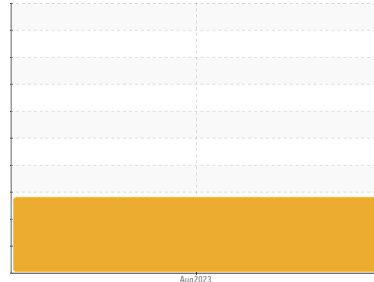


Area
SHARP BUS LINES
Machine Id
INTERNATIONAL 1372
Component
Diesel Engine
Fluid
PETRO CANADA 15W40 (--- GAL)



DIAGNOSIS

Recommendation

We advise that you check the fuel injection system. The oil 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

There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Fluid Condition

Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

| SAMPLE INFORMATION | | method | limit/base | current | history1 | history2 |
|--------------------|-------------|-------------|------------|--------------------|----------|----------|
| Sample Number | Client Info | | | PC0081477 | --- | --- |
| Sample Date | Client Info | | | 15 Aug 2023 | --- | --- |
| Machine Age | kms | Client Info | | 197921 | --- | --- |
| Oil Age | kms | Client Info | | 4788 | --- | --- |
| Oil Changed | Client Info | | | Changed | --- | --- |
| Sample Status | | | | SEVERE | --- | --- |

| CONTAMINATION | | method | limit/base | current | history1 | history2 |
|---------------|-----------|--------|------------|------------|----------|----------|
| Glycol | WC Method | | | NEG | --- | --- |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|-------------|-----|---------------|------------|--------------|----------|----------|
| Iron | ppm | ASTM D5185(m) | >100 | 39 | --- | --- |
| Chromium | ppm | ASTM D5185(m) | >20 | 1 | --- | --- |
| Nickel | ppm | ASTM D5185(m) | >4 | <1 | --- | --- |
| Titanium | ppm | ASTM D5185(m) | | 0 | --- | --- |
| Silver | ppm | ASTM D5185(m) | >3 | <1 | --- | --- |
| Aluminum | ppm | ASTM D5185(m) | >20 | 8 | --- | --- |
| Lead | ppm | ASTM D5185(m) | >40 | <1 | --- | --- |
| Copper | ppm | ASTM D5185(m) | >330 | <1 | --- | --- |
| Tin | ppm | ASTM D5185(m) | >15 | 0 | --- | --- |
| Antimony | ppm | ASTM D5185(m) | | 0 | --- | --- |
| Vanadium | ppm | ASTM D5185(m) | | 0 | --- | --- |
| Beryllium | ppm | ASTM D5185(m) | | 0 | --- | --- |
| Cadmium | ppm | ASTM D5185(m) | | 0 | --- | --- |

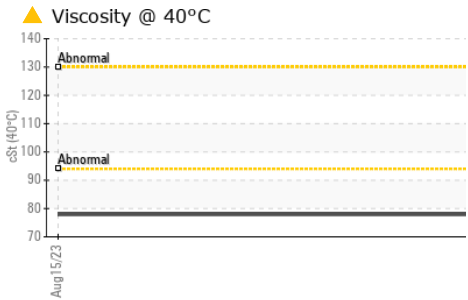
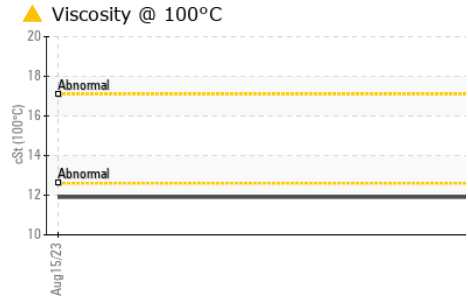
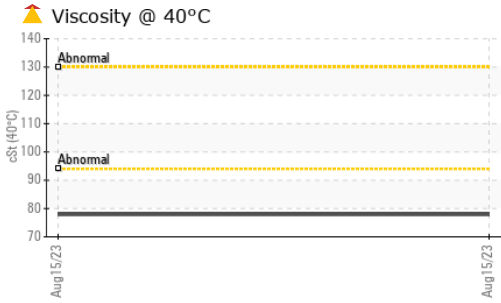
| ADDITIVES | | method | limit/base | current | history1 | history2 |
|------------|-----|---------------|------------|--------------|----------|----------|
| Boron | ppm | ASTM D5185(m) | | 1 | --- | --- |
| Barium | ppm | ASTM D5185(m) | | <1 | --- | --- |
| Molybdenum | ppm | ASTM D5185(m) | | 52 | --- | --- |
| Manganese | ppm | ASTM D5185(m) | | 0 | --- | --- |
| Magnesium | ppm | ASTM D5185(m) | | 768 | --- | --- |
| Calcium | ppm | ASTM D5185(m) | | 862 | --- | --- |
| Phosphorus | ppm | ASTM D5185(m) | | 853 | --- | --- |
| Zinc | ppm | ASTM D5185(m) | | 1001 | --- | --- |
| Sulfur | ppm | ASTM D5185(m) | | 2141 | --- | --- |
| Lithium | ppm | ASTM D5185(m) | | <1 | --- | --- |

| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|--------------|-----|---------------|------------|------------|----------|----------|
| Silicon | ppm | ASTM D5185(m) | >25 | 4 | --- | --- |
| Sodium | ppm | ASTM D5185(m) | | 2 | --- | --- |
| Potassium | ppm | ASTM D5185(m) | >20 | 0 | --- | --- |
| Fuel | % | ASTM D7593* | >2.0 | 9.3 | --- | --- |

| INFRA-RED | | method | limit/base | current | history1 | history2 |
|-----------|----------|-------------|------------|-------------|----------|----------|
| Soot % | % | ASTM D7844* | >3 | 2.3 | --- | --- |
| Nitration | Abs/cm | ASTM D7624* | >20 | 11.1 | --- | --- |
| Sulfation | Abs/.1mm | ASTM D7415* | >30 | 26.8 | --- | --- |

| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|-------------------|----------|-------------|------------|-------------|----------|----------|
| Oxidation | Abs/.1mm | ASTM D7414* | >25 | 22.7 | --- | --- |

