



# OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Machine Id  
**60083**  
Component  
**Diesel Engine**  
Fluid  
**VALVOLINE 15W40 (--- GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0911704</b>	WC0887284	WC0809084
Sample Date		Client Info		<b>29 May 2024</b>	31 Jan 2024	13 Sep 2023
Machine Age	kms	Client Info		<b>108639</b>	83781	48605
Oil Age	kms	Client Info		<b>10000</b>	10000	10000
Filter Age	kms	Client Info		<b>10000</b>	10000	10000
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185(m)	>75	<b>20</b>	12	17
Chromium	ppm	ASTM D5185(m)	>5	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185(m)	>4	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185(m)	>2	<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>2	<b>0</b>	<1	1
Aluminum	ppm	ASTM D5185(m)	>15	<b>3</b>	2	2
Lead	ppm	ASTM D5185(m)	>25	<b>0</b>	0	<1
Copper	ppm	ASTM D5185(m)	>100	<b>4</b>	2	7
Tin	ppm	ASTM D5185(m)	>4	<b>0</b>	0	<1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
White Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---

## CONTAMINATION

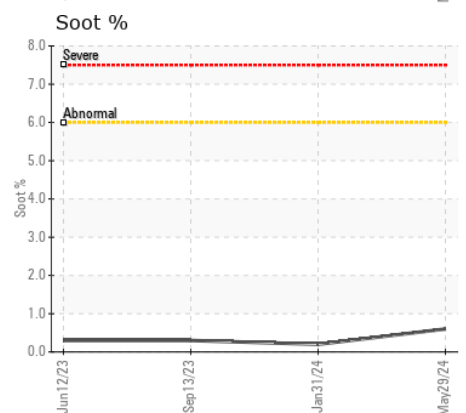
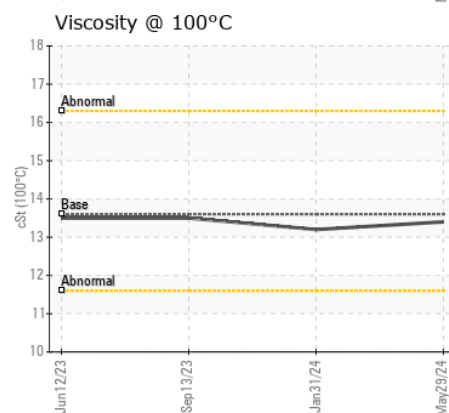
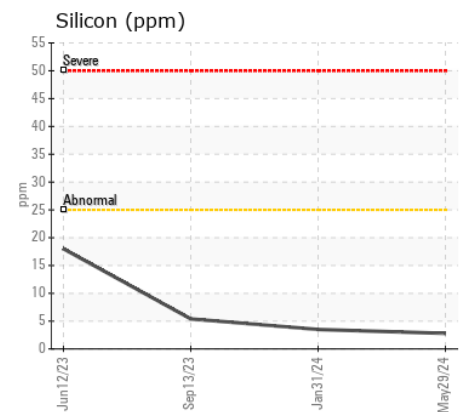
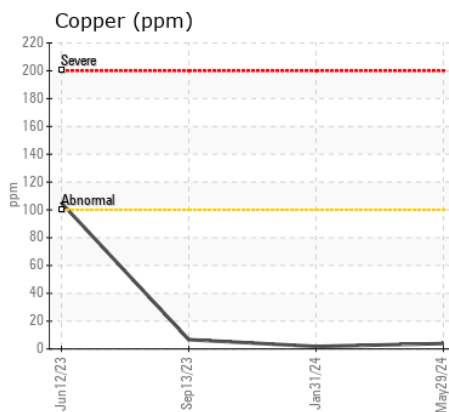
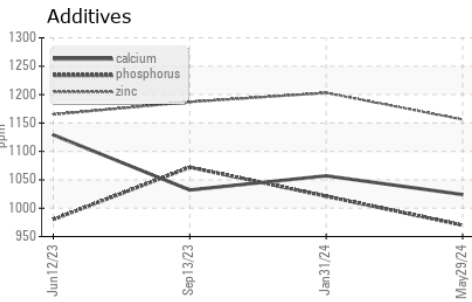
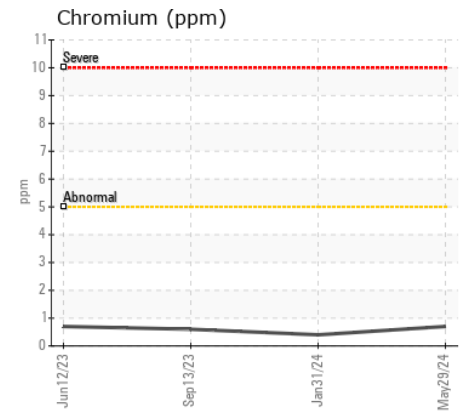
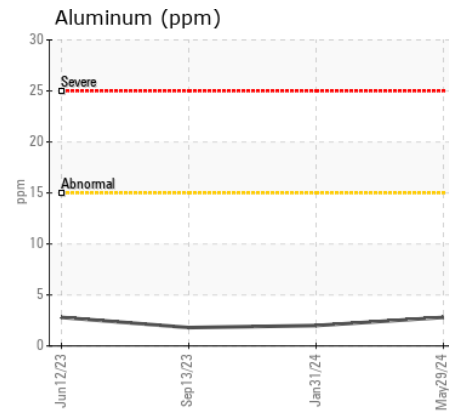
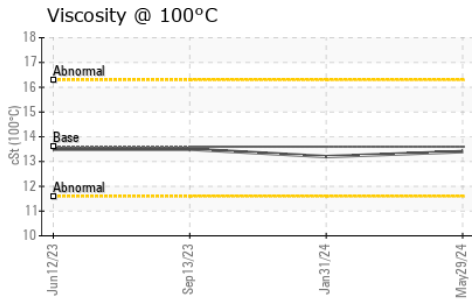
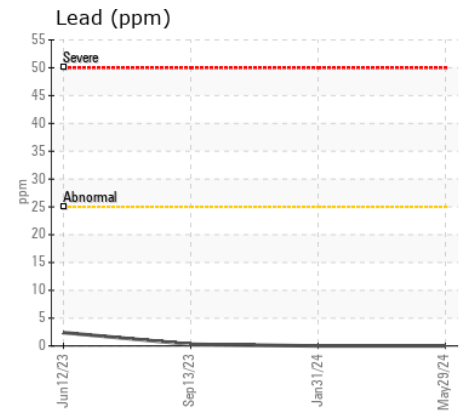
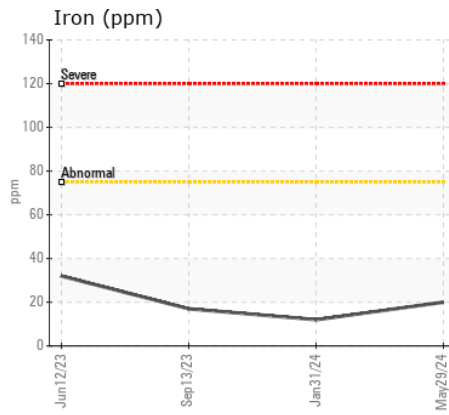
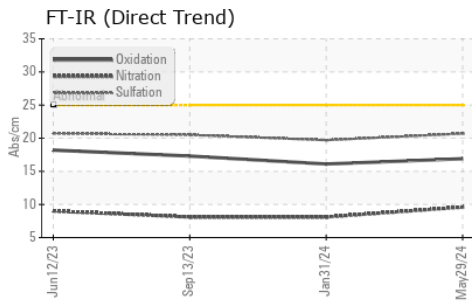
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	<b>3</b>	4	5
