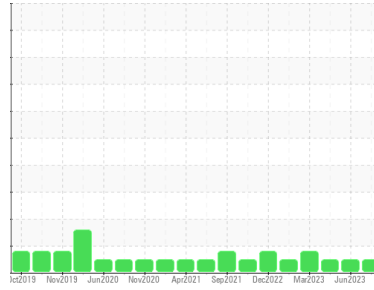


Machine Id
4024

Component
Gasoline Engine

Fluid
GASOLINE ENGINE OIL SAE 5W30 (--- GAL)



DIAGNOSIS

Recommendation

Échantillonner de nouveau l'équipement au prochain intervalle de vidange afin d'en surveiller la condition.

Wear

Les taux d'usure de tous les composants sont normaux.

Contamination

Il n'y a aucun indice de contamination dans l'huile.

Fluid Condition

Le résultat pour le BN indique que la réserve d'alcalinité est acceptable pour l'huile. La viscosité de l'échantillon se situe dans la portée de l'SAE 5W20; nous vous conseillons de vérifier. L'état de l'huile permet d'en prolonger l'utilisation.

SAMPLE INFORMATION

| method | limit/base | current | history1 | history2 |
|---------------|-------------|--------------------|-------------|-------------|
| Sample Number | Client Info | PC0073970 | PC0073498 | PC0074669 |
| Sample Date | Client Info | 25 Jun 2023 | 05 Jun 2023 | 25 Apr 2023 |
| Machine Age | kms | Client Info | 0 | 0 |
| Oil Age | kms | Client Info | 3508 | 6731 |
| Oil Changed | Client Info | Changed | Changed | Changed |
| Sample Status | | NORMAL | NORMAL | NORMAL |

CONTAMINATION

| method | limit/base | current | history1 | history2 |
|--------|----------------|----------------|----------|----------|
| Fuel | WC Method >4.0 | <1.0 | <1.0 | <1.0 |
| Glycol | WC Method | NEG | NEG | NEG |

WEAR METALS

| method | limit/base | current | history1 | history2 |
|-----------|------------------------|--------------|----------|----------|
| Iron | ppm ASTM D5185(m) >150 | 4 | 5 | 3 |
| Chromium | ppm ASTM D5185(m) >20 | <1 | <1 | 0 |
| Nickel | ppm ASTM D5185(m) >5 | 0 | 0 | 0 |
| Titanium | ppm ASTM D5185(m) | 0 | 0 | 0 |
| Silver | ppm ASTM D5185(m) >2 | 0 | 0 | 0 |
| Aluminum | ppm ASTM D5185(m) >40 | 1 | 1 | 1 |
| Lead | ppm ASTM D5185(m) >50 | 0 | 0 | 0 |
| Copper | ppm ASTM D5185(m) >155 | <1 | <1 | <1 |
| Tin | ppm ASTM D5185(m) >10 | 0 | 0 | 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) 75 | 120 | 92 | 114 |
| Barium | ppm ASTM D5185(m) 5 | 0 | 0 | 0 |
| Molybdenum | ppm ASTM D5185(m) 100 | 68 | 68 | 65 |
| Manganese | ppm ASTM D5185(m) | 0 | 0 | <1 |
| Magnesium | ppm ASTM D5185(m) 12 | 519 | 514 | 476 |
| Calcium | ppm ASTM D5185(m) 2100 | 1233 | 1215 | 1217 |
| Phosphorus | ppm ASTM D5185(m) 650 | 721 | 727 | 708 |
| Zinc | ppm ASTM D5185(m) 850 | 755 | 747 | 715 |
| Sulfur | ppm ASTM D5185(m) 2500 | 2420 | 2417 | 2380 |
| Lithium | ppm ASTM D5185(m) | <1 | <1 | <1 |

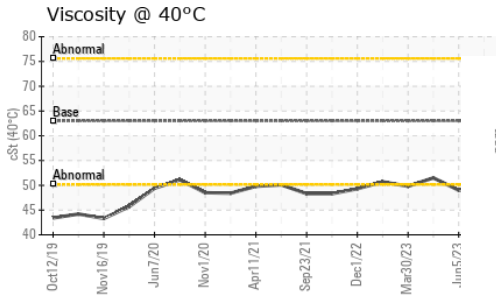
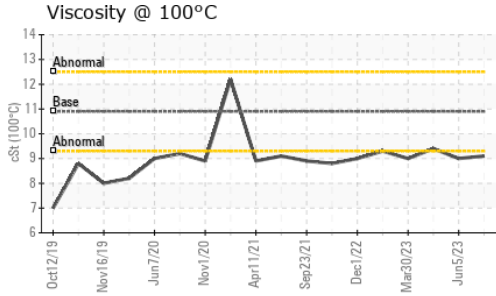
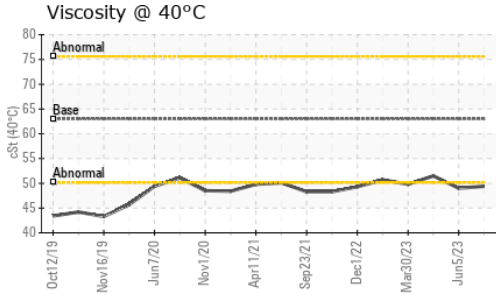
CONTAMINANTS

| method | limit/base | current | history1 | history2 |
|-----------|------------------------|-----------|----------|----------|
| Silicon | ppm ASTM D5185(m) >30 | 20 | 20 | 14 |
| Sodium | ppm ASTM D5185(m) >400 | 2 | 3 | 3 |
| Potassium | ppm ASTM D5185(m) >20 | 0 | <1 | 0 |

