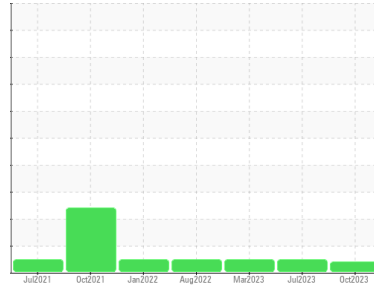




# OIL ANALYSIS REPORT

Sample Rating Trend



## VISCOSITY



Machine Id  
**359046**

Component  
**Gasoline Engine**

Fluid  
**PETRO CANADA DURON SHP 10W30 (--- GAL)**

### DIAGNOSIS

#### Recommendation

No corrective action is recommended at this time. 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

Light fuel dilution occurring. No other contaminants were detected in the oil.

#### Fluid Condition

Viscosity of sample indicates oil is within SAE 20 range, advise investigate. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. 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>GFL0096721</b>	GFL0084076	GFL0073113
Sample Date	Client Info		<b>25 Oct 2023</b>	11 Jul 2023	07 Mar 2023
Machine Age	kms	Client Info	<b>95539</b>	4535	5437
Oil Age	kms	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>N/A</b>	N/A	N/A
Sample Status			<b>ABNORMAL</b>	NORMAL	NORMAL

### CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol	WC Method		<b>NEG</b>	0.0	NEG

### WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>150	<b>10</b>	16	23
Chromium	ppm	ASTM D5185(m)	>20	<b>0</b>	<1	0
Nickel	ppm	ASTM D5185(m)	>5	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185(m)		<b>0</b>	<1	0
Silver	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>40	<b>2</b>	3	3
Lead	ppm	ASTM D5185(m)	>50	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185(m)	>155	<b>2</b>	2	2
Tin	ppm	ASTM D5185(m)	>10	<b>0</b>	0	0
Antimony	ppm	ASTM D5185(m)		<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	<1	<1
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>8</b>	8	8
Barium	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	50	<b>69</b>	87	66
Manganese	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	1	1
Magnesium	ppm	ASTM D5185(m)	950	<b>392</b>	422	369
Calcium	ppm	ASTM D5185(m)	1050	<b>1009</b>	1082	1057
Phosphorus	ppm	ASTM D5185(m)	995	<b>549</b>	636	560
Zinc	ppm	ASTM D5185(m)	1180	<b>658</b>	706	591
Sulfur	ppm	ASTM D5185(m)	2600	<b>1677</b>	1856	1609
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1

### CONTAMINANTS

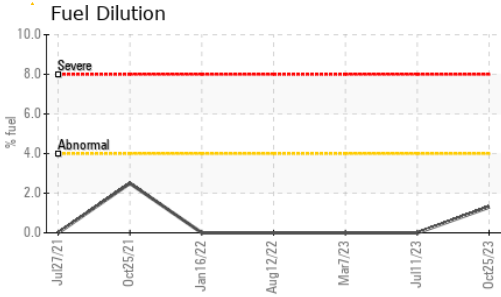
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>30	<b>10</b>	13	7
Sodium	ppm	ASTM D5185(m)	>400	<b>19</b>	26	18
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	2	2
Fuel	%	ASTM D7593*	>4.0	<b>1.3</b>	<1.0	<1.0

### INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*		<b>0</b>	0	0
Nitration	Abs/cm	ASTM D7624*	>20	<b>11.7</b>	11.6	10.8
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>26.7</b>	27.9	26.0



# OIL ANALYSIS REPORT

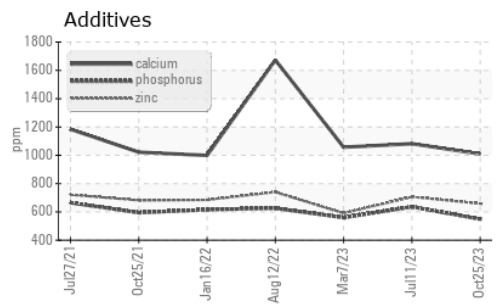
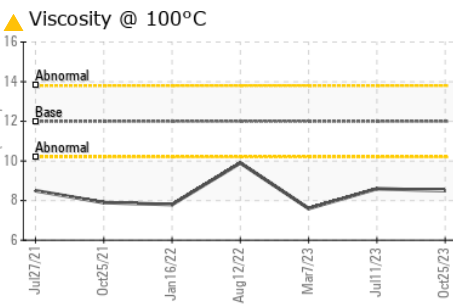
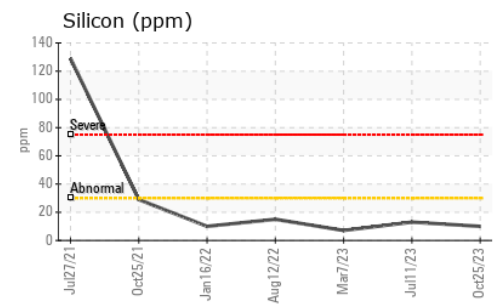
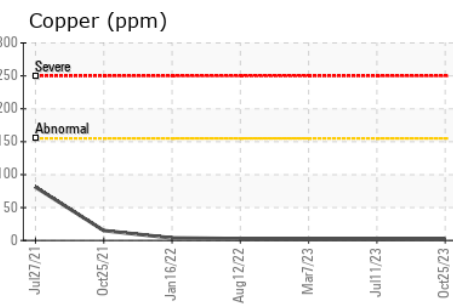
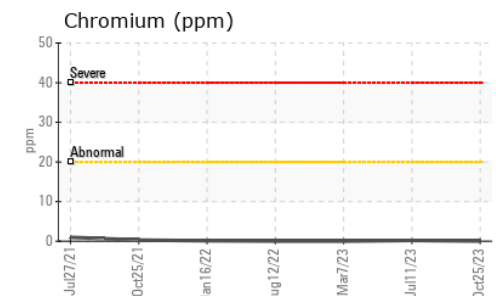
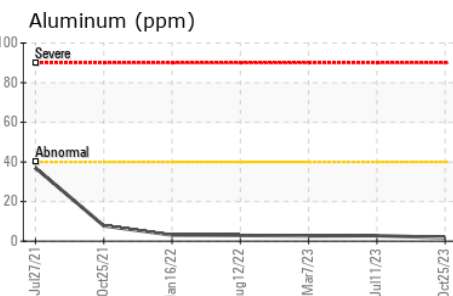
