



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

Area

[86938]

Machine Id

536 DOUGALL AVE CALEDON PUMP HOUSE REGION OF PEEL-WASTE 73705044

Component

Rear Diesel Engine

Fluid

ESSO XD-3 EXTRA 15W40 (20 LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | PN0006267 | PN0004876 | PN0003650 |
| Sample Date | | Client Info | | 12 Jun 2024 | 14 Jun 2023 | 10 Jun 2022 |
| Machine Age | hrs | Client Info | | 253 | 234 | 167 |
| Oil Age | hrs | Client Info | | 0 | 0 | 0 |
| Filter Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Changed | | Client Info | | Changed | Changed | Changed |
| Filter Changed | | Client Info | | Changed | Changed | Changed |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |

WEAR

Metal levels are typical for a new component breaking in.

| | | | | | | |
|----------|-----|---------------|------|--------------|----|----|
| Iron | ppm | ASTM D5185(m) | >90 | 3 | 4 | 3 |
| Chromium | ppm | ASTM D5185(m) | >20 | 0 | 0 | 0 |
| Nickel | ppm | ASTM D5185(m) | >2 | 0 | <1 | <1 |
| Titanium | ppm | ASTM D5185(m) | >2 | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185(m) | >2 | 0 | 0 | <1 |
| Aluminum | ppm | ASTM D5185(m) | >20 | <1 | 2 | 1 |
| Lead | ppm | ASTM D5185(m) | >40 | 0 | 0 | 0 |
| Copper | ppm | ASTM D5185(m) | >330 | <1 | <1 | <1 |
| Tin | ppm | ASTM D5185(m) | >15 | 0 | 0 | <1 |
| Vanadium | ppm | ASTM D5185(m) | | 0 | 0 | 0 |

