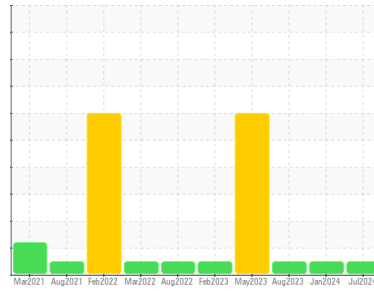




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**524003**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**

## DIAGNOSIS

### Recommendation

Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### 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. There is no indication of any contamination in the oil.

### Fluid Condition

Additive levels indicate the addition of a different brand, or type of oil. 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>GFL0113220</b>	GFL0102855	GFL0090843
Sample Date	Client Info		<b>08 Jul 2024</b>	18 Jan 2024	08 Aug 2023
Machine Age	hrs	Client Info	<b>0</b>	17179	16656
Oil Age	hrs	Client Info	<b>17644</b>	0	0
Oil Changed	Client Info		<b>N/A</b>	N/A	N/A
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>3.0	<b>&lt;1.0</b>	<1.0	<1.0
Water	WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol	WC Method		<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>120	<b>9</b>	13	12
Chromium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185(m)	>5	<b>6</b>	6	2
Titanium	ppm	ASTM D5185(m)	>2	<b>0</b>	0	<1
Silver	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>20	<b>4</b>	6	4
Lead	ppm	ASTM D5185(m)	>40	<b>0</b>	<1	1
Copper	ppm	ASTM D5185(m)	>330	<b>3</b>	3	2
Tin	ppm	ASTM D5185(m)	>15	<b>0</b>	<1	<1
Antimony	ppm	ASTM D5185(m)		<b>0</b>	0	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)	0	<b>54</b>	47	31
Barium	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	60	<b>7</b>	8	58
Manganese	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185(m)	1010	<b>109</b>	70	475
Calcium	ppm	ASTM D5185(m)	1070	<b>2021</b>	2138	1674
Phosphorus	ppm	ASTM D5185(m)	1150	<b>913</b>	932	1045
Zinc	ppm	ASTM D5185(m)	1270	<b>1129</b>	1138	1201
Sulfur	ppm	ASTM D5185(m)	2060	<b>2627</b>	2843	2596
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1

## CONTAMINANTS

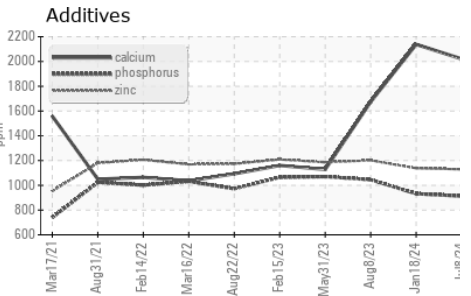
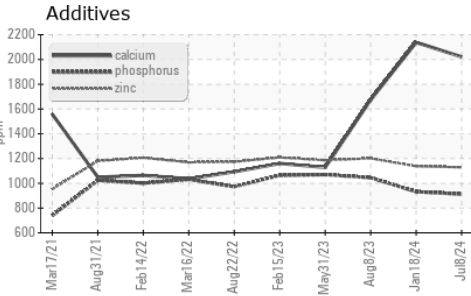
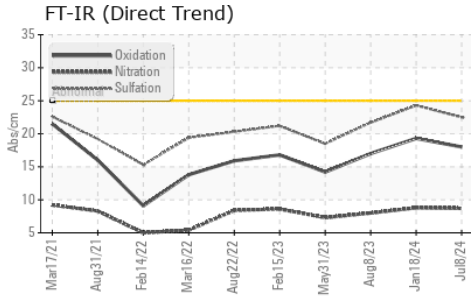
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>25	<b>5</b>	7	6
Sodium	ppm	ASTM D5185(m)		<b>4</b>	7	5
Potassium	ppm	ASTM D5185(m)	>20	<b>8</b>	12	6

## INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>4	<b>0.1</b>	0.1	0.1
Nitration	Abs/cm	ASTM D7624*	>20	<b>8.7</b>	8.8	8.0
Sulfation	Abs./1mm	ASTM D7415*	>30	<b>22.5</b>	24.3	21.7



# OIL ANALYSIS REPORT

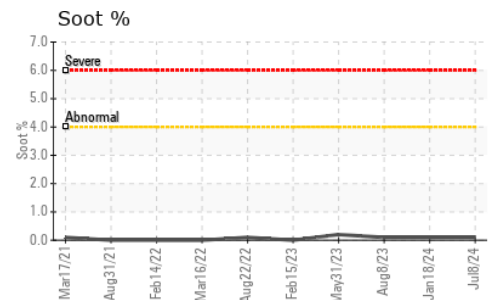
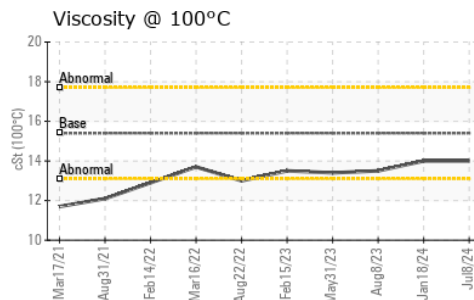
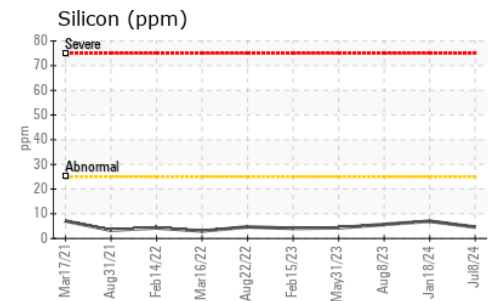
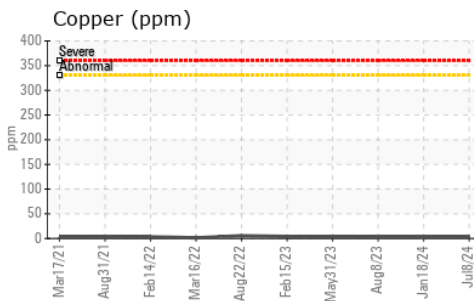
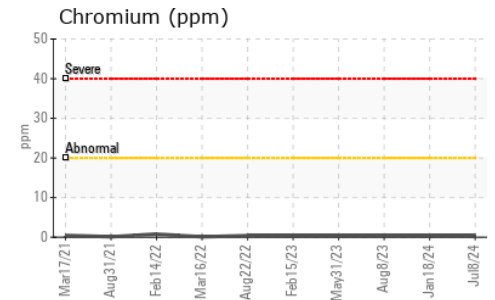
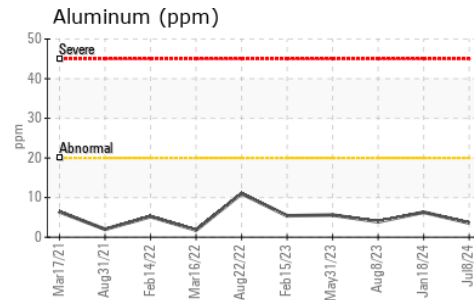
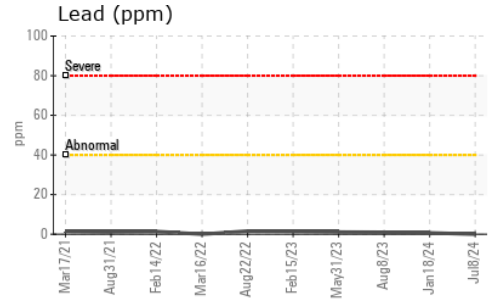
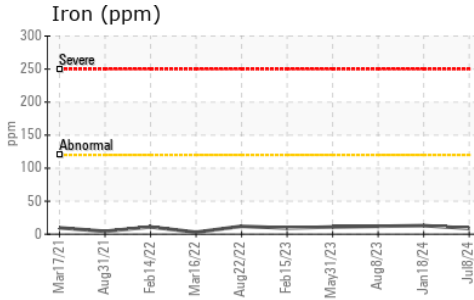


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	<b>18.0</b>	19.3	17.0

VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	NEG
Free Water	scalar	Visual*		<b>NEG</b>	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	<b>14.0</b>	14.0	13.5

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0113220  
**Lab Number** : **02646659**  
**Unique Number** : 5812211  
**Test Package** : MOB 1

**GFL Environmental - 246 - Windsor**  
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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.