



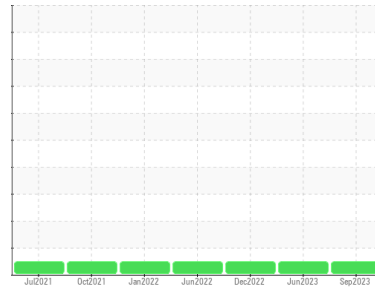
# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**811031**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA 10W30 (--- GAL)**



## DIAGNOSIS

### Recommendation

Échantillonner de nouveau l'équipement au prochain intervalle de vidange afin d'en surveiller la condition.

### Wear

Les taux d'usure de tous les composants sont normaux.

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

### Fluid Condition

La viscosité de l'échantillon se situe dans la portée de l'SAE 40; nous vous conseillons de vérifier. L'état de l'huile est acceptable pour la durée de service.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>GFL0089691</b>	GFL0078340	GFL0068211
Sample Date	Client Info		<b>13 Sep 2023</b>	05 Jun 2023	08 Dec 2022
Machine Age	hrs	Client Info	<b>5297</b>	4669	3563
Oil Age	hrs	Client Info	<b>600</b>	600	600
Oil Changed	Client Info		<b>Changed</b>	Changed	Changed
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Glycol	WC Method		<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>80	<b>32</b>	27	46
Chromium	ppm	ASTM D5185(m)	>5	<b>1</b>	1	2
Nickel	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185(m)	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>30	<b>8</b>	5	17
Lead	ppm	ASTM D5185(m)	>30	<b>0</b>	0	0
Copper	ppm	ASTM D5185(m)	>150	<b>3</b>	2	3
Tin	ppm	ASTM D5185(m)	>5	<b>1</b>	<1	<1
Antimony	ppm	ASTM D5185(m)		<b>0</b>	0	<1
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)		<b>37</b>	8	7
Barium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)		<b>17</b>	62	59
Manganese	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185(m)		<b>183</b>	915	934
Calcium	ppm	ASTM D5185(m)		<b>2098</b>	1229	1149
Phosphorus	ppm	ASTM D5185(m)		<b>1026</b>	1088	1054
Zinc	ppm	ASTM D5185(m)		<b>1200</b>	1221	1189
Sulfur	ppm	ASTM D5185(m)		<b>2679</b>	2535	2438
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1

## CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>20	<b>8</b>	5	5
Sodium	ppm	ASTM D5185(m)		<b>9</b>	3	2
Potassium	ppm	ASTM D5185(m)	>20	<b>22</b>	5	32

## INFRA-RED

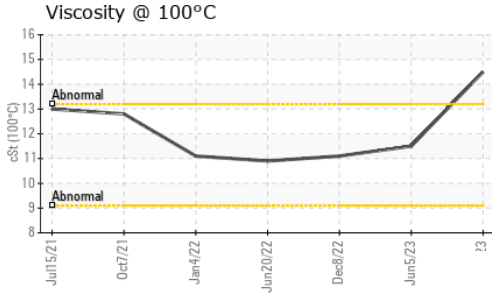
	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>3	<b>0.7</b>	0.1	0.5
Nitration	Abs/cm	ASTM D7624*	>20	<b>10.6</b>	3.9	10.3
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>25.9</b>	10.0	22.9

## FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>21.6</b>	6.9	18.5



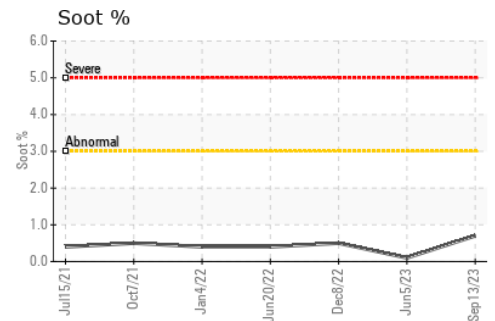
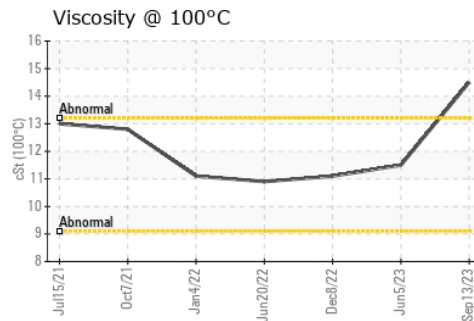
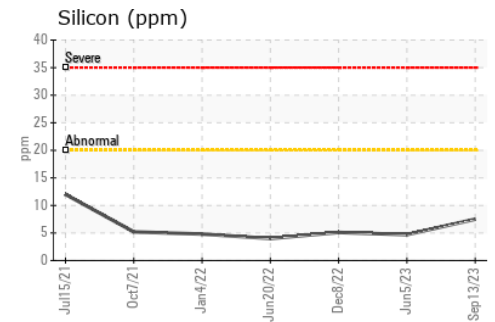
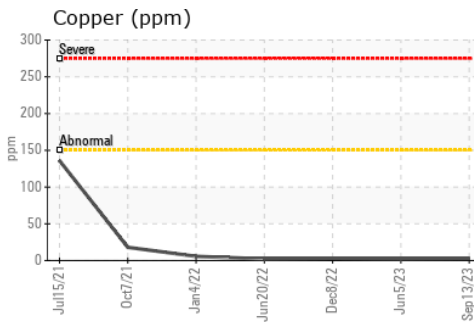
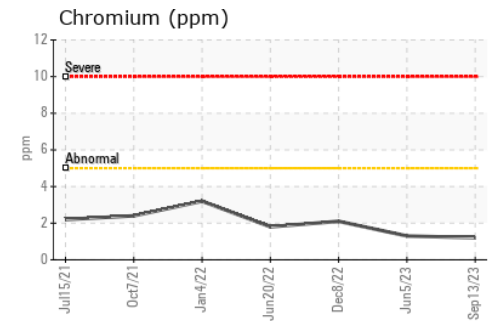
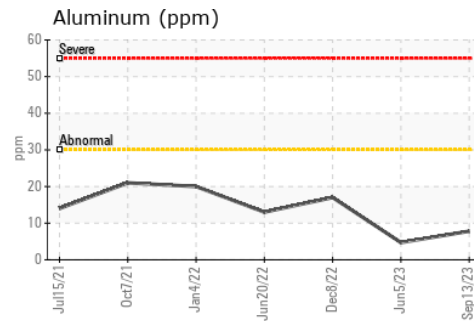
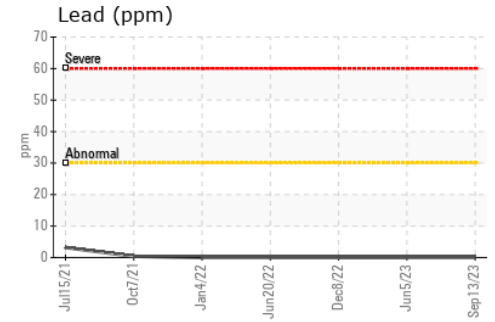
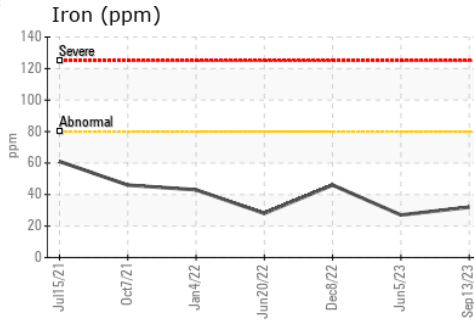
# OIL ANALYSIS REPORT



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)	14.5	11.5	11.1

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 732 - Beauce - Hauling - Solid Waste  
**Sample No.** : GFL0089691 **Received** : 15 Sep 2023  
**Lab Number** : 02582759 **Diagnosed** : 15 Sep 2023  
**Unique Number** : 5643824 **Diagnostician** : Kevin Marson  
**Test Package** : MOB 1

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.

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