TruckVue™ Transfer System

PREVENTATIVE MAINTENANCE AGREEMENT (PMA)

Prevent and reduce transfer system disruptions/outages over the entire life cycle

Built for Purpose

Spartan Controls offers a preventative maintenance program that customers can take advantage of over the entire life cycle of their existing TruckVue™ transfer system.

We strive to provide best-in-class service and support to our customers over the entire life cycle of the TruckVue™ transfer system and associated instrumentation.

Spartan's 24/7 emergency remote service, preventative maintenance program; and software development; and revision control, along with critical spare parts hardware inventory, are key differentiators in reducing and preventing transfer system disruptions/outages.

TruckVue™ NGL Transfer Point

OPTIMIZE SYSTEM PERFORMANCE

Preventative maintenance services provided by our certified factory-trained technicians can help to optimize system performance and minimize facility downtime. Our technicians can help protect and extend the life cycle of the hardware by identifying component or environmental problems early that may adversely affect future system operations. They will also identify any system performance issues that could affect overall system data accuracy and provide any integrated ERP system data validation. With priority privileges to software hot fixes, service technicians, and our hot spare inventory, you can minimize potential system disruptions/outages.

MEET REGULATORY STANDARDS

The additional reporting tools provided under our Preventative Maintenance Agree (PMA) program will assist in providing you with the required documentation during any energy regulator audits. In addition to a significant discount on our TruckVue™ hourly demand rates under the PMA program, you will be entitled to free emergency remote support services that may help in solving issues to the problem and in turn help to avoid unnecessary chargeable field service site visits.

RELY ON INFORMED SUPPORT

To help us ensure we can support you, Spartan Controls maintains an internal customer database which contains the following: device configurations, watercut calibration reports, PMA check sheets, software logs, transactional data, configuration revisions, etc. By maintaining a customer database of configurations, it will provide the ability to advanced remote support as well as decrease response time if a critical component fails.

Planned Preventative Maintenance

SERVICE DESCRIPTION

During the scheduled preventative maintenance site visit, the Spartan Controls Measurement Instrumentation technician will perform: hardware and software integrity checks, watercut device calibrations, software revision control and tracking; review any historical software and operating system log alarms; review historical transactional measurement data and assess any ongoing systematic or operational concerns.

VALUE

Prevent Problems

Planned TruckVue™ preventative maintenance site visits will assist in identifying systemic, hardware, software or measurement concerns and errors prior to them occurring. By taking ownership on the support of the complete transfer system, our technicians will be able to assess potential hardware failures prior to development and propose an efficient hardware replacement/upgrade path.

Boost Efficiency and Accuracy

The Spartan technician will be able to review the event and alarm logs and inspect any transactional data that may be causing any measurement accuracy concerns affecting your production accounting and terminal prorations. With software revision control, measurement verifications, and regulatory compliance confirmation the Spartan technician will be able to confirm the TruckVue™ transfer system is operating as efficiently and accurately as possible while performing the most recent calculation routines. This is essential as small inaccuracies or performance problems may result in significant costs.

Maximize Profitability

The TruckVue™ software is continuously improving with the addition of features, revised calculation routines and auditing diagnostics and reports. By upgrading to the latest software, the TruckVue™ system performance and reliability will be enhanced, with additional improvement and visibility in compliance reporting. Some of these report diagnostics tools may also be used to maximize profitability when buying or selling the measured commodity based upon product density, or to minimize well density sampling and allocation costs.

Allocation vs. profit loss at 1% watercut error
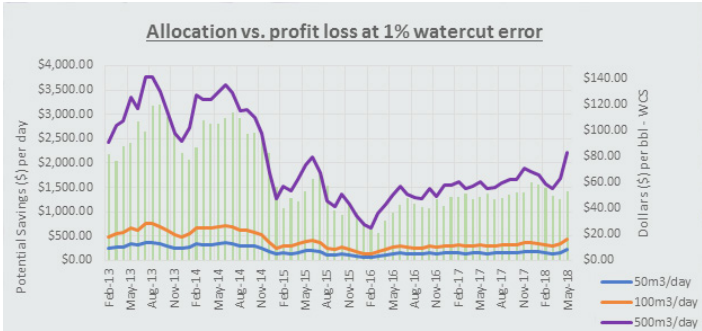
Market Evaluation collected from Government of Alberta (economicdashboard.alberta.ca/OilPrice) with a current conversion of $1.32CAD/USD - 07/11/2018

