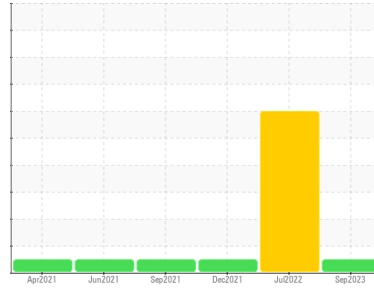




# OIL ANALYSIS REPORT

## Sample Rating Trend

**NORMAL**



Machine Id  
**925010**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON SHP 15W40 (--- LTR)**

## DIAGNOSIS

### Recommendation

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

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>GFL0077002</b>	GFL0054661	GFL0021714
Sample Date	Client Info		<b>12 Sep 2023</b>	10 Jul 2022	29 Dec 2021
Machine Age	hrs	Client Info	<b>17422</b>	15759	15228
Oil Age	hrs	Client Info	<b>600</b>	0	600
Oil Changed	Client Info		<b>Changed</b>	Changed	Changed
Sample Status			<b>NORMAL</b>	SEVERE	NORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>3.0	<b>&lt;1.0</b>	<1.0	2.1

## WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>120	<b>17</b>	62	18
Chromium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	9	1
Nickel	ppm	ASTM D5185(m)	>5	<b>3</b>	20	1
Titanium	ppm	ASTM D5185(m)	>2	<b>0</b>	<1	0
Silver	ppm	ASTM D5185(m)	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>20	<b>9</b>	6	2
Lead	ppm	ASTM D5185(m)	>40	<b>&lt;1</b>	<1	<1
Copper	ppm	ASTM D5185(m)	>330	<b>9</b>	21	2
Tin	ppm	ASTM D5185(m)	>15	<b>&lt;1</b>	<1	1
Antimony	ppm	ASTM D5185(m)		<b>0</b>	<1	<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)	0	<b>3</b>	2	3
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	60	<b>58</b>	57	56
Manganese	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	2	<1
Magnesium	ppm	ASTM D5185(m)	1010	<b>960</b>	915	943
Calcium	ppm	ASTM D5185(m)	1070	<b>1012</b>	1050	1025
Phosphorus	ppm	ASTM D5185(m)	1150	<b>970</b>	922	967
Zinc	ppm	ASTM D5185(m)	1270	<b>1141</b>	1177	1170
Sulfur	ppm	ASTM D5185(m)	2060	<b>2125</b>	2368	2387
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1

## CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>25	<b>4</b>	4	3
Sodium	ppm	ASTM D5185(m)		<b>5</b>	19	47
Potassium	ppm	ASTM D5185(m)	>20	<b>8</b>	1	2
Glycol	%	ASTM D7922*		<b>0.0</b>	NEG	NEG

## INFRA-RED

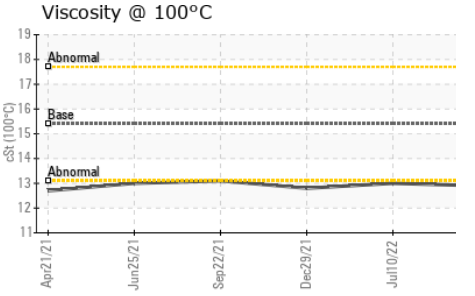
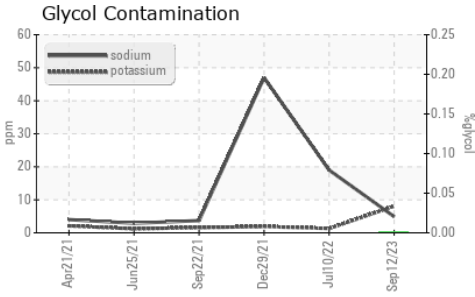
	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>4	<b>0.2</b>	0.2	0.2
Nitration	Abs/cm	ASTM D7624*	>20	<b>8.6</b>	9.5	9.6
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>21.6</b>	21.7	23.0

## FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>19.7</b>	18.7	19.7



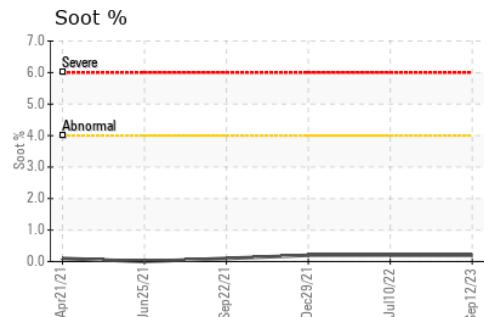
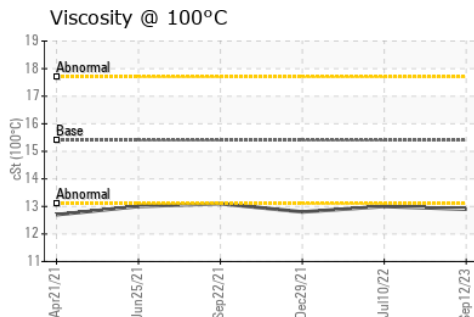
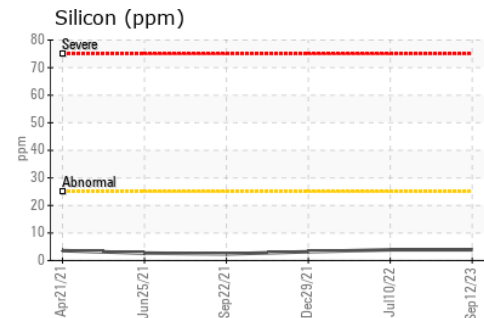
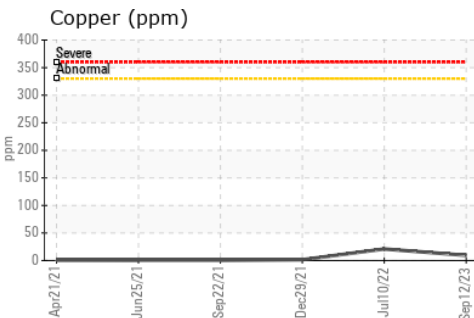
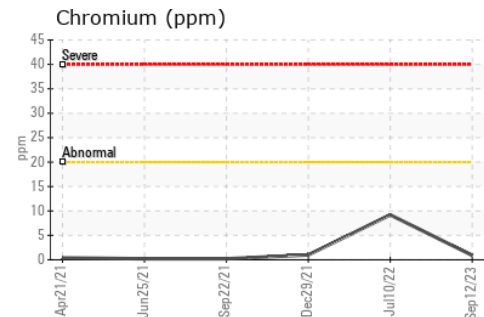
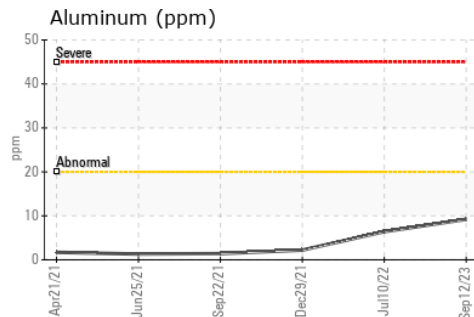
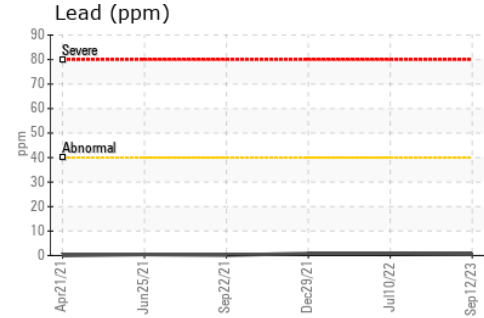
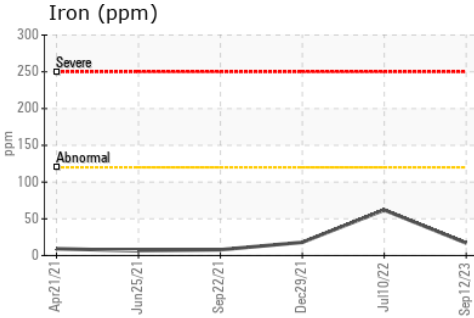
# OIL ANALYSIS REPORT



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)	15.4	12.9	13.0

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 575 - Squamish Hauling  
**Sample No.** : GFL0077002 **Received** : 15 Sep 2023 38950 Queens Way, Squamish, BC CA V8B 0K8  
**Lab Number** : 02582779 **Diagnosed** : 15 Sep 2023  
**Unique Number** : 5643844 **Diagnostician** : Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: Glycol )

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.

Contact: Dean Imbeau  
 dimbeau@gflenv.com  
 T: (604)892-5604  
 F: (604)892-5238