Potassium	ppm	ASTM D5185(m)	>20	<b>1</b>	1	<1
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>	NEG	NEG
Soot %	%	ASTM D7844*	>6	<b>0.6</b>	0.2	0.3
Nitration	Abs/cm	ASTM D7624*	>20	<b>9.6</b>	8.1	8.1
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>20.7</b>	19.7	20.5
Silt	scalar	Visual*	NONE	<b>NONE</b>	---	---
Debris	scalar	Visual*	NONE	<b>NONE</b>	---	---
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	---	---
Appearance	scalar	Visual*	NORML	<b>NORML</b>	---	---
Odor	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	NEG

## FLUID CONDITION

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

Sodium	ppm	ASTM D5185(m)		<b>6</b>	4	6
Boron	ppm	ASTM D5185(m)	39	<b>2</b>	<1	2
Barium	ppm	ASTM D5185(m)	1	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	49	<b>59</b>	58	59
Manganese	ppm	ASTM D5185(m)	1	<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185(m)	616	<b>954</b>	975	984
Calcium	ppm	ASTM D5185(m)	1554	<b>1024</b>	1057	1032
Phosphorus	ppm	ASTM D5185(m)	899	<b>970</b>	1021	1072
Zinc	ppm	ASTM D5185(m)	1069	<b>1156</b>	1203	1187
Sulfur	ppm	ASTM D5185(m)	2624	<b>2403</b>	2742	2435
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>16.9</b>	16.1	17.3
Visc @ 100°C	cSt	ASTM D7279(m)	13.6	<b>13.4</b>	13.2	13.5



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0911704  
**Lab Number** : 02639343  
**Unique Number** : 5788505  
**Test Package** : MOB 1 ( Additional Tests: Visual )

**CITY OF PETERBOROUGH**  
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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.