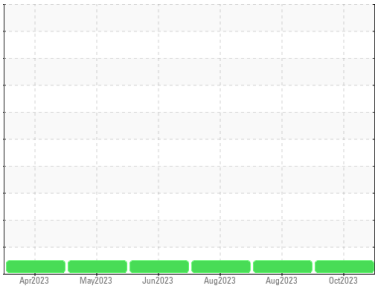
# OIL ANALYSIS REPORT

Sample Rating Trend




NORMAL

Machine Id
## FORD 613 (S/N 1FM5K8AG4NGA27100)
Component
**Gasoline Engine**
Fluid
**PETRO CANADA SUPREME 5W20 MOTOR OIL (6 GAL)**

## DIAGNOSIS

**Recommendation**
Resample at the next service interval to monitor.

**Wear**
All component wear rates are normal.

**Contamination**
There is no indication of any contamination in the oil.

**Fluid Condition**
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

| SAMPLE INFORMATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | **PCA0105351** | PCA0100397 | PCA0100388 |
| Sample Date | | Client Info | | **06 Oct 2023** | 31 Aug 2023 | 03 Aug 2023 |
| Machine Age | mls | Client Info | | **26194** | 23653 | 21955 |
| Oil Age | mls | Client Info | | **2541** | 1698 | 2127 |
| Oil Changed | | Client Info | | **N/A** | 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 D5185m | >150 | **5** | 4 | 6 |
| Chromium | ppm | ASTM D5185m | >20 | **<1** | 0 | <1 |
| Nickel | ppm | ASTM D5185m | >5 | **<1** | 0 | <1 |
| Titanium | ppm | ASTM D5185m | | **<1** | <1 | 0 |
| Silver | ppm | ASTM D5185m | >2 | **0** | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >40 | **3** | <1 | 2 |
| Lead | ppm | ASTM D5185m | >50 | **0** | <1 | <1 |
| Copper | ppm | ASTM D5185m | >155 | **1** | <1 | 1 |
| Tin | ppm | ASTM D5185m | >10 | **0** | <1 | 0 |
| Vanadium | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | | **0** | 0 | 0 |

| ADDITIVES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Boron | ppm | ASTM D5185m | 183 | **30** | 40 | 31 |
| Barium | ppm | ASTM D5185m | 0 | **0** | 0 | 2 |
| Molybdenum | ppm | ASTM D5185m | 36 | **67** | 66 | 68 |
| Manganese | ppm | ASTM D5185m | 0 | **<1** | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | 417 | **521** | 570 | 509 |
| Calcium | ppm | ASTM D5185m | 1318 | **1151** | 1279 | 1258 |
| Phosphorus | ppm | ASTM D5185m | 773 | **658** | 725 | 701 |
| Zinc | ppm | ASTM D5185m | 845 | **841** | 904 | 825 |
| Sulfur | ppm | ASTM D5185m | 2690 | **3226** | 3033 | 2763 |

| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185m | >30 | **21** | 15 | 19 |
| Sodium | ppm | ASTM D5185m | >400 | **5** | 4 | 5 |
| Potassium | ppm | ASTM D5185m | >20 | **1** | 2 | <1 |

| INFRA-RED | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Soot % | % | *ASTM D7844 | | **0** | 0 | 0 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | **8.6** | 9.0 | 9.3 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | **19.7** | 18.5 | 19.9 |

| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | **16.0** | 14.9 | 16.5 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 6.5 | **4.8** | 5.7 | 4.9 |

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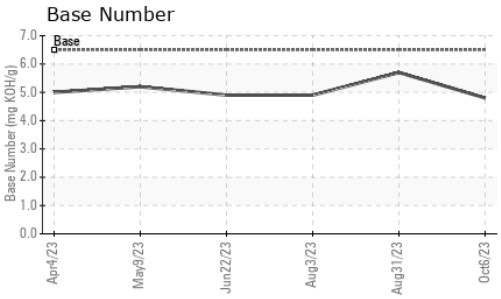
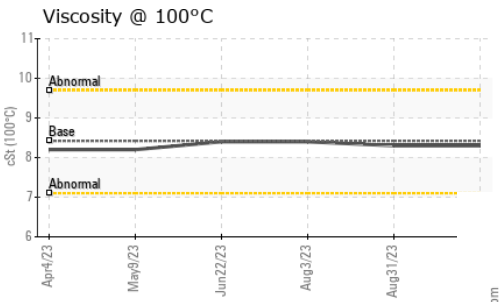
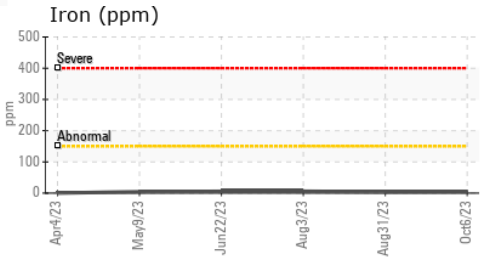


