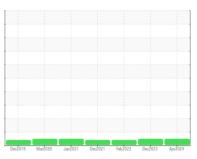


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id

Chevrolet 4350

Gasoline Engine

PETRO CANADA DURON SHP 10W30 (6 QTS)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

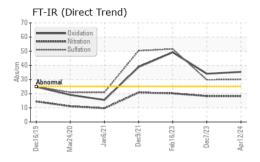
Fluid Condition

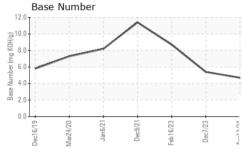
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

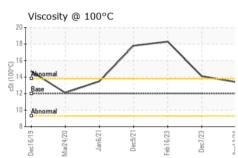
| SAMPLE INFORMATION method limit/base current history1 history2 | TS) | | Dec2019 | Mar2020 Jan2021 | Dec2021 Feb2023 Dec2023 | Apr2024 | |
|---|------------------|----------|-------------|-----------------|-------------------------|-------------|-------------|
| Sample Date | SAMPLE INFOR | RMATION | method | limit/base | current | history1 | history2 |
| Machine Age mls Client Info 102594 90940 72355 Oil Age mls Client Info 11654 18585 18123 Oil Changed Changed Changed Changed Changed Changed Sample Status WC Method NoRMAL NORMAL NORMAL ABNORMAL Fuel WC Method >4.0 <1.0 <1.0 <1.0 WEAR WC Method >0.2 NEG NEG NEG Glycol WC Method Imitibase current history1 history2 Iron ppm ASTM 05185m >50 21 19 35 Chromium ppm ASTM 05185m >50 1 1 1 Nickel ppm ASTM 05185m >50 1 <1 1 Silver ppm ASTM 05185m >20 0 0 0 Aluminum ppm ASTM 05185m >50 1 <1 1 1 | Sample Number | | Client Info | | PCA0112698 | PCA0091620 | PCA0071436 |
| Oil Age | Sample Date | | Client Info | | 12 Apr 2024 | 07 Dec 2023 | 16 Feb 2023 |
| Oil Changed Sample Status Client Info Changed NORMAL Changed NORMAL Changed ABNORMAL ABNORMAL ABNORMAL 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 NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >150 21 19 35 Chromium ppm ASTM D5185m >20 1 1 1 Nickel ppm ASTM D5185m >20 1 1 1 1 Silver ppm ASTM D5185m >2 0 0 0 0 Silver ppm ASTM D5185m >50 1 <1 1 1 1 1 1 1 1 | Machine Age | mls | Client Info | | 102594 | 90940 | 72355 |
| NORMAL NORMAL ABNORMAL | Oil Age | mls | Client Info | | 11654 | 18585 | 18123 |
| CONTAMINATION method limit/base current history1 history2 Fuel WC Method >4.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 | Oil Changed | | Client Info | | Changed | Changed | Changed |
| Fuel | Sample Status | | | | NORMAL | NORMAL | ABNORMAL |
| Water WC Method SO.2 NEG NEG NEG Glycol WC Method NEG NEG NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >150 21 19 35 Chromitiom ppm ASTM D5185m >20 1 1 1 Nickel ppm ASTM D5185m >5 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <th>CONTAMINAT</th> <th>ΓΙΟΝ</th> <th>method</th> <th>limit/base</th> <th>current</th> <th>history1</th> <th>history2</th> | CONTAMINAT | ΓΙΟΝ | method | limit/base | current | history1 | history2 |
| WEAR METALS | Fuel | | WC Method | >4.0 | <1.0 | <1.0 | <1.0 |
| WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >150 21 19 35 Chromium ppm ASTM D5185m >20 1 1 1 Nickel ppm ASTM D5185m >20 1 1 1 Titanium ppm ASTM D5185m >20 0 0 0 Aluminum ppm ASTM D5185m >20 0 0 0 Aluminum ppm ASTM D5185m >20 0 0 0 Aluminum ppm ASTM D5185m >50 1 <1 | Water | | WC Method | >0.2 | NEG | NEG | NEG |
| Iron | Glycol | | WC Method | | NEG | NEG | NEG |
| Chromium ppm ASTM D5185m >20 1 1 1 Nickel ppm ASTM D5185m >5 <1 | WEAR METAL | _S | method | limit/base | current | history1 | history2 |
| Nickel | Iron | ppm | ASTM D5185m | >150 | 21 | 19 | 35 |
| Titanium | Chromium | ppm | ASTM D5185m | >20 | 1 | 1 | 1 |
| Silver ppm ASTM D5185m >2 0 0 0 Aluminum ppm ASTM D5185m >40 4 4 7 Lead ppm ASTM D5185m >50 1 <1 1 Copper ppm ASTM D5185m >155 35 29 47 Tin ppm ASTM D5185m >10 0 0 <1 Antimony ppm ASTM D5185m Vanadium ppm ASTM D5185m Vanadium ppm ASTM D5185m 0 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 2 3 0 3 Barium ppm ASTM D5185m 0 0 0 0 Boron ppm ASTM D5185m 50 59 57 | Nickel | ppm | ASTM D5185m | >5 | <1 | <1 | 1 |
| Aluminum ppm ASTM D5185m >40 4 4 7 Lead ppm ASTM D5185m >50 1 <1 | Titanium | ppm | ASTM D5185m | | <1 | <1 | <1 |
| Lead | Silver | ppm | ASTM D5185m | >2 | 0 | 0 | 0 |
| Copper ppm ASTM D5185m >155 35 29 47 Tin ppm ASTM D5185m >10 0 0 <1 | Aluminum | ppm | ASTM D5185m | >40 | 4 | 4 | 7 |
| Tin ppm ASTM D5185m > 10 0 0 < 1 Antimony ppm ASTM D5185m | Lead | ppm | ASTM D5185m | >50 | 1 | <1 | 1 |
| Antimony | Copper | ppm | ASTM D5185m | >155 | 35 | 29 | 47 |
| Vanadium ppm ASTM D5185m <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 | Tin | ppm | ASTM D5185m | >10 | 0 | 0 | <1 |
| Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 2 3 0 3 Barium ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 50 59 57 53 Manganese ppm ASTM D5185m 0 1 <1 | Antimony | ppm | ASTM D5185m | | | | |
| ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 2 3 0 3 Barium ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 50 59 57 53 Manganese ppm ASTM D5185m 0 1 <1 | Vanadium | ppm | ASTM D5185m | | <1 | <1 | <1 |
| Boron | Cadmium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Barium ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 50 59 57 53 Manganese ppm ASTM D5185m 0 1 <1 | ADDITIVES | | method | limit/base | current | history1 | history2 |
| Molybdenum ppm ASTM D5185m 50 59 57 53 Manganese ppm ASTM D5185m 0 1 <1 2 Magnesium ppm ASTM D5185m 950 926 870 821 Calcium ppm ASTM D5185m 1050 1078 971 971 Phosphorus ppm ASTM D5185m 1050 1078 971 971 Zinc ppm ASTM D5185m 995 962 825 776 Zinc ppm ASTM D5185m 1180 1225 1089 1126 Sulfur ppm ASTM D5185m 2600 3013 2385 2544 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >30 9 10 10 Sodium ppm ASTM D5185m >20 2 0 3 INFRA-RED method limit/bas | Boron | ppm | ASTM D5185m | 2 | 3 | 0 | 3 |
| Manganese ppm ASTM D5185m 0 1 <1 2 Magnesium ppm ASTM D5185m 950 926 870 821 Calcium ppm ASTM D5185m 1050 1078 971 971 Phosphorus ppm ASTM D5185m 995 962 825 776 Zinc ppm ASTM D5185m 1180 1225 1089 1126 Sulfur ppm ASTM D5185m 2600 3013 2385 2544 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >30 9 10 10 Sodium ppm ASTM D5185m >400 5 2 7 Potassium ppm ASTM D5185m >20 2 0 3 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 0.1< | Barium | ppm | ASTM D5185m | 0 | 0 | 0 | 0 |
| Magnesium ppm ASTM D5185m 950 926 870 821 Calcium ppm ASTM D5185m 1050 1078 971 971 Phosphorus ppm ASTM D5185m 1050 962 825 776 Zinc ppm ASTM D5185m 1180 1225 1089 1126 Sulfur ppm ASTM D5185m 2600 3013 2385 2544 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >30 9 10 10 Sodium ppm ASTM D5185m >400 5 2 7 Potassium ppm ASTM D5185m >20 2 0 3 INFRA-RED method limit/base current history1 history2 Soot % *ASTM D7624 >20 18.2 18.3 20.2 Sulfation Abs/.1mm *ASTM D7415 >30 <td>Molybdenum</td> <td>ppm</td> <td>ASTM D5185m</td> <td>50</td> <th>59</th> <td>57</td> <td>53</td> | Molybdenum | ppm | ASTM D5185m | 50 | 59 | 57 | 53 |
| Calcium ppm ASTM D5185m 1050 1078 971 971 Phosphorus ppm ASTM D5185m 995 962 825 776 Zinc ppm ASTM D5185m 1180 1225 1089 1126 Sulfur ppm ASTM D5185m 2600 3013 2385 2544 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >30 9 10 10 Sodium ppm ASTM D5185m >400 5 2 7 Potassium ppm ASTM D5185m >20 2 0 3 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 0.1 0.1 0.1 Nitration Abs/.1mm *ASTM D7624 >20 18.2 18.3 20.2 Sulfation Abs/.1mm *ASTM D7415 >30 </td <td>Manganese</td> <td>ppm</td> <td>ASTM D5185m</td> <td>0</td> <th>1</th> <td><1</td> <td>2</td> | Manganese | ppm | ASTM D5185m | 0 | 1 | <1 | 2 |
| Phosphorus ppm ASTM D5185m 995 962 825 776 Zinc ppm ASTM D5185m 1180 1225 1089 1126 Sulfur ppm ASTM D5185m 2600 3013 2385 2544 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >30 9 10 10 Sodium ppm ASTM D5185m >400 5 2 7 Potassium ppm ASTM D5185m >20 2 0 3 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 0.1 0.1 0.1 Nitration Abs/cm *ASTM D7624 >20 18.2 18.3 20.2 Sulfation Abs/.1mm *ASTM D7415 >30 30.0 29.8 51.6 FLUID DEGRADATION method <t< td=""><td>Magnesium</td><td>ppm</td><td>ASTM D5185m</td><td>950</td><th>926</th><td>870</td><td>821</td></t<> | Magnesium | ppm | ASTM D5185m | 950 | 926 | 870 | 821 |
| Zinc ppm ASTM D5185m 1180 1225 1089 1126 Sulfur ppm ASTM D5185m 2600 3013 2385 2544 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >30 9 10 10 Sodium ppm ASTM D5185m >400 5 2 7 Potassium ppm ASTM D5185m >20 2 0 3 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 0.1 0.1 0.1 Nitration Abs/cm *ASTM D7624 >20 18.2 18.3 20.2 Sulfation Abs/.1mm *ASTM D7415 >30 30.0 29.8 51.6 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *A | Calcium | ppm | ASTM D5185m | 1050 | 1078 | 971 | 971 |
| Sulfur ppm ASTM D5185m 2600 3013 2385 2544 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >30 9 10 10 Sodium ppm ASTM D5185m >400 5 2 7 Potassium ppm ASTM D5185m >20 2 0 3 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 0.1 0.1 0.1 Nitration Abs/cm *ASTM D7624 >20 18.2 18.3 20.2 Sulfation Abs/.1mm *ASTM D7415 >30 30.0 29.8 51.6 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 35.4 34.1 49.2 | Phosphorus | ppm | ASTM D5185m | 995 | 962 | 825 | 776 |
| CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >30 9 10 10 Sodium ppm ASTM D5185m >400 5 2 7 Potassium ppm ASTM D5185m >20 2 0 3 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 0.1 0.1 0.1 Nitration Abs/cm *ASTM D7624 >20 18.2 18.3 20.2 Sulfation Abs/.1mm *ASTM D7415 >30 30.0 29.8 51.6 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 35.4 34.1 49.2 | Zinc | ppm | ASTM D5185m | 1180 | 1225 | 1089 | 1126 |
| Silicon ppm ASTM D5185m >30 9 10 10 Sodium ppm ASTM D5185m >400 5 2 7 Potassium ppm ASTM D5185m >20 2 0 3 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 0.1 0.1 0.1 Nitration Abs/cm *ASTM D7624 >20 18.2 18.3 20.2 Sulfation Abs/.1mm *ASTM D7415 >30 30.0 29.8 51.6 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 35.4 34.1 49.2 | Sulfur | ppm | ASTM D5185m | 2600 | 3013 | 2385 | 2544 |
| Sodium ppm ASTM D5185m >400 5 2 7 Potassium ppm ASTM D5185m >20 2 0 3 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 0.1 0.1 0.1 0.1 Nitration Abs/cm *ASTM D7624 >20 18.2 18.3 20.2 Sulfation Abs/.1mm *ASTM D7415 >30 30.0 29.8 51.6 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 35.4 34.1 49.2 | CONTAMINAN | NTS | method | limit/base | current | history1 | history2 |
| Potassium ppm ASTM D5185m >20 2 0 3 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 0.1 0.1 0.1 Nitration Abs/cm *ASTM D7624 >20 18.2 18.3 20.2 Sulfation Abs/.1mm *ASTM D7415 >30 30.0 29.8 51.6 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 35.4 34.1 49.2 | Silicon | ppm | ASTM D5185m | >30 | 9 | 10 | 10 |
| INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 0.1 0.1 0.1 Nitration Abs/cm *ASTM D7624 >20 18.2 18.3 20.2 Sulfation Abs/.1mm *ASTM D7415 >30 30.0 29.8 51.6 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 35.4 34.1 49.2 | Sodium | ppm | ASTM D5185m | >400 | 5 | 2 | 7 |
| Soot % % *ASTM D7844 0.1 0.1 0.1 Nitration Abs/cm *ASTM D7624 >20 18.2 18.3 20.2 Sulfation Abs/.1mm *ASTM D7415 >30 30.0 29.8 51.6 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 35.4 34.1 49.2 | Potassium | ppm | ASTM D5185m | >20 | 2 | 0 | 3 |
| Nitration Abs/cm *ASTM D7624 >20 18.2 18.3 20.2 Sulfation Abs/.1mm *ASTM D7415 >30 30.0 29.8 51.6 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 35.4 34.1 49.2 | INFRA-RED | | method | limit/base | current | history1 | history2 |
| Sulfation Abs/.1mm *ASTM D7415 >30 30.0 29.8 51.6 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 35.4 34.1 49.2 | Soot % | % | *ASTM D7844 | | 0.1 | 0.1 | 0.1 |
| FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 35.4 34.1 49.2 | Nitration | Abs/cm | *ASTM D7624 | >20 | 18.2 | 18.3 | 20.2 |
| Oxidation Abs/.1mm *ASTM D7414 >25 35.4 34.1 49.2 | Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 30.0 | 29.8 | 51.6 |
| | FLUID DEGRA | DATION | method | limit/base | current | history1 | history2 |
| Base Number (BN) mg KOH/g ASTM D2896 4.7 5.4 8.7 | Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 35.4 | 34.1 | 49.2 |
| | Base Number (BN) | mg KOH/g | ASTM D2896 | | 4.7 | 5.4 | 8.7 |



