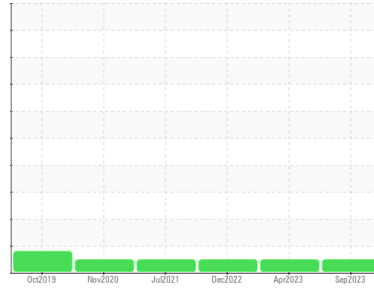




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**401195**

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>GFL0088960</b>	GFL0074247	GFL0054561
Sample Date	Client Info		<b>25 Sep 2023</b>	11 Apr 2023	10 Dec 2022
Machine Age	kms	Client Info	<b>307555</b>	2872	2352
Oil Age	kms	Client Info	<b>12272</b>	520	970
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)	>100	<b>34</b>	24	86
Chromium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	3
Nickel	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185(m)		<b>0</b>	<1	<1
Silver	ppm	ASTM D5185(m)	>3	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>20	<b>8</b>	4	9
Lead	ppm	ASTM D5185(m)	>40	<b>9</b>	2	6
Copper	ppm	ASTM D5185(m)	>330	<b>2</b>	1	5
Tin	ppm	ASTM D5185(m)	>15	<b>&lt;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)	0	<b>3</b>	4	4
Barium	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	60	<b>65</b>	61	65
Manganese	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	<1	2
Magnesium	ppm	ASTM D5185(m)	1010	<b>1034</b>	985	1024
Calcium	ppm	ASTM D5185(m)	1070	<b>1117</b>	1135	1227
Phosphorus	ppm	ASTM D5185(m)	1150	<b>1082</b>	1107	1153
Zinc	ppm	ASTM D5185(m)	1270	<b>1264</b>	1224	1309
Sulfur	ppm	ASTM D5185(m)	2060	<b>2437</b>	2635	2462
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>13</b>	5	9
Sodium	ppm	ASTM D5185(m)		<b>6</b>	4	7
Potassium	ppm	ASTM D5185(m)	>20	<b>2</b>	<1	2

## INFRA-RED

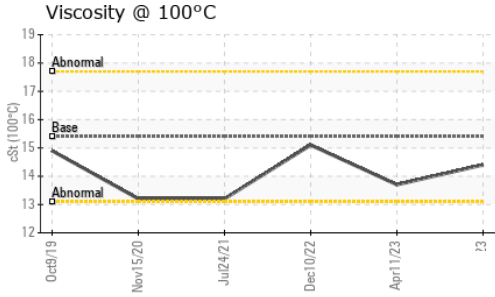
	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>3	<b>1.8</b>	1.4	1.4
Nitration	Abs/cm	ASTM D7624*	>20	<b>14.9</b>	15.8	12.2
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>27.6</b>	28.4	24.6

## FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>26.5</b>	25.5	20.8



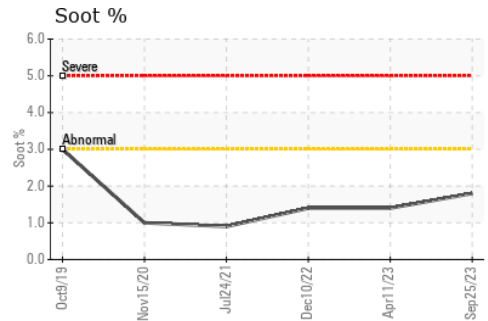
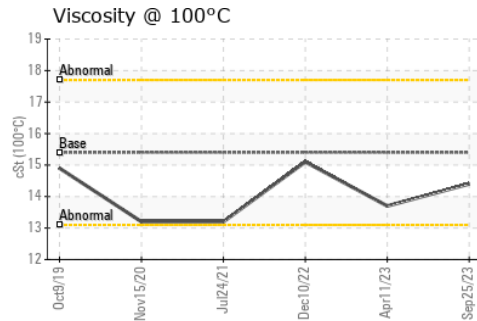
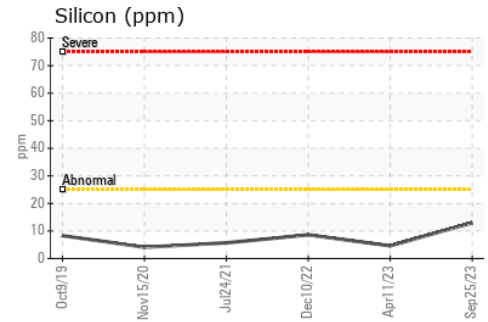
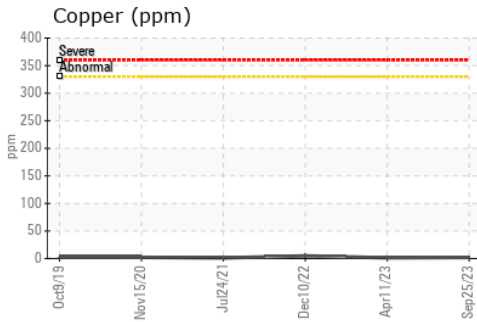
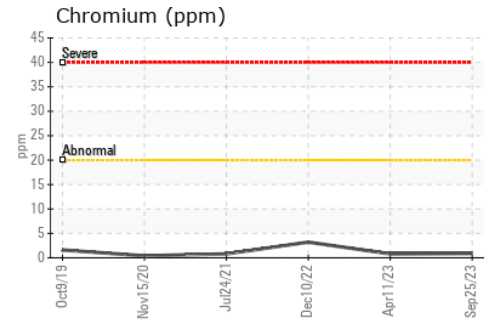
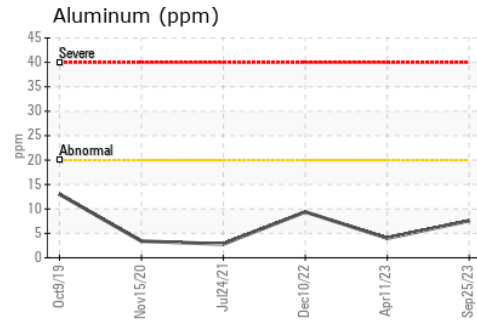
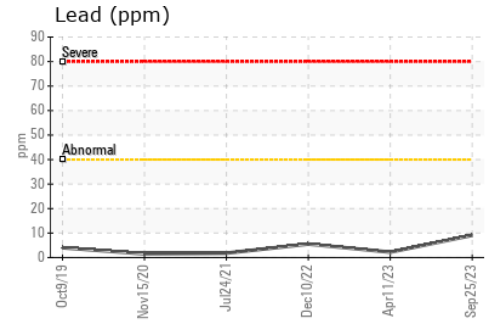
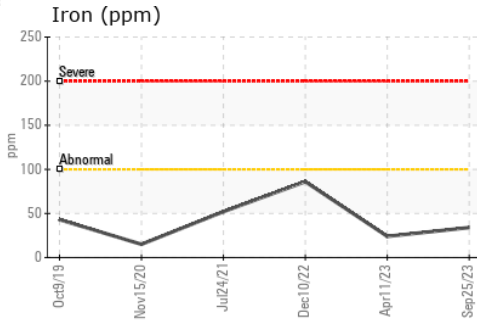
# OIL ANALYSIS REPORT



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	<b>14.4</b>	13.7

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0088960 **Received** : 26 Sep 2023  
**Lab Number** : **02585166** **Diagnosed** : 26 Sep 2023  
**Unique Number** : 5646231 **Diagnostician** : Bill Quesnel  
**Test Package** : MOB 1

**GFL Environmental - 216**  
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 Toronto, ON  
 CA M4B 1Y9  
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 thatzioannidis@gflenv.com  
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 F:

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.