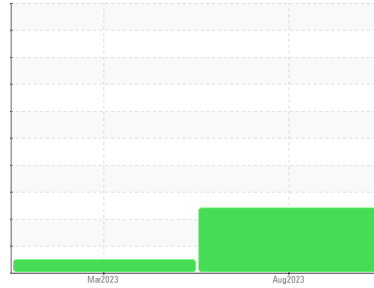


PROBLEM SUMMARY

Area
(89823X) Walgreens
 Machine Id
[Walgreens] 136A68035
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 10W30 (11 GAL)

Sample Rating Trend

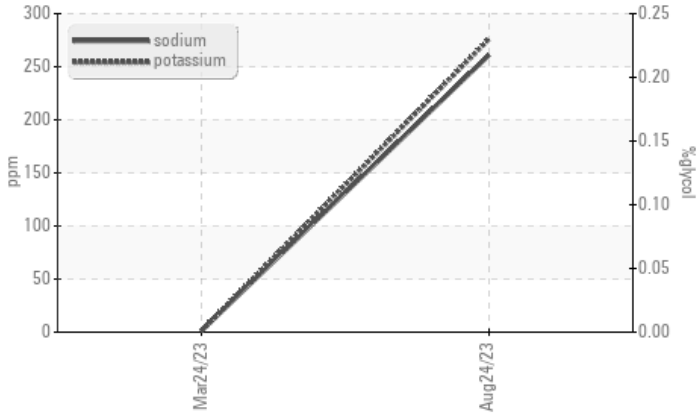


GLYCOL



COMPONENT CONDITION SUMMARY

▲ Glycol Contamination



RECOMMENDATION

We advise that you check for the source of the coolant leak. Check for low coolant level. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

| Sample Status | | | ABNORMAL | NORMAL | --- |
|---------------|-----|-----------------|----------|--------|-----|
| Sodium | ppm | ASTM D5185m | ▲ 261 | 1 | --- |
| Potassium | ppm | ASTM D5185m >20 | ▲ 276 | <1 | --- |

Customer Id: TSV1376
 Sample No.: PCA0093540
 Lab Number: 05949785
 Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Jonathan Hester +1 919-379-4092 x4092
jhester@wearcheckusa.com

To change component or sample information:
 Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

| Action | Status | Date | Done By | Description |
|---------------------|--------|------|---------|---|
| Change Fluid | --- | --- | ? | Oil and filter change at the time of sampling has been noted. |
| Change Filter | --- | --- | ? | Oil and filter change at the time of sampling has been noted. |
| Resample | --- | --- | ? | We recommend an early resample to monitor this condition. |
| Check Glycol Access | --- | --- | ? | We advise that you check for the source of the coolant leak. |

HISTORICAL DIAGNOSIS

24 Mar 2023 Diag: Wes Davis

NORMAL



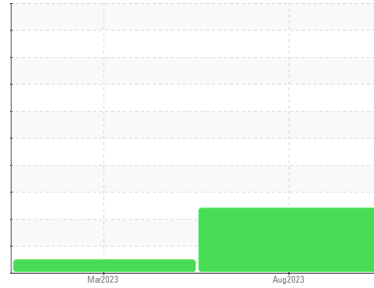
Resample at the next service interval to monitor. Metal levels are typical for a components first oil change. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report



OIL ANALYSIS REPORT

Sample Rating Trend



GLYCOL



Area
(89823X) Walgreens
Machine Id
[Walgreens] 136A68035
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 10W30 (11 GAL)

DIAGNOSIS

Recommendation

We advise that you check for the source of the coolant leak. Check for low coolant level. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

Sodium and/or potassium levels are high.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil.