INFRA-RED

| method | limit/base | current | history1 | history2 |
|-----------|----------------------|-------------|----------|----------|
| Soot % | % ASTM D7844* | 0 | 0 | 0 |
| Nitration | Abs/cm ASTM D7624* | 7.4 | 8.8 | 8.3 |
| Sulfation | Abs./1mm ASTM D7415* | 17.4 | 19.6 | 19.2 |

OIL ANALYSIS REPORT

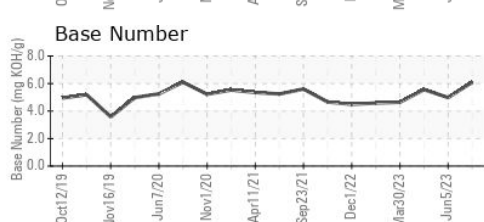
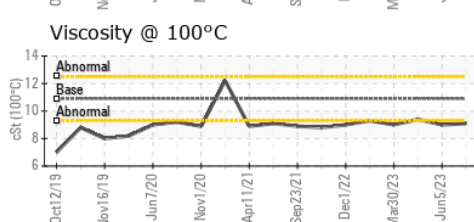
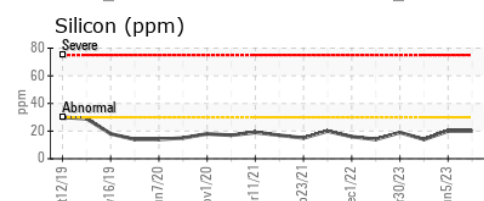
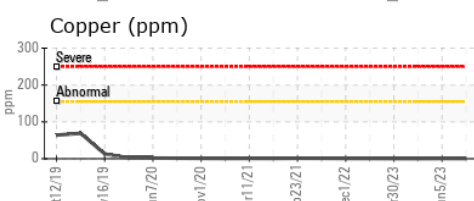
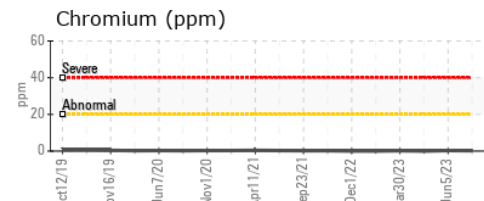
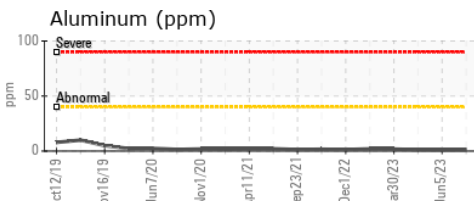
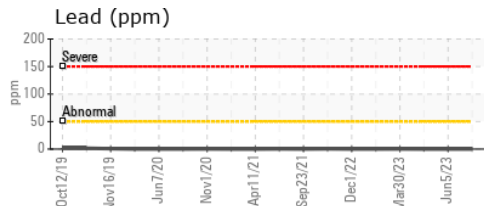
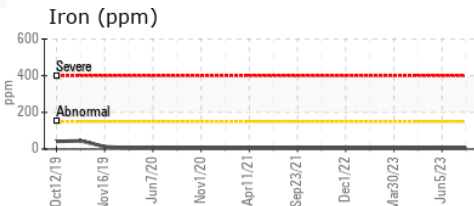


| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|-------------------|----------|-------------|------------|-------------|----------|----------|
| Oxidation | Abs/.1mm | ASTM D7414* | >25 | 10.6 | 12.3 | 11.6 |
| Base Number (BN) | mg KOH/g | ASTM D2896* | | 6.09 | 4.98 | 5.56 |

| VISUAL | | method | limit/base | current | history1 | history2 |
|------------------|--------|---------|------------|--------------|----------|----------|
| White Metal | scalar | Visual* | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | Visual* | NONE | NONE | NONE | NONE |
| Precipitate | scalar | Visual* | NONE | NONE | NONE | NONE |
| Silt | scalar | Visual* | NONE | VLITE | VLITE | NONE |
| Debris | scalar | Visual* | NONE | NONE | NONE | NONE |
| Sand/Dirt | scalar | Visual* | NONE | NONE | NONE | NONE |
| Appearance | scalar | Visual* | NORML | NORML | NORML | NORML |
| Odor | scalar | Visual* | NORML | NORML | NORML | NORML |
| 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 @ 40°C | cSt | ASTM D7279(m) | 63 | 49.4 | 49.0 | 51.5 |
| Visc @ 100°C | cSt | ASTM D7279(m) | 10.9 | 9.1 | 9 | 9.4 |
| Viscosity Index (VI) | Scale | ASTM D2270* | 165 | 168 | 166 | 168 |

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0073970 **Received** : 18 Jul 2023
Lab Number : **02570591** **Diagnosed** : 19 Jul 2023
Unique Number : 5607637 **Diagnostician** : Kevin Marson
Test Package : MOB 2 (Additional Tests: KV40, VI)

TRANSDEV ST-JEAN
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 CA J3B 8T2
 Contact: Eric Breton
 eric.breton@transdev.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.