

Machine Id
G100
Component
Biogas Engine
Fluid
PETRO CANADA SENTRON LD 5000 (--- GAL)

RECOMMENDATION

We recommend that you drain the oil and perform a filter service on this component if not already done. We recommend an early resample to monitor this condition.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | PCA0069019 | PCA0069079 | PCA0069056 |
| Sample Date | | Client Info | | 15 Jun 2024 | 01 May 2024 | 23 Feb 2024 |
| Machine Age | hrs | Client Info | | 14576 | 13846 | 12829 |
| Oil Age | hrs | Client Info | | 0 | 0 | 0 |
| Filter Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Changed | | Client Info | | Not Changd | N/A | N/A |
| Filter Changed | | Client Info | | Not Changd | N/A | N/A |
| Sample Status | | | | ABNORMAL | NORMAL | NORMAL |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|-------------|------|--------------|------|------|
| Iron | ppm | ASTM D5185m | >45 | 23 | 27 | 26 |
| Chromium | ppm | ASTM D5185m | >2 | 1 | 1 | <1 |
| Nickel | ppm | ASTM D5185m | >2 | 0 | <1 | 0 |
| Titanium | ppm | ASTM D5185m | | 0 | <1 | 0 |
| Silver | ppm | ASTM D5185m | >5 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >10 | 2 | 2 | 1 |
| Lead | ppm | ASTM D5185m | >5 | 3 | 5 | 3 |
| Copper | ppm | ASTM D5185m | >14 | 0 | 1 | <1 |
| Tin | ppm | ASTM D5185m | >13 | <1 | 1 | 1 |
| Vanadium | ppm | ASTM D5185m | | 0 | <1 | 0 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |

CONTAMINATION

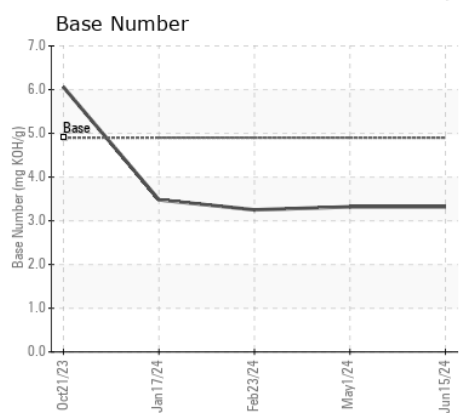
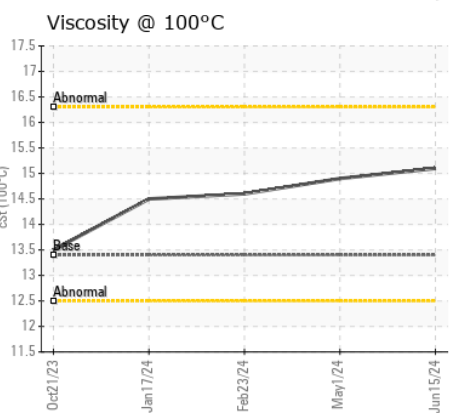
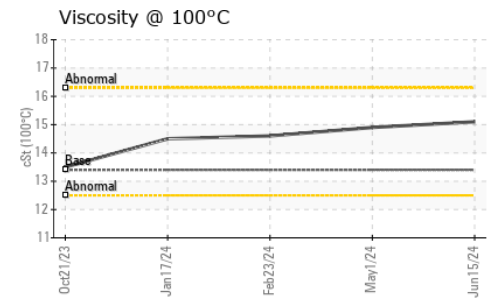
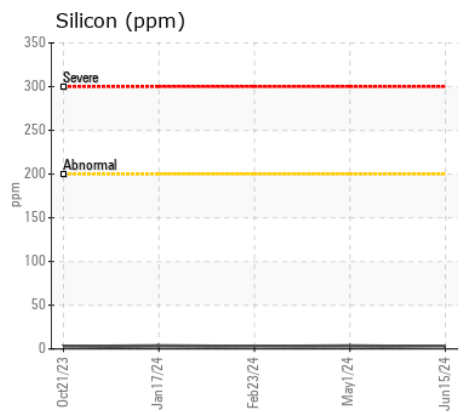
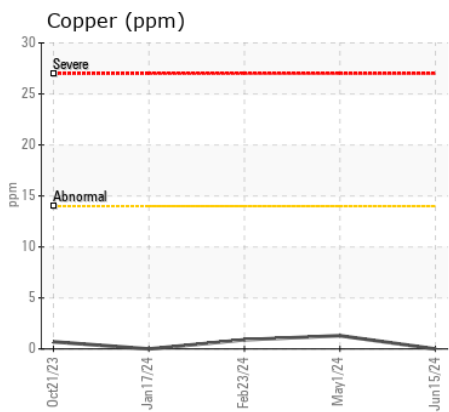
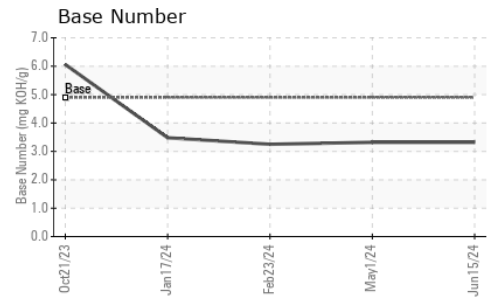
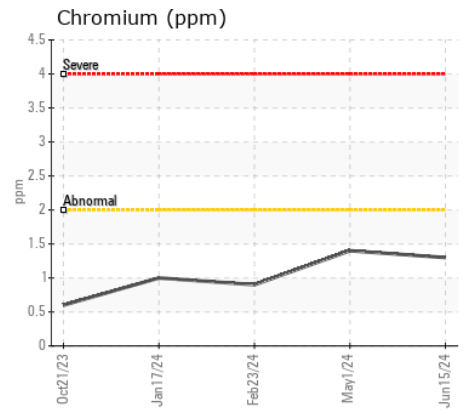
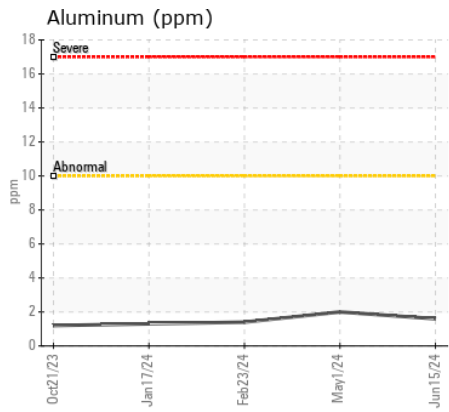
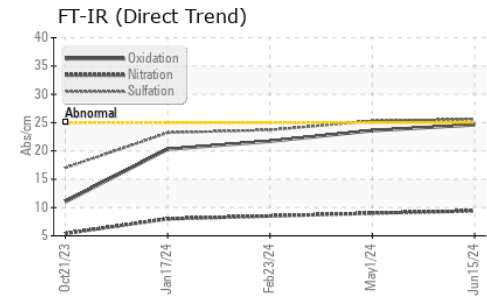
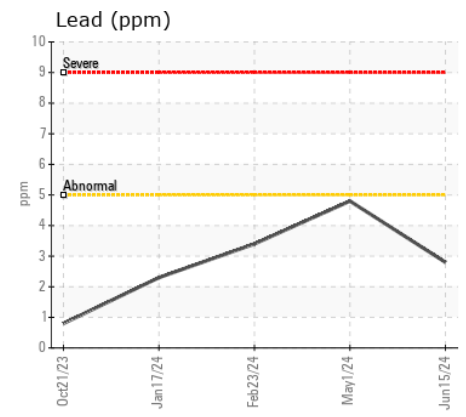
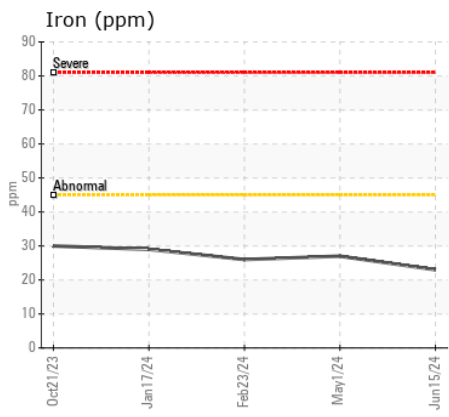
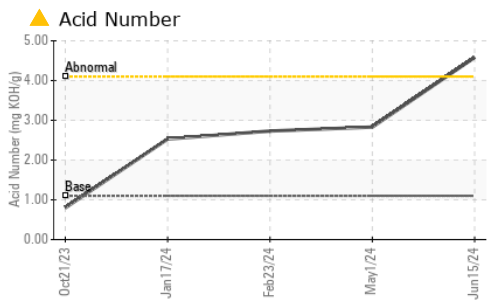
There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|----------|-------------|-------|----------------|-------|-------|
| Silicon | ppm | ASTM D5185m | >200 | 2 | 3 | 3 |
| Potassium | ppm | ASTM D5185m | >20 | 2 | 4 | 2 |
| Fuel | | WC Method | >4.0 | <1.0 | <1.0 | <1.0 |
| Water | | WC Method | >0.1 | NEG | NEG | NEG |
| Glycol | | WC Method | | NEG | NEG | NEG |
| Soot % | % | *ASTM D7844 | | 0.1 | 0.1 | 0.1 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 9.4 | 9.0 | 8.5 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 25.6 | 25.3 | 23.7 |
| Silt | scalar | *Visual | NONE | NONE | NONE | 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 | >0.1 | NEG | NEG | NEG |

