

Area
G. LOPES CONSTRUCTION INC./OFF-ROAD
Machine Id
SL-24
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | PCA0122906 | PCA0122616 | PCA0104590 |
| Sample Date | | Client Info | | 24 Jun 2024 | 01 May 2024 | 11 Oct 2023 |
| Machine Age | hrs | Client Info | | 27253 | 27253 | 27253 |
| Oil Age | hrs | Client Info | | 27253 | 27253 | 27253 |
| Filter Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Changed | | Client Info | | N/A | N/A | N/A |
| Filter Changed | | Client Info | | N/A | N/A | N/A |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|-------------|------|--------------|------|------|
| Iron | ppm | ASTM D5185m | >100 | 2 | 14 | 22 |
| Chromium | ppm | ASTM D5185m | >20 | <1 | <1 | <1 |
| Nickel | ppm | ASTM D5185m | >4 | 0 | <1 | <1 |
| Titanium | ppm | ASTM D5185m | | 0 | <1 | <1 |
| Silver | ppm | ASTM D5185m | >3 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >20 | 2 | 2 | 6 |
| Lead | ppm | ASTM D5185m | >40 | 0 | <1 | 0 |
| Copper | ppm | ASTM D5185m | >330 | 0 | <1 | <1 |
| Tin | ppm | ASTM D5185m | >15 | 0 | <1 | <1 |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |

CONTAMINATION

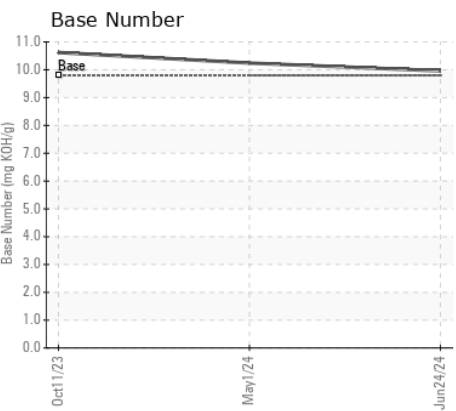
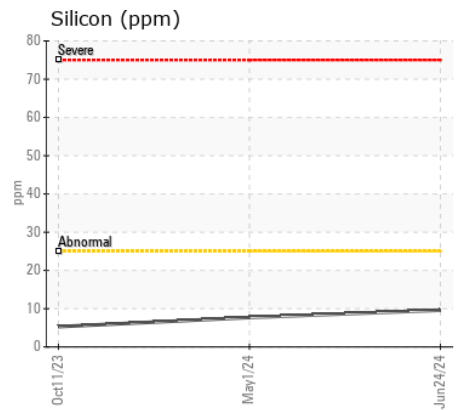
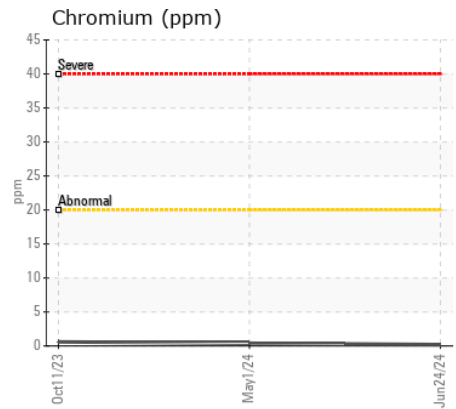
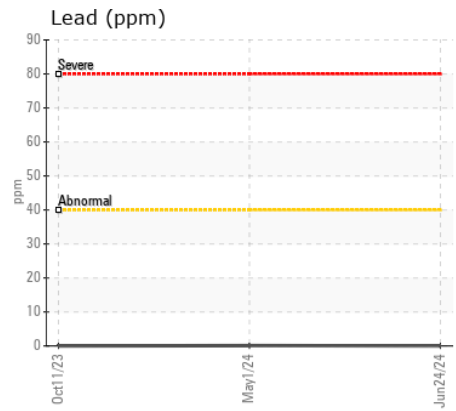
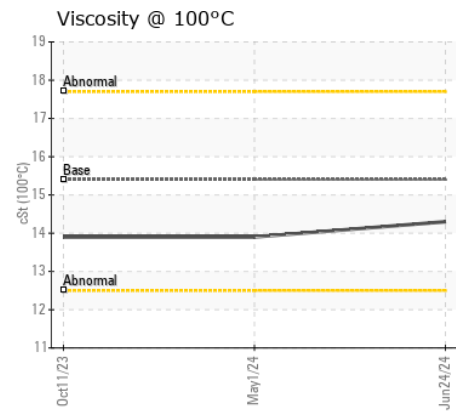
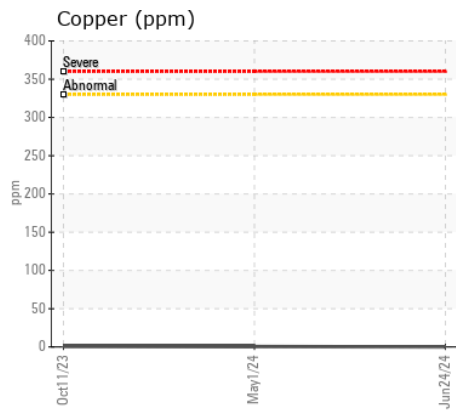
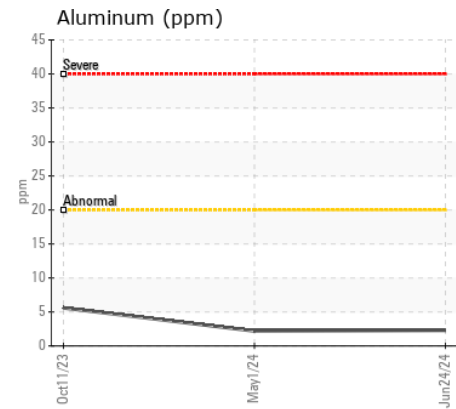
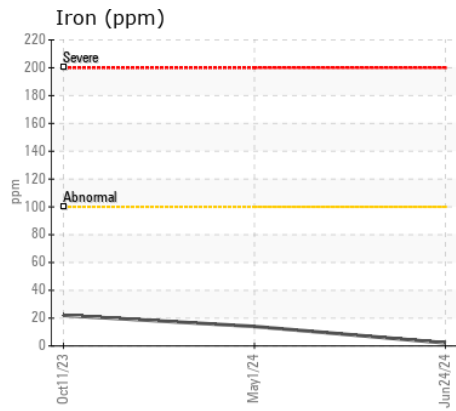
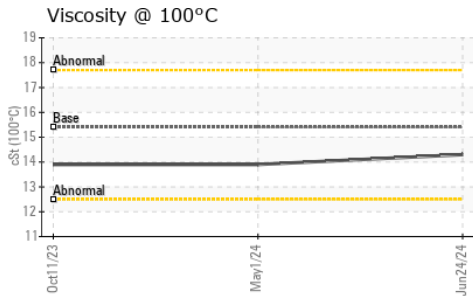
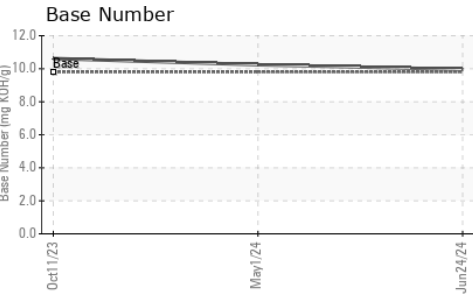
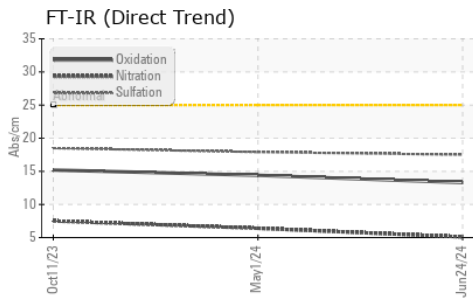
There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|----------|-------------|-------|----------------|-------|-------|
| Silicon | ppm | ASTM D5185m | >25 | 10 | 8 | 5 |
| Potassium | ppm | ASTM D5185m | >20 | 2 | 2 | 2 |
| Fuel | | WC Method | >5 | <1.0 | <1.0 | <1.0 |
| Water | | WC Method | >0.2 | NEG | NEG | NEG |
| Glycol | | WC Method | | NEG | NEG | NEG |
| Soot % | % | *ASTM D7844 | >3 | 0.1 | 0.3 | 0.3 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 5.1 | 6.4 | 7.5 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 17.5 | 17.9 | 18.5 |
| 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 |

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.

| | | | | | | |
|------------------|----------|-------------|------|--------------|-------|-------|
| Sodium | ppm | ASTM D5185m | | <1 | 0 | 2 |
| Boron | ppm | ASTM D5185m | 0 | 5 | 8 | 13 |
| Barium | ppm | ASTM D5185m | 0 | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 60 | 56 | 60 | 63 |
| Manganese | ppm | ASTM D5185m | 0 | 0 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | 1010 | 913 | 939 | 952 |
| Calcium | ppm | ASTM D5185m | 1070 | 1099 | 1075 | 1090 |
| Phosphorus | ppm | ASTM D5185m | 1150 | 944 | 1133 | 1025 |
| Zinc | ppm | ASTM D5185m | 1270 | 1276 | 1243 | 1293 |
| Sulfur | ppm | ASTM D5185m | 2060 | 3102 | 3614 | 3591 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 13.3 | 14.4 | 15.2 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 9.8 | 9.96 | 10.24 | 10.62 |
| Visc @ 100°C | cSt | ASTM D445 | 15.4 | 14.3 | 13.9 | 13.9 |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0122906 **Received** : 26 Jun 2024
Lab Number : 06221440 **Tested** : 27 Jun 2024
Unique Number : 11099637 **Diagnosed** : 27 Jun 2024 - Wes Davis
Test Package : MOB 2

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 F:

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)