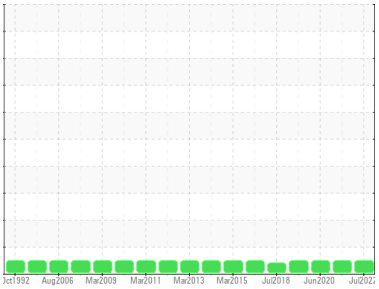
# OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL

Area
**WHITEDOG FALLS GS**
Machine Id
**FP3G1**
Component
**Governor System**
Fluid
**ESSO TERESSO ISO 46 (--- GAL)**

## DIAGNOSIS

**Recommendation**
Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

**Wear**
All component wear rates are normal.

**Contamination**
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

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

| SAMPLE INFORMATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | **WC0686300** | WC0560596 | WC0475102 |
| Sample Date | | Client Info | | **11 Jul 2022** | 14 Apr 2021 | 17 Jun 2020 |
| 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 |

| CONTAMINATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Water | | WC Method | >0.1 | **NEG** | NEG | NEG |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Iron | ppm | ASTM D5185(m) | >50 | **1** | 1 | <1 |
| Chromium | ppm | ASTM D5185(m) | | **0** | 0 | 0 |
| Nickel | ppm | ASTM D5185(m) | | **0** | <1 | 0 |
| Titanium | ppm | ASTM D5185(m) | | **0** | 0 | 0 |
| Silver | ppm | ASTM D5185(m) | | **0** | <1 | <1 |
| Aluminum | ppm | ASTM D5185(m) | >3 | **<1** | <1 | <1 |
| Lead | ppm | ASTM D5185(m) | >75 | **<1** | <1 | <1 |
| Copper | ppm | ASTM D5185(m) | >15 | **0** | <1 | <1 |
| Tin | ppm | ASTM D5185(m) | >55 | **0** | 0 | 0 |
| Antimony | ppm | ASTM D5185(m) | | **<1** | 0 | <1 |
| 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 | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Boron | ppm | ASTM D5185(m) | 0 | **0** | <1 | 0 |
| Barium | ppm | ASTM D5185(m) | | **0** | 0 | 0 |
| Molybdenum | ppm | ASTM D5185(m) | 0 | **0** | 0 | 0 |
| Manganese | ppm | ASTM D5185(m) | | **0** | 0 | 0 |
| Magnesium | ppm | ASTM D5185(m) | 0 | **0** | <1 | <1 |
| Calcium | ppm | ASTM D5185(m) | 0 | **0** | <1 | 0 |
| Phosphorus | ppm | ASTM D5185(m) | 2.4 | **3** | 2 | 2 |
| Zinc | ppm | ASTM D5185(m) | 0 | **2** | <1 | 1 |
| Sulfur | ppm | ASTM D5185(m) | | **1922** | 1972 | 1929 |
| Lithium | ppm | ASTM D5185(m) | | **<1** | <1 | <1 |

| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185(m) | >8 | **<1** | 1 | <1 |
| Sodium | ppm | ASTM D5185(m) | | **0** | <1 | 0 |
| Potassium | ppm | ASTM D5185(m) | >20 | **0** | <1 | 0 |

| FLUID CLEANLINESS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Particles >4µm | | ASTM D7647 | >20000 | **338** | 3843 | 3058 |
| Particles >6µm | | ASTM D7647 | >5000 | **25** | 327 | 236 |
| Particles >14µm | | ASTM D7647 | >640 | **2** | 6 | 7 |
| Particles >21µm | | ASTM D7647 | >160 | **0** | 2 | 3 |
| Particles >38µm | | ASTM D7647 | >40 | **0** | 0 | 0 |
| Particles >71µm | | ASTM D7647 | >10 | **0** | 0 | 0 |
| Oil Cleanliness | | ISO 4406 (c) | >21/19/16 | **16/12/9** | 19/16/10 | 19/15/10 |

