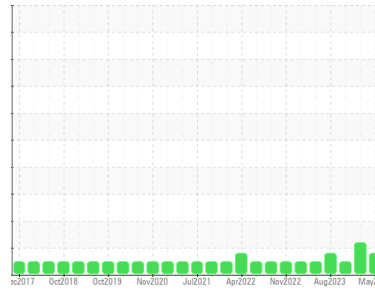




# OIL ANALYSIS REPORT

## Sample Rating Trend



FUEL



Machine Id

**701039**

Component

**Diesel Engine**

Fluid

**PETRO CANADA DURON SHP 15W40 (20 LTR)**

## DIAGNOSIS

### Recommendation

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. No other corrective action is recommended at this time.

### Wear

Metal levels are typical for a new component breaking in.

### 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. Light fuel dilution occurring. No other contaminants were detected 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>GFL0116846</b>	GFL0110736	GFL0097458
Sample Date	Client Info		<b>13 May 2024</b>	09 Feb 2024	13 Nov 2023
Machine Age	hrs	Client Info	<b>416</b>	416	416
Oil Age	hrs	Client Info	<b>416</b>	416	416
Oil Changed	Client Info		<b>Changed</b>	Changed	Changed
Sample Status			<b>MARGINAL</b>	ABNORMAL	NORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
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)	>100	<b>13</b>	13	12
Chromium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185(m)	>4	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>3	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185(m)	>20	<b>4</b>	6	1
Lead	ppm	ASTM D5185(m)	>40	<b>0</b>	0	0
Copper	ppm	ASTM D5185(m)	>330	<b>&lt;1</b>	<1	1
Tin	ppm	ASTM D5185(m)	>15	<b>0</b>	0	0
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>1</b>	2	2
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	0	<1
Molybdenum	ppm	ASTM D5185(m)	60	<b>54</b>	54	57
Manganese	ppm	ASTM D5185(m)	0	<b>0</b>	0	0
Magnesium	ppm	ASTM D5185(m)	1010	<b>854</b>	861	928
Calcium	ppm	ASTM D5185(m)	1070	<b>933</b>	962	1020
Phosphorus	ppm	ASTM D5185(m)	1150	<b>889</b>	896	953
Zinc	ppm	ASTM D5185(m)	1270	<b>1063</b>	1073	1174
Sulfur	ppm	ASTM D5185(m)	2060	<b>2252</b>	2371	2350
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1

## CONTAMINANTS

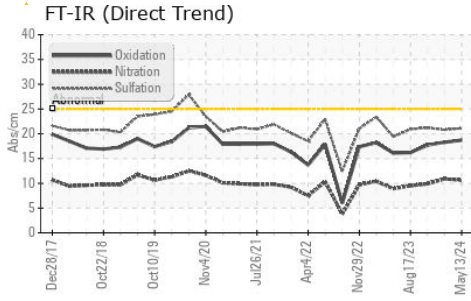
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>25	<b>2</b>	4	5
Sodium	ppm	ASTM D5185(m)		<b>2</b>	1	2
Potassium	ppm	ASTM D5185(m)	>20	<b>9</b>	11	<1
Fuel	%	ASTM D7593*	>5	<b>▲ 4.3</b>	▲ 5.6	<1.0

## INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>3	<b>0.2</b>	0.3	0.3
Nitration	Abs/cm	ASTM D7624*	>20	<b>10.6</b>	10.9	9.9
Sulfation	Abs./1mm	ASTM D7415*	>30	<b>21.1</b>	20.8	21.2



# OIL ANALYSIS REPORT



## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs./1mm ASTM D7414*	>25	18.3	17.7