OIL ANALYSIS REPORT



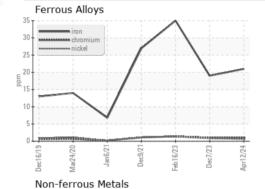




| VISUAL | | method | limit/base | current | history1 | history2 |
|-------------------------|--------|---------|------------|---------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Precipitate |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

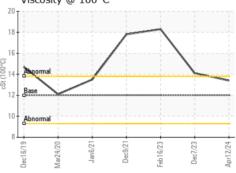
| L LOID LUCLI | | memou | | | HISTORY | HISTORYZ |
|--------------|-----|-----------|-------|------|---------|----------|
| Visc @ 100°C | cSt | ASTM D445 | 12.00 | 13.4 | 14.1 | <u> </u> |

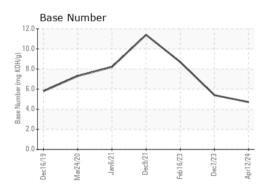
GRAPHS





Viscosity @ 100°C









Certificate 12367

Laboratory Sample No.

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : PCA0112698 Lab Number : 06215330 Unique Number : 11088194 Test Package : FLEET

Received : 20 Jun 2024 **Tested** : 21 Jun 2024

Diagnosed : 21 Jun 2024 - Sean Felton

ICSB370 - Alton 4525 North Alby Road Godfrey, IL US 62035

Contact: Chad Ingold c.ingold@illinois-central.com T: (618)466-5400

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)