



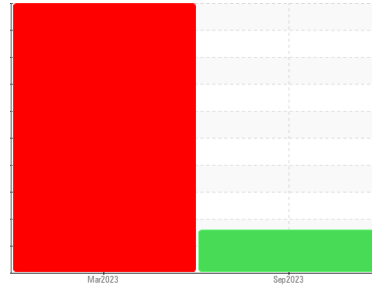
# OIL ANALYSIS REPORT

## Sample Rating Trend

WEAR



Area  
**caplan**  
 Machine Id  
**#425120**  
 Component  
**Front Diesel Engine**  
 Fluid  
**CHEVRON DELO 400 SAE 10W30 (42 LTR)**



## DIAGNOSIS

### Recommendation

Nous avons pris note que la vidange d'huile a été effectuée au moment de l'échantillonnage. Nous vous recommandons d'échantillonner de nouveau dès que possible afin de contrôler la situation.

### Wear

Usure de cylindre, de vilebrequin ou d'arbre à cames. Usure de piston.

### Contamination

Il n'y a aucun indice de contamination dans l'huile.

### Fluid Condition

l'huile n'est plus en état de service en raison d'une usure anormale et/ou sévère.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>GFL0079098</b>	PC0027348	---
Sample Date	Client Info		<b>07 Sep 2023</b>	14 Mar 2023	---
Machine Age	hrs	Client Info	<b>14964</b>	14501	---
Oil Age	hrs	Client Info	<b>463</b>	0	---
Oil Changed	Client Info		<b>Changed</b>	N/A	---
Sample Status			<b>ABNORMAL</b>	SEVERE	---

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>3.0	<b>&lt;1.0</b>	<1.0	---

## WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184*	>80	<b>0</b>	17	---
Iron	ppm	ASTM D5185(m)	>65	<b>77</b>	170
Chromium	ppm	ASTM D5185(m)	>5	<b>5</b>	7
Nickel	ppm	ASTM D5185(m)	>3	<b>&lt;1</b>	<1
Titanium	ppm	ASTM D5185(m)	>5	<b>&lt;1</b>	<1
Silver	ppm	ASTM D5185(m)	>2	<b>0</b>	0
Aluminum	ppm	ASTM D5185(m)	>35	<b>48</b>	79
Lead	ppm	ASTM D5185(m)	>10	<b>&lt;1</b>	<1
Copper	ppm	ASTM D5185(m)	>180	<b>8</b>	14
Tin	ppm	ASTM D5185(m)	>8	<b>&lt;1</b>	<1
Antimony	ppm	ASTM D5185(m)	>35	<b>0</b>	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	<1
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)		<b>15</b>	54
Barium	ppm	ASTM D5185(m)		<b>0</b>	0
Molybdenum	ppm	ASTM D5185(m)		<b>75</b>	71
Manganese	ppm	ASTM D5185(m)		<b>1</b>	2
Magnesium	ppm	ASTM D5185(m)		<b>573</b>	201
Calcium	ppm	ASTM D5185(m)		<b>1583</b>	1960
Phosphorus	ppm	ASTM D5185(m)	1260	<b>1015</b>	1028
Zinc	ppm	ASTM D5185(m)	1400	<b>1152</b>	1073
Sulfur	ppm	ASTM D5185(m)		<b>2700</b>	3009
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1

## CONTAMINANTS

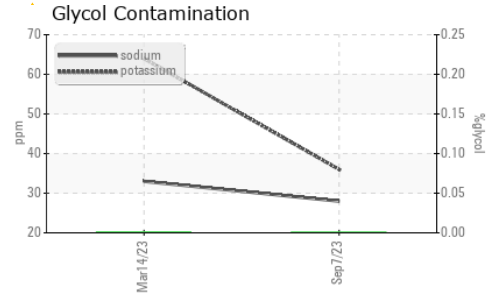
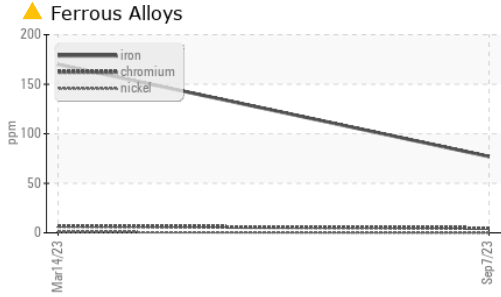
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>15	<b>10</b>	16
Sodium	ppm	ASTM D5185(m)		<b>28</b>	33
Potassium	ppm	ASTM D5185(m)	>20	<b>36</b>	64
Glycol	%	ASTM D7922*		<b>0.0</b>	0.0

## INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	<b>0.9</b>	0.4
Nitration	Abs/cm	ASTM D7624*	>20	<b>12.4</b>	12.1
Sulfation	Abs./1mm	ASTM D7415*	>30	<b>25.5</b>	24.3



# OIL ANALYSIS REPORT

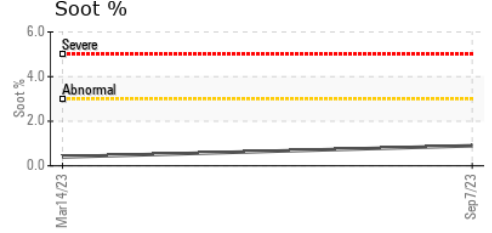
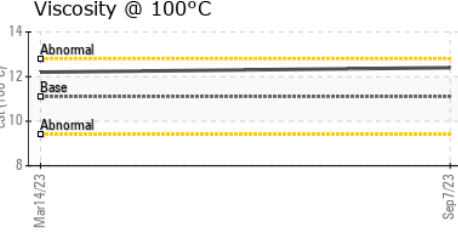
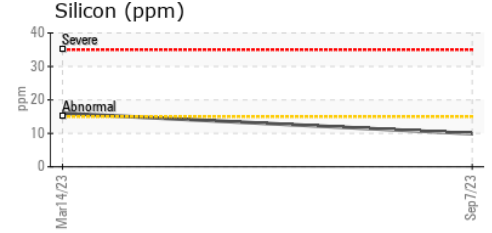
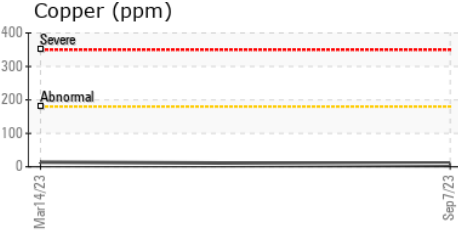
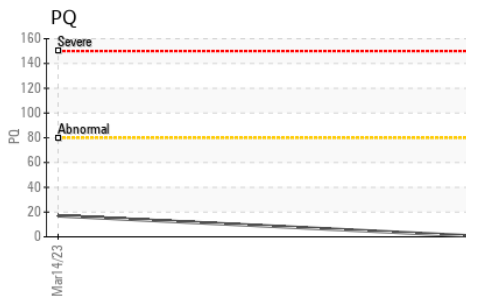
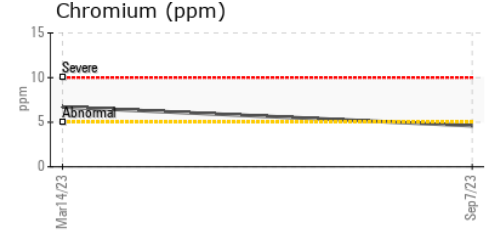
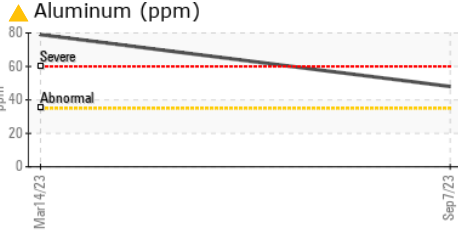
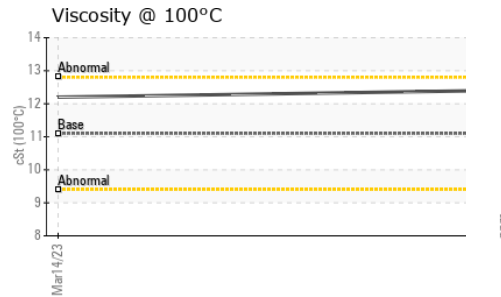
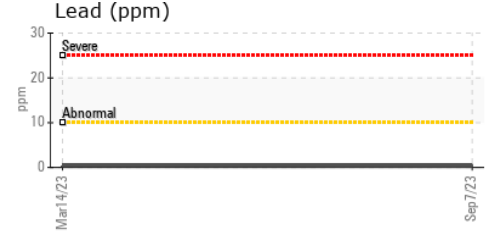
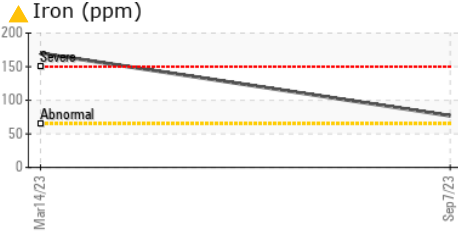
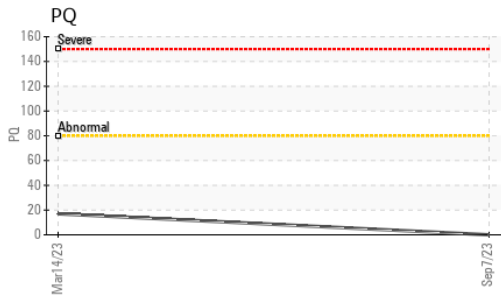


FLUID DEGRADATION	method	limit/base	current	history1	history2
Oxidation	Abs./1mm ASTM D7414*	>25	<b>20.1</b>	15.4	---

VISUAL	method	limit/base	current	history1	history2
White Metal	scalar Visual*	NONE	<b>VLITE</b>	---	---
Yellow Metal	scalar Visual*	NONE	<b>NONE</b>	---	---
Precipitate	scalar Visual*	NONE	<b>NONE</b>	---	---
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	---
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)	11.1	<b>12.4</b>	12.2	---

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0079098 **Received** : 12 Sep 2023  
**Lab Number** : 02581691 **Diagnosed** : 13 Sep 2023  
**Unique Number** : 5642756 **Diagnostician** : Kevin Marson  
**Test Package** : MOB 1 ( Additional Tests: Glycol, PQ, Visual )

**Matrec - 791 - Rimouski**  
 350 Avenue de L'Industrie  
 Rimouski, QC  
 CA G5M 1W4  
 Contact: Vincent Maltais  
 info@forestsstar.com  
 T: 4(18)388-2626  
 F: (418)388-2038

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.