



OIL ANALYSIS REPORT

| | |
|-----------------|--------|
| WEAR | NORMAL |
| CONTAMINATION | NORMAL |
| FLUID CONDITION | NORMAL |

Machine Id
C11884 AZIMUTH
Component
Bow Thruster
Fluid
CASTROL ALPHA SP100 (930 LTR)

RECOMMENDATION

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 MAR 2 test kits, this testkit includes Particle Count to determine the ISO cleanliness of the fluid. this testkit includes AN to determine the suitability of the oil for continued use.

WEAR

All component wear rates are normal.

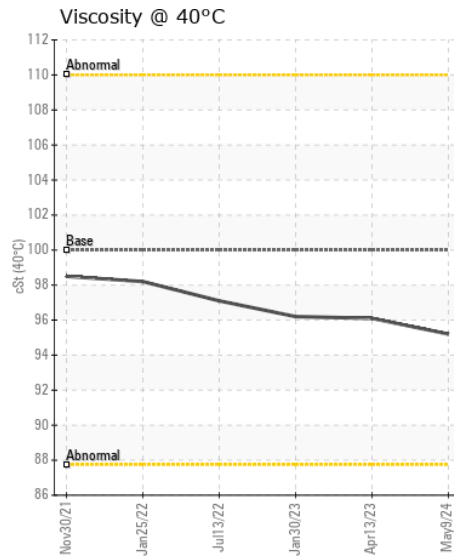
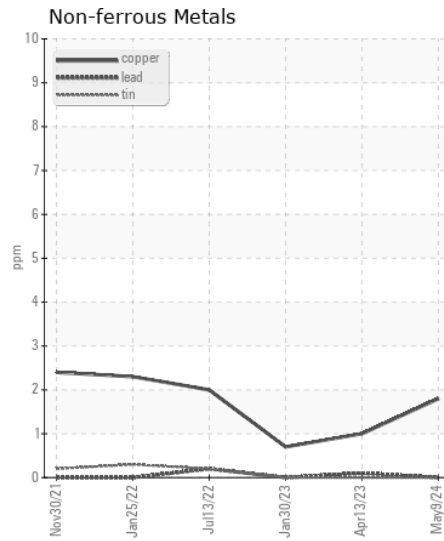
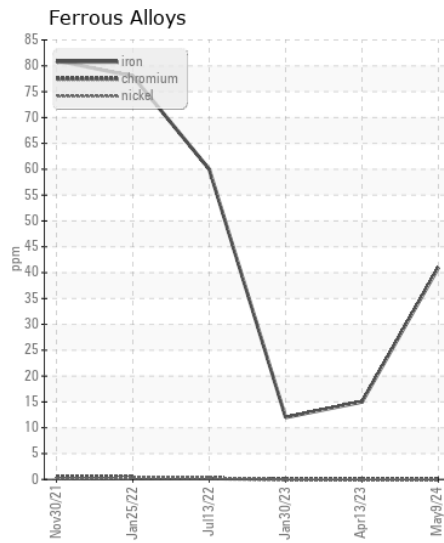
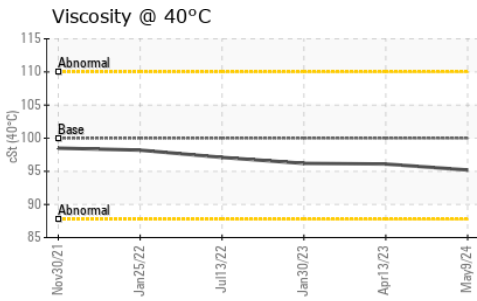
CONTAMINATION

There is no indication of any contamination in the component(unconfirmed).

FLUID CONDITION

The condition of the oil is acceptable for the time in service (unconfirmed).

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|------------------|--------|---------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | WC0787189 | WC0643483 | WC0474204 |
| Sample Date | | Client Info | | 09 May 2024 | 13 Apr 2023 | 30 Jan 2023 |
| Machine Age | hrs | Client Info | | 24238 | 182 | 23293 |
| Oil Age | hrs | Client Info | | 23293 | 182 | 96 |
| Filter Age | hrs | Client Info | | 23293 | 182 | 0 |
| Oil Changed | | Client Info | | Not Chngd | Not Chngd | Changed |
| Filter Changed | | Client Info | | Not Chngd | Not Chngd | Changed |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |
| <hr/> | | | | | | |
| Iron | ppm | ASTM D5185(m) | >90 | 41 | 15 | 12 |
| Chromium | ppm | ASTM D5185(m) | >10 | 0 | 0 | 0 |
| Nickel | ppm | ASTM D5185(m) | >10 | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185(m) | >10 | 4 | 2 | <1 |
| Lead | ppm | ASTM D5185(m) | >20 | 0 | <1 | 0 |
| Copper | ppm | ASTM D5185(m) | >20 | 2 | 1 | <1 |
| Tin | ppm | ASTM D5185(m) | >15 | 0 | 0 | 0 |
| Vanadium | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| White Metal | scalar | Visual* | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | Visual* | NONE | NONE | NONE | NONE |
| <hr/> | | | | | | |
| Silicon | ppm | ASTM D5185(m) | >7 | 0 | <1 | <1 |
| Potassium | ppm | ASTM D5185(m) | >20 | <1 | <1 | <1 |
| Water | | WC Method | >0.2 | NEG | NEG | NEG |
| 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* | >0.2 | NEG | NEG | NEG |
| <hr/> | | | | | | |
| Sodium | ppm | ASTM D5185(m) | | <1 | <1 | <1 |
| Boron | ppm | ASTM D5185(m) | | 8 | 11 | 13 |
| Barium | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| Manganese | ppm | ASTM D5185(m) | | <1 | <1 | 0 |
| Magnesium | ppm | ASTM D5185(m) | | 1 | <1 | <1 |
| Calcium | ppm | ASTM D5185(m) | | 4 | 1 | 2 |
| Phosphorus | ppm | ASTM D5185(m) | | 223 | 235 | 245 |
| Zinc | ppm | ASTM D5185(m) | | 7 | 4 | 4 |
| Sulfur | ppm | ASTM D5185(m) | | 8327 | 8320 | 8475 |
| Visc @ 40°C | cSt | ASTM D7279(m) | 100 | 95.2 | 96.1 | 96.2 |



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0787189
Lab Number : 02638480
Unique Number : 5787642
Test Package : MAR 1

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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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F: