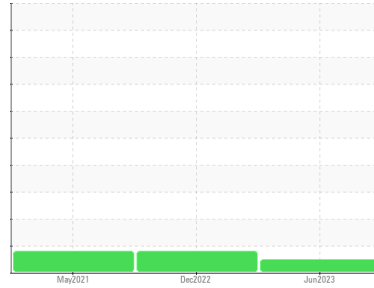




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**351069**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON HP 15W40 (--- GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

Metal levels are typical for a new component breaking in.

### 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	history 1	history 2
Sample Number	Client Info		<b>GFL0077038</b>	GFL0054667	GFL0024412
Sample Date	Client Info		<b>29 Jun 2023</b>	23 Dec 2022	15 May 2021
Machine Age	mls	Client Info	<b>2808</b>	0	198332
Oil Age	mls	Client Info	<b>0</b>	0	3500
Oil Changed	Client Info		<b>Changed</b>	Changed	Changed
Sample Status			<b>NORMAL</b>	MARGINAL	MARGINAL

## CONTAMINATION

	method	limit/base	current	history 1	history 2
Fuel	WC Method	>5	<b>&lt;1.0</b>	▲ 4	▲ 2.6
Glycol	WC Method		<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history 1	history 2	
Iron	ppm	ASTM D5185(m)	>100	<b>23</b>	13	8
Chromium	ppm	ASTM D5185(m)	>20	<b>1</b>	1	<1
Nickel	ppm	ASTM D5185(m)	>2	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185(m)	>2	<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>25	<b>3</b>	2	2
Lead	ppm	ASTM D5185(m)	>40	<b>&lt;1</b>	<1	<1
Copper	ppm	ASTM D5185(m)	>330	<b>1</b>	<1	<1
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	history 1	history 2	
Boron	ppm	ASTM D5185(m)	0	<b>3</b>	5	4
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	60	<b>58</b>	57	58
Manganese	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185(m)	1010	<b>949</b>	914	949
Calcium	ppm	ASTM D5185(m)	1070	<b>1031</b>	1047	1030
Phosphorus	ppm	ASTM D5185(m)	1150	<b>1032</b>	1017	1001
Zinc	ppm	ASTM D5185(m)	1270	<b>1178</b>	1152	1227
Sulfur	ppm	ASTM D5185(m)	2060	<b>2455</b>	2483	2662
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1

## CONTAMINANTS

	method	limit/base	current	history 1	history 2	
Silicon	ppm	ASTM D5185(m)	>25	<b>4</b>	7	5
Sodium	ppm	ASTM D5185(m)		<b>2</b>	2	2
Potassium	ppm	ASTM D5185(m)	>20	<b>0</b>	<1	<1

## INFRA-RED

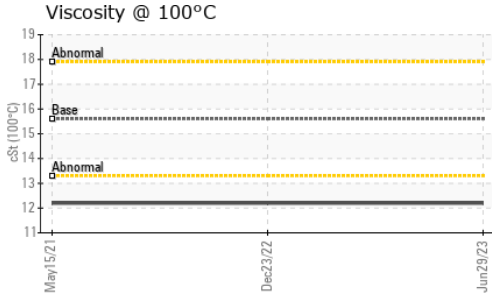
	method	limit/base	current	history 1	history 2	
Soot %	%	ASTM D7844*	>3	<b>0.1</b>	0.1	0
Nitration	Abs/cm	ASTM D7624*	>20	<b>12.6</b>	13.2	11.6
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>24.5</b>	26.0	22.7

## FLUID DEGRADATION

	method	limit/base	current	history 1	history 2	
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>27.9</b>	29.9	22.2



