



# OIL ANALYSIS REPORT

Sample Rating Trend

FUEL



Machine Id

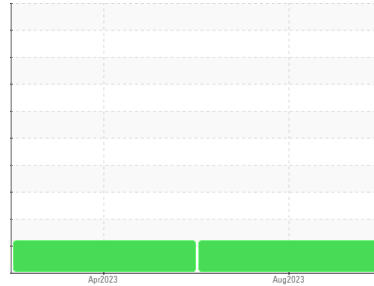
**9781**

Component

**Diesel Engine**

Fluid

**DIESEL ENGINE OIL SAE 15W40 (--- GAL)**



## DIAGNOSIS

### Recommendation

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. No other corrective action is recommended at this time.

### Wear

Metal levels are typical for a new component breaking in.

### Contamination

Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. Light fuel dilution occurring. No other contaminants were detected in the oil.

### Fluid Condition

The condition of the oil is acceptable for the time in service.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>WC0702959</b>	WC0796344	---
Sample Date	Client Info	<b>06 Aug 2023</b>	08 Apr 2023	---
Machine Age	kms	Client Info	<b>40607</b>	12210
Oil Age	kms	Client Info	<b>0</b>	0
Oil Changed	Client Info	<b>Changed</b>	Changed	---
Sample Status		<b>ABNORMAL</b>	ABNORMAL	---

## CONTAMINATION

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

## WEAR METALS

method	limit/base	current	history1	history2		
Iron	ppm	ASTM D5185(m)	>90	<b>64</b>	19	---
Chromium	ppm	ASTM D5185(m)	>20	<b>1</b>	<1	---
Nickel	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	<1	---
Titanium	ppm	ASTM D5185(m)	>2	<b>0</b>	<1	---
Silver	ppm	ASTM D5185(m)	>2	<b>0</b>	0	---
Aluminum	ppm	ASTM D5185(m)	>20	<b>21</b>	8	---
Lead	ppm	ASTM D5185(m)	>40	<b>5</b>	<1	---
Copper	ppm	ASTM D5185(m)	>330	<b>105</b>	<1	---
Tin	ppm	ASTM D5185(m)	>15	<b>1</b>	<1	---
Antimony	ppm	ASTM D5185(m)		<b>0</b>	<1	---
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)	250	<b>40</b>	46	---
Barium	ppm	ASTM D5185(m)	10	<b>&lt;1</b>	0	---
Molybdenum	ppm	ASTM D5185(m)	100	<b>74</b>	6	---
Manganese	ppm	ASTM D5185(m)		<b>4</b>	<1	---
Magnesium	ppm	ASTM D5185(m)	450	<b>343</b>	728	---
Calcium	ppm	ASTM D5185(m)	3000	<b>1659</b>	1394	---
Phosphorus	ppm	ASTM D5185(m)	1150	<b>906</b>	738	---
Zinc	ppm	ASTM D5185(m)	1350	<b>1016</b>	773	---
Sulfur	ppm	ASTM D5185(m)	4250	<b>2033</b>	2580	---
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	---

## CONTAMINANTS

method	limit/base	current	history1	history2		
Silicon	ppm	ASTM D5185(m)	>25	<b>14</b>	5	---
Sodium	ppm	ASTM D5185(m)	>158	<b>3</b>	3	---
Potassium	ppm	ASTM D5185(m)	>20	<b>71</b>	16	---
Fuel	%	ASTM D7593*	>3.0	<b>▲ 2.9</b>	▲ 3.2	---

## INFRA-RED

method	limit/base	current	history1	history2		
Soot %	%	ASTM D7844*	>6	<b>2.2</b>	0.1	---
Nitration	Abs/cm	ASTM D7624*	>20	<b>10.5</b>	10.9	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>26.2</b>	22.3	---

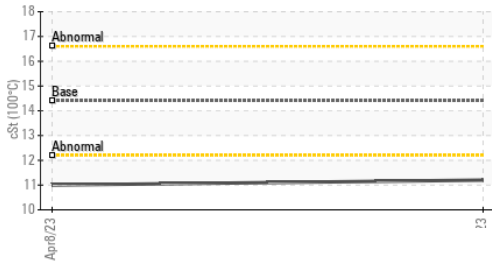
## FLUID DEGRADATION

method	limit/base	current	history1	history2		
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>20.2</b>	20.0	---