CONTAMINATION

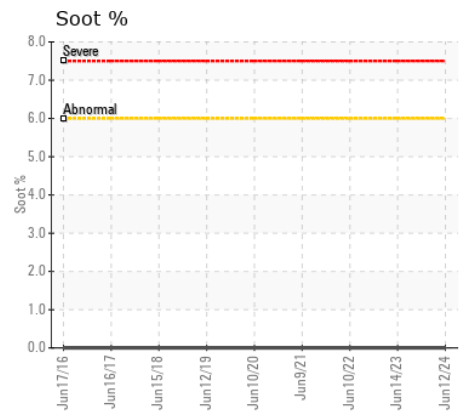
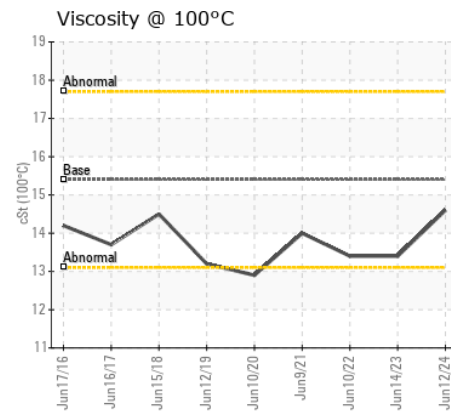
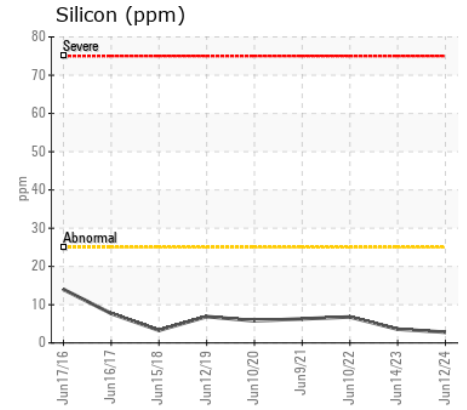
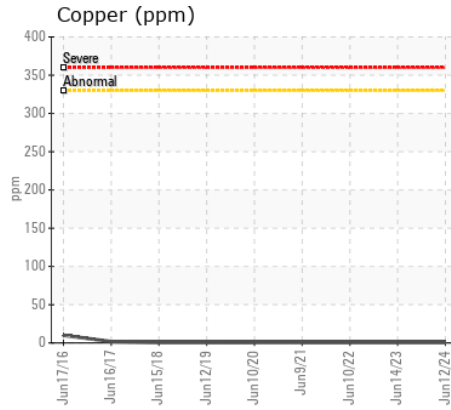
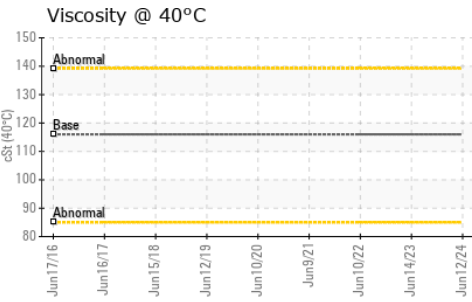
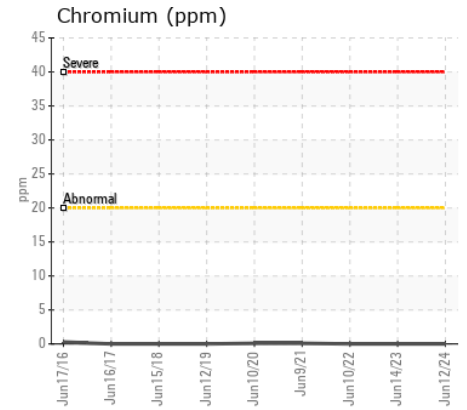
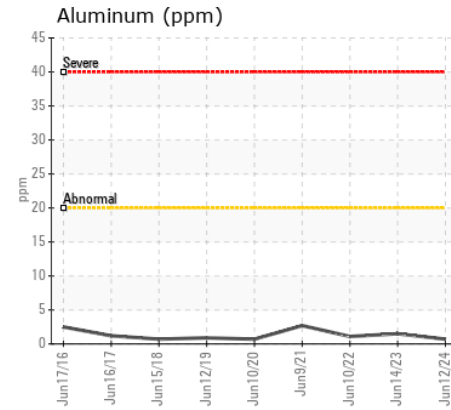
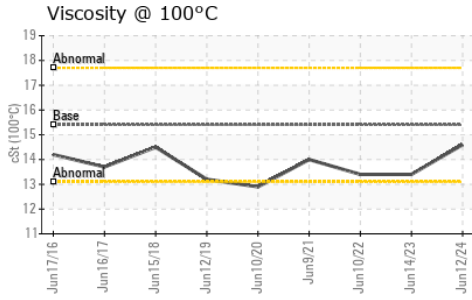
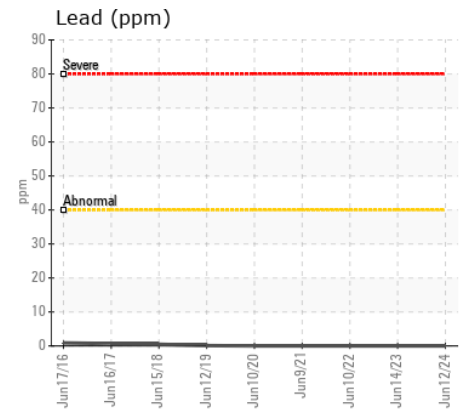
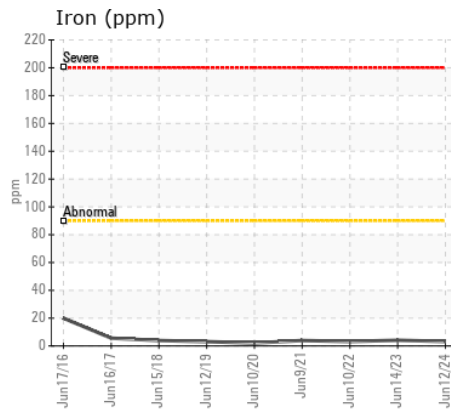
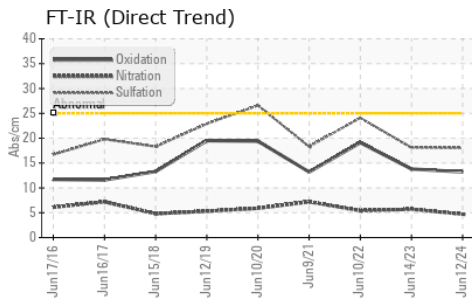
There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|----------|---------------|-------|----------------|-------|-------|
| Silicon | ppm | ASTM D5185(m) | >25 | 3 | 4 | 7 |
| Potassium | ppm | ASTM D5185(m) | >20 | 0 | <1 | 0 |
| Fuel | | WC Method | >3.0 | <1.0 | <1.0 | <1.0 |
| Water | | WC Method | >0.2 | NEG | NEG | NEG |
| Glycol | | WC Method | | NEG | NEG | NEG |
| Soot % | % | ASTM D7844* | >6 | 0 | 0 | 0 |
| Nitration | Abs/cm | ASTM D7624* | >20 | 4.7 | 5.7 | 5.4 |
| Sulfation | Abs/.1mm | ASTM D7415* | >30 | 18.0 | 18.1 | 24.1 |
| Odor | scalar | Visual* | NORML | NORML | NORML | NORML |
| Emulsified Water | scalar | Visual* | >0.2 | NEG | NEG | NEG |

FLUID CONDITION

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

| | | | | | | |
|----------------------|----------|---------------|------|-------------|------|------|
| Sodium | ppm | ASTM D5185(m) | >192 | 1 | 1 | 2 |
| Boron | ppm | ASTM D5185(m) | | 7 | 40 | 62 |
| Barium | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185(m) | | 57 | 45 | 43 |
| Manganese | ppm | ASTM D5185(m) | | 0 | <1 | <1 |
| Magnesium | ppm | ASTM D5185(m) | | 892 | 489 | 460 |
| Calcium | ppm | ASTM D5185(m) | 3780 | 1131 | 1592 | 1672 |
| Phosphorus | ppm | ASTM D5185(m) | 1370 | 1008 | 1022 | 808 |
| Zinc | ppm | ASTM D5185(m) | 1500 | 1157 | 1072 | 908 |
| Sulfur | ppm | ASTM D5185(m) | 3800 | 2639 | 2733 | 2229 |
| Oxidation | Abs/.1mm | ASTM D7414* | >25 | 13.2 | 13.8 | 19.1 |
| Visc @ 40°C | cSt | ASTM D7279(m) | 116 | 107 | --- | --- |
| Visc @ 100°C | cSt | ASTM D7279(m) | 15.4 | 14.6 | 13.4 | 13.4 |
| Viscosity Index (VI) | Scale | ASTM D2270* | 140 | 140 | --- | --- |



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PN0006267
Lab Number : 02642537
Unique Number : 5800076
Test Package : MOB 1 (Additional Tests: KV40, VI, Visual)

Received : 18 Jun 2024
Tested : 18 Jun 2024
Diagnosed : 18 Jun 2024 - Wes Davis

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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