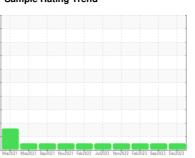


## **OIL ANALYSIS REPORT**

### **Sample Rating Trend**



NORMAL



# A3 SARAN LINE 2 (S/N U164500166)

Component **Pump** Fluid

USPI VAC 100 (--- GAL)

#### DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

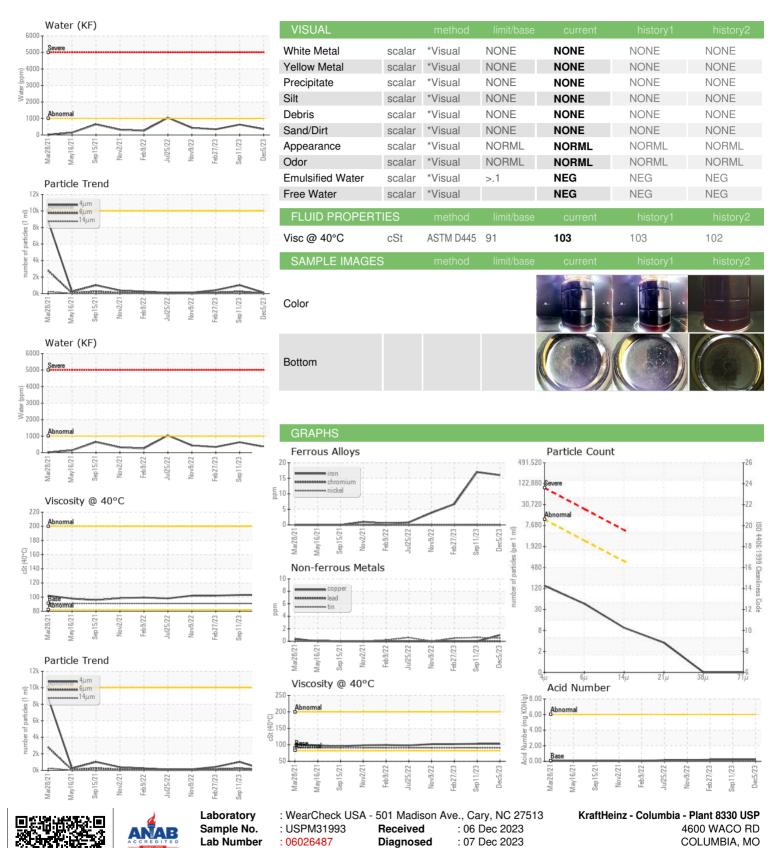
#### **Fluid Condition**

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

| Mad2021 May2021 Sap2021 Nov2021 Feb2022 Jul2022 Nov2022 Feb2023 Sap2023 Dec2023 |          |              |            |             |             |             |
|---|----------|--------------|------------|-------------|-------------|-------------|
| SAMPLE INFORM   | MATION   | method       | limit/base | current     | history1    | history2    |
| Sample Number   |          | Client Info  |            | USPM31993   | USPM29584   | USPM26536   |
| Sample Date   |          | Client Info  |            | 05 Dec 2023 | 11 Sep 2023 | 27 Feb 2023 |
| Machine Age   | hrs      | Client Info  |            | 0           | 0           | 0           |
| Oil Age   | hrs      | Client Info  |            | 0           | 0           | 0           |
| Oil Changed   |          | Client Info  |            | N/A         | N/A         | N/A         |
| Sample Status   |          |              |            | NORMAL      | NORMAL      | NORMAL      |
| WEAR METALS   |          | method       | limit/base | current     | history1    | history2    |
| Iron  | ppm      | ASTM D5185m  | >90        | 16          | 17          | 7           |
| Chromium  | ppm      | ASTM D5185m  | >5         | 0           | 0           | 0           |
| Nickel  | ppm      | ASTM D5185m  | >5         | 0           | 0           | 0           |
| Titanium  | ppm      | ASTM D5185m  | >3         | 0           | 0           | 0           |
| Silver  | ppm      | ASTM D5185m  | >3         | 0           | 0           | 0           |
| Aluminum  | ppm      | ASTM D5185m  | >7         | 0           | 0           | <1          |
| Lead  | ppm      | ASTM D5185m  | >12        | 0           | 0           | 0           |
| Copper  | ppm      | ASTM D5185m  | >30        | 1           | 0           | 0           |
| Tin   | ppm      | ASTM D5185m  | >9         | <1          | <1          | <1          |
| Vanadium  | ppm      | ASTM D5185m  |            | 0           | 0           | 0           |
| Cadmium   | ppm      | ASTM D5185m  |            | 0           | 0           | 0           |
| ADDITIVES   |          | method       | limit/base | current     | history1    | history2    |
| Boron   | ppm      | ASTM D5185m  | 0          | <1          | 0           | <1          |
| Barium  | ppm      | ASTM D5185m  | 0          | 0           | 0           | 3           |
| Molybdenum  | ppm      | ASTM D5185m  | 0          | 0           | 0           | 0           |
| Manganese   | ppm      | ASTM D5185m  |            | <1          | 0           | 1           |
| Magnesium   | ppm      | ASTM D5185m  | 0          | <1          | 0           | 0           |
| Calcium   | ppm      | ASTM D5185m  | 0          | <1          | 0           | <1          |
| Phosphorus  | ppm      | ASTM D5185m  | 1800       | 1205        | 1357        | 1258        |
| Zinc  | ppm      | ASTM D5185m  | 0          | 0           | 0           | 2           |
| Sulfur  | ppm      | ASTM D5185m  | 0          | 0           | 8           | 0           |
| CONTAMINANTS  |          | method       | limit/base | current     | history1    | history2    |
| Silicon   |          | ASTM D5185m  |            | <1          | 1           | 2           |
| Sodium  | ppm      | ASTM D5185m  | >00        | 4           | 1           | 0           |
| Potassium   | ppm      | ASTM D5185m  | - 20       | 2           | 1           | 1           |
| Water   | ppm<br>% | ASTM D516301 |            | 0.035       | 0.063       | 0.034       |
| ppm Water   | ppm      | ASTM D6304   |            | 355         | 632.0       | 343.9       |
| FLUID CLEANLIN  |          | method       | limit/base | current     | history1    | history2    |
| Particles >4µm  |          | ASTM D7647   | >10000     | 127         | 1014        | 422         |
| Particles >6µm  |          | ASTM D7647   | >2500      | 39          | 244         | 125         |
| Particles >14µm   |          | ASTM D7647   | >640       | 8           | 14          | 17          |
| Particles >14µm   |          | ASTM D7647   | >160       | 3           | 5           | 6           |
| Particles >38µm   |          | ASTM D7647   | >40        | 0           | 1           | 1           |
| Particles >36μm   |          | ASTM D7647   | >40        | 0           | 0           | 0           |
| Oil Cleanliness   |          | ISO 4406 (c) | >20/18/16  | 14/12/10    | 17/15/11    | 16/14/11    |
| FLUID DEGRADA   | TION     | method       | limit/base |             | history1    | history2    |
|   |          |              |            | current     |             |             |
| Acid Number (AN)  | mg KOH/g | ASTM D8045   | 0.05       | 0.25        | 0.25        | 0.21        |



## **OIL ANALYSIS REPORT**



Certificate L2367

**Unique Number** 

Test Package

: 10776278

To discuss this sample report, contact Customer Service at 1-800-237-1369.

\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

: IND 2

Diagnostician

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

: Doug Bogart

US 65202

T: F:

Contact: Service Manager