AUTOMATION & INTEGRATION
DRIVE
COMPLIANCE & EFFICIENCY
Efficient Sand, Water, and Chemical Storage Solution

Sand System
4,200 ft$^3$ of storage capacity per silo. Approx. 2.4M lbs of sand per 6-pack.

Chemical System
- **Dual Compartment Silos**: 12,500 gal per compartment
- **Acid Silo Compartment**: Belzona-lined 33,000 gal of raw acid (36% HCL); blend-on-the-fly capability

Water System
800 bbl of storage capacity per silo. Approx. 2,400 bbl of water per 3-pack with hydrostatic pressure.
Aligning Operational Trends with Compliance Initiatives

Source: Lium Research, Company data
Aligning Operational Trends with Compliance Initiatives

<table>
<thead>
<tr>
<th>Northern White</th>
<th>Regional Sand</th>
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</thead>
<tbody>
<tr>
<td>100 Mesh</td>
<td>100 Mesh</td>
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<tr>
<td>Turbidity (FTU)</td>
<td>Turbidity (FTU)</td>
</tr>
<tr>
<td>70</td>
<td>584</td>
</tr>
</tbody>
</table>

*Regional Sand turbidity figures based on samples taken by Solaris from various regional mines in Texas & Louisiana 2019-2020

The API RP 19C recommends that frac sand turbidity be < 250 FTUs

735%
Dispelling Conventional Norms

Conventional Sand Handling Methods

The Solaris Way
The Solaris Framework

**Simplify** the number of touch points required to operate systems

**Automate** the operation to reduce personnel and unplanned logistics requirements

**Streamline** the wellsite footprint through an integrated operating system
The Proppant Path

- Blender Hopper
- Discharge Head
- Dual/Central Belt
- Shuttle Belt
- Sand Silo
- Fill Tube
- Sand Hauling Truck
Engineering & Behavior Controls: **Loading & Storage**

- Auto-closing fill tube caps
- Silo Filtration Cabinets with Merv-10 Filters
- Volume Sensors, Real-Time Inventory & Rate Management
Engineering & Behavior Controls: Conveying

Shuttle Belt Enclosures

T-Belt Conveyor Enclosures

Hopper Enclosures
Engineering & Behavior Controls: Delivery

Enhanced Discharge Head

AutoHopper™ Remote Sand Operation
Engineering & Behavior Controls: Dust Collection & Filtration

Local Exhaust Ventilation Unit (LEV) with MERV-10 Filters

2nd LEV system on T-belt conveyor

LEV systems connected to each other thru vacuum ducts
Solaris samples taken during February 2021’s test all fell below the PEL and Action Limits for Respiratory Crystalline Silica.

Solaris samples taken during February 2021’s test all fell well below the PEL limit for Respirable Particulates Not Otherwise Regulated.

*Test results are site specific; results may vary depending on deployed engineering controls, field adoption of behavior controls, and ambient environment conditions
Solaris Integrated Solution

- 125 Barrels per minute
- 20k+ lbs/min sand ingestion per tub
- 3 blender tubs (Built-in redundancy)
- Dry and liquid additive capabilities
- Automated single integration control system
- Custom remote-control software
- All-electric design (800kW requirement)
Solaris Integrated Solution

- Eliminates T-belt conveyor
- Eliminates Hopper
- Eliminates Screws
- Automates Operation
- Integrates Sand, Water & Chemical Systems
- Reduces Dust & Silica

Reduce frac crew requirements by up to 60-80%
Compliance & Efficiency

**All Electric System.** Capable of using the same power source as electric frac fleets (turbine/grid).

**Automated Operation.** Machine-learning automation to reduce headcount and relocate operation to the safety of the data van.

**Reduced Emissions.** Reducing the number of trucks on the road by ~15% compared to competitors thru higher payload/truck.

**Integrated Dust Control.** Enclosed system with a Local Exhaust Ventilation (LEV) system & filtration system to capture silica fines and redistribute sand, improving safety for wellsite personnel.
One Solaris | One Goal

Solaris
First In Service and Innovation