Customer Responsibilities

The customer shall be responsible for making the transfer system available for the Spartan Controls service technician at the scheduled time for the planned maintenance visits. On scheduled site visits, operations must align the required fluid commodity to be transferred through the measurement transfer point, this may include; sales spec oil, NGL, and/or produced water. The customer must provide spares or consumable materials necessary to replace worn, faulty, or unserviceable items. Alternatively, Spartan Controls may be able procure these items with sufficient notice (additional costs may apply).

If assistance is required, you can contact us at +1 (780) 468-5463 to arrange the required assistance. Please mention that the charges should reflect the preferred rates contained within the agreement.

PMA Level Features	Software	Services	Software + Services	
Measurement End Devices (Ensuring Regulatory Compliance) (Device Firmware Updates) (Device Health Status Verification)	**Level 1**	**Level 2**	**Level 3**	**Description Of Service Provided**
Micro Motion Flow Meter		✔	✔	Verification of the transmitter configuration parameters and meter factors. Performing "Smart Meter Verification" test to verify the integrity of the Coriolis sensor.
Phase Dynamics Water Cut		✔	✔	Calibration of the Phase Dynamics analyzer with calibration tags been placed on all respective devices.
Drexelbrook Water Cut		✔	✔	Calibration of the Drexelbrook transmitter with calibration tags been placed on all respective devices.
Rosemount Temperature		✔	✔	Verification of the transmitter configuration parameters and verification of readings against Phase Dynamics and Micro Motion reported temperatures.
Rosemount Pressure		✔	✔	Verification of the transmitter configuration parameters.
System Hardware (Device Health Status Verification)	**Level 1**	**Level 2**	**Level 3**	**Description Of Service Provided**
Industrial PC		✔	✔	Inspection of PC health indicators, file management, free disc space, drivers, and bios revisions etc.
HMI (Touchscreen Display)		✔	✔	Verification, cleaning and calibration of the TruckVue HMI (touchscreen display).
Uninterruptible Power Supply (UPS)		✔	✔	Function test UPS and verify alarming is registered on TruckVue.
System Software	**Level 1**	**Level 2**	**Level 3**	**Description Of Service Provided**
Revision Updates	✔		✔	The latest software revision offers improved security, enhanced features, better performance, and access to the latest innovations and updates, ultimately ensuring a more efficient and reliable software experience.
Software Patches (Bug Fixes)	✔		✔	Software patches provide critical updates and fixes to address vulnerabilities, bugs, and security issues, enhancing the stability and security of the software.
Database Review / Support			✔	Database review can uncover inefficiencies, optimize data structures, improve data accuracy, and enhance overall performance and security, ultimately ensuring better operational efficiency.
Custom Software Feature Development	✔		✔	Custom software feature development tailors a solution to specific business needs, improving efficiency, providing a competitive advantage, and enabling unique functionality not readily available in standard TruckVue software.
Operating System Upgrade Discounts	✔		✔	Operating system upgrade discounts can save users money and encourage timely adoption of new features, security enhancements, and performance improvements, ensuring a more efficient and secure computing environment.
TruckVue Software Hourly Rate	Discounted		Discounted	Discounted hourly software programming rates will be extended to level 1 & 3 PMA customers.
System Services	**Level 1**	**Level 2**	**Level 3**	**Description Of Service Provided**
Base Discounted Field Service Rates		15%	20%	Discounted Spartan field service rates dependent on level of maintenance agreement with annual site visits.
Annual PMA Visits Rate Discount		15%	20%	Discounted Spartan field service rates dependent on level of maintenance agreement with annual site visits.
Quarterly PMA Visits Rate Discount		20%	25%	Discounted Spartan field service rates dependent on level of maintenance agreement with quarterly site visits.
Phone Support (Hours Per Quarter)		8	16	An hourly bank of free phone support offers direct, real-time assistance, enabling quick issue resolution, personalized guidance, and enhanced customer satisfaction.
Cloud Customer Profile Database		✔	✔	A Cloud-based customer profile database provides centralized and easily accessible customer data/reports, facilitating personalized interactions, improved customer service, and more informed decision-making.
Hardware Obsolescence Planning		✔	✔	Hardware obsolescence planning ensures cost-effective, timely upgrades, reduces downtime, and minimizes compatibility issues, ultimately maintaining operational efficiency and minimizing business disruption.
Hardware Hot Spare Inventory Access		✔	✔	Hardware hot spare inventory access provides rapid replacement of critical components, reducing downtime, ensuring system reliability, and minimizing the impact of any unpredictable hardware failures.
System Reporting	**Level 1**	**Level 2**	**Level 3**	**Description Of Service Provided**
System Audit Report		✔	✔	A system audit report offers insights into system performance, vulnerabilities, and compliance, enabling informed decision-making and proactive measures to enhance efficiency and mitigate risks.
Regulatory Compliance Reporting		✔	✔	Regulatory compliance reporting ensures adherence to any regulatory requirements, reduces the risk of fines or legal issues, and enhances transparency and trust with stakeholders.
Firmware Revision Report		✔	✔	A firmware revision report provides visibility into the current status of firmware across systems, enabling timely updates to enhance security, stability, and compatibility.
Software Revision Report			✔	A software revision report provides insights into software versioning, update history, and potential vulnerabilities, aiding in informed decision-making for maintenance and security enhancements.
System Training	**Level 1**	**Level 2**	**Level 3**	**Description Of Service Provided**
On-Site Basic End Device Overview		✔	✔	End device training enhances user competency, reduces user errors, and ensures efficient operation and maintenance of instrumentation devices, contributing to improved safety and productivity.
On-Site Basic System Overview		✔	✔	Basic software training empowers users to maximize software functionality, improving efficiency, reducing errors, and optimizing workflow processes.
On-Site Software Operator Training		✔	✔	Operator software training will enhance user's expertise in using TruckVue software, resulting in increased efficiency, reduced errors, and improved productivity in their operational tasks.
Online Software Training Access		✔	✔	Online software training offers convenient, accessible learning opportunities, enabling users to gain fundamental software knowledge and skills without the need for on-site training, saving time and resources.

