



OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
52988
 Component
Diesel Engine
 Fluid
SAE 10W30 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Wear

Metal levels are typical for a new component breaking in.

Contamination

Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Fluid Condition

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

SAMPLE INFORMATION

| | method | limit/base | current | history1 | history2 |
|---------------|-------------|-------------|--------------------|----------|----------|
| Sample Number | Client Info | | WC0948296 | --- | --- |
| Sample Date | Client Info | | 10 Jun 2024 | --- | --- |
| Machine Age | mls | Client Info | 29856 | --- | --- |
| Oil Age | mls | Client Info | 29478 | --- | --- |
| Oil Changed | Client Info | | Changed | --- | --- |
| Sample Status | | | NORMAL | --- | --- |

CONTAMINATION

| | method | limit/base | current | history1 | history2 |
|--------|-----------|------------|----------------|----------|----------|
| Fuel | WC Method | >5 | <1.0 | --- | --- |
| Water | WC Method | >0.2 | NEG | --- | --- |
| Glycol | WC Method | | NEG | --- | --- |

WEAR METALS

| | method | limit/base | current | history1 | history2 |
|-----------|--------|---------------|---------|--------------|----------|
| Iron | ppm | ASTM D5185(m) | >100 | 48 | --- |
| Chromium | ppm | ASTM D5185(m) | >20 | 1 | --- |
| Nickel | ppm | ASTM D5185(m) | >4 | <1 | --- |
| Titanium | ppm | ASTM D5185(m) | | 0 | --- |
| Silver | ppm | ASTM D5185(m) | >3 | 0 | --- |
| Aluminum | ppm | ASTM D5185(m) | >20 | 12 | --- |
| Lead | ppm | ASTM D5185(m) | >40 | 8 | --- |
| Copper | ppm | ASTM D5185(m) | >330 | 24 | --- |
| Tin | ppm | ASTM D5185(m) | >15 | 4 | --- |
| Antimony | ppm | ASTM D5185(m) | | 0 | --- |
| Vanadium | ppm | ASTM D5185(m) | | 0 | --- |
| Beryllium | ppm | ASTM D5185(m) | | 0 | --- |
| Cadmium | ppm | ASTM D5185(m) | | 0 | --- |

ADDITIVES

| | method | limit/base | current | history1 | history2 |
|------------|--------|---------------|---------|--------------|----------|
| Boron | ppm | ASTM D5185(m) | | 39 | --- |
| Barium | ppm | ASTM D5185(m) | | 5 | --- |
| Molybdenum | ppm | ASTM D5185(m) | | 64 | --- |
| Manganese | ppm | ASTM D5185(m) | | 6 | --- |
| Magnesium | ppm | ASTM D5185(m) | | 473 | --- |
| Calcium | ppm | ASTM D5185(m) | | 1812 | --- |
| Phosphorus | ppm | ASTM D5185(m) | | 953 | --- |
| Zinc | ppm | ASTM D5185(m) | | 1194 | --- |
| Sulfur | ppm | ASTM D5185(m) | | 2271 | --- |
| Lithium | ppm | ASTM D5185(m) | | <1 | --- |

CONTAMINANTS

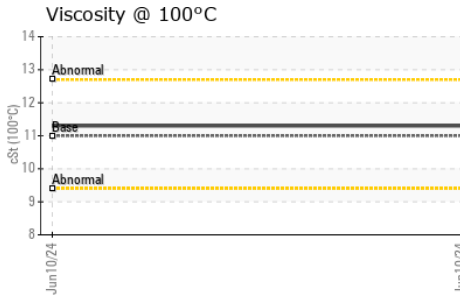
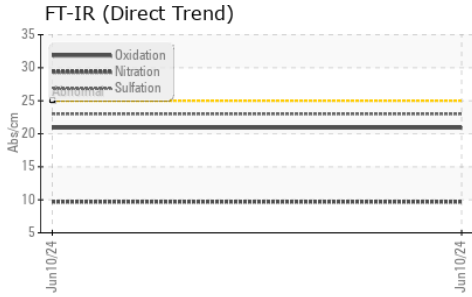
| | method | limit/base | current | history1 | history2 |
|-----------|--------|---------------|---------|-----------|----------|
| Silicon | ppm | ASTM D5185(m) | >25 | 34 | --- |
| Sodium | ppm | ASTM D5185(m) | >228 | 4 | --- |
| Potassium | ppm | ASTM D5185(m) | >20 | 39 | --- |

INFRA-RED

| | method | limit/base | current | history1 | history2 |
|-----------|----------|-------------|---------|-------------|----------|
| Soot % | % | ASTM D7844* | >3 | 0.3 | --- |
| Nitration | Abs/cm | ASTM D7624* | >20 | 9.7 | --- |
| Sulfation | Abs./1mm | ASTM D7415* | >30 | 23.0 | --- |



OIL ANALYSIS REPORT



FLUID DEGRADATION

| | method | limit/base | current | history1 | history2 | |
|-----------|----------|-------------|---------|-------------|----------|-----|
| Oxidation | Abs./1mm | ASTM D7414* | >25 | 20.9 | --- | --- |

