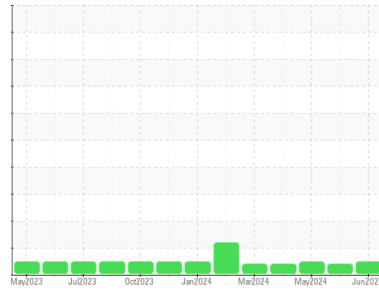




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
KDAC
 Machine Id
200253
 Component
Diesel Engine
 Fluid
TEST OIL GOLD 4 (40 LTR)

DIAGNOSIS

- Recommendation**
 Resample at the next service interval to monitor.
- Wear**
 All component wear rates are normal.
- Contamination**
 There is no indication of any contamination in the oil.
- 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.

| SAMPLE INFORMATION | | method | limit/base | current | history1 | history2 |
|--------------------|-------------|-------------|------------|--------------------|-------------|-------------|
| Sample Number | Client Info | | | WC0926285 | WC0926325 | WC0926326 |
| Sample Date | Client Info | | | 15 Jun 2024 | 01 May 2024 | 01 May 2024 |
| Machine Age | kms | Client Info | | 271286 | 252020 | 252021 |
| Oil Age | kms | Client Info | | 27130 | 67120 | 1 |
| Oil Changed | Client Info | | | N/A | Not Changd | Changed |
| Sample Status | | | | NORMAL | ABNORMAL | NORMAL |

| CONTAMINATION | | method | limit/base | current | history1 | history2 |
|---------------|-----------|--------|------------|----------------|----------|----------|
| Fuel | WC Method | >3.0 | | <1.0 | 0.0 | <1.0 |
| Water | WC Method | >0.2 | | NEG | NEG | NEG |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|-------------|-----|---------------|------------|--------------|----------|----------|
| Iron | ppm | ASTM D5185(m) | >90 | 9 | 29 | 2 |
| Chromium | ppm | ASTM D5185(m) | >20 | <1 | 2 | 0 |
| Nickel | ppm | ASTM D5185(m) | >2 | <1 | <1 | 0 |
| Titanium | ppm | ASTM D5185(m) | >2 | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185(m) | >2 | <1 | 0 | 0 |
| Aluminum | ppm | ASTM D5185(m) | >20 | 3 | 9 | <1 |
| Lead | ppm | ASTM D5185(m) | >40 | <1 | 2 | 0 |
| Copper | ppm | ASTM D5185(m) | >330 | <1 | 1 | <1 |
| Tin | ppm | ASTM D5185(m) | >15 | 0 | <1 | 0 |
| Antimony | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| Vanadium | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| Beryllium | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| Cadmium | ppm | ASTM D5185(m) | | 0 | 0 | 0 |

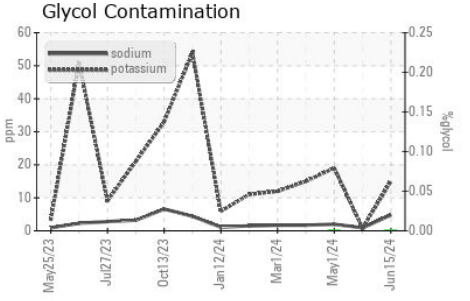
| ADDITIVES | | method | limit/base | current | history1 | history2 |
|------------|-----|---------------|------------|--------------|----------|----------|
| Boron | ppm | ASTM D5185(m) | 1 | 1 | 4 | 1 |
| Barium | ppm | ASTM D5185(m) | 0 | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185(m) | 60 | 59 | 63 | 56 |
| Manganese | ppm | ASTM D5185(m) | 0 | <1 | <1 | 0 |
| Magnesium | ppm | ASTM D5185(m) | 950 | 947 | 1007 | 939 |
| Calcium | ppm | ASTM D5185(m) | 980 | 1041 | 1090 | 1008 |
| Phosphorus | ppm | ASTM D5185(m) | 1100 | 947 | 1016 | 973 |
| Zinc | ppm | ASTM D5185(m) | 1150 | 1145 | 1223 | 1125 |
| Sulfur | ppm | ASTM D5185(m) | 2600 | 2469 | 2355 | 2478 |
| Lithium | ppm | ASTM D5185(m) | | <1 | <1 | <1 |

| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|--------------|-----|---------------|------------|------------|----------|----------|
| Silicon | ppm | ASTM D5185(m) | >25 | 3 | 4 | 3 |
| Sodium | ppm | ASTM D5185(m) | | 5 | 2 | <1 |
| Potassium | ppm | ASTM D5185(m) | >20 | 15 | 19 | <1 |
| Glycol | % | ASTM D7922* | | 0.0 | 0.0 | NEG |

