

OIL ANALYSIS REPORT

Sample Rating Trend

Area SAB2 Machine Id SAB2 G14 Governor Component

Hydraulic System Fluid ESSO TERESSO ISO 46 (6160 LTR)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor. Please contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using IND 3 test kits, this testkit includes Analytical Ferrography which provides a detailed morphological analysis of wear particles present in the fluid.

Wear

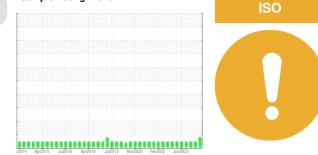
Component wear rates appear to be normal (unconfirmed).

Contamination

There is a light amount of silt (particulates < 14 microns in size) present in the oil.

Fluid Condition

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



| 0.1.1.1.2 | | | | | | |
|---|--|---|---|---|--|--|
| SAMPLE INFORM | MATION | method | limit/base | current | history1 | history2 |
| Sample Number | | Client Info | | WC0890835 | WC0801610 | WC0858067 |
| Sample Date | | Client Info | | 27 Mar 2024 | 07 Jan 2024 | 25 Oct 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 | | | | ATTENTION | NORMAL | NORMAL |
| CONTAMINATIO | N | method | limit/base | current | history1 | history2 |
| Water | | WC Method | >0.05 | NEG | NEG | NEG |
| WEAR METALS | | method | limit/base | current | history1 | history2 |
| Iron | ppm | ASTM D5185(m) | >20 | <1 | <1 | <1 |
| Chromium | ppm | ASTM D5185(m) | >20 | 0 | 0 | 0 |
| Nickel | ppm | ASTM D5185(m) | >20 | 0 | <1 | 0 |
| Titanium | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185(m) | | 0 | 0 | <1 |
| Aluminum | ppm | ASTM D5185(m) | >20 | <1 | <1 | <1 |
| Lead | ppm | ASTM D5185(m) | >20 | <1 | 1 | 1 |
| Copper | ppm | ASTM D5185(m) | | <1 | <1 | <1 |
| Tin | ppm | ASTM D5185(m) | >20 | 0 | 0 | 0 |
| Antimony | ppm | ASTM D5185(m) | 220 | 0 | 0 | 0 |
| Vanadium | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| Beryllium | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| Cadmium | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| ADDITIVES | ppm | method | limit/base | - | history1 | history2 |
| | | | | | | |
| Boron | ppm | ASTM D5185(m) | 0 | 0 | 0 | <1 |
| Barium | ppm | ASTM D5185(m) | 0 | 0 | 0 | <1 |
| Molybdenum | ppm | ASTM D5185(m) | 0 | 0 | 0 | 0 |
| Manganese | ppm | ASTM D5185(m) | 0 | 0 | 0 | 0 |
| Magnesium | ppm | $\Delta S (M) = 5186(m)$ | | <1 | | |
| Coloium | | ASTM D5185(m) | 0 | | 0 | 0 |
| | ppm | ASTM D5185(m) | 0 | 0 | 0 | <1 |
| Phosphorus | ppm | ASTM D5185(m) ASTM D5185(m) | 0 2.4 | 0 <1 | 0 <1 | <1 1 |
| Phosphorus Zinc | | ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) | 0 2.4 | 0 <1 1 | 0 <1 1 | <1 1 1 |
| Phosphorus Zinc Sulfur | ppm | ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) | 0 2.4 | 0 <1 1 1739 | 0 <1 1 1861 | <1 1 1 1764 |
| Phosphorus Zinc Sulfur Lithium | ppm ppm ppm ppm | ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) | 0 2.4 0 | 0 <1 1 1739 <1 | 0 <1 1 1861 <1 | <1 1 1 1764 <1 |
| Phosphorus Zinc Sulfur Lithium CONTAMINANTS | ppm ppm ppm ppm | ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method | 0 2.4 0 limit/base | 0 <1 1 1739 <1 current | 0 <1 1 1861 <1 history1 | <1 1 1764 <1 history2 |
| Silicon | ppm ppm ppm ppm | ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method ASTM D5185(m) | 0 2.4 0 | 0 <1 1 1739 <1 current 0 | 0 <1 1 1861 <1 history1 0 | <1 1 1 1 1764 <1 history2 0 |
| Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium | ppm ppm ppm ppm | ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) | 0 2.4 0 limit/base | 0 <1 1 1739 <1 current | 0 <1 1 1861 <1 history1 | <1 1 1 1 1764 <1 history2 0 0 0 |
| Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium | ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method ASTM D5185(m) | 0 2.4 0 limit/base | 0 <1 1 1739 <1 current 0 | 0 <1 1 1861 <1 history1 0 | <1 1 1 1 1764 <1 history2 0 |
| Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium | ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) | 0 2.4 0 limit/base >15 | 0 <1 1 1739 <1 <u>current</u> 0 <1 <1 | 0 <1 1 1861 <1 history1 0 0 <1 history1 | <1 1 1 1764 <1 1 1764 <1 Nistory2 0 0 0 0 Nistory2 |
| Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN | ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) | 0 2.4 0 limit/base >15 >20 | 0 <1 1 1739 <1 <u>current</u> 0 <1 <1 | 0 <1 1 1861 <1 history1 0 0 <1 | <1 1 1 1 1764 <1 history2 0 0 0 0 0 |
| Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm | ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) | 0 2.4 0 limit/base >15 >20 limit/base | 0 <1 1 1739 <1 current 0 <1 <1 <1 <1 | 0 <1 1 1861 <1 history1 0 0 <1 history1 | <1 1 1 1764 <1 history2 0 0 0 0 history2 |
| Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm | ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) | 0 2.4 0 limit/base >15 >20 limit/base >2500 | 0 <1 1 1739 <1 current 0 <1 <1 <1 current 2572 | 0 <1 1 1861 <1 history1 0 0 <1 <1 history1 2052 | <1 1 1 1764 <1 1 1764 <1 0 0 0 0 history2 806 |
| Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm | ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185(m) ASTM D5185(m) | 0 2.4 0 limit/base >15 >20 limit/base >2500 >640 | 0 <1 1 1739 <1 current 0 <1 <1 <1 current 2572 466 | 0 <1 1 1861 <1 <u>history1</u> 0 0 <1 <u>history1</u> 2052 370 | <1 1 1 1764 <1 1 1764 <1 0 0 0 0 0 history2 806 158 |
| Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >21µm | ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647 | 0 2.4 0 limit/base >15 >20 limit/base >2500 >640 >80 | 0 <1 1 1739 <1 current 0 <1 <1 <1 current 2572 466 11 | 0 <1 1 1861 <1 <u>history1</u> 0 0 <1 0 <1 <u>history1</u> 2052 370 10 | <1 1 1 1764 <1 1 1764 <1 0 0 0 0 0 0 history2 806 158 4 |
| Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm | ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 | 0 2.4 0 /////////////////////////////////// | 0 <1 1 1739 <1 current 0 <1 <1 <1 current 2572 466 11 2 | 0 <1 1 1861 <1 history1 0 0 <1 0 <1 2052 370 10 3 | <1 1 1 1764 <1 1 1764 <1 Nistory2 0 0 0 0 Nistory2 806 158 4 1 |



ag 0.48 Pio 0.24 0.00.

-eb5

52

50

4 ()-0+0 ()-0+0+0

42

40

Abnorma

nr15/10 eb5/1

š

Viscosity @ 40°C

pr6/18

Jov11/20

OIL ANALYSIS REPORT

mg KOH/g

scalar

cSt

ASTM D974*

Visual*

ASTM D7279(m)

0.02

NONE

NONE

NONE

NONE

NONE

NONE

NORML

NORML

>0.05

0.08

NONE

NONE

NONE

NONE

NONE

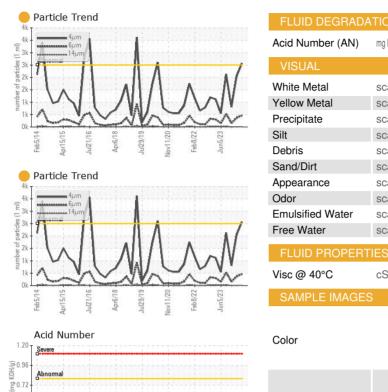
NONE

NORML

NORML

NEG

NEG





0.09

NONE

NONE

NONE

NONE

NONE

NONE

NORML

NORML

NEG

NEG

0.13

NONE

NONE

NONE

NONE

NONE

NONE

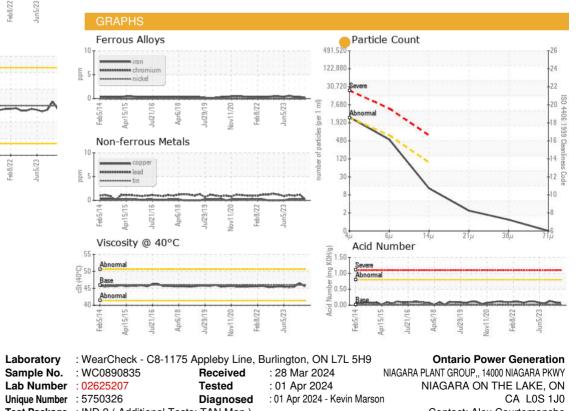
NORML

NORML

NEG

NEG

Bottom



Test Package : IND 2 (Additional Tests: TAN Man) To discuss this sample report, contact Customer Service at 1-800-268-2131.

Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab. Validity of results and interpretation are based on the sample and information as supplied.

Contact: Alex Courtemanche alex.courtemanche@opg.com T: (905)357-0322 F: (905)357-6558



CALA

Accredited Laboratory