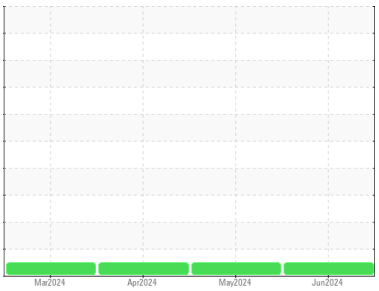
OIL DIAGNOSTICS

# OIL ANALYSIS REPORT

Sample Rating Trend




NORMAL

Machine Id
**SPC2**
Component
**Front Right Final Drive**
Fluid
**PETRO CANADA GEARLUBE TOS 80W90 (--- GAL)**

## DIAGNOSIS

**Recommendation**
Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

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

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

**Fluid Condition**
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

| SAMPLE INFORMATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | **PCA0123735** | PCA0123807 | PCA0118441 |
| Sample Date | | Client Info | | **26 Jun 2024** | 13 May 2024 | 08 Apr 2024 |
| Machine Age | hrs | Client Info | | **10450** | 9562 | 8864 |
| Oil Age | hrs | Client Info | | **500** | 0 | 0 |
| Oil Changed | | Client Info | | **Not Changd** | Not Changd | Changed |
| Sample Status | | | | **NORMAL** | NORMAL | NORMAL |

| CONTAMINATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Water | | WC Method | >0.2 | **NEG** | NEG | NEG |

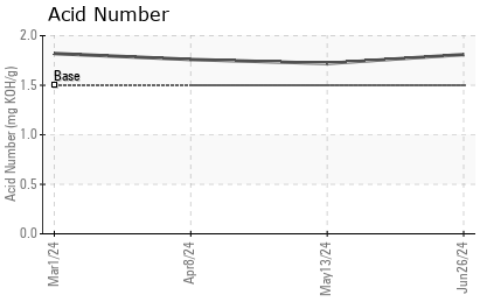
| WEAR METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Iron | ppm | ASTM D5185m | >500 | **34** | 7 | 17 |
| Chromium | ppm | ASTM D5185m | >10 | **0** | <1 | 0 |
| Nickel | ppm | ASTM D5185m | >10 | **<1** | 0 | 0 |
| Titanium | ppm | ASTM D5185m | | **0** | <1 | 0 |
| Silver | ppm | ASTM D5185m | | **0** | <1 | 0 |
| Aluminum | ppm | ASTM D5185m | >25 | **<1** | 1 | 0 |
| Lead | ppm | ASTM D5185m | >25 | **0** | <1 | 0 |
| Copper | ppm | ASTM D5185m | >50 | **0** | <1 | <1 |
| Tin | ppm | ASTM D5185m | >10 | **0** | <1 | 0 |
| Vanadium | ppm | ASTM D5185m | | **0** | <1 | 0 |
| Cadmium | ppm | ASTM D5185m | | **0** | 0 | 0 |

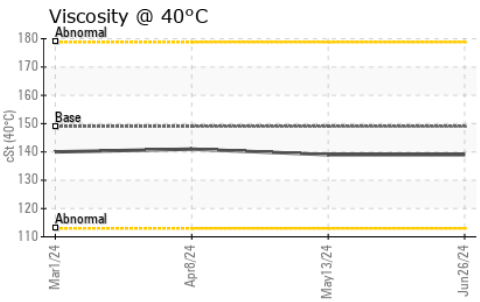
| ADDITIVES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Boron | ppm | ASTM D5185m | 274 | **266** | 329 | 309 |
| Barium | ppm | ASTM D5185m | 0.0 | **0** | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 0.0 | **0** | 0 | 0 |
| Manganese | ppm | ASTM D5185m | | **<1** | 0 | <1 |
| Magnesium | ppm | ASTM D5185m | 5.5 | **<1** | 1 | <1 |
| Calcium | ppm | ASTM D5185m | 9.9 | **7** | 4 | 6 |
| Phosphorus | ppm | ASTM D5185m | 855 | **1059** | 1096 | 1043 |
| Zinc | ppm | ASTM D5185m | 10 | **0** | 0 | 0 |
| Sulfur | ppm | ASTM D5185m | 14849 | **23674** | 22435 | 23471 |

| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185m | >75 | **9** | 8 | 0 |
| Sodium | ppm | ASTM D5185m | | **3** | 0 | 2 |
| Potassium | ppm | ASTM D5185m | >20 | **<1** | 1 | 2 |

| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 1.5 | **1.81** | 1.72 | 1.76 |

