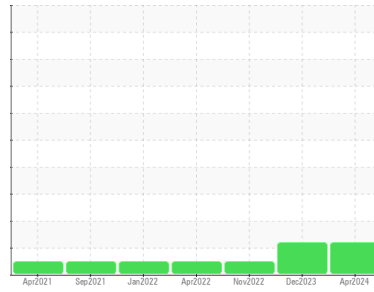




# OIL ANALYSIS REPORT

Sample Rating Trend



DEGRADATION



Machine Id

**7284**

Component

**Diesel Engine**

Fluid

**DISEL ENGINE OIL SAE 10W30 (--- GAL)**

## DIAGNOSIS

### Recommendation

We advise that you check for faulty combustion and a possible overheat condition. We recommend that you drain the oil from the component if this has not already been done. 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

A small degree of oil oxidation was indicated. The oil is no longer serviceable.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0924158</b>	WC0853234	WC0737483
Sample Date	Client Info		<b>10 Apr 2024</b>	28 Dec 2023	03 Nov 2022
Machine Age	kms	Client Info	<b>264769</b>	255893	235393
Oil Age	kms	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>Not Changed</b>	Not Changed	Not Changed
Sample Status			<b>ABNORMAL</b>	ABNORMAL	NORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>3.0	<b>&lt;1.0</b>	<1.0	<1.0
Water	WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol	WC Method		<b>NEG</b>	0.0	NEG

## WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>165	<b>62</b>	33	24
Chromium	ppm	ASTM D5185(m)	>5	<b>4</b>	2	2
Nickel	ppm	ASTM D5185(m)	>4	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185(m)	>2	<b>0</b>	0	<1
Silver	ppm	ASTM D5185(m)	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>20	<b>4</b>	3	3
Lead	ppm	ASTM D5185(m)	>150	<b>4</b>	4	4
Copper	ppm	ASTM D5185(m)	>90	<b>2</b>	2	2
Tin	ppm	ASTM D5185(m)	>5	<b>&lt;1</b>	<1	<1
Antimony	ppm	ASTM D5185(m)		<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)	250	<b>33</b>	35	42
Barium	ppm	ASTM D5185(m)	10	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	100	<b>&lt;1</b>	2	9
Manganese	ppm	ASTM D5185(m)		<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185(m)	450	<b>596</b>	602	653
Calcium	ppm	ASTM D5185(m)	3000	<b>1094</b>	1144	1226
Phosphorus	ppm	ASTM D5185(m)	1150	<b>558</b>	596	665
Zinc	ppm	ASTM D5185(m)	1350	<b>639</b>	652	699
Sulfur	ppm	ASTM D5185(m)	4250	<b>1955</b>	2238	2271
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1

## CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>35	<b>5</b>	5	5
Sodium	ppm	ASTM D5185(m)		<b>3</b>	2	3
Potassium	ppm	ASTM D5185(m)	>20	<b>6</b>	4	4

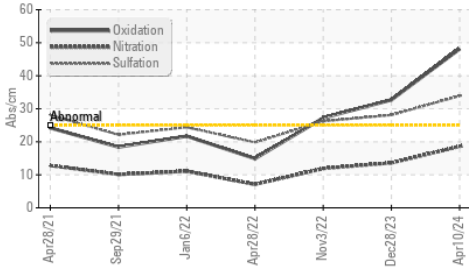
## INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>7.5	<b>0.5</b>	0.3	0.1
Nitration	Abs/cm	ASTM D7624*	>20	<b>18.6</b>	13.6	11.9
Sulfation	Abs.1mm	ASTM D7415*	>30	<b>33.9</b>	28.1	26.2

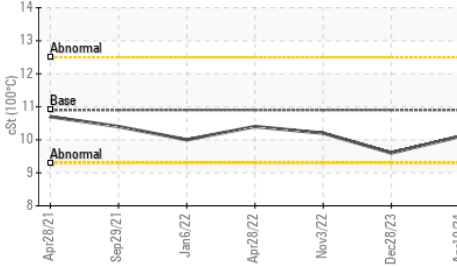


# OIL ANALYSIS REPORT

## ▲ FT-IR (Direct Trend)



## Viscosity @ 100°C



## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs./1mm ASTM D7414*	>25 ▲ 48.1	▲ 32.7	27.2