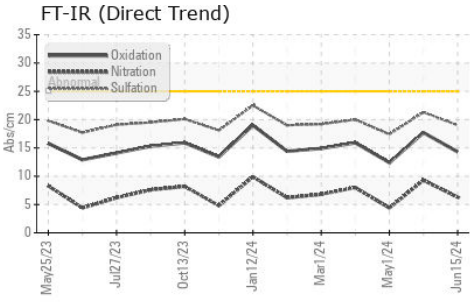
| INFRA-RED | | method | limit/base | current | history1 | history2 |
|-----------------|----------|-------------|------------|-------------|----------|----------|
| Soot % | % | ASTM D7844* | >6 | 0.1 | 0.4 | 0 |
| Nitration | Abs/cm | ASTM D7624* | >20 | 6.3 | 9.3 | 4.4 |
| Nitration(Diff) | Abs/cm | ASTM E2412* | < 25 | 4.4 | 11 | 0.5 |
| Sulfation | Abs.:1mm | ASTM D7415* | >30 | 19.0 | 21.3 | 17.4 |
| Sulfation(Diff) | Abs/cm | ASTM E2412* | | 1.7 | 5.6 | 0 |



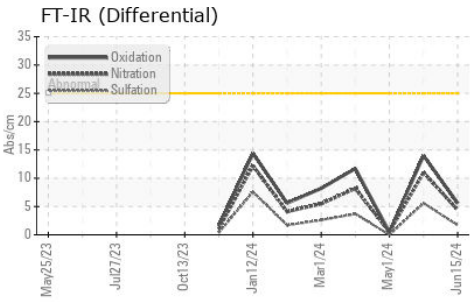
OIL ANALYSIS REPORT



| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|-------------------|----------|-------------|------------|-------------|----------|----------|
| Oxidation | Abs./1mm | ASTM D7414* | >25 | 14.3 | 17.7 | 12.4 |
| Oxidation(Diff) | Abs/cm | ASTM E2412* | < 25 | 5.6 | 14 | 0.5 |
| Base Number (BN) | mg KOH/g | ASTM D2896* | 9.5 | 9.76 | 8.41 | 9.67 |

