

Area [MURRAY] Machine Id MURRAY (S/N NOT GIVEN) Component Genset

Fluid
{not provided} (--- GAL)

| RECOMMENDATION | Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|---|--------------------|----------|-------------|-----------|-------------|----------|----------|
| | Sample Number | | Client Info | | VPA058306 | | |
| No corrective action is recommended at this time. Resample at the next service interval to monitor. | Sample Date | | Client Info | | 23 Feb 2024 | | |
| | Machine Age | hrs | Client Info | | 0 | | |
| | Oil Age | hrs | Client Info | | 0 | | |
| | Filter Age | hrs | Client Info | | 0 | | |
| | Oil Changed | | Client Info | | N/A | | |
| | Filter Changed | | Client Info | | N/A | | |
| | Sample Status | | | | NORMAL | | |
| | | | | | | | |
| WEAR | Iron | ppm | ASTM D5185m | >50 | 3 | | |
| All component wear rates are normal. | Chromium | ppm | ASTM D5185m | >4 | 0 | | |
| | Nickel | ppm | ASTM D5185m | >2 | 0 | | |
| | Titanium | ppm | ASTM D5185m | | 0 | | |
| | Silver | ppm | ASTM D5185m | >5 | 0 | | |
| | Aluminum | ppm | ASTM D5185m | >12 | 2 | | |
| | Lead | ppm | ASTM D5185m | | 1 | | |
| | Copper | ppm | ASTM D5185m | >70 | 1 | | |
| | Tin | ppm | ASTM D5185m | >15 | <1 | | |
| | Vanadium | ppm | ASTM D5185m | | 0 | | |
| | White Metal | scalar | *Visual | NONE | NONE | | |
| | Yellow Metal | scalar | *Visual | NONE | NONE | | |
| | <u></u> | | | | • | | |
| CONTAMINATION | Silicon | ppm | ASTM D5185m | | 8 | | |
| There is no indication of any contamination in the oil. | Potassium | ppm | ASTM D5185m | | 3 | | |
| | Fuel | | WC Method | | <1.0 | | |
| | Water | | WC Method | >0.1 | NEG | | |
| | Glycol | <u> </u> | WC Method | | NEG | | |
| | Soot % | % | *ASTM D7844 | 00 | 0.1 | | |
| | Nitration | Abs/cm | *ASTM D7624 | | 6.8 | | |
| | Sulfation | Abs/.1mm | *ASTM D7415 | | 17.2 | | |
| | Silt | scalar | *Visual | NONE | NONE | | |
| | Debris | scalar | *Visual | NONE | LIGHT | | |
| | Sand/Dirt | scalar | *Visual | NONE | NONE | | |
| | Appearance Odor | scalar | *Visual | NORML | NORML | | |
| | | scalar | *Visual | NORML | NORML | | |
| | Emulsified Water | scalar | *Visual | >0.1 | NEG | | |
| FLUID CONDITION | Sodium | ppm | ASTM D5185m | | 3 | | |
| The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service. | Boron | ppm | ASTM D5185m | | 91 | | |
| | Barium | ppm | ASTM D5185m | | 0 | | |
| | Molybdenum | ppm | ASTM D5185m | | 2 | | |
| | Manganese | ppm | ASTM D5185m | | <1 | | |
| | Magnesium | ppm | ASTM D5185m | | 696 | | |
| | Calcium | ppm | ASTM D5185m | | 1256 | | |
| | Phosphorus | ppm | ASTM D5185m | | 715 | | |
| | Zinc | ppm | ASTM D5185m | | 787 | | |
| | Sulfur | ppm | ASTM D5185m | | 3124 | | |
| | Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 12.3 | | |
| | | | | | | | |

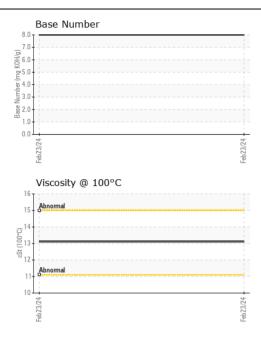
Base Number (BN) mg KOH/g ASTM D2896

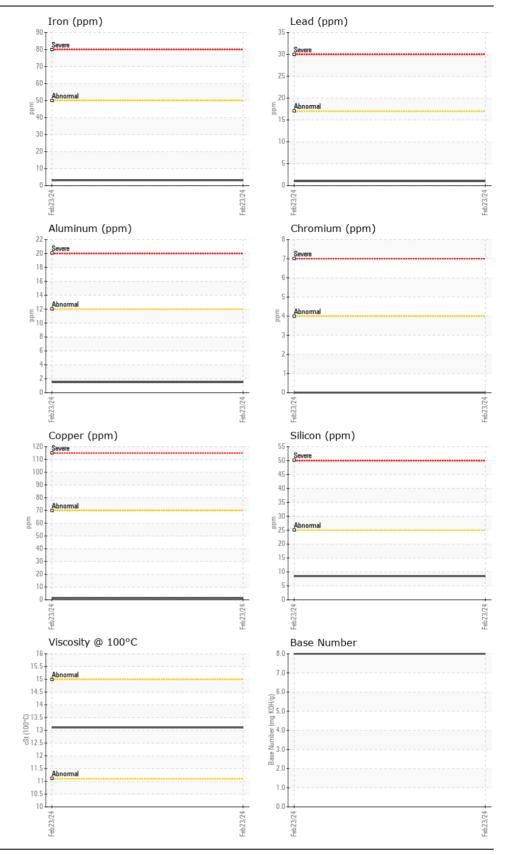
ASTM D445

Visc @ 100°C cSt

8.00

13.11





Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Harry's Marine Service LLC Sample No. : VPA058306 Received 1141 N. Citrus St. : 26 Feb 2024 Lab Number : 06100630 Tested : 26 Feb 2024 Orange, CA Unique Number : 10898860 : 26 Feb 2024 - Doug Bogart US 92887 Diagnosed Test Package : MOB 1 (Additional Tests: TBN) Contact: TARAH AULD Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. info@harrysmarine.com * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: (714)771-7899 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F:

Contact/Location: TARAH AULD - VP867279

Page 2 of 2