## VISUAL

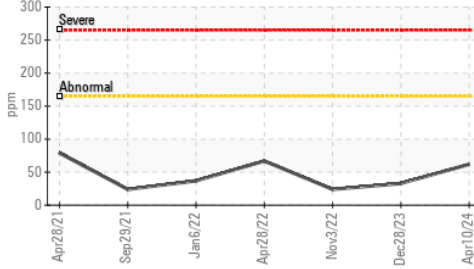
method	limit/base	current	history1	history2
Emulsified Water	scalar Visual*	>0.2 <b>NEG</b>	.2%	NEG
Free Water	scalar Visual*	<b>NEG</b>	NEG	NEG

## FLUID PROPERTIES

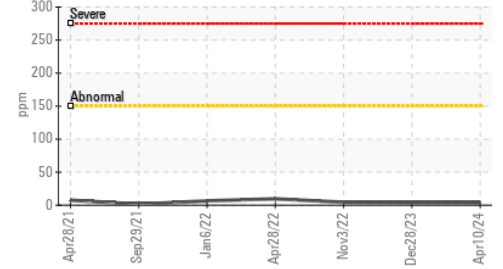
method	limit/base	current	history1	history2
Visc @ 100°C	cSt ASTM D7279(m)	10.9 <b>10.1</b>	9.6	10.2

## GRAPHS

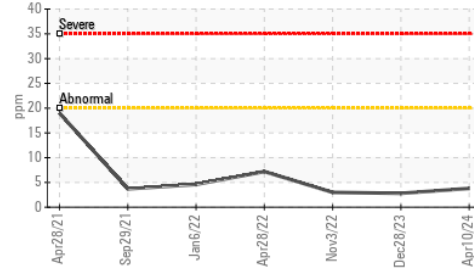
### Iron (ppm)



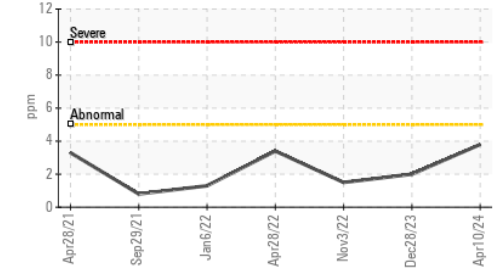
### Lead (ppm)



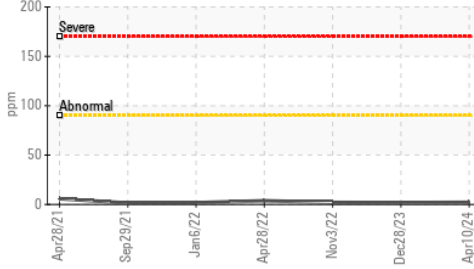
### Aluminum (ppm)



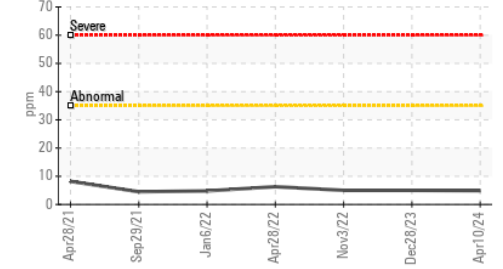
### Chromium (ppm)



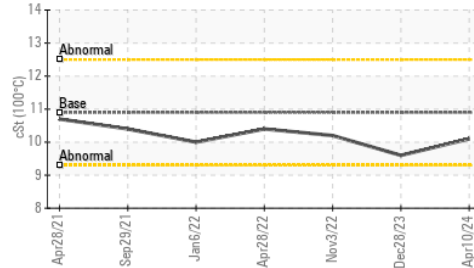
### Copper (ppm)



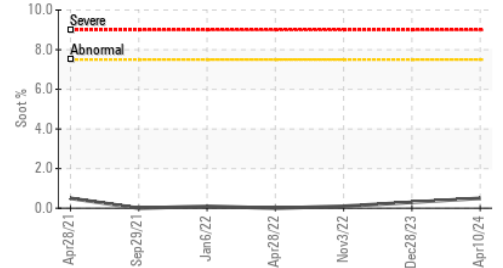
### Silicon (ppm)



### Viscosity @ 100°C



### Soot %



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0924158  
**Lab Number** : 02629554  
**Unique Number** : 5762686  
**Test Package** : MOB 1

**Received** : 17 Apr 2024  
**Tested** : 17 Apr 2024  
**Diagnosed** : 18 Apr 2024 - Kevin Marson

**Rush Truck Centres**  
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 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.