

OIL ANALYSIS REPORT

Area BATCH SYSTEM 5 Machine Id BS5 HOMO GEARBOX Component

Gearbox

PETRO CANADA ENDURATEX EP 460 (--- LTR)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor.

Wear

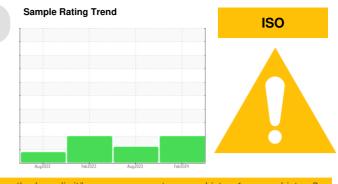
All component wear rates are normal.

Contamination

There is a high amount of particulates present in the oil.

Fluid Condition

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

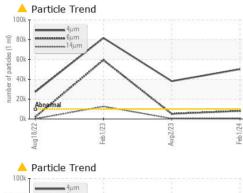


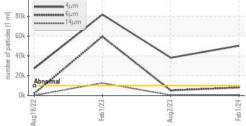
| SAMPLE INFORM | ATION | method | limit/base | current | history1 | history2 |
|-----------------|--------------------------------|--------------------------------------|--------------------------------|-----------------------------|--------------------------------|--|
| Sample Number | | Client Info | | PCA0111035 | USP244673 | USP234431 |
| Sample Date | | Client Info | | 01 Feb 2024 | 02 Aug 2023 | 01 Feb 2023 |
| Machine Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Changed | | Client Info | | Not Changd | N/A | N/A |
| Sample Status | | | | ABNORMAL | ATTENTION | ABNORMAL |
| CONTAMINATIO | NC | method | limit/base | current | history1 | history2 |
| Water | | WC Method | >0.2 | NEG | NEG | NEG |
| WEAR METALS | ; | method | limit/base | current | history1 | history2 |
| Iron | ppm | ASTM D5185m | >200 | 0 | 0 | 1 |
| Chromium | ppm | ASTM D5185m | >15 | <1 | 0 | 0 |
| Nickel | ppm | ASTM D5185m | >15 | 0 | <1 | 0 |
| Titanium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| | ppm | ASTM D5185m | | 0 | <1 | 0 |
| | ppm | ASTM D5185m | >25 | 0 | 0 | 0 |
| | ppm | ASTM D5185m | >100 | <1 | <1 | 0 |
| - | ppm | | >200 | 0 | <1 | 0 |
| | ppm | ASTM D5185m | >25 | 0 | 0 | 0 |
| | ppm | ASTM D5185m | | 0 | 0 | 0 |
| . | ppm | ASTM D5185m | | 0 | 0 | 0 |
| ADDITIVES | | method | limit/base | current | history1 | history2 |
| Boron | ppm | ASTM D5185m | 55 | 82 | 94 | 65 |
| Barium | ppm | ASTM D5185m | 0 | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 0 | 3 | 3 | 2 |
| | ppm | ASTM D5185m | 0 | 0 | 0 | 0 |
| | ppm | ASTM D5185m | 2 | <1 | 0 | <1 |
| - | ppm | ASTM D5185m | 6 | <1 | 0 | 2 |
| | ppm | ASTM D5185m | 240 | 254 | 266 | 259 |
| | ppm | ASTM D5185m | 3 | 10 | 0 | 7 |
| | ppm | ASTM D5185m | 10310 | 6337 | 7424 | 6666 |
| CONTAMINANT | S | method | limit/base | current | history1 | history2 |
| Silicon | ppm | ASTM D5185m | >50 | 5 | 6 | 5 |
| | ppm | ASTM D5185m | | 0 | 0 | <1 |
| | ppm | ASTM D5185m | >20 | 0 | 0 | 0 |
| FLUID CLEANLI | NESS | method | limit/base | current | history1 | history2 |
| Particles >4µm | | ASTM D7647 | >10000 | 50278 | ▲ 38156 | ▲ 81710 |
| Particles >6µm | | ASTM D7647 | >2500 | A 8121 | ▲ 5193 | ▲ 59452 |
| Particles >14µm | | ASTM D7647 | >640 | ▲ 643 | 368 | ▲ 12630 |
| Particles >21µm | | ASTM D7647 | >160 | <u> </u> | 125 | ▲ 1533 |
| Particles >38µm | | ASTM D7647 | >40 | 16 | 16 | 8 |
| Particles >71µm | | ASTM D7647 | >10 | 1 | 3 | 0 |
| | | | | - | J | • |
| Oil Cleanliness | | ISO 4406 (c) | >20/18/16 | A 23/20/17 | 22/20/16 | 🔺 24/23/21 |
| | | () | | | | |
| FLUID DEGRAD | <mark>ATION</mark> mg KOH/g | ISO 4406 (c) method ASTM D8045 | >20/18/16 limit/base 0.5 | 23/20/17 current 0.41 | ▲ 22/20/16 history1 0.61 | 24/23/21 history2 0.54 |

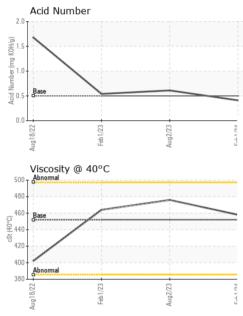
Submitted By: Zachary Patterson



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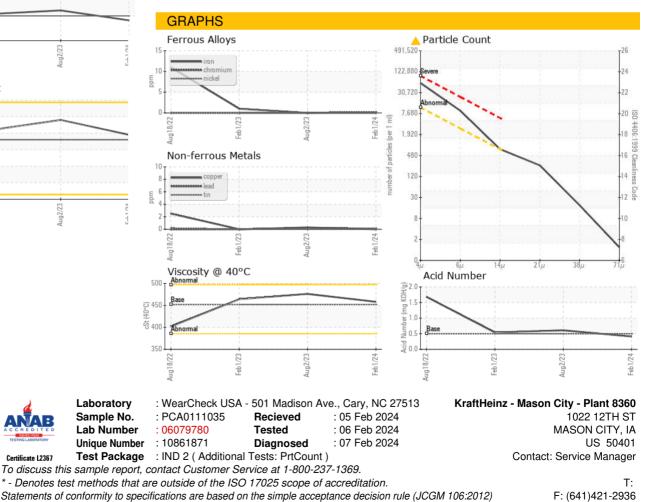






| VISUAL | | method | limit/base | current | history1 | history2 |
|------------------|--------|-----------|------------|---------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | NONE | NONE | NONE |
| Silt | scalar | *Visual | NONE | NONE | NONE | NONE |
| Debris | scalar | *Visual | NONE | NONE | LIGHT | VLITE |
| Sand/Dirt | scalar | *Visual | NONE | NONE | NONE | NONE |
| Appearance | scalar | *Visual | NORML | NORML | NORML | NORML |
| Odor | scalar | *Visual | NORML | NORML | NORML | NORML |
| Emulsified Water | scalar | *Visual | >0.2 | NEG | NEG | NEG |
| Free Water | scalar | *Visual | | NEG | NEG | NEG |
| FLUID PROPE | RTIES | method | limit/base | current | history1 | history2 |
| Visc @ 40°C | cSt | ASTM D445 | 452 | 458 | 476 | 464 |
| SAMPLE IMAG | ES | method | limit/base | current | history1 | history2 |
| Color | | | | a. | | |
| | | | | | | |

Bottom



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

Certificate L2367

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