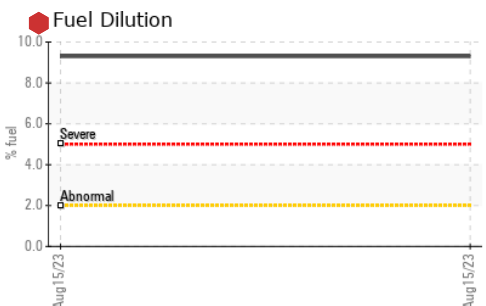
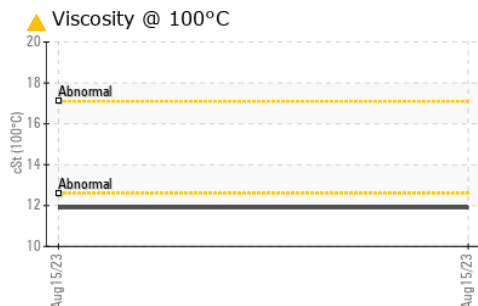
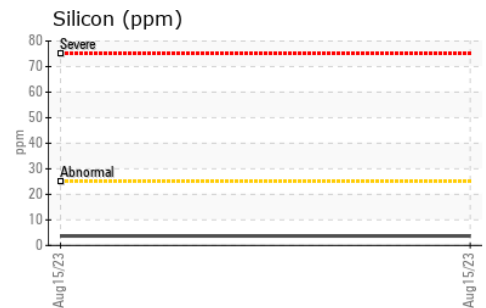
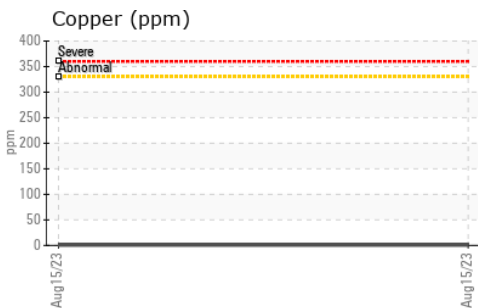
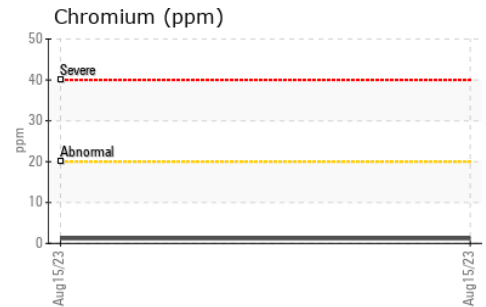
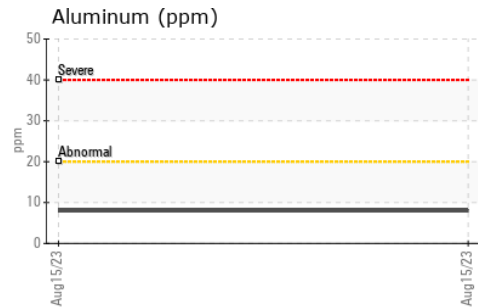
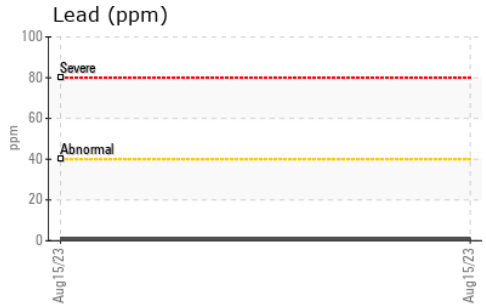
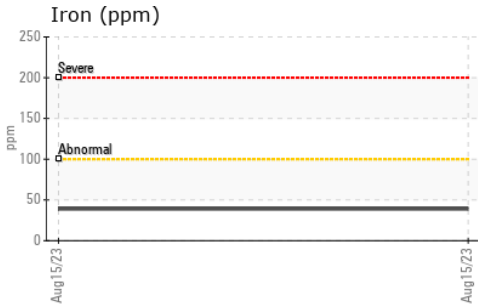
OIL ANALYSIS REPORT



| VISUAL | | method | limit/base | current | history1 | history2 |
|------------------|--------|---------|------------|------------|----------|----------|
| Emulsified Water | scalar | Visual* | >0.2 | NEG | --- | --- |
| Free Water | scalar | Visual* | | NEG | --- | --- |

| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|----------------------|-------|---------------|------------|---------------|----------|----------|
| Visc @ 40°C | cSt | ASTM D7279(m) | | ▲ 77.9 | --- | --- |
| Visc @ 100°C | cSt | ASTM D7279(m) | | ▲ 11.9 | --- | --- |
| Viscosity Index (VI) | Scale | ASTM D2270* | | 147 | --- | --- |

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0081477 **Received** : 18 Oct 2023
Lab Number : 02589891 **Diagnosed** : 19 Oct 2023
Unique Number : 5658957 **Diagnostician** : Wes Davis
Test Package : MOB 1 (Additional Tests: FuelDilution, KV40, PercentFuel, VI)

ICSB - Brantford
 567 Oak Park Rd.
 Brantford, ON
 CA N3T 5L8
 Contact: Doug Hall
 Djhall@sharpbus.com
 T: (519)751-3434
 F:

To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.