SAMPLE INFORMATION

| | method | limit/base | current | history1 | history2 |
|---------------|-------------|-------------|--------------------|-------------|----------|
| Sample Number | Client Info | | PCA0093540 | PCA0082391 | --- |
| Sample Date | Client Info | | 24 Aug 2023 | 24 Mar 2023 | --- |
| Machine Age | mls | Client Info | 227288 | 216104 | --- |
| Oil Age | mls | Client Info | 216104 | 216104 | --- |
| Oil Changed | Client Info | | Changed | Changed | --- |
| Sample Status | | | ABNORMAL | NORMAL | --- |

CONTAMINATION

| | method | limit/base | current | history1 | history2 |
|------|-----------|------------|----------------|----------|----------|
| Fuel | WC Method | >5 | <1.0 | <1.0 | --- |

WEAR METALS

| | method | limit/base | current | history1 | history2 |
|----------|--------|------------------|--------------|----------|----------|
| Iron | ppm | ASTM D5185m >80 | 66 | 26 | --- |
| Chromium | ppm | ASTM D5185m >5 | 1 | <1 | --- |
| Nickel | ppm | ASTM D5185m >2 | 0 | 0 | --- |
| Titanium | ppm | ASTM D5185m | 21 | 6 | --- |
| Silver | ppm | ASTM D5185m >3 | 0 | 0 | --- |
| Aluminum | ppm | ASTM D5185m >30 | 1 | 2 | --- |
| Lead | ppm | ASTM D5185m >30 | 0 | 0 | --- |
| Copper | ppm | ASTM D5185m >150 | 1 | <1 | --- |
| Tin | ppm | ASTM D5185m >5 | <1 | 0 | --- |
| Vanadium | ppm | ASTM D5185m | <1 | 0 | --- |
| Cadmium | ppm | ASTM D5185m | 0 | 0 | --- |

ADDITIVES

| | method | limit/base | current | history1 | history2 |
|------------|--------|------------------|--------------|----------|----------|
| Boron | ppm | ASTM D5185m 2 | 4 | 9 | --- |
| Barium | ppm | ASTM D5185m 0 | 0 | 0 | --- |
| Molybdenum | ppm | ASTM D5185m 50 | 58 | 45 | --- |
| Manganese | ppm | ASTM D5185m 0 | <1 | <1 | --- |
| Magnesium | ppm | ASTM D5185m 950 | 615 | 786 | --- |
| Calcium | ppm | ASTM D5185m 1050 | 1584 | 1363 | --- |
| Phosphorus | ppm | ASTM D5185m 995 | 908 | 965 | --- |
| Zinc | ppm | ASTM D5185m 1180 | 1172 | 1224 | --- |
| Sulfur | ppm | ASTM D5185m 2600 | 3804 | 3292 | --- |

CONTAMINANTS

| | method | limit/base | current | history1 | history2 |
|-----------|--------|-----------------|--------------|----------|----------|
| Silicon | ppm | ASTM D5185m >20 | 11 | 5 | --- |
| Sodium | ppm | ASTM D5185m | ▲ 261 | 1 | --- |
| Potassium | ppm | ASTM D5185m >20 | ▲ 276 | <1 | --- |
| Glycol | % | *ASTM D2982 | NEG | NEG | --- |

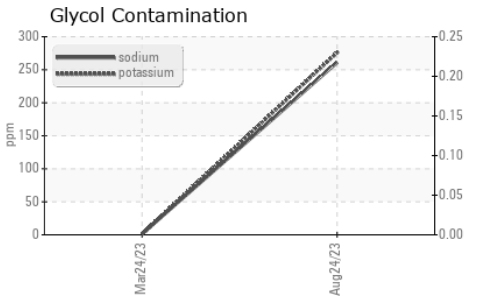
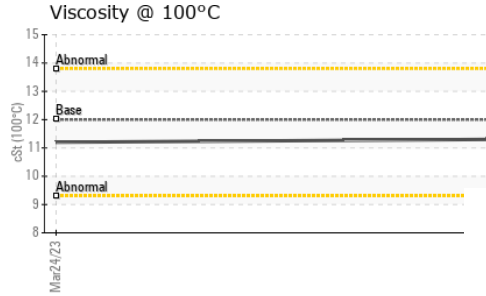
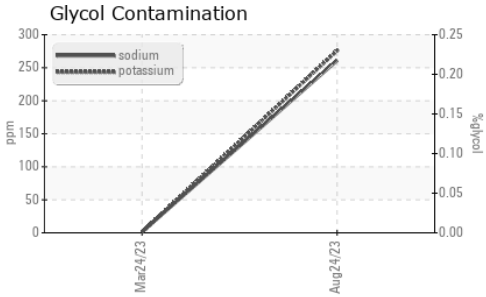
INFRA-RED

| | method | limit/base | current | history1 | history2 |
|-----------|----------|-----------------|-------------|----------|----------|
| Soot % | % | *ASTM D7844 >3 | 0.4 | 0.6 | --- |
| Nitration | Abs/cm | *ASTM D7624 >20 | 11.9 | 10.5 | --- |
| Sulfation | Abs/.1mm | *ASTM D7415 >30 | 21.1 | 22.7 | --- |