# OIL ANALYSIS REPORT



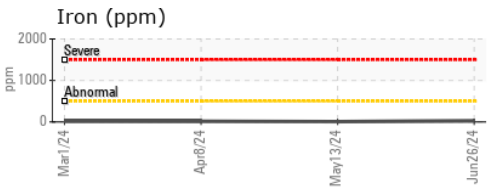



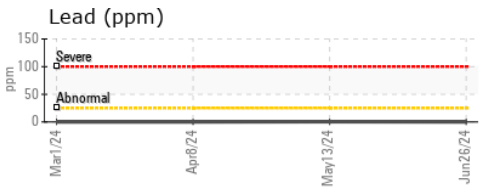

| VISUAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| White Metal | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| 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 |

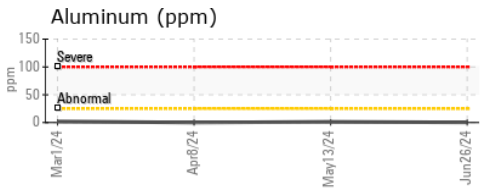
| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Visc @ 40°C | cSt | ASTM D445 | 149 | **139** | 139 | 141 |

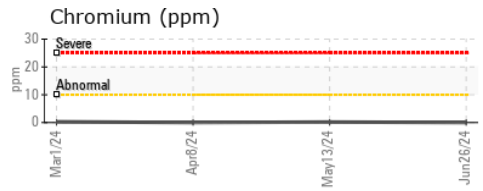
| SAMPLE IMAGES | | | | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Color | | | | *no image* | *no image* | *no image* |
| Bottom | | | | *no image* | *no image* | *no image* |

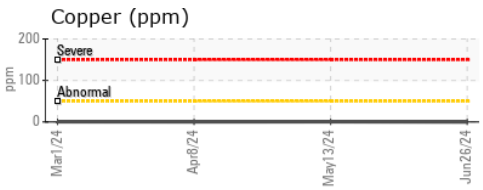
## GRAPHS

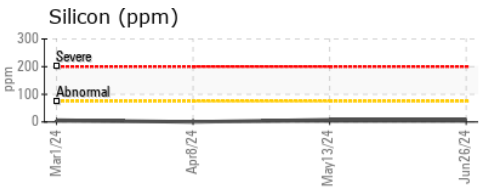


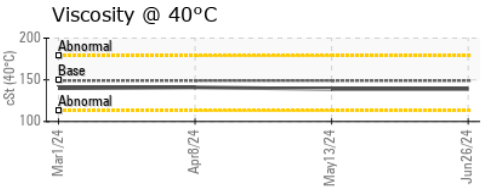



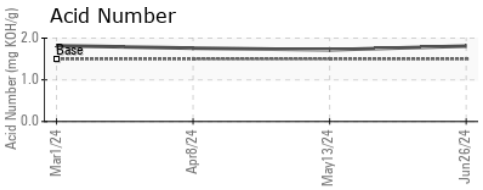




**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : PCA0123735
**Lab Number** : 06226421
**Unique Number** : 11109914
**Test Package** : MOB 2

**Received** : 02 Jul 2024
**Tested** : 03 Jul 2024
**Diagnosed** : 03 Jul 2024 - Wes Davis

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)*

**SCRAP METAL SERVICES (SMS Mill Services LLC)**
1500 COMMERCIAL AVE
MINGO JUNCTION, OH
US 43938
Contact: FRANK NALLY
fnally@scrapmetalservices.com
T:
F:

Report Id: SCRMIN [WUSCAR] 06226421 (Generated: 07/03/2024 11:40:06) Rev: 1

Submitted By: TIM RANDOLPH