



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

Machine Id
CAT MISS KATHY
Component
Starboard Genset
Fluid
CHEVRON DELO 710 LE (7 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | MW0061906 | MW0044121 | MW0044203 |
| Sample Date | | Client Info | | 26 Apr 2024 | 30 Mar 2024 | 01 Feb 2024 |
| Machine Age | hrs | Client Info | | 44395 | 43765 | 43130 |
| Oil Age | hrs | Client Info | | 480 | 468 | 500 |
| Filter Age | hrs | Client Info | | 480 | 468 | 500 |
| Oil Changed | | Client Info | | Not Changd | Not Changd | N/A |
| Filter Changed | | Client Info | | Not Changd | Not Changd | N/A |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|-------------|------|--------------|------|------|
| Iron | ppm | ASTM D5185m | >50 | 3 | 6 | 4 |
| Chromium | ppm | ASTM D5185m | >4 | <1 | <1 | <1 |
| Nickel | ppm | ASTM D5185m | >2 | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | | <1 | <1 | 0 |
| Silver | ppm | ASTM D5185m | >5 | <1 | <1 | 0 |
| Aluminum | ppm | ASTM D5185m | >12 | 2 | 2 | 2 |
| Lead | ppm | ASTM D5185m | >17 | 1 | 1 | <1 |
| Copper | ppm | ASTM D5185m | >70 | 0 | <1 | <1 |
| Tin | ppm | ASTM D5185m | >15 | <1 | <1 | <1 |
| Vanadium | ppm | ASTM D5185m | | <1 | <1 | 0 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |

CONTAMINATION

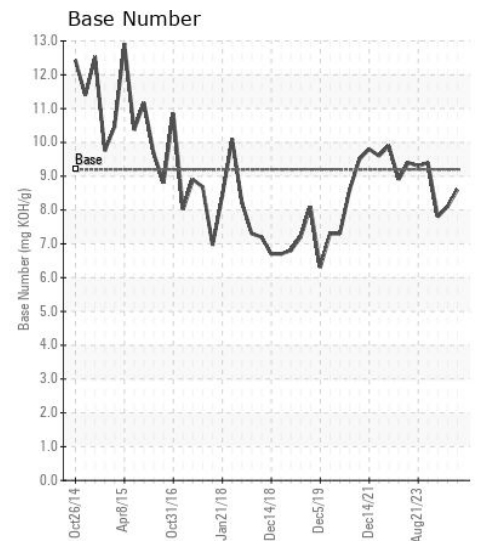
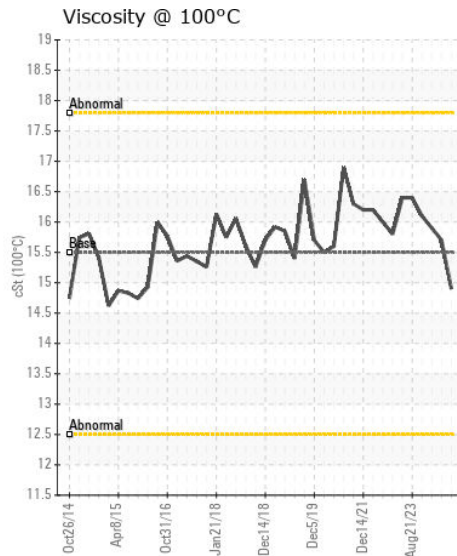
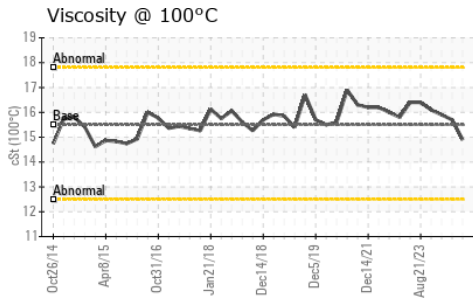
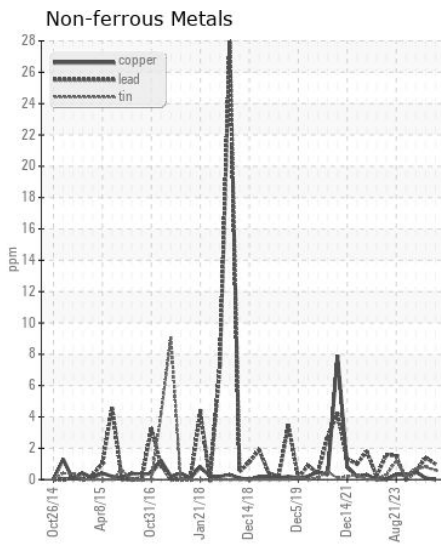
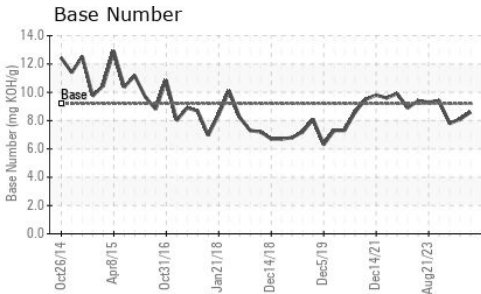
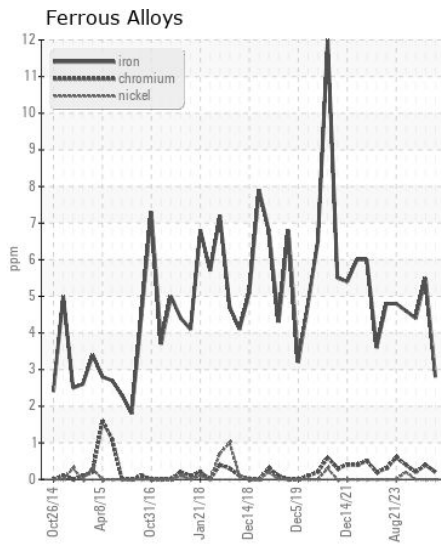
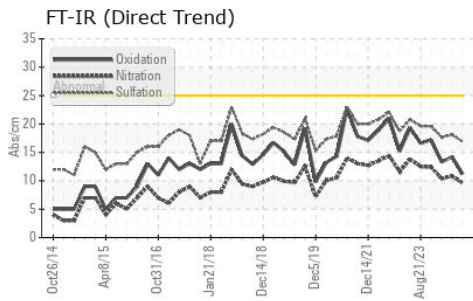
There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|----------|-------------|-------|----------------|-------|-------|
| Silicon | ppm | ASTM D5185m | >25 | 3 | 3 | 3 |
| Potassium | ppm | ASTM D5185m | >20 | <1 | 1 | 1 |
| Fuel | | WC Method | >4.0 | <1.0 | <1.0 | <1.0 |
| Water | | WC Method | >0.1 | NEG | NEG | NEG |
| Glycol | | WC Method | | NEG | NEG | NEG |
| Soot % | % | *ASTM D7844 | | 0.1 | 0.2 | 0.2 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 9.6 | 10.8 | 10.4 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 16.9 | 18.1 | 17.7 |
| 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 |

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

| | | | | | | |
|------------------|----------|-------------|------|--------------|------|------|
| Sodium | ppm | ASTM D5185m | | 2 | 1 | <1 |
| Boron | ppm | ASTM D5185m | | 54 | 46 | 44 |
| Barium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | | 51 | 48 | 47 |
| Manganese | ppm | ASTM D5185m | | <1 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | | 32 | 16 | 32 |
| Calcium | ppm | ASTM D5185m | | 3956 | 3870 | 3679 |
| Phosphorus | ppm | ASTM D5185m | | 16 | 7 | 25 |
| Zinc | ppm | ASTM D5185m | 10 | 20 | 6 | 27 |
| Sulfur | ppm | ASTM D5185m | | 2725 | 2713 | 2450 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 11.2 | 14.2 | 13.3 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 9.2 | 8.6 | 8.1 | 7.8 |
| Visc @ 100°C | cSt | ASTM D445 | 15.5 | 14.9 | 15.7 | 15.9 |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : MW0061906
Lab Number : 06194890
Unique Number : 11057013
Test Package : MAR 2

Received : 29 May 2024
Tested : 30 May 2024
Diagnosed : 30 May 2024 - Wes Davis

MAGNOLIA MARINE TRANSPORT
 697 HAINING ROAD
 VICKSBURG, MS
 US 39183
 Contact: MMT MAINTENANCE PLANNERS
 mmtmaintenanceplanners@ergon.com

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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