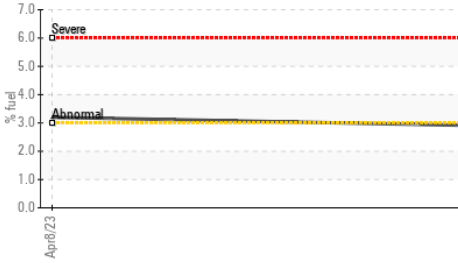


# OIL ANALYSIS REPORT

▲ Viscosity @ 100°C



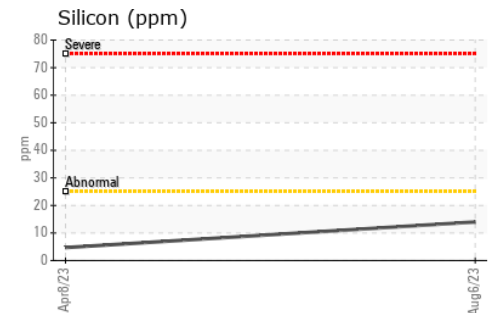
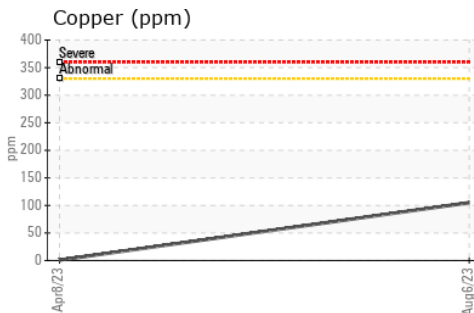
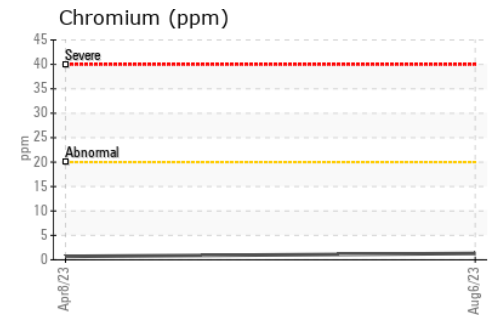
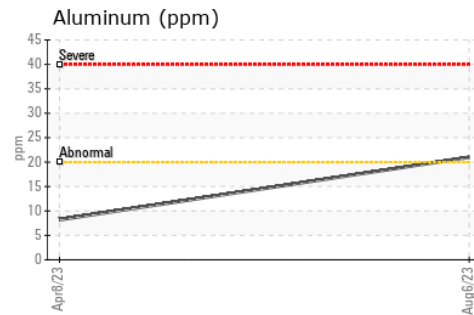
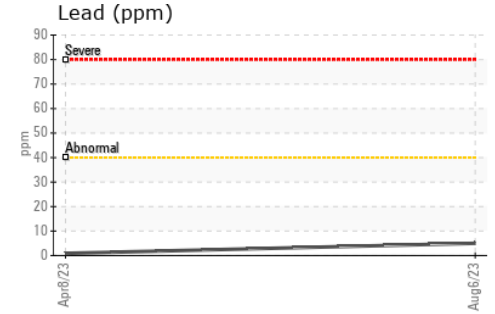
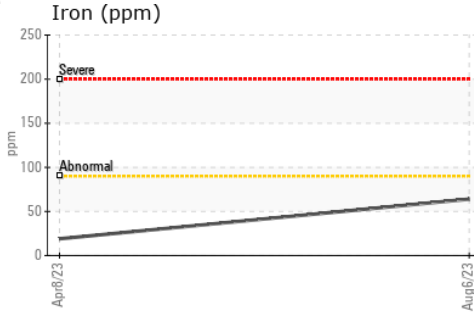
▲ Fuel Dilution



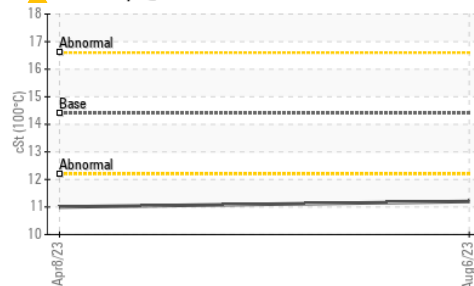
VISUAL	method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	▲ 11.2	▲ 11.0	---

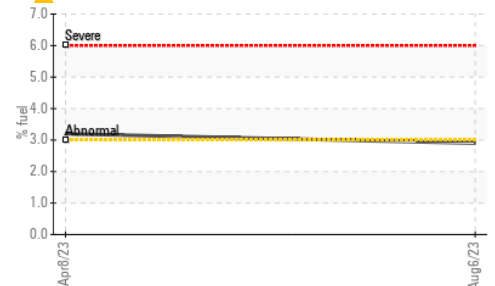
## GRAPHS



▲ Viscosity @ 100°C



▲ Fuel Dilution



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0702959 **Received** : 11 Aug 2023  
**Lab Number** : 02575302 **Diagnosed** : 15 Aug 2023  
**Unique Number** : 5620353 **Diagnostician** : Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: FUELDILUTION, PercentFuel )

**Rush Truck Centres**  
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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.