FLUID CONDITION

The AN level is above the recommended limit.

| | | | | | | |
|------------------|----------|-------------|------|--------------|------|------|
| Sodium | ppm | ASTM D5185m | | 6 | 3 | 6 |
| Boron | ppm | ASTM D5185m | 2 | 1 | 0 | <1 |
| Barium | ppm | ASTM D5185m | 3 | 0 | 1 | 0 |
| Molybdenum | ppm | ASTM D5185m | 0 | <1 | 4 | <1 |
| Manganese | ppm | ASTM D5185m | 0 | <1 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | 4 | 40 | 33 | 24 |
| Calcium | ppm | ASTM D5185m | 1727 | 2371 | 2357 | 2093 |
| Phosphorus | ppm | ASTM D5185m | 272 | 394 | 451 | 344 |
| Zinc | ppm | ASTM D5185m | 333 | 499 | 515 | 449 |
| Sulfur | ppm | ASTM D5185m | 3415 | 4349 | 4868 | 3451 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 24.6 | 23.6 | 21.7 |
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 1.1 | 4.583 | 2.83 | 2.73 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 4.9 | 3.32 | 3.32 | 3.25 |
| Visc @ 100°C | cSt | ASTM D445 | 13.4 | 15.1 | 14.9 | 14.6 |



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0069019 **Received** : 03 Jul 2024
Lab Number : 06227680 **Tested** : 15 Jul 2024
Unique Number : 11111173 **Diagnosed** : 15 Jul 2024 - Sean Felton
Test Package : MOB 2

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 T:
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Certificate L2367
 To discuss this sample report, contact Customer Service at 1-800-237-1369.
 * - Denotes test methods that are outside of the ISO 17025 scope of accreditation.
 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)