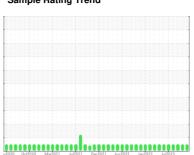


OIL ANALYSIS REPORT

Sample Rating Trend







HPP VESSEL 1 PUMP 2 (S/N B44050)

Hydraulic System

PETRO CANADA PURITY FG AW HYDRAULIC 46 (90 GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

Contamination

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

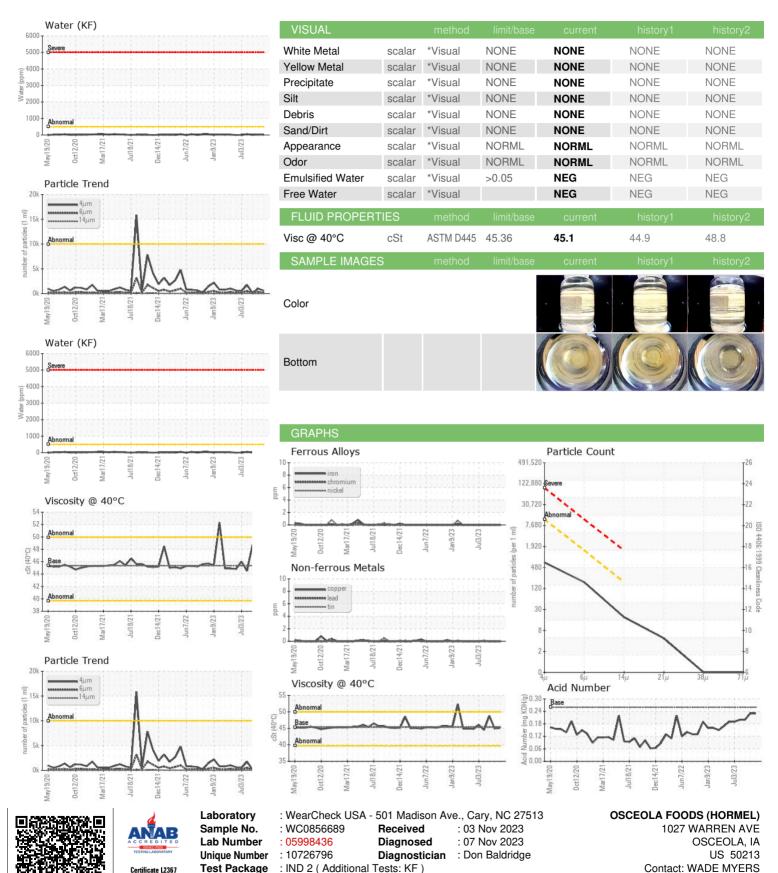
Fluid Condition

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

| LIC 46 (90 GAL) | | y2020 Oct20 | 20 Mar2021 Jul2021 | Dec2021 Jun2022 Jan2023 | Jul2023 | |
|------------------|----------|--------------|--------------------|-------------------------|-------------|-------------|
| SAMPLE INFORM | MATION | method | limit/base | current | history1 | history2 |
| Sample Number | | Client Info | | WC0856689 | WC0857744 | WC0852792 |
| Sample Date | | Client Info | | 30 Oct 2023 | 05 Oct 2023 | 31 Aug 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 | >20 | 0 | 0 | 0 |
| Chromium | ppm | ASTM D5185m | >20 | 0 | 0 | 0 |
| Nickel | ppm | ASTM D5185m | >20 | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >20 | 0 | 0 | <1 |
| Lead | ppm | ASTM D5185m | >20 | 0 | 0 | 0 |
| Copper | ppm | ASTM D5185m | >20 | 0 | 0 | 0 |
| Tin | ppm | ASTM D5185m | >20 | 0 | 0 | 0 |
| 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 | 0 | 0 |
| Barium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Manganese | ppm | ASTM D5185m | | 0 | <1 | 0 |
| Magnesium | ppm | ASTM D5185m | | 0 | 2 | 0 |
| Calcium | ppm | ASTM D5185m | | 0 | 2 | 0 |
| Phosphorus | ppm | ASTM D5185m | | 407 | 429 | 472 |
| Zinc | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Sulfur | ppm | ASTM D5185m | | 430 | 478 | 559 |
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
| Silicon | ppm | ASTM D5185m | >15 | 2 | 2 | 2 |
| Sodium | ppm | ASTM D5185m | | 0 | <1 | <1 |
| Potassium | ppm | ASTM D5185m | >20 | 0 | 0 | <1 |
| Water | % | ASTM D6304 | >0.05 | 0.002 | 0.002 | 0.001 |
| ppm Water | ppm | ASTM D6304 | >500 | 17.4 | 24.6 | 6.4 |
| FLUID CLEANLIN | ESS | method | limit/base | current | history1 | history2 |
| Particles >4µm | | ASTM D7647 | >10000 | 589 | 974 | 113 |
| Particles >6µm | | ASTM D7647 | >1300 | 160 | 306 | 45 |
| Particles >14μm | | ASTM D7647 | >160 | 16 | 26 | 6 |
| Particles >21µm | | ASTM D7647 | >40 | 4 | 6 | 3 |
| Particles >38µm | | ASTM D7647 | >10 | 0 | 1 | 0 |
| Particles >71µm | | ASTM D7647 | >3 | 0 | 0 | 0 |
| Oil Cleanliness | | ISO 4406 (c) | >20/17/14 | 16/14/11 | 17/15/12 | 14/13/10 |
| FLUID DEGRADA | TION | method | limit/base | current | history1 | history2 |
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 0.26 | 0.23 | 0.23 | 0.20 |



OIL ANALYSIS REPORT



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.

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

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