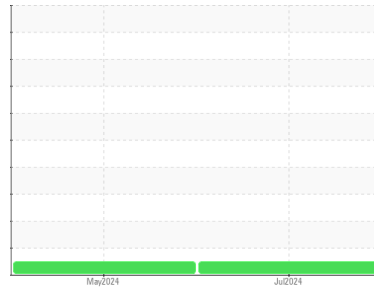




# OIL ANALYSIS REPORT

## Sample Rating Trend



**NORMAL**



Machine Id

## Stadler C13 DM1

Component

Diesel Engine

Fluid

PETRO CANADA DURON UHP 10W40 (--- GAL)

### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

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 |
|---------------|-------------|-------------|--------------------|-------------|----------|
| Sample Number | Client Info |             | <b>WC0955180</b>   | WC0932433   | ---      |
| Sample Date   | Client Info |             | <b>10 Jul 2024</b> | 01 May 2024 | ---      |
| Machine Age   | hrs         | Client Info | <b>2565</b>        | 0           | ---      |
| Oil Age       | hrs         | Client Info | <b>0</b>           | 0           | ---      |
| Oil Changed   | Client Info |             | <b>N/A</b>         | N/A         | ---      |
| Sample Status |             |             | <b>NORMAL</b>      | NORMAL      | ---      |

### CONTAMINATION

|       | method    | limit/base | current        | history1 | history2 |
|-------|-----------|------------|----------------|----------|----------|
| Fuel  | WC Method | >5         | <b>&lt;1.0</b> | <1.0     | ---      |
| Water | WC Method | >0.2       | <b>NEG</b>     | NEG      | ---      |

### WEAR METALS

|           | method | limit/base    | current | history1     | history2 |     |
|-----------|--------|---------------|---------|--------------|----------|-----|
| Iron      | ppm    | ASTM D5185(m) | >150    | <b>6</b>     | 9        | --- |
| Chromium  | ppm    | ASTM D5185(m) | >20     | <b>1</b>     | 2        | --- |
| Nickel    | ppm    | ASTM D5185(m) | >2      | <b>0</b>     | 0        | --- |
| Titanium  | ppm    | ASTM D5185(m) | >2      | <b>0</b>     | 0        | --- |
| Silver    | ppm    | ASTM D5185(m) | >2      | <b>&lt;1</b> | 0        | --- |
| Aluminum  | ppm    | ASTM D5185(m) | >20     | <b>1</b>     | 2        | --- |
| Lead      | ppm    | ASTM D5185(m) | >40     | <b>6</b>     | 2        | --- |
| Copper    | ppm    | ASTM D5185(m) | >30     | <b>229</b>   | 107      | --- |
| Tin       | ppm    | ASTM D5185(m) | >15     | <b>0</b>     | 0        | --- |
| Antimony  | ppm    | ASTM D5185(m) |         | <b>0</b>     | 0        | --- |
| Vanadium  | ppm    | ASTM D5185(m) |         | <b>0</b>     | 0        | --- |
| Beryllium | ppm    | ASTM D5185(m) |         | <b>0</b>     | 0        | --- |
| Cadmium   | ppm    | ASTM D5185(m) |         | <b>0</b>     | 0        | --- |

### ADDITIVES

|            | method | limit/base    | current | history1     | history2 |     |
|------------|--------|---------------|---------|--------------|----------|-----|
| Boron      | ppm    | ASTM D5185(m) | 2       | <b>69</b>    | 77       | --- |
| Barium     | ppm    | ASTM D5185(m) | 0       | <b>&lt;1</b> | 1        | --- |
| Molybdenum | ppm    | ASTM D5185(m) | 60      | <b>46</b>    | 40       | --- |
| Manganese  | ppm    | ASTM D5185(m) | 0       | <b>0</b>     | <1       | --- |
| Magnesium  | ppm    | ASTM D5185(m) | 1010    | <b>887</b>   | 770      | --- |
| Calcium    | ppm    | ASTM D5185(m) | 1070    | <b>1361</b>  | 1547     | --- |
| Phosphorus | ppm    | ASTM D5185(m) | 1150    | <b>704</b>   | 723      | --- |
| Zinc       | ppm    | ASTM D5185(m) | 1270    | <b>872</b>   | 862      | --- |
| Sulfur     | ppm    | ASTM D5185(m) | 2060    | <b>1851</b>  | 1852     | --- |
| Lithium    | ppm    | ASTM D5185(m) |         | <b>&lt;1</b> | <1       | --- |

### CONTAMINANTS

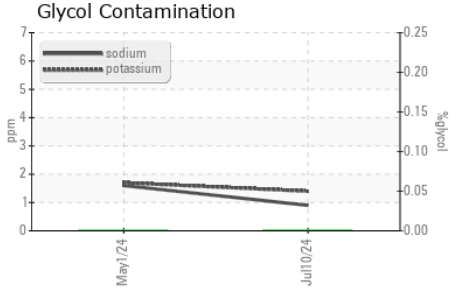
|           | method | limit/base    | current | history1     | history2 |     |
|-----------|--------|---------------|---------|--------------|----------|-----|
| Silicon   | ppm    | ASTM D5185(m) | >25     | <b>3</b>     | 4        | --- |
| Sodium    | ppm    | ASTM D5185(m) |         | <b>&lt;1</b> | 2        | --- |
| Potassium | ppm    | ASTM D5185(m) | >20     | <b>1</b>     | 2        | --- |
| Glycol    | %      | ASTM D7922*   |         | <b>0.0</b>   | 0.0      | --- |

### INFRA-RED

|           | method   | limit/base  | current | history1    | history2 |     |
|-----------|----------|-------------|---------|-------------|----------|-----|
| Soot %    | %        | ASTM D7844* | >3      | <b>0</b>    | 0        | --- |
| Nitration | Abs/cm   | ASTM D7624* | >20     | <b>10.3</b> | 8.8      | --- |
| Sulfation | Abs/.1mm | ASTM D7415* | >30     | <b>21.0</b> | 19.6     | --- |



