



LIEBHERR

OIL ANALYSIS REPORT

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



Machine Id
LIEBHERR L566 038133-1168
Component
Diesel Engine
Fluid
PETRO CANADA DURON UHP E6 10W40 (42 LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | LH0286968 | LH0203218 | LH0239719 |
| Sample Date | | Client Info | | 05 Apr 2024 | 17 Jul 2023 | 12 Aug 2022 |
| Machine Age | hrs | Client Info | | 12476 | 11715 | 11049 |
| 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 | | N/A | N/A | N/A |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |

WEAR

All component wear rates are normal.

| | | | | | | |
|----------|-----|---------------|------|--------------|----|----|
| Iron | ppm | ASTM D5185(m) | >100 | 38 | 44 | 37 |
| Chromium | ppm | ASTM D5185(m) | >5 | <1 | <1 | <1 |
| Nickel | ppm | ASTM D5185(m) | >5 | <1 | <1 | <1 |
| Titanium | ppm | ASTM D5185(m) | | 4 | 0 | <1 |
| Silver | ppm | ASTM D5185(m) | >3 | 0 | <1 | 0 |
| Aluminum | ppm | ASTM D5185(m) | >15 | 6 | 11 | 9 |
| Lead | ppm | ASTM D5185(m) | >30 | 0 | <1 | <1 |
| Copper | ppm | ASTM D5185(m) | >125 | 4 | 4 | 4 |
| Tin | ppm | ASTM D5185(m) | >5 | 0 | <1 | <1 |
| Vanadium | ppm | ASTM D5185(m) | | 0 | 0 | 0 |

CONTAMINATION

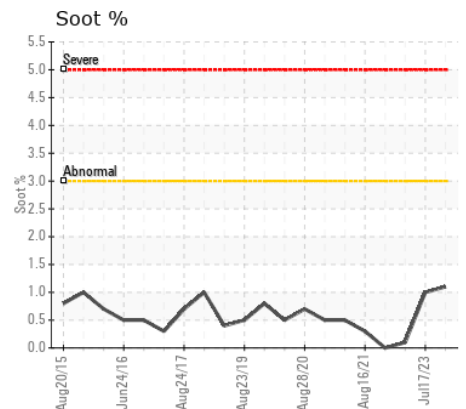
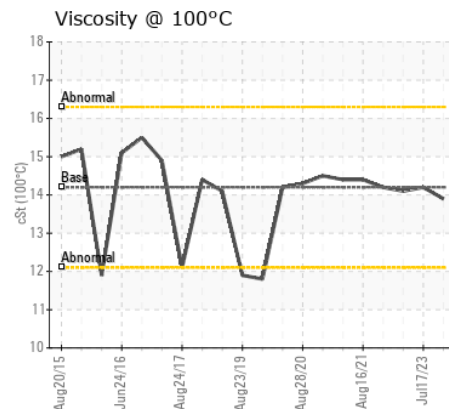
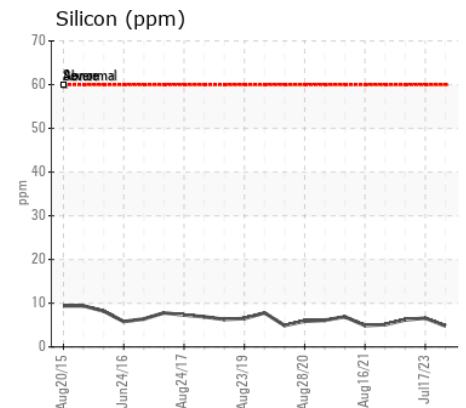
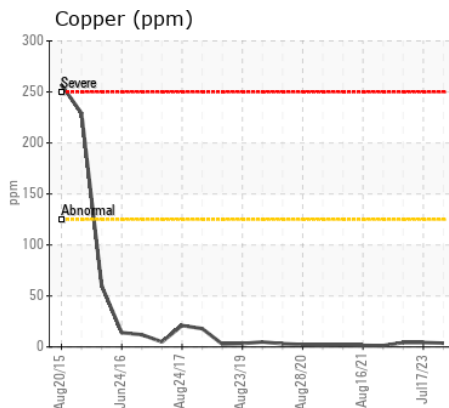
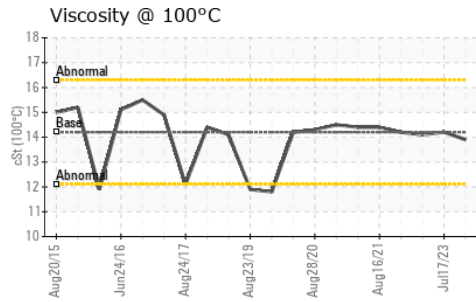
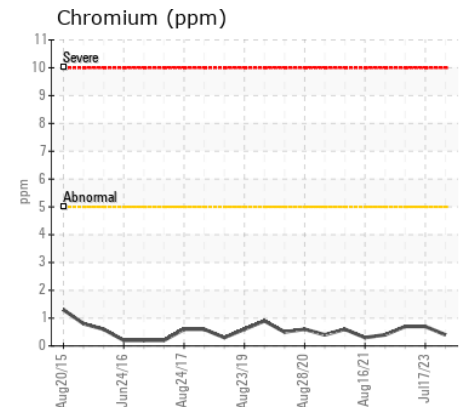
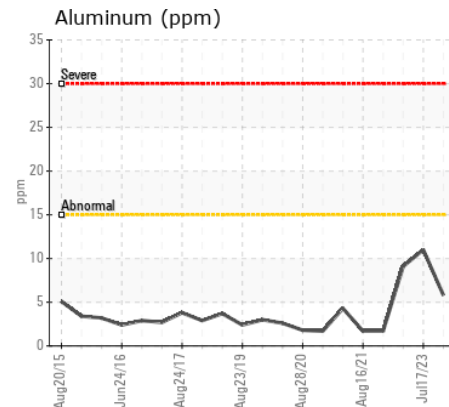
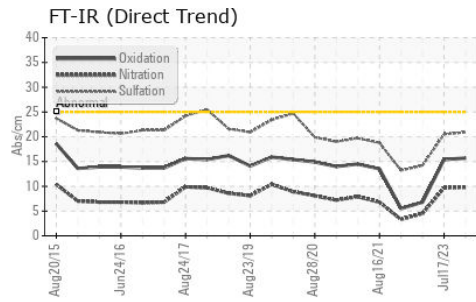
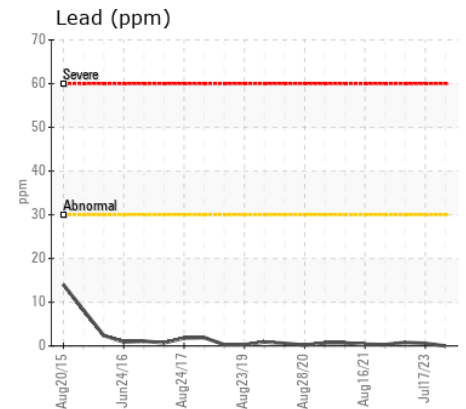
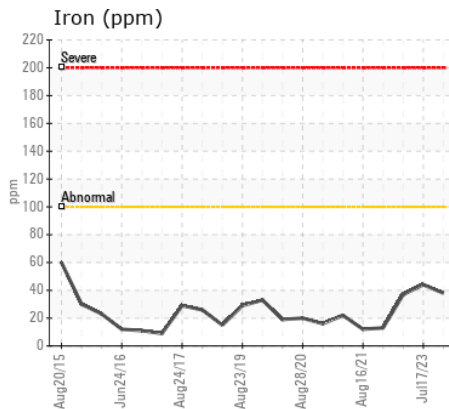
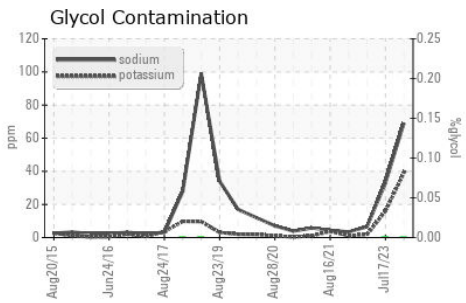
There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|----------|---------------|------|----------------|------|------|
| Silicon | ppm | ASTM D5185(m) | >60 | 5 | 7 | 6 |
| Potassium | ppm | ASTM D5185(m) | >20 | 39 | 16 | 2 |
| Fuel | | WC Method | >5 | <1.0 | <1.0 | <1.0 |
| Water | | WC Method | >0.2 | NEG | NEG | NEG |
| Glycol | % | ASTM D7922* | | 0.0 | 0.0 | NEG |
| Soot % | % | ASTM D7844* | >3 | 1.1 | 1 | 0.1 |
| Nitration | Abs/cm | ASTM D7624* | >20 | 9.8 | 9.7 | 4.5 |
| Sulfation | Abs/.1mm | ASTM D7415* | >30 | 20.9 | 20.5 | 14.2 |
| 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) | | 69 | 33 | 7 |
| Boron | ppm | ASTM D5185(m) | 0 | 4 | <1 | 1 |
| Barium | ppm | ASTM D5185(m) | 0 | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185(m) | 0 | 65 | 63 | 60 |
| Manganese | ppm | ASTM D5185(m) | 0 | <1 | <1 | <1 |
| Magnesium | ppm | ASTM D5185(m) | 80 | 946 | 987 | 999 |
| Calcium | ppm | ASTM D5185(m) | 2400 | 1074 | 1055 | 1108 |
| Phosphorus | ppm | ASTM D5185(m) | 750 | 986 | 1060 | 1046 |
| Zinc | ppm | ASTM D5185(m) | 840 | 1189 | 1196 | 1257 |
| Sulfur | ppm | ASTM D5185(m) | 2130 | 2501 | 2504 | 2631 |
| Oxidation | Abs/.1mm | ASTM D7414* | >25 | 15.7 | 15.4 | 6.8 |
| Visc @ 100°C | cSt | ASTM D7279(m) | 14.2 | 13.9 | 14.2 | 14.1 |



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0286968 **Received** : 10 Apr 2024
Lab Number : 02627804 **Tested** : 10 Apr 2024
Unique Number : 5760936 **Diagnosed** : 10 Apr 2024 - Wes Davis
Test Package : MOB 1 (Additional Tests: Glycol)

D & G LANDSCAPING
 1341 COKER
 GREELY, ON
 CA K4P 1A1
 Contact: Maintenance

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.

T:
F: