

Machine Id
RST0246
Component
Diesel Engine
Fluid
PETRO CANADA SUPREME SYNTHETIC 5W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | PC0078372 | PC0061301 | PC0032421 |
| Sample Date | | Client Info | | 05 Nov 2023 | 01 Mar 2022 | 19 Aug 2020 |
| Machine Age | hrs | Client Info | | 5673 | 2526 | 1930 |
| Oil Age | hrs | Client Info | | 250 | 500 | 500 |
| Filter Age | hrs | Client Info | | 250 | 500 | 500 |
| Oil Changed | | Client Info | | Changed | Changed | Changed |
| Filter Changed | | Client Info | | Changed | Changed | Changed |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|---------------|------|--------------|-----|-----|
| Iron | ppm | ASTM D5185(m) | >100 | 5 | 10 | 4 |
| Chromium | ppm | ASTM D5185(m) | >20 | 0 | <1 | <1 |
| Nickel | ppm | ASTM D5185(m) | >4 | 0 | <1 | <1 |
| Titanium | ppm | ASTM D5185(m) | | 0 | 0 | <1 |
| Silver | ppm | ASTM D5185(m) | >3 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185(m) | >20 | 3 | 3 | 2 |
| Lead | ppm | ASTM D5185(m) | >40 | <1 | <1 | 0 |
| Copper | ppm | ASTM D5185(m) | >330 | 1 | 2 | <1 |
| Tin | ppm | ASTM D5185(m) | >15 | 0 | 0 | 0 |
| Vanadium | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| White Metal | scalar | Visual* | NONE | VLITE | --- | --- |
| Yellow Metal | scalar | Visual* | NONE | NONE | --- | --- |

CONTAMINATION

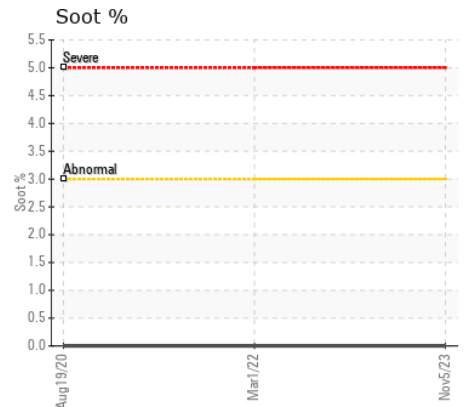
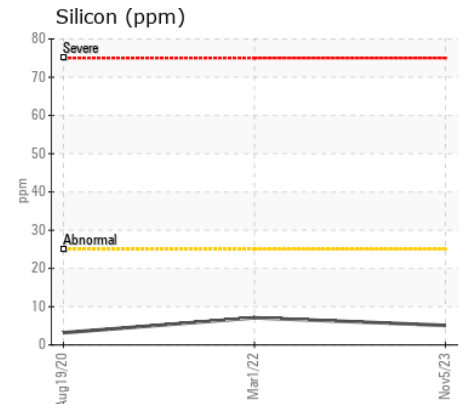
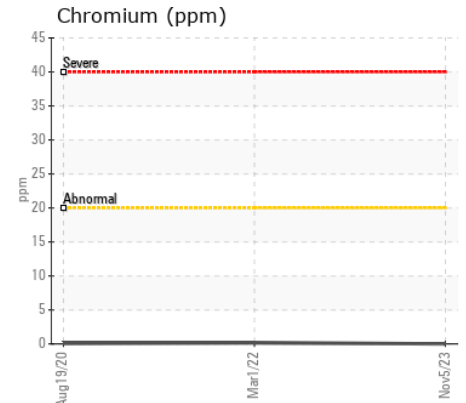
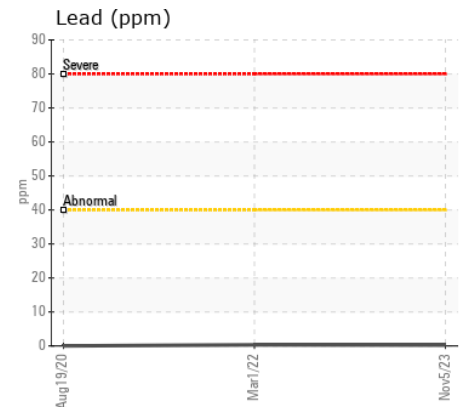
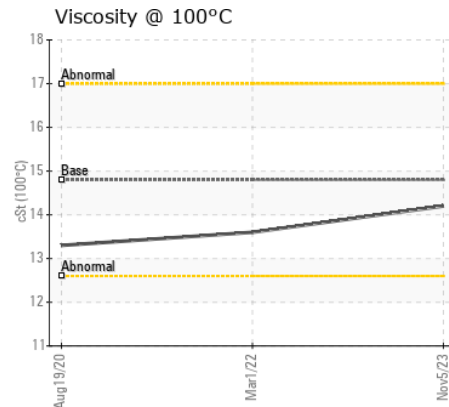
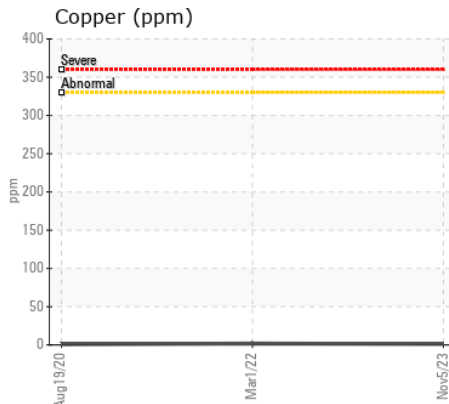
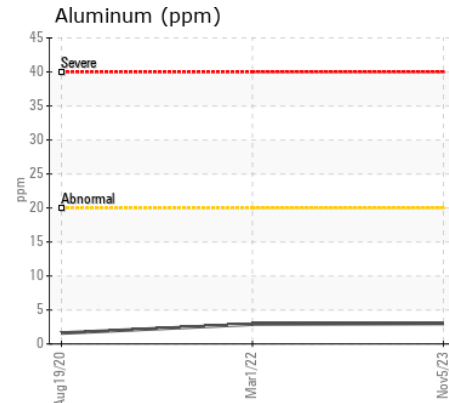
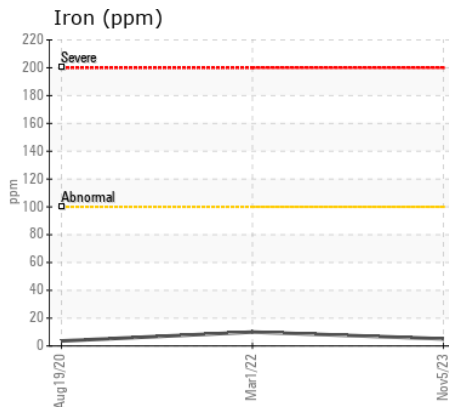
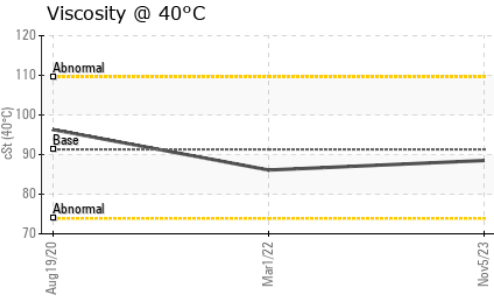
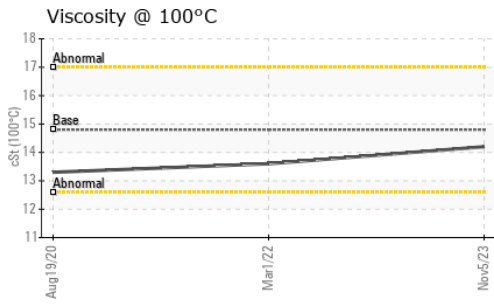
There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|----------|---------------|-------|----------------|-------|------|
| Silicon | ppm | ASTM D5185(m) | >25 | 5 | 7 | 3 |
| Potassium | ppm | ASTM D5185(m) | >20 | <1 | <1 | <1 |
| Fuel | | WC Method | >5 | <1.0 | <1.0 | <1.0 |
| Water | | WC Method | >0.2 | NEG | NEG | NEG |
| Glycol | | WC Method | | NEG | NEG | NEG |
| Soot % | % | ASTM D7844* | >3 | 0 | 0 | 0 |
| Nitration | Abs/cm | ASTM D7624* | >20 | 7.1 | 4.6 | 6.2 |
| Sulfation | Abs/.1mm | ASTM D7415* | >30 | 19.5 | 14.9 | 17.1 |
| Silt | scalar | Visual* | NONE | NONE | --- | --- |
| Debris | scalar | Visual* | NONE | VLITE | --- | --- |
| Sand/Dirt | scalar | Visual* | NONE | NONE | --- | --- |
| Appearance | scalar | Visual* | NORML | NORML | --- | --- |
| Odor | scalar | Visual* | 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) | | 4 | 4 | <1 |
| Boron | ppm | ASTM D5185(m) | 190 | 49 | 47 | 62 |
| Barium | ppm | ASTM D5185(m) | 0 | 0 | 0 | <1 |
| Molybdenum | ppm | ASTM D5185(m) | 79 | 55 | 62 | 72 |
| Manganese | ppm | ASTM D5185(m) | | 0 | <1 | <1 |
| Magnesium | ppm | ASTM D5185(m) | 564 | 1033 | 1022 | 477 |
| Calcium | ppm | ASTM D5185(m) | 993 | 792 | 1025 | 1633 |
| Phosphorus | ppm | ASTM D5185(m) | 763 | 950 | 1080 | 1012 |
| Zinc | ppm | ASTM D5185(m) | 835 | 1107 | 1241 | 1172 |
| Sulfur | ppm | ASTM D5185(m) | 2536 | 2741 | 2894 | 2941 |
| Oxidation | Abs/.1mm | ASTM D7414* | >25 | 17.2 | 8.6 | 12.5 |
| Visc @ 40°C | cSt | ASTM D7279(m) | 91.3 | 88.5 | 86.1 | 96.3 |
| Visc @ 100°C | cSt | ASTM D7279(m) | 14.8 | 14.2 | 13.6 | 13.3 |
| Viscosity Index (VI) | Scale | ASTM D2270* | 170 | 166 | 160 | 137 |



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 Green Infrastructure and Partners Inc (GPI) - 286 - Shoring & Foundations
Sample No. : PC0078372 **Received** : 10 Jan 2024
Lab Number : 02607734 **Diagnosed** : 11 Jan 2024
Unique Number : 5708820 **Diagnostician** : Wes Davis
Test Package : MOB 1 (Additional Tests: KV40, VI, Visual)

151 Ram Forest Rd,
Stouffville, ON
CA L4A 2G8
Contact: Shannon Abbott
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F:

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.