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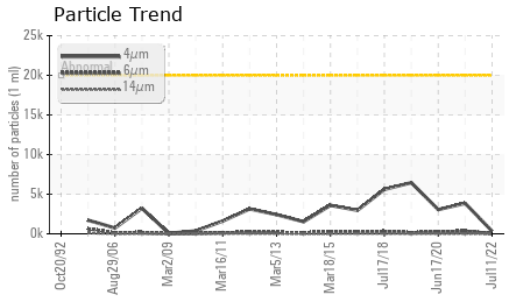
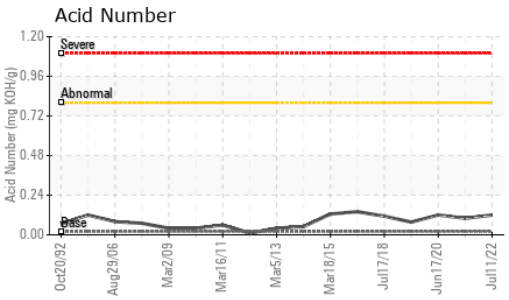
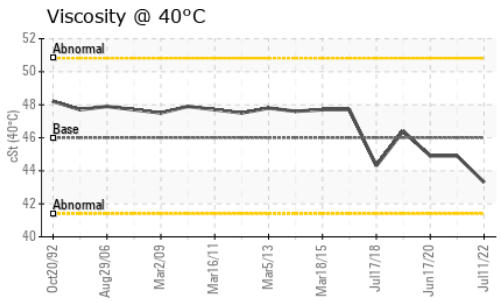
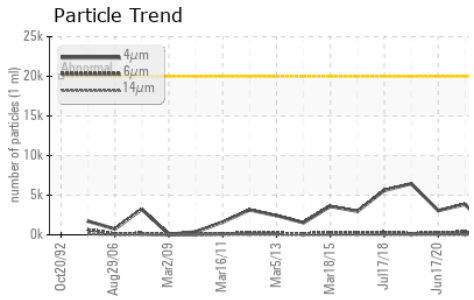


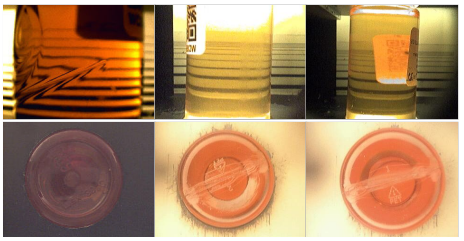




| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Acid Number (AN) | mg KOH/g | ASTM D974* | 0.02 | **0.12** | 0.10 | 0.12 |

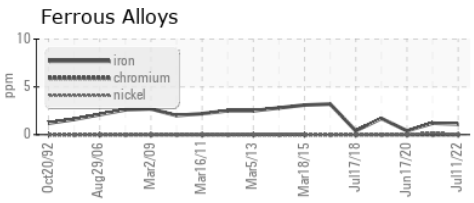
| VISUAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| White Metal | scalar | Visual* | NONE | **NONE** | NONE | NONE |
| Yellow Metal | scalar | Visual* | NONE | **NONE** | NONE | NONE |
| Precipitate | scalar | Visual* | NONE | **NONE** | NONE | NONE |
| Silt | scalar | Visual* | NONE | **NONE** | NONE | NONE |
| Debris | scalar | Visual* | NONE | **NONE** | NONE | NONE |
| 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* | >0.1 | **NEG** | NEG | NEG |
| Free Water | scalar | Visual* | | **NEG** | NEG | NEG |

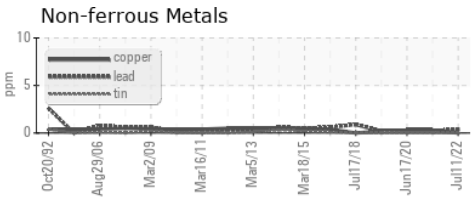
| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Visc @ 40°C | cSt | ASTM D7279(m) | 46 | **43.3** | 44.9 | 44.9 |

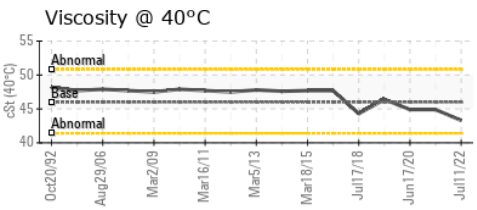
| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|
| Color | | | | | |
| Bottom | | | | | |

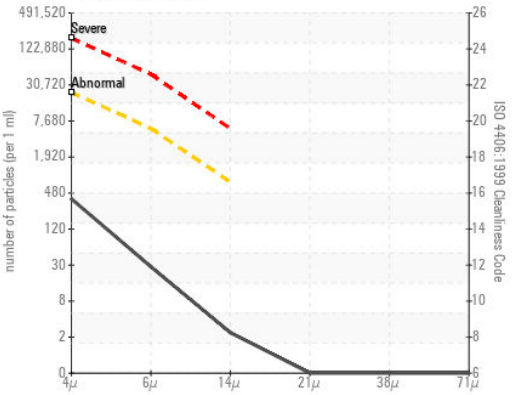


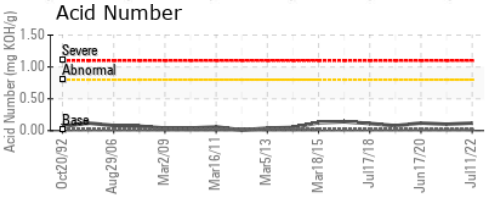
## GRAPHS




ISO 17025:2017 Accredited Laboratory

**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
**Sample No.** : WC0686300 **Received** : 12 Jul 2022
**Lab Number** : 02499182 **Diagnosed** : 13 Jul 2022
**Unique Number** : 5424142 **Diagnostician** : Wes Davis
**Test Package** : IND 2 ( Additional Tests: PrtCount, 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.*

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