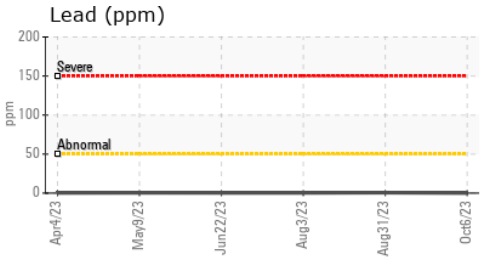



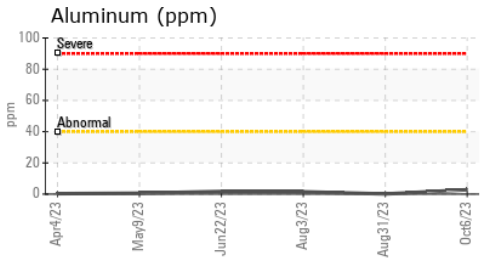

| VISUAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| White Metal | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Silt | scalar | *Visual | NONE | **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 | >0.2 | **NEG** | NEG | NEG |
| Free Water | scalar | *Visual | | **NEG** | NEG | NEG |

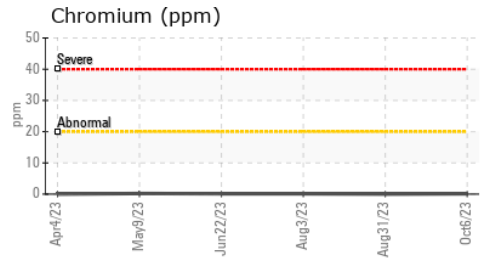
| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Visc @ 100°C | cSt | ASTM D445 | 8.42 | **8.3** | 8.3 | 8.4 |

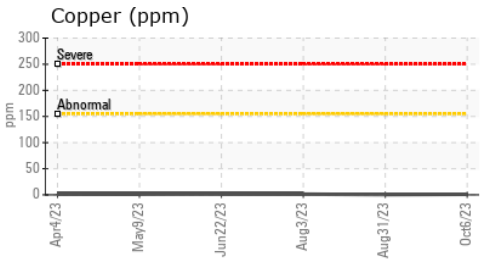
## GRAPHS

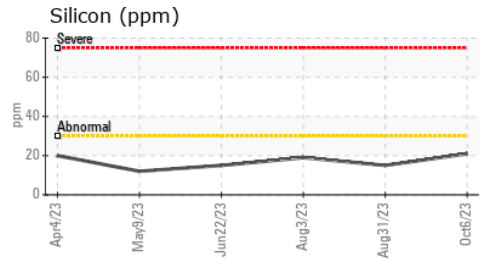


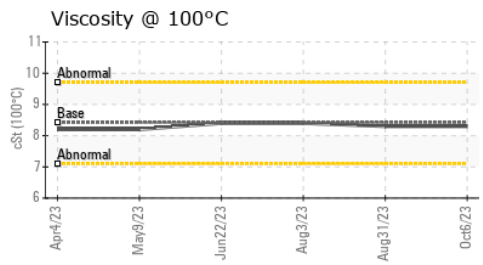



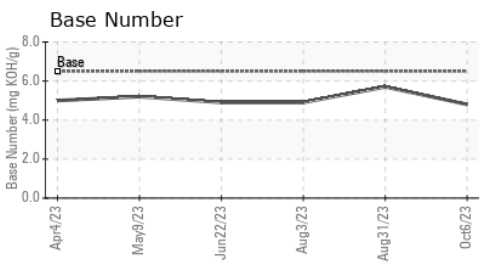




Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : PCA0105351 **Received** : 17 Oct 2023
**Lab Number** : 05981855 **Diagnosed** : 18 Oct 2023
**Unique Number** : 10699150 **Diagnostician** : Wes Davis
**Test Package** : MOB 1 ( Additional Tests: TBN )

*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)*

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