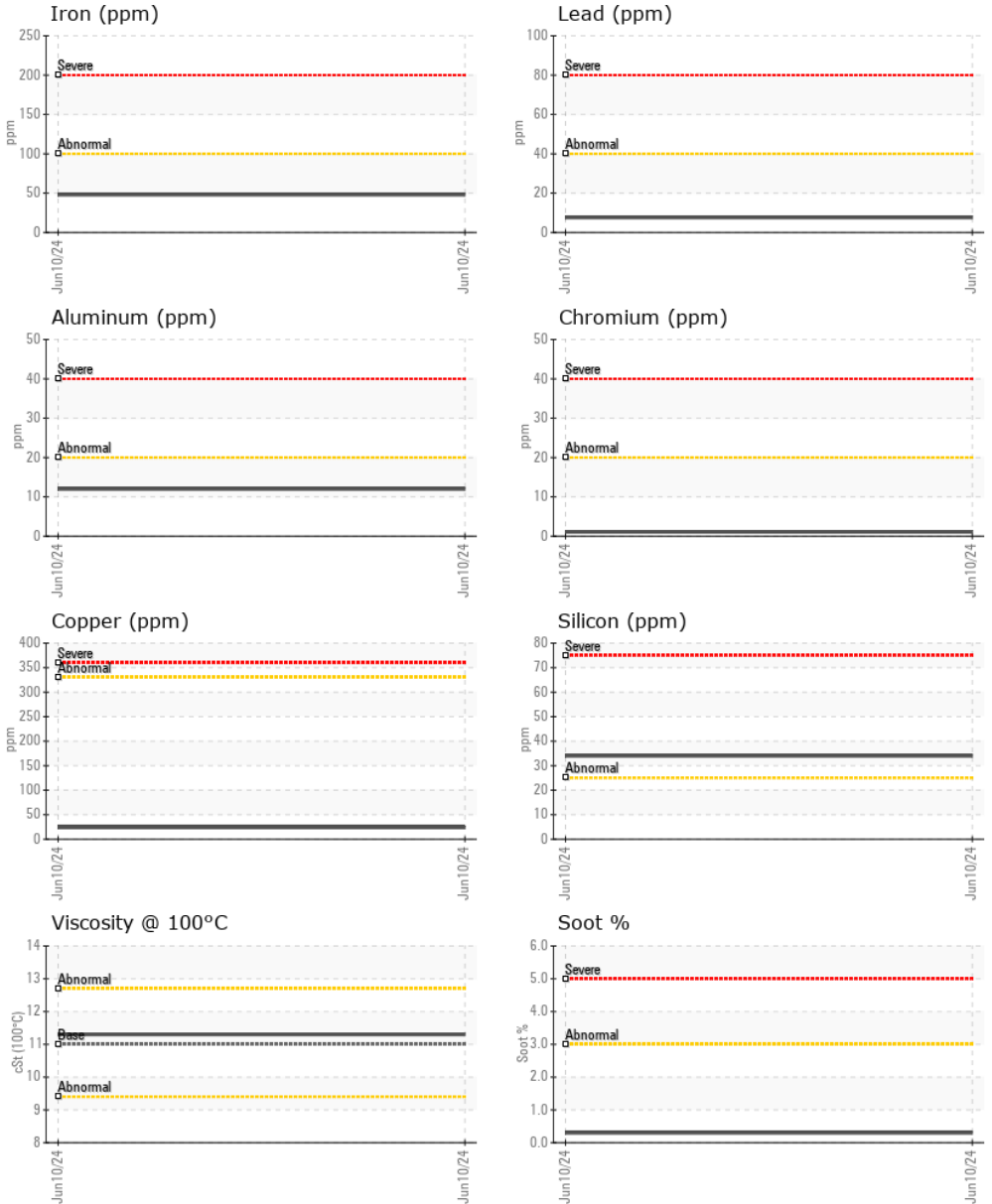
VISUAL

| | method | limit/base | current | history1 | history2 | |
|------------------|--------|------------|---------|------------|----------|-----|
| Emulsified Water | scalar | Visual* | >0.2 | NEG | --- | --- |
| Free Water | scalar | Visual* | | NEG | --- | --- |

FLUID PROPERTIES

| | method | limit/base | current | history1 | history2 | |
|--------------|--------|---------------|---------|-------------|----------|-----|
| Visc @ 100°C | cSt | ASTM D7279(m) | 11.0 | 11.3 | --- | --- |

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0948296
Lab Number : 02641047
Unique Number : 5798586
Test Package : MOB 1
Received : 11 Jun 2024
Tested : 11 Jun 2024
Diagnosed : 11 Jun 2024 - Wes Davis

MANITOU LIN TRANSPORT (GARAGE)
 1335 SHAWSON DRIVE
 MISSISSAUGA, ON
 CA L4W 1C4
 Contact: Travis Spence
 tspence@manitoulintransport.com

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.

F: (905)564-6361