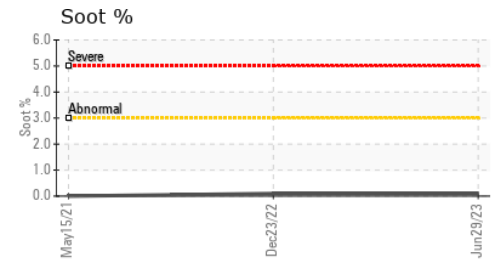
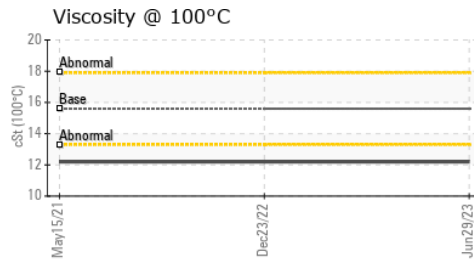
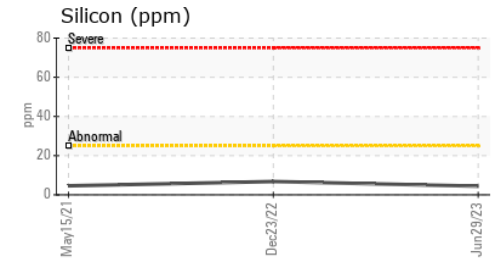
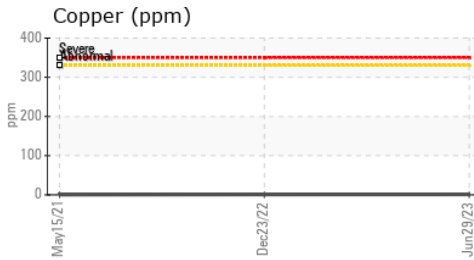
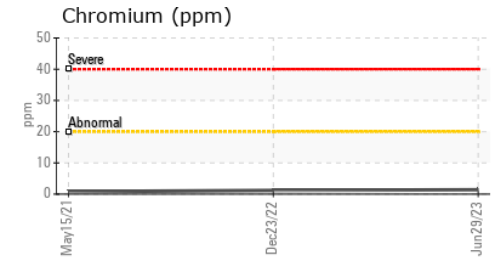
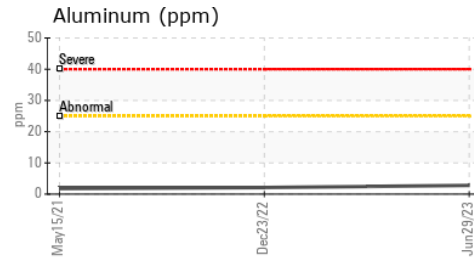
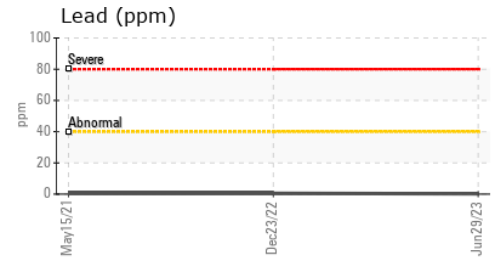
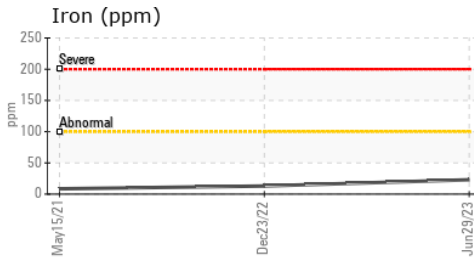
# OIL ANALYSIS REPORT



PARAMETER	method	limit/base	current	history 1	history 2
White Metal	scalar	Visual*	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	---	---
Precipitate	scalar	Visual*	NONE	---	---
Silt	scalar	Visual*	NONE	---	---
Debris	scalar	Visual*	NONE	---	---
Sand/Dirt	scalar	Visual*	NONE	---	---
Appearance	scalar	Visual*	NORML	---	---
Odor	scalar	Visual*	NORML	NORML	---
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history 1	history 2
Visc @ 100°C	cSt	ASTM D7279(m)	15.6	12.2	12.2

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 575 - Squamish Hauling  
**Sample No.** : GFL0077038 **Received** : 06 Jul 2023 38950 Queens Way,  
**Lab Number** : 02568158 **Diagnosed** : 06 Jul 2023 Squamish, BC  
**Unique Number** : 5605204 **Diagnostician** : Kevin Marson CA V8B 0K8  
**Test Package** : MOB 1 ( Additional Tests: Visual ) Contact: Dean Imbeau  
dimbeau@gflenv.com

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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