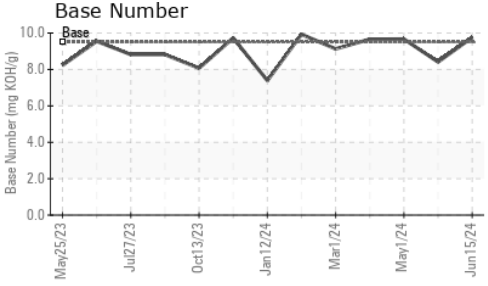
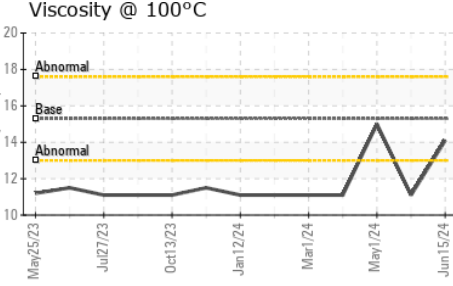
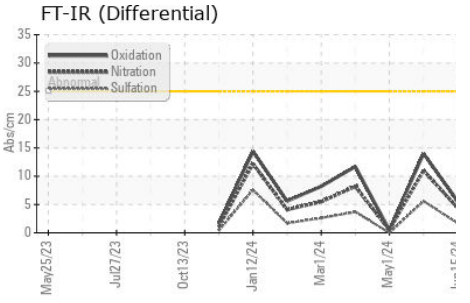
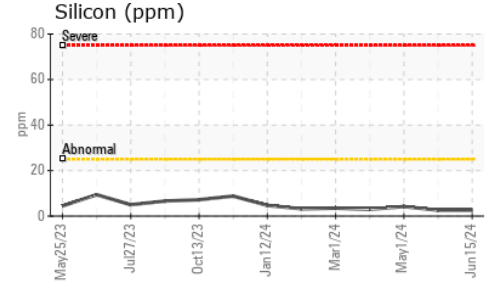
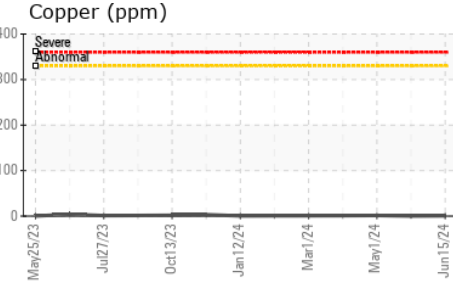
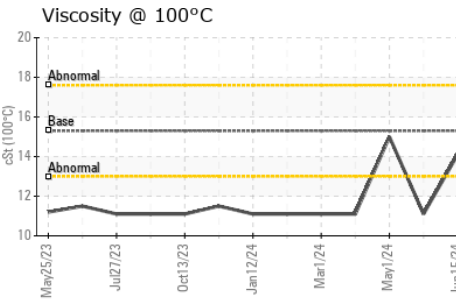
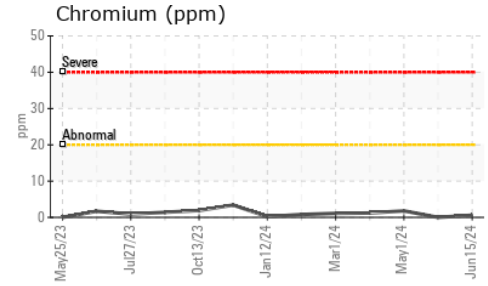
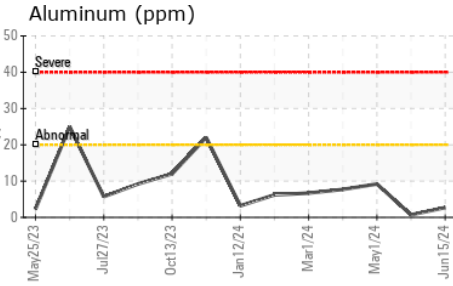
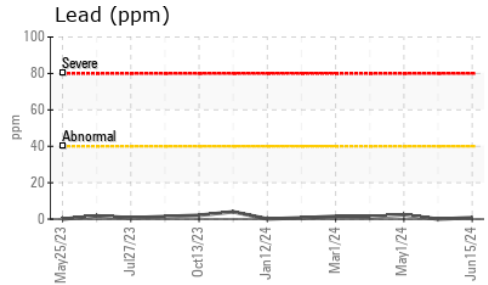
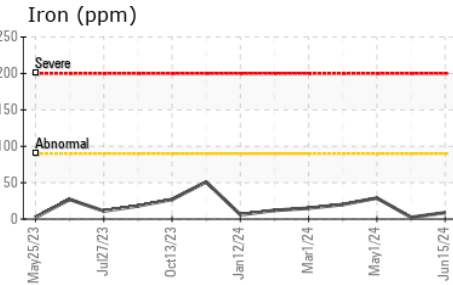


| VISUAL | | method | limit/base | current | history1 | history2 |
|------------------|--------|---------|------------|------------|----------|----------|
| Emulsified Water | scalar | Visual* | >0.2 | NEG | NEG | NEG |
| Free Water | scalar | Visual* | | NEG | NEG | NEG |



| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|------------------|-----|---------------|------------|-------------|----------|----------|
| Visc @ 100°C | cSt | ASTM D7279(m) | 15.3 | 14.1 | ▲ 11.1 | 15.0 |

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0926285
Lab Number : 02642263
Unique Number : 5799802
Test Package : MOB 2 (Additional Tests: FT-IR(Diff), Glycol)
Received : 17 Jun 2024
Tested : 18 Jun 2024
Diagnosed : 19 Jun 2024 - Kevin Marson

WFR Technical Services
 5389 Riverside Drive
 Burlington, ON
 CA L7L 3Y1
 Contact: William Ridley
 wfr.technical.services@gmail.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.