FLUID DEGRADATION

| | method | limit/base | current | history1 | history2 |
|------------------|----------|-----------------|-------------|----------|----------|
| Oxidation | Abs/.1mm | *ASTM D7414 >25 | 16.6 | 20.1 | --- |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 6.8 | 6.0 | --- |

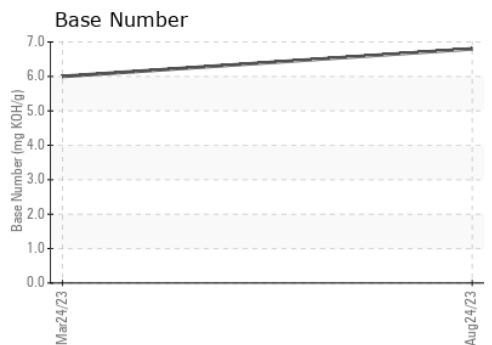
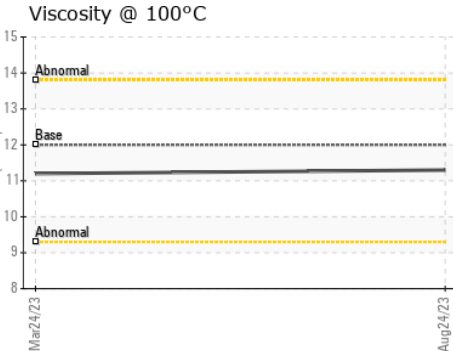
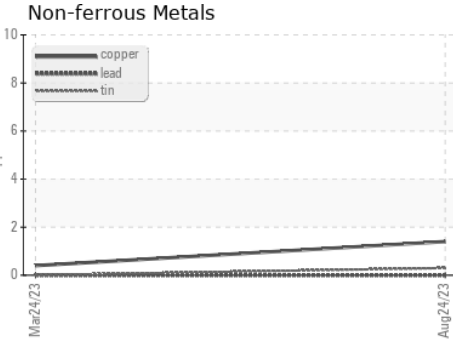
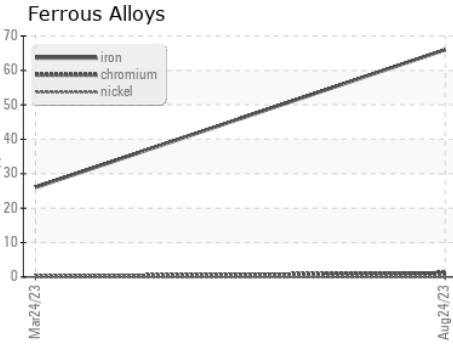
OIL ANALYSIS REPORT



| VISUAL | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | --- |
| Yellow Metal | scalar | *Visual | NONE | NONE | --- |
| Precipitate | scalar | *Visual | NONE | NONE | --- |
| Silt | scalar | *Visual | NONE | NONE | --- |
| Debris | scalar | *Visual | NONE | NONE | --- |
| Sand/Dirt | scalar | *Visual | NONE | NONE | --- |
| Appearance | scalar | *Visual | NORML | NORML | --- |
| Odor | scalar | *Visual | NORML | NORML | --- |
| Emulsified Water | scalar | *Visual | >0.2 | NEG | --- |
| Free Water | scalar | *Visual | | NEG | --- |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|-------------|----------|
| Visc @ 100°C | cSt | ASTM D445 | 12.00 | 11.3 | 11.2 |

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0093540 **Received** : 13 Sep 2023
Lab Number : **05949785** **Diagnosed** : 18 Sep 2023
Unique Number : 10645744 **Diagnostician** : Jonathan Hester
Test Package : FLEET (Additional Tests: Glycol)

Transervice - Shop 1376 - Berkeley-Linden
 3425 Tremley Point Road
 Linden, NJ
 US 07036
 Contact: Shop 1376 Oil Analysis
 shop1376@transervice.com

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)