

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id 2520

Component **Diesel Engine**

Elui

PETRO CANADA DURON SHP 15W40 (10 GAL)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

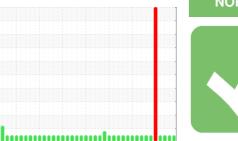
Metal levels are typical for a new component breaking in.

Contamination

Fuel content negligible. 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.

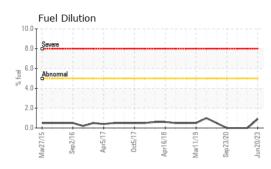


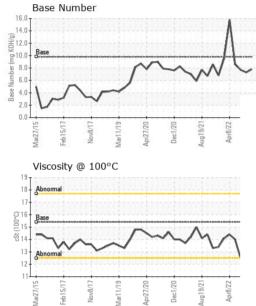
-7015 Feb7017 Nov2017 Mar2019 Apr2020 Dec2020 Aug2021 Apr2022

| Sample Number Client Info GFL0073303 GFL0073272 GFL0045993 Sample Date Client Info 20 Jun 2023 19 May 2023 23 Jan 2023 Machine Age hrs Client Info 600 600 600 Oil Age hrs Client Info 600 600 600 Oil Age hrs Client Info Changed Changed Changed Sample Status Telent Info Changed Changed Changed CONTAMINATION method Imit/base NEG NEG NEG Water VC Method >0.2 NEG NEG NEG Glycol WC Method >10 9 66 9 Chromium ppm ASTM 051655 >4 -1 2 -1 Nickel ppm ASTM 05165 >2 0 0 0 Mathomium ppm ASTM 05165 >2 0 0 0 Sikver ppm ASTM 05165 | SAMPLE INFOR | MATION | method | limit/base | current | history1 | history2 |
|--|---|--|---|---|--|---|---|
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| Oil Age hrs Client Info 600 600 600 Oil Changed Client Info Changed NORMAL NORMAL | Sample Date | | Client Info | | 20 Jun 2023 | 19 May 2023 | 23 Jan 2023 |
| Oil Changed Sample StatusClient InfoChanged NORMALChanged NORMALChanged NORMALChanged NORMALChanged NORMALCONTAMINATIONmethodimit/basecurrenthistory1history2WaterWC Method>0.2NEGNEGNEGGlycolWC Method>0.2NEGNEGNEGOthorniumppmASTM D5185m>1109669ChromiumppmASTM D5185m>412<1NickelppmASTM D5185m>2000SilverppmASTM D5185m>2000AluminumppmASTM D5185m>2046LeadppmASTM D5185m>2046CopperppmASTM D5185m>4502<1VanadiumppmASTM D5185m>402<1VanadiumppmASTM D5185m0000ADDITVESmethodimit/basecurrentHistory1History2BoronppmASTM D5185m00000ADDITVESmethodinit/basecurrentHistory1History2BariumppmASTM D5185m1010738729650MagnesiumppmASTM D5185m1010738729651MagnesiumppmASTM D5185m1150923976917 | Machine Age | hrs | Client Info | | 600 | 600 | 600 |
| Sample Status Image: More and any and any | Oil Age | hrs | Client Info | | 600 | 600 | 600 |
| CONTAMINATION method imit/base current history1 history2 Water WC Method >0.2 NEG NEG NEG NEG Glycol WC Method >0.2 NEG NEG NEG NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5165m >4 <1 2 <1 Nickel ppm ASTM D5165m >2 0 0 0 Silver ppm ASTM D5165m >2 0 0 0 Aluminum ppm ASTM D5165m >25 0 4 6 Lead ppm ASTM D5165m >45 0 2 1 Tin ppm ASTM D5165m >45 0 2 1 Vanadium ppm ASTM D5165m 0 0 0 0 ADDITVES method imit/base current history1 <t< th=""><th>Oil Changed</th><th></th><th>Client Info</th><th></th><th>Changed</th><th>Changed</th><th>Changed</th></t<> | Oil Changed | | Client Info | | Changed | Changed | Changed |
| Water WC Method >0.2 NEG NEG NEG Glycol WC Method Imit/base current Inistory1 Inistory2 Iron ppm ASTM D5185m >110 9 66 9 Chromium ppm ASTM D5185m >2 <11 | Sample Status | | | | NORMAL | NORMAL | NORMAL |
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| Nickel ppm ASTM D5185m >2 <1 | Iron | ppm | ASTM D5185m | >110 | 9 | 66 | 9 |
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| Tin ppm ASTM D5185m >4 0 2 <1 | Lead | ppm | ASTM D5185m | >45 | 0 | 8 | 0 |
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| | Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration | ppm ppm ppm ppm ppm ppm ppm % | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D3524 method *ASTM D7844 | 1010 1070 1150 1270 2060 imit/base >30 >20 >5 imit/base >3 >20 | 738 1221 923 1112 3264 <u>current</u> 3 0 2 0.9 <u>current</u> 0.6 7.7 | 729 1344 976 1200 3752 history1 9 6 2 <1.0 history1 0.7 9.3 | 650 1237 917 1053 3438 history2 9 22 <1 <10 <1.0 history2 0.2 7.0 |
| Base Number (BN) mg KOH/g ASTM D2896 9.8 7.8 7.3 7.7 | Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation | ppm ppm ppm ppm ppm ppm ppm ppm % % Abs/tmm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D3524 ASTM D3524 *ASTM D7844 *ASTM D7624 | 1010 1070 1150 1270 2060 limit/base >30 >20 >5 limit/base >3 >20 >3 >20 | 738 1221 923 1112 3264 current 3 0 2 0.9 current 0.6 7.7 18.8 | 729 1344 976 1200 3752 history1 9 6 2 <1.0 history1 0.7 9.3 20.8 | 650 1237 917 1053 3438 history2 9 22 <1 <1.0 history2 0.2 7.0 17.5 |
| | Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation FLUID DEGRAE | ppm ppm ppm ppm ppm ppm ppm ppm % % Abs/cm Abs/.1mm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D3524 ASTM D3524 *ASTM D7844 *ASTM D7624 *ASTM D7415 | 1010 1070 1150 1270 2060 imit/base >30 >20 >5 imit/base >3 >20 >30 imit/base | 738 1221 923 1112 3264 current 3 0 2 0.9 current 0.6 7.7 18.8 current | 729 1344 976 1200 3752 history1 9 6 2 <1.0 history1 0.7 9.3 20.8 history1 | 650 1237 917 1053 3438 history2 9 22 <1 <1.0 history2 0.2 7.0 17.5 history2 |



