



OIL ANALYSIS REPORT

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

Area
[FLE.21.06295]

Machine Id
FORD 221

Component
Diesel Engine

Fluid
PETRO CANADA DURON UHP 0W40 (38 LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | WC0665988 | WC0561015 | WC0561067 |
| Sample Date | | Client Info | | 04 Apr 2022 | 19 Nov 2021 | 29 Jul 2021 |
| Machine Age | hrs | Client Info | | 5657 | 4520 | 4233 |
| Oil Age | hrs | Client Info | | 0 | 250 | 0 |
| Filter Age | hrs | Client Info | | 0 | 250 | 0 |
| Oil Changed | | Client Info | | Changed | N/A | N/A |
| Filter Changed | | Client Info | | Changed | N/A | N/A |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |

WEAR

All component wear rates are normal.

| | | | | | | |
|----------|-----|---------------|------|--------------|----|----|
| Iron | ppm | ASTM D5185(m) | >90 | 15 | 7 | 8 |
| Chromium | ppm | ASTM D5185(m) | >20 | <1 | <1 | <1 |
| Nickel | ppm | ASTM D5185(m) | >2 | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185(m) | >2 | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185(m) | >2 | 0 | <1 | <1 |
| Aluminum | ppm | ASTM D5185(m) | >20 | 2 | 2 | 2 |
| Lead | ppm | ASTM D5185(m) | >40 | 0 | 0 | 0 |
| Copper | ppm | ASTM D5185(m) | >330 | <1 | 2 | 1 |
| Tin | ppm | ASTM D5185(m) | >15 | 0 | <1 | <1 |
| Vanadium | ppm | ASTM D5185(m) | | 0 | 0 | 0 |

CONTAMINATION

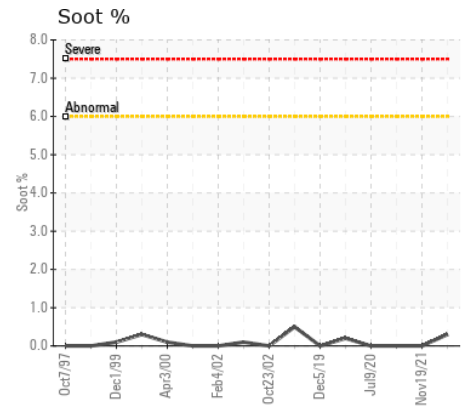
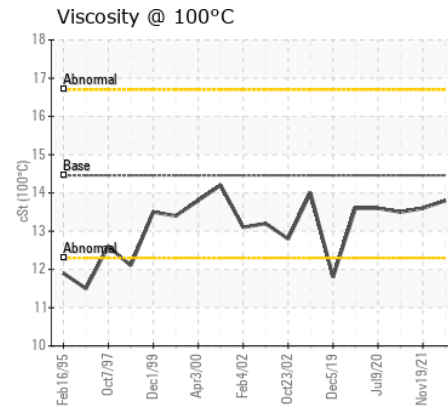
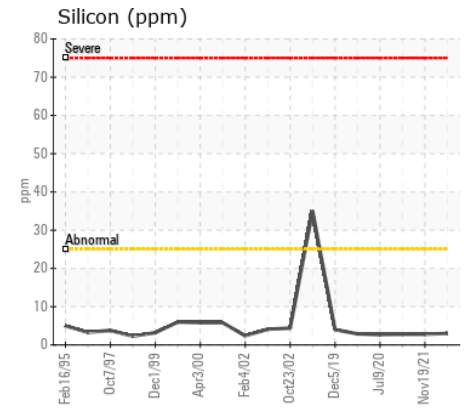
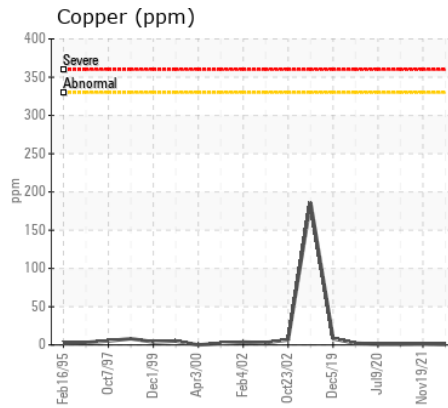
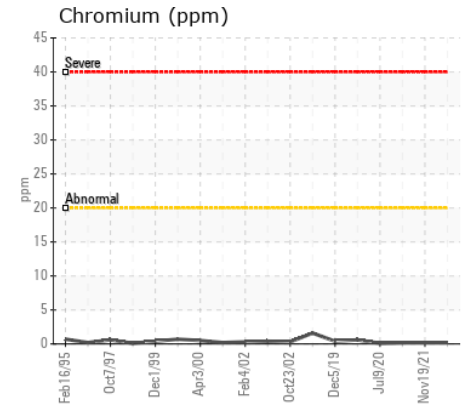
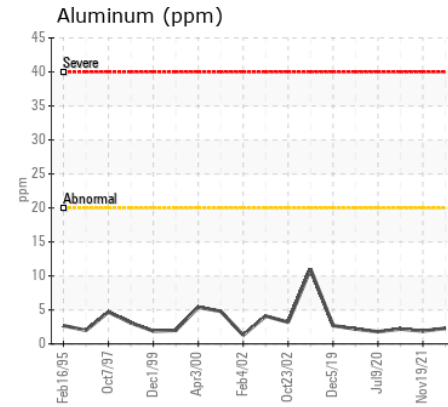
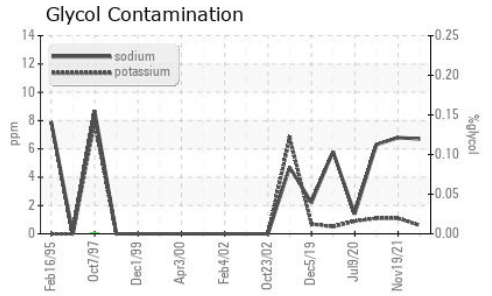
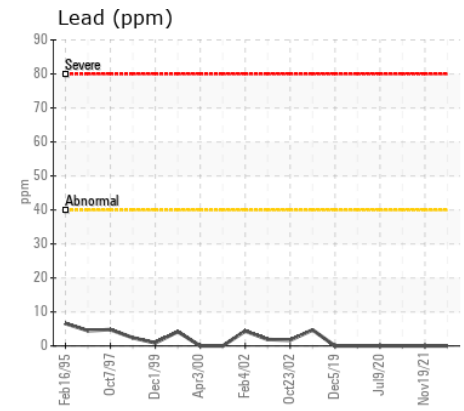
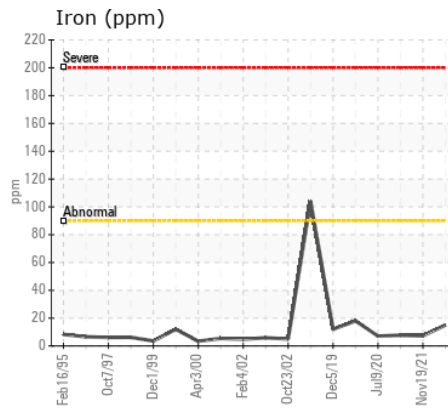
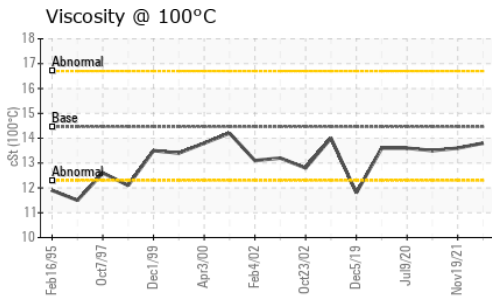
There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|----------|---------------|------|----------------|------|------|
| Silicon | ppm | ASTM D5185(m) | >25 | 3 | 3 | 3 |
| Potassium | ppm | ASTM D5185(m) | >20 | <1 | 1 | 1 |
| Fuel | | WC Method | >3.0 | <1.0 | <1.0 | <1.0 |
| Water | | WC Method | >0.2 | NEG | NEG | NEG |
| Glycol | % | ASTM D7922* | | NEG | NEG | NEG |
| Soot % | % | ASTM D7844* | >6 | 0.3 | 0 | 0 |
| Nitration | Abs/cm | ASTM D7624* | >20 | 10.3 | 9.3 | 9.0 |
| Sulfation | Abs/.1mm | ASTM D7415* | >30 | 20.7 | 21.0 | 20.3 |
| 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) | | 7 | 7 | 6 |
| Boron | ppm | ASTM D5185(m) | 2 | 33 | 38 | 37 |
| Barium | ppm | ASTM D5185(m) | 0 | 0 | <1 | 0 |
| Molybdenum | ppm | ASTM D5185(m) | 60 | 56 | 55 | 49 |
| Manganese | ppm | ASTM D5185(m) | 0 | 0 | <1 | <1 |
| Magnesium | ppm | ASTM D5185(m) | 1010 | 1010 | 1088 | 924 |
| Calcium | ppm | ASTM D5185(m) | 1070 | 846 | 854 | 1054 |
| Phosphorus | ppm | ASTM D5185(m) | 1150 | 970 | 1048 | 1065 |
| Zinc | ppm | ASTM D5185(m) | 1270 | 1113 | 1199 | 1229 |
| Sulfur | ppm | ASTM D5185(m) | 2060 | 2714 | 2801 | 2880 |
| Oxidation | Abs/.1mm | ASTM D7414* | >25 | 18.9 | 18.3 | 17.9 |
| Visc @ 100°C | cSt | ASTM D7279(m) | 14.46 | 13.8 | 13.6 | 13.5 |



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0665988
Lab Number : 02608433
Unique Number : 5709519
Test Package : MOB 1 (Additional Tests: Glycol)

Received : 12 Jan 2024
Diagnosed : 15 Jan 2024
Diagnostician : Kevin Marson

THE CORP/CITY OF SAULT STE MARIE
 PUBLIC WORKS - STORES, 128 SACKVILLE ROAD
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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.