than ever before. Thousands of royalty owners must be accurately compensated for their proportionate share of proceeds from production—or entire operations can be put at risk due to costly legal action. The issues impacting allocation, and hence fair and equitable distribution of royalty proceeds, can arise from faulty field measurement equipment, inaccuracies in asset change-of-phase monitoring, human error—and improperly written gathering agreements, service contracts, and operational and reporting documents. So when a major independent energy company acquired significant acreage assets in the Eagle Ford, it recognized a need to streamline existing upstream infrastructure and have an unbiased third party put into effect a process that would ensure more technically defensible production data.

CASE STUDY

LOCATION

South Texas' Eagle Ford Shale

SERVICE

Full audit of field measurement system and ongoing monthly production allocation report using custom algorithm and regression equation.

RESULTS

- Enhanced asset loss control
- Generated cost savings between $4.5 million and $10.4 million annually (assumed price of oil at $85 per barrel)
- Mitigated potential legal issues stemming from royalty disputes
- Provided consultative support on writing gathering agreements, service contracts, and operational and reporting documents
- Ensured compliance with the transportation and marketing requirements specified in the royalty clause of the mineral owner's oil and gas lease
- Reduced carbon footprint, safety risk, and surface landowner impact by eliminating trucking off the lease

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THE SOLUTION

SPL conducted an audit of the operator's field measurement systems and gathering process. The audit uncovered several opportunities for improvement, including:

- Inaccurate recording of production volumes at some lease sites
- Significant error in some metering due to pulsation from compressors and dehydration equipment
- Un-calibrated measurement systems at central delivery points (CDPs)

Following the audit, SPL deployed its team to fix the identified errors, including the implementation of a cost-saving solution: installing lease automatic custody transfer (LACT) units at CDPs as the single source of sales, thereby eliminating lease-site to truck sales where costly overfilling and human error were observed. We then used the correct data measurement points collected from the audit to create a custom allocation algorithm and regression equation to produce monthly allocation reports based on accurate meter readings, production numbers and ongoing compositional analysis of the assets. These reports accurately account for each hydrocarbon after commingling and any change-of-phase from the point of sale back to the wellhead.

As part of our commitment to ensuring total accuracy, SPL reviewed thousands of oil and gas leases, looking specifically at the marketing and transportation specifications for each mineral owner in the royalty clause of the lease; this was done to determine the contractually binding way in which the royalty amount should be calculated. In addition, we ensured smooth oil and gas gathering operations by providing consultative support to the operator's legal team to help them write various gathering agreements, service contracts, and operational and reporting documents.

THE RESULTS

By eliminating lease-site to truck sales—where inaccurate floating gauges on the trucks were leading to overfilling—the recommended solution to install LACT units at CDPs has saved the operator between $4.5 million and $10.4 million* annually. This change also resulted in the operator having less of an impact on the surface landowner, reducing carbon footprint, and reducing safety risk by reducing truck traffic at multiple lease sites.

Furthermore, SPL gives the operator increased peace of mind by providing ongoing monthly allocation reports—with accuracy ensured by our custom algorithm and regression equation—to another third-party service provider that issues the royalty checks to more than 4,000 mineral and royalty owners. Ultimately, the operator now gets more technically defensible data that ensures equitable distribution of royalty proceeds and mitigates royalty owner disputes for more than 900 wells—allowing them to focus more on production and less on tedious allocation issues.

**assumed price of oil at $85 per barrel*