OIL ANALYSIS REPORT





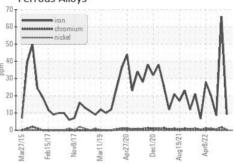
| VISUAL | | method | limit/base | current | history1 | history2 |
|------------------|--------|-----------|------------|---------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Precipitate | scalar | *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 PROPE | RTIES | method | limit/base | current | history1 | history2 |
| Visc @ 100°C | cSt | ASTM D445 | 15.4 | 12.0 | 12.6 | 12.5 |
| GRAPHS | | | | | | |

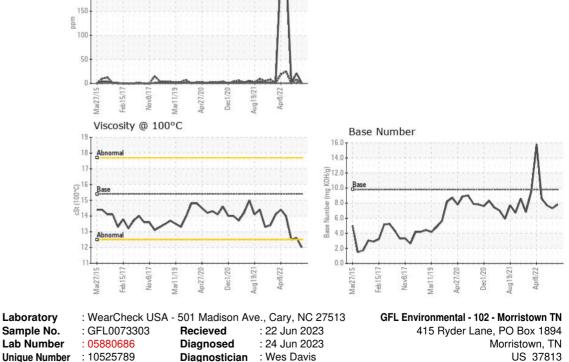
Ferrous Alloys

Non-ferrous Metals

250

200





Lab Number Unique Number : 10525789 Diagnostician : Wes Davis Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel) Contact: Ricky Dunlap Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. ricky.dunlap@gflenv.com * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: (800)207-6618 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

F: