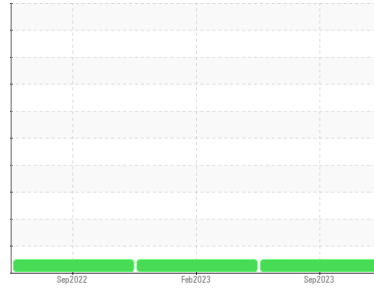




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**219005**

Component  
**Gasoline Engine**

Fluid  
**PETRO CANADA DURON SHP 10W30 (13 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>GFL0061112</b>	GFL0061060	GFL0054532
Sample Date	Client Info		<b>15 Sep 2023</b>	07 Feb 2023	23 Sep 2022
Machine Age	kms	Client Info	<b>42822</b>	37405	32627
Oil Age	kms	Client Info	<b>5417</b>	4778	4688
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	>4.0	<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) >150	<b>40</b>	36	29
Chromium	ppm	ASTM D5185(m) >20	<b>1</b>	<1	<1
Nickel	ppm	ASTM D5185(m) >5	<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185(m)	<b>0</b>	<1	<1
Silver	ppm	ASTM D5185(m) >2	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185(m) >40	<b>7</b>	8	6
Lead	ppm	ASTM D5185(m) >50	<b>&lt;1</b>	<1	<1
Copper	ppm	ASTM D5185(m) >155	<b>2</b>	2	1
Tin	ppm	ASTM D5185(m) >10	<b>0</b>	<1	0
Antimony	ppm	ASTM D5185(m)	<b>0</b>	<1	0
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) 2	<b>2</b>	2	2
Barium	ppm	ASTM D5185(m) 0	<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185(m) 50	<b>60</b>	58	57
Manganese	ppm	ASTM D5185(m) 0	<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185(m) 950	<b>972</b>	961	948
Calcium	ppm	ASTM D5185(m) 1050	<b>1049</b>	1107	1045
Phosphorus	ppm	ASTM D5185(m) 995	<b>1014</b>	1094	1053
Zinc	ppm	ASTM D5185(m) 1180	<b>1205</b>	1190	1153
Sulfur	ppm	ASTM D5185(m) 2600	<b>2553</b>	2705	2552
Lithium	ppm	ASTM D5185(m)	<b>&lt;1</b>	<1	<1

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >30	<b>9</b>	8	24
Sodium	ppm	ASTM D5185(m) >400	<b>3</b>	3	4
Potassium	ppm	ASTM D5185(m) >20	<b>0</b>	<1	0

## INFRA-RED

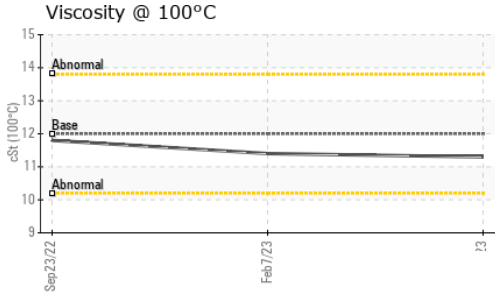
	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	<b>0.1</b>	0	0
Nitration	Abs/cm	ASTM D7624* >20	<b>9.8</b>	8.5	9.4
Sulfation	Abs/.1mm	ASTM D7415* >30	<b>18.8</b>	19.7	19.2

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414* >25	<b>16.2</b>	15.7	16.7



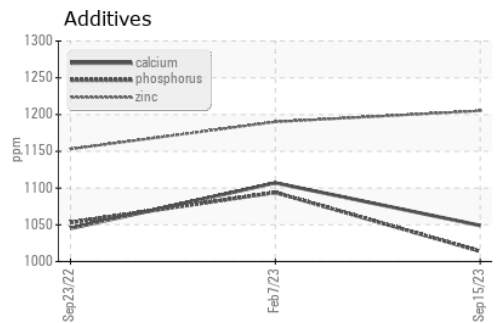
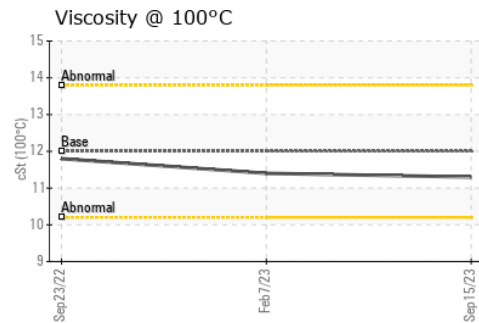
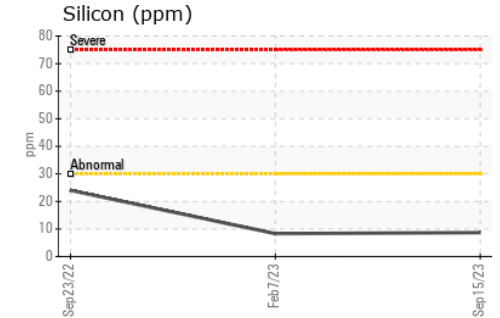
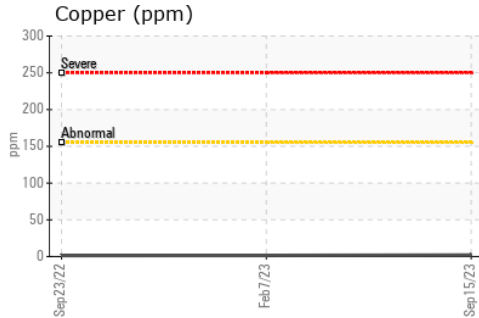
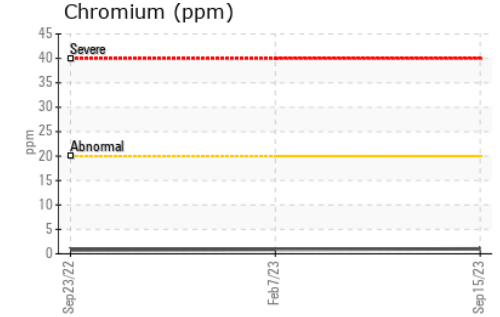
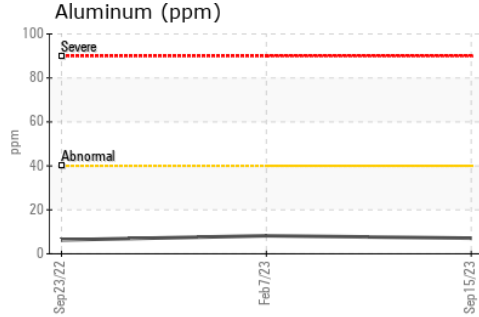
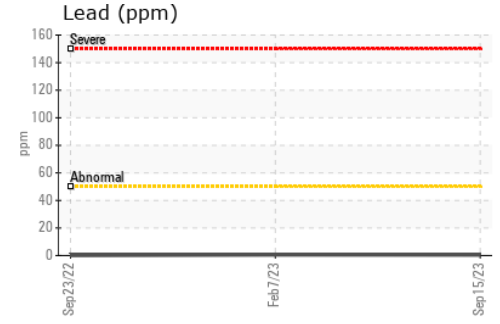
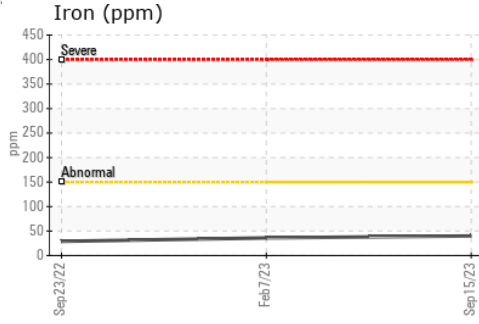
# OIL ANALYSIS REPORT



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)	12.00	11.3	11.4

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0061112     **Received** : 05 Oct 2023  
**Lab Number** : 02587127     **Diagnosed** : 05 Oct 2023  
**Unique Number** : 5656193     **Diagnostician** : Wes Davis  
**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.

**GFL Environmental - 216**  
 15 Bermondsey Road, Building B  
 Toronto, ON  
 CA M4B 1Y9  
 Contact: Tom Hatzioannidis  
 thatzioannidis@gflenv.com  
 T: (416)678-9340  
 F: