



# OIL ANALYSIS REPORT



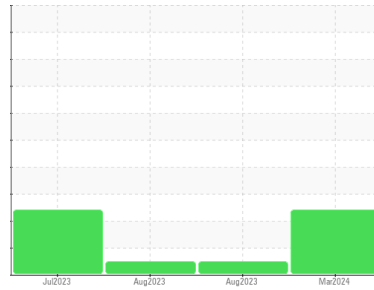
Area  
**(363346) IRON SHORING**

Machine Id  
**223**

Component  
**Rear Left Wheel Hub**

Fluid  
**PETRO CANADA TRAXON 80W90 (--- GAL)**

Sample Rating Trend



## DIAGNOSIS

### Recommendation

We advise that you check all areas where dirt can enter the system. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

### Wear

Aluminum ppm levels are noted. All other component wear rates are normal.

### Contamination

Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

### Fluid Condition

The oil is no longer serviceable due to the presence of contaminants.

## SAMPLE INFORMATION

| method        | limit/base  | current            | history1    | history2    |
|---------------|-------------|--------------------|-------------|-------------|
| Sample Number | Client Info | <b>WC0920800</b>   | LH0275278   | LH0275287   |
| Sample Date   | Client Info | <b>21 Mar 2024</b> | 28 Aug 2023 | 22 Aug 2023 |
| Machine Age   | hrs         | Client Info        | 2206        | 2706        |
| Oil Age       | hrs         | Client Info        | 0           | 0           |
| Oil Changed   | Client Info | <b>N/A</b>         | N/A         | Changed     |
| Sample Status |             | <b>ABNORMAL</b>    | NORMAL      | NORMAL      |

## CONTAMINATION

| method | limit/base | current    | history1 | history2 |
|--------|------------|------------|----------|----------|
| Water  | WC Method  | <b>NEG</b> | NEG      | NEG      |

## WEAR METALS

| method    | limit/base | current       | history1 | history2     |     |     |
|-----------|------------|---------------|----------|--------------|-----|-----|
| Iron      | ppm        | ASTM D5185(m) | >500     | <b>269</b>   | 260 | 172 |
| Chromium  | ppm        | ASTM D5185(m) | >8       | <b>1</b>     | 4   | 2   |
| Nickel    | ppm        | ASTM D5185(m) | >5       | <b>1</b>     | <1  | <1  |
| Titanium  | ppm        | ASTM D5185(m) |          | <b>3</b>     | <1  | <1  |
| Silver    | ppm        | ASTM D5185(m) |          | <b>0</b>     | 0   | 0   |
| Aluminum  | ppm        | ASTM D5185(m) | >5       | <b>48</b>    | 2   | 3   |
| Lead      | ppm        | ASTM D5185(m) | >5       | <b>0</b>     | <1  | <1  |
| Copper    | ppm        | ASTM D5185(m) | >50      | <b>&lt;1</b> | 1   | <1  |
| Tin       | ppm        | ASTM D5185(m) |          | <b>0</b>     | 0   | 0   |
| Antimony  | ppm        | ASTM D5185(m) | >5       | <b>0</b>     | 0   | 0   |
| Vanadium  | ppm        | ASTM D5185(m) |          | <b>0</b>     | 0   | 0   |
| Beryllium | ppm        | ASTM D5185(m) |          | <b>0</b>     | 0   | 0   |
| Cadmium   | ppm        | ASTM D5185(m) |          | <b>0</b>     | 0   | 0   |

## ADDITIVES

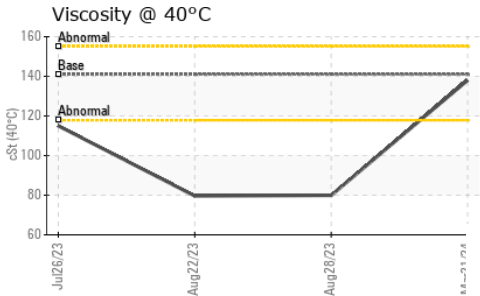
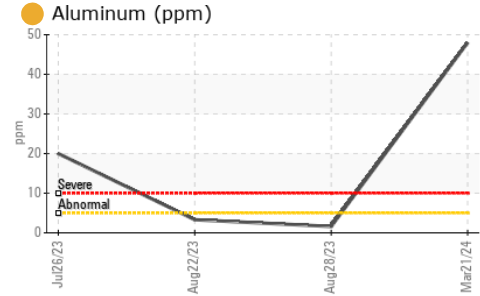
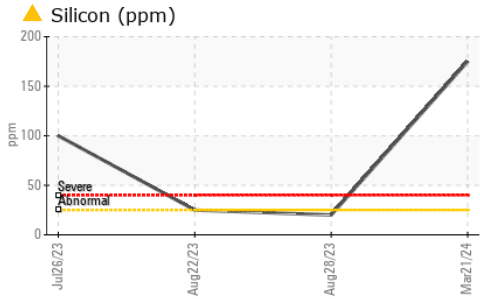
| method     | limit/base | current       | history1 | history2     |      |      |
|------------|------------|---------------|----------|--------------|------|------|
| Boron      | ppm        | ASTM D5185(m) | 243      | <b>225</b>   | 113  | 113  |
| Barium     | ppm        | ASTM D5185(m) | 1        | <b>&lt;1</b> | 8    | 8    |
| Molybdenum | ppm        | ASTM D5185(m) |          | <b>0</b>     | <1   | <1   |
| Manganese  | ppm        | ASTM D5185(m) |          | <b>2</b>     | 4    | 2    |
| Magnesium  | ppm        | ASTM D5185(m) | 2        | <b>17</b>    | 4    | 3    |
| Calcium    | ppm        | ASTM D5185(m) | 6        | <b>105</b>   | 847  | 831  |
| Phosphorus | ppm        | ASTM D5185(m) | 987      | <b>985</b>   | 756  | 756  |
| Zinc       | ppm        | ASTM D5185(m) | 1        | <b>8</b>     | 1533 | 1516 |
| Sulfur     | ppm        | ASTM D5185(m) | 21530    | <b>17189</b> | 4752 | 4894 |
| Lithium    | ppm        | ASTM D5185(m) |          | <b>&lt;1</b> | 2    | 1    |

## CONTAMINANTS

| method    | limit/base | current       | history1 | history2     |    |    |
|-----------|------------|---------------|----------|--------------|----|----|
| Silicon   | ppm        | ASTM D5185(m) | >25      | <b>▲ 175</b> | 20 | 25 |
| Sodium    | ppm        | ASTM D5185(m) |          | <b>8</b>     | 7  | 7  |
| Potassium | ppm        | ASTM D5185(m) | >20      | <b>19</b>    | <1 | <1 |



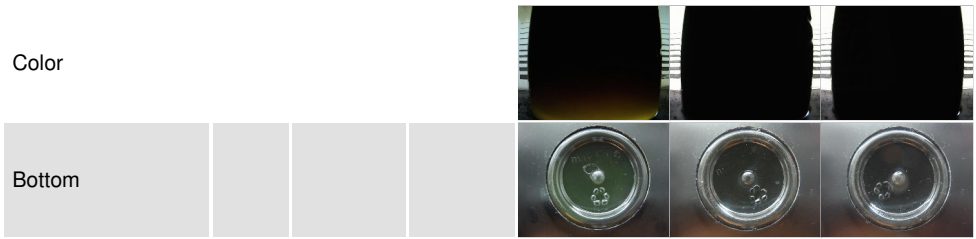
# OIL ANALYSIS REPORT



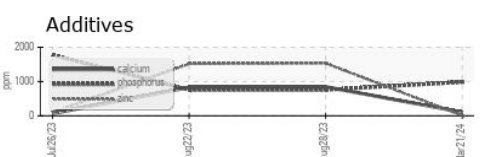
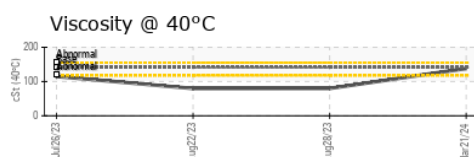
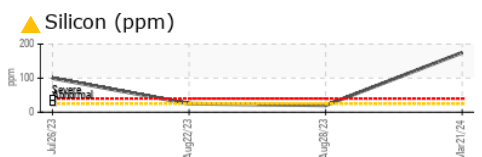
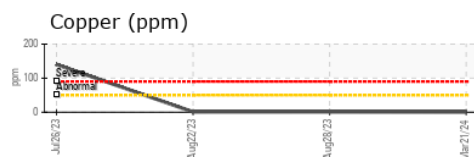
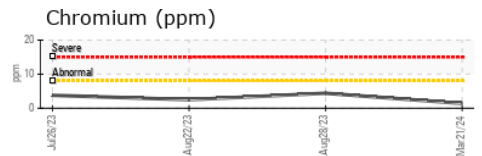
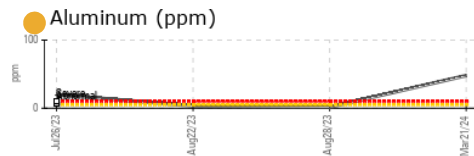
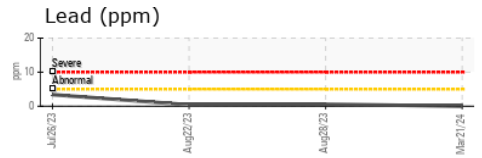
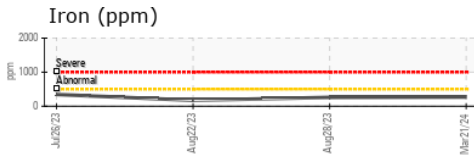
| VISUAL           | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal      | scalar | Visual*    | NONE    | NONE     | VLITE    |
| Yellow Metal     | scalar | Visual*    | NONE    | NONE     | NONE     |
| Precipitate      | scalar | Visual*    | NONE    | NONE     | NONE     |
| Silt             | scalar | Visual*    | NONE    | VLITE    | VLITE    |
| Debris           | scalar | Visual*    | NONE    | VLITE    | NONE     |
| Sand/Dirt        | scalar | Visual*    | NONE    | NONE     | NONE     |
| Appearance       | scalar | Visual*    | NORML   | NORML    | NORML    |
| Odor             | scalar | Visual*    | NORML   | NORML    | NORML    |
| Emulsified Water | scalar | Visual*    | >0.2    | NEG      | NEG      |
| Free Water       | scalar | Visual*    |         | NEG      | NEG      |

| FLUID PROPERTIES | method | limit/base    | current | history1 | history2 |
|------------------|--------|---------------|---------|----------|----------|
| Visc @ 40°C      | cSt    | ASTM D7279(m) | 141.0   | 138      | 79.9     |

### SAMPLE IMAGES



### GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0920800      **Received** : 16 Apr 2024  
**Lab Number** : 02629284      **Tested** : 16 Apr 2024  
**Unique Number** : 5762416      **Diagnosed** : 17 Apr 2024 - Kevin Marson  
**Test Package** : MOBCE ( Additional Tests: Visual )

**RONI/IRON SHORE EXCAVATING LTD.**  
 100 MACINTOSH BLVD  
 VAUGHAN, ON  
 CA L4K 4P3  
 Contact: Service Team  
 service.team@roni.ca

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.