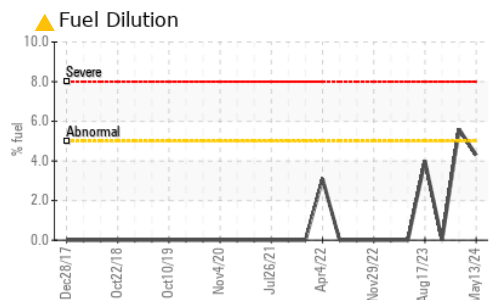
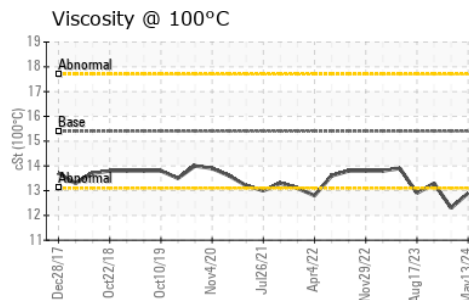
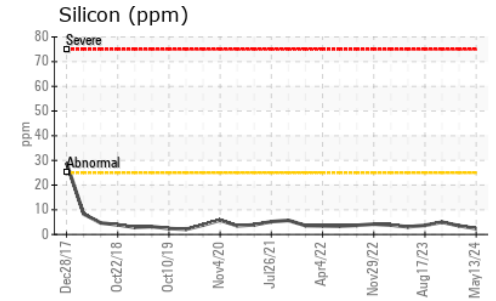
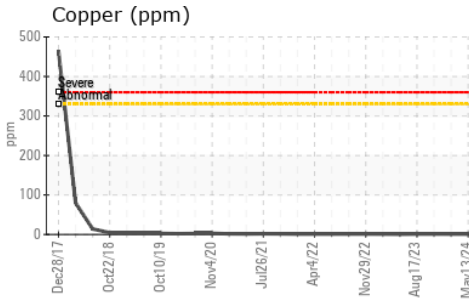
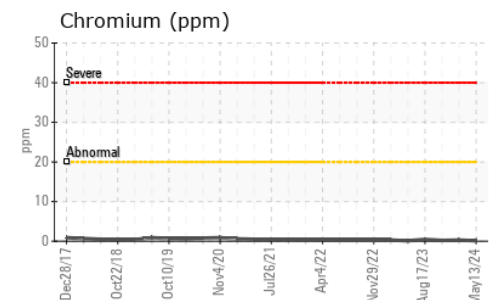
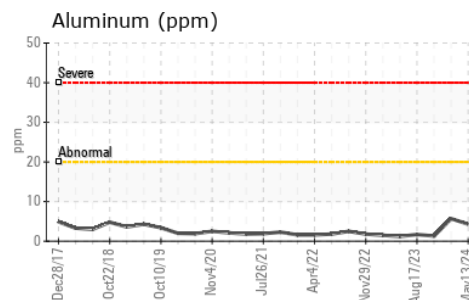
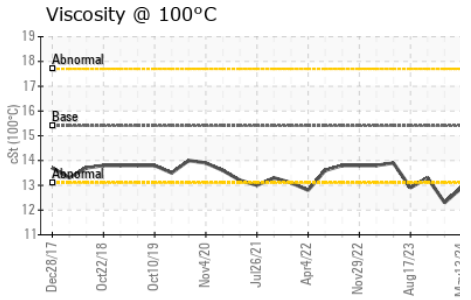
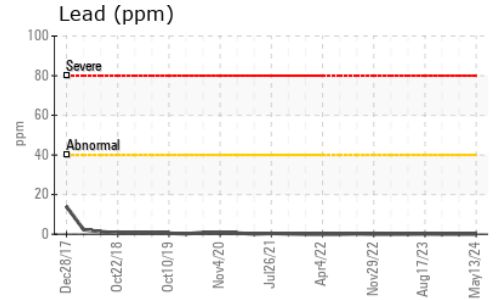
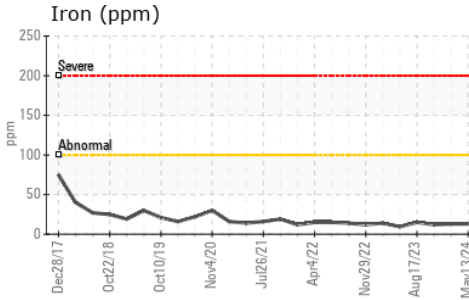
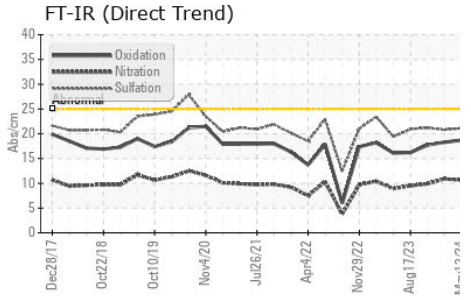
## VISUAL

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

## FLUID PROPERTIES

method	limit/base	current	history1	history2
Visc @ 100°C	cSt ASTM D7279(m)	15.4	12.9	12.3

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0116846  
**Lab Number** : 02635507  
**Unique Number** : 5776660  
**Test Package** : MOB 1 ( Additional Tests: PercentFuel )

**GFL Environmental - 221 - Windsor**  
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 CA N8W 4J5  
 Contact: Pamela-Jean Butler  
 pamelajeau.butler@gflenv.com  
 T: (519)948-8126  
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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.