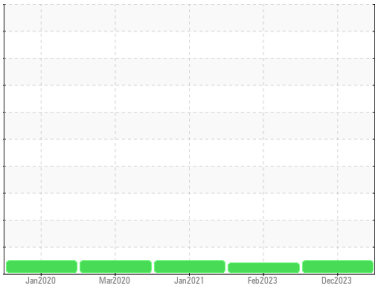
# OIL ANALYSIS REPORT

Sample Rating Trend




NORMAL

Machine Id
## Chevrolet 4347
Component
**Gasoline Engine**
Fluid
**PETRO CANADA DURON SHP 10W30 (--- 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 | | **PCA0091612** | PCA0071432 | PCA0013092 |
| Sample Date | | Client Info | | **08 Dec 2023** | 15 Feb 2023 | 25 Jan 2021 |
| Machine Age | mls | Client Info | | **90528** | 83044 | 57000 |
| Oil Age | mls | Client Info | | **7484** | 26044 | 1670 |
| Oil Changed | | Client Info | | **Changed** | Changed | Changed |
| Sample Status | | | | **NORMAL** | ATTENTION | NORMAL |

| CONTAMINATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Fuel | | WC Method | >4.0 | **<1.0** | <1.0 | <1.0 |
| Water | | WC Method | >0.2 | **NEG** | NEG | NEG |
| Glycol | | WC Method | | **NEG** | NEG | NEG |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Iron | ppm | ASTM D5185m | >150 | **18** | 25 | 6 |
| Chromium | ppm | ASTM D5185m | >20 | **<1** | 1 | <1 |
| Nickel | ppm | ASTM D5185m | >5 | **<1** | <1 | <1 |
| Titanium | ppm | ASTM D5185m | | **0** | <1 | <1 |
| Silver | ppm | ASTM D5185m | >2 | **0** | 0 | <1 |
| Aluminum | ppm | ASTM D5185m | >40 | **2** | 6 | 2 |
| Lead | ppm | ASTM D5185m | >50 | **0** | <1 | <1 |
| Copper | ppm | ASTM D5185m | >155 | **33** | 43 | 45 |
| Tin | ppm | ASTM D5185m | >10 | **0** | <1 | <1 |
| Antimony | ppm | ASTM D5185m | | **---** | --- | 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 | 2 | **1** | 1 | 52 |
| Barium | ppm | ASTM D5185m | 0 | **0** | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 50 | **59** | 56 | 12 |
| Manganese | ppm | ASTM D5185m | 0 | **0** | 2 | <1 |
| Magnesium | ppm | ASTM D5185m | 950 | **875** | 851 | 740 |
| Calcium | ppm | ASTM D5185m | 1050 | **975** | 1008 | 1234 |
| Phosphorus | ppm | ASTM D5185m | 995 | **740** | 792 | 712 |
| Zinc | ppm | ASTM D5185m | 1180 | **1112** | 1098 | 821 |
| Sulfur | ppm | ASTM D5185m | 2600 | **2337** | 2531 | 2370 |

| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185m | >30 | **10** | 10 | 9 |
| Sodium | ppm | ASTM D5185m | >400 | **0** | 5 | 2 |
| Potassium | ppm | ASTM D5185m | >20 | **2** | 1 | 2 |

| INFRA-RED | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Soot % | % | *ASTM D7844 | | **0.1** | 0.1 | 0.1 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | **16.4** | 18.7 | 10.7 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | **27.7** | 34.6 | 21.3 |

| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | **30.1** | 40.3 | 16.6 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | | **5.2** | 4.0 | 7.6 |

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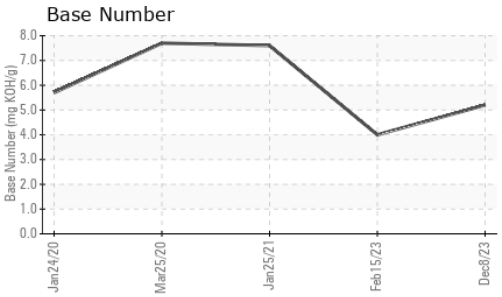
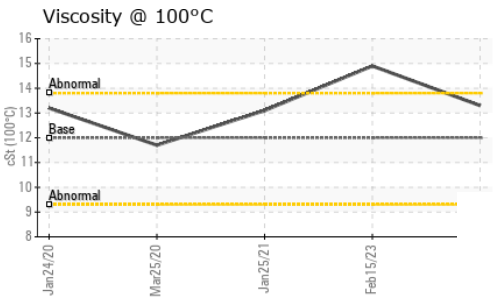
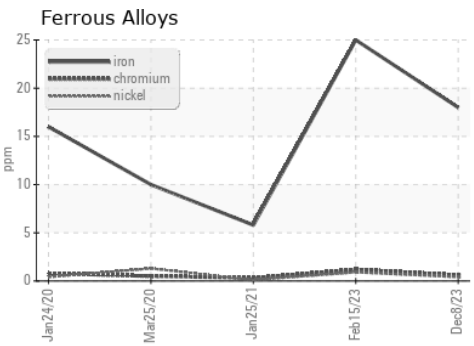


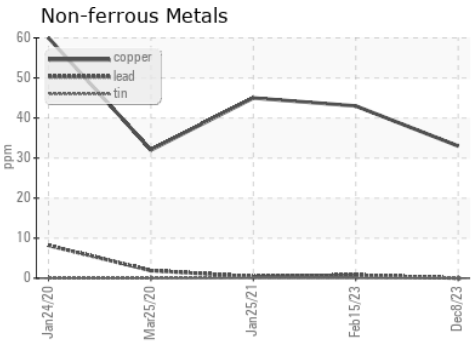



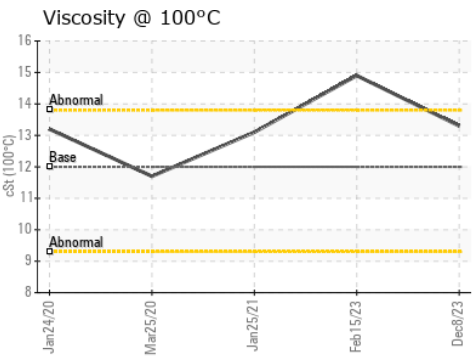

| VISUAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| White Metal | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | **NONE** | NONE | NONE |
|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

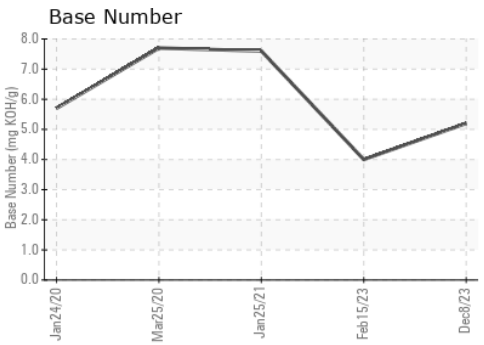
| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Visc @ 100°C | cSt | ASTM D445 | 12.00 | **13.3** | ▲ 14.9 | 13.1 |

## GRAPHS




Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : PCA0091612 **Recieved** : 20 Dec 2023
**Lab Number** : 06040270 **Diagnosed** : 21 Dec 2023
**Unique Number** : 10795499 **Diagnostician** : Sean Felton
**Test Package** : FLEET ( Additional Tests: FT-IR(Diff) )

*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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