# OIL ANALYSIS REPORT

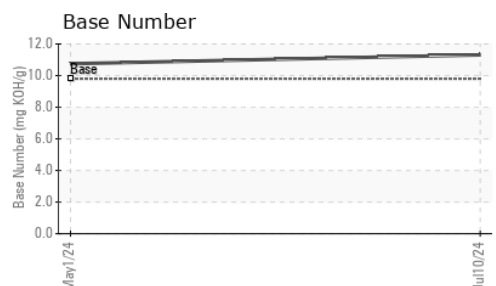
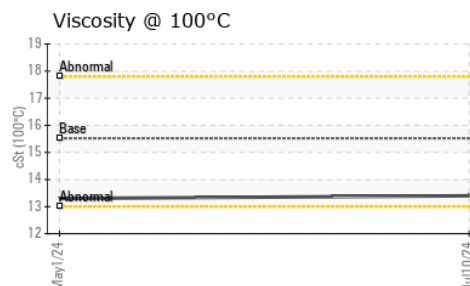
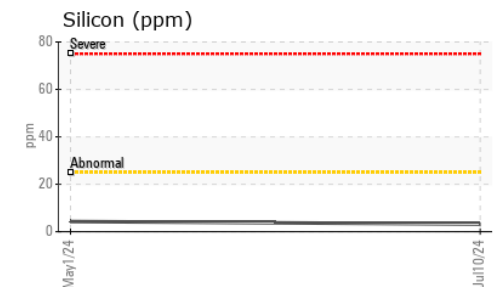
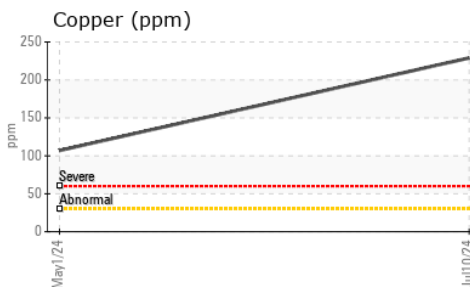
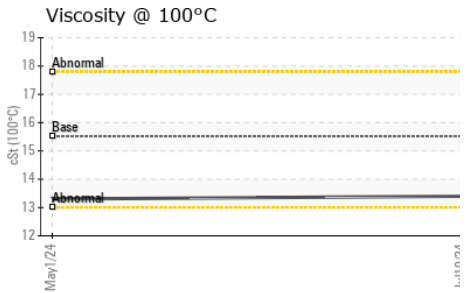
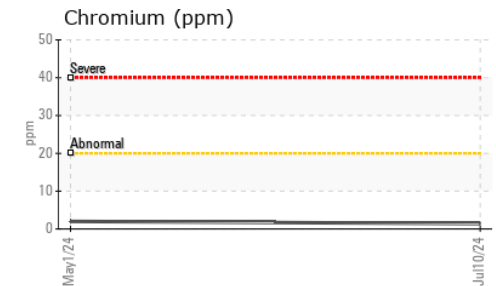
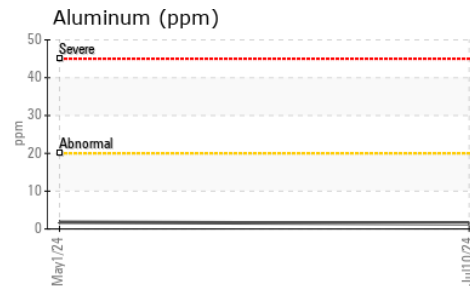
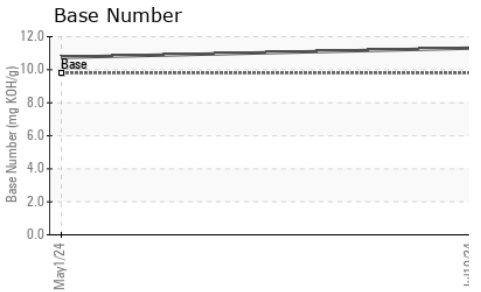
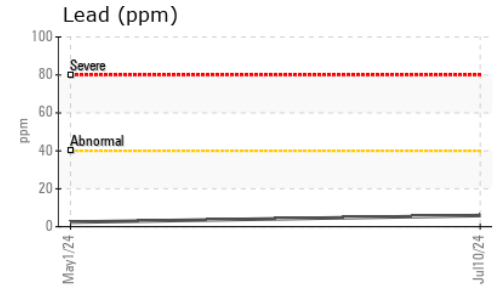
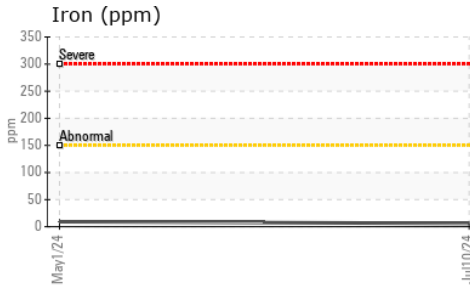
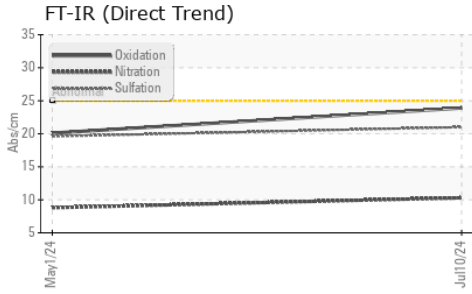


| FLUID DEGRADATION | method   | limit/base  | current | history1     | history2 |     |
|-------------------|----------|-------------|---------|--------------|----------|-----|
| Oxidation         | Abs/.1mm | ASTM D7414* | >25     | <b>23.9</b>  | 20.1     | --- |
| Base Number (BN)  | mg KOH/g | ASTM D2896* | 9.8     | <b>11.31</b> | 10.75    | --- |

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

| FLUID PROPERTIES | method | limit/base    | current | history1    | history2 |     |
|------------------|--------|---------------|---------|-------------|----------|-----|
| Visc @ 100°C     | cSt    | ASTM D7279(m) | 15.52   | <b>13.4</b> | 13.3     | --- |

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0955180      **Received** : 11 Jul 2024  
**Lab Number** : **02647292**      **Tested** : 12 Jul 2024  
**Unique Number** : 5812844      **Diagnosed** : 12 Jul 2024 - Wes Davis  
**Test Package** : MOB 2 ( Additional Tests: Glycol )

**TransitNext M&R Inc**  
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 T: (613)907-7100  
 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.