Emergency Service Details

This after-hours service provides you with prompt emergency service for unexpected events and assistance in system correction. Expert answers and advice are provided by telephone and, in some situations, may eliminate the need for on-site service. Calls are usually answered by a support tech immediately, but insome instances, the caller will be asked to leave a message for the on-call support technician to respond to within a timely manner.

The emergency services provide you with priority privileges to emergency phone support, 24/7 demand services and our TruckVue™ transfer system hot spare inventory.

Remote Access Software

In certain situations, a Spartan technician may be able to remotely connect to the TruckVue™ system. This would enable the technician to perform ticket analysis and system health checks without going to the facility.

Customer Requirements

If you require assistance at any time, please contact us at +1(780) 468-5463. We request that you please provide an explanation and details about the system problem.

Contract Terms

The term of this contract shall be valid for one year of the date of purchase, or as the contract specifies. Support will be provided as requested by an authorized customer employee or a representative of the customer only. The term of this contract will be renegotiated at the start of every contract term or as the customer deems fit.

SPARTAN CONTROLS

Experience Industrial Innovation

SCAN ME

24/7 Support

Our 24/7 technical telephone support service provides timely access to expert advice from our TruckVue™ technicians to help keep your system running and to potentially avoid the need for a site visit. Spartan Controls TruckVue™ technicians can answer technical questions, diagnose system problems, and provide skilled advice when needed.

+ 1 (877) 278-6404 | +1 (780) 468-5463 | info@spartancontrols.com

Compliant with:

BC Oil & Gas COMMISSION   **Alberta Energy Regulator**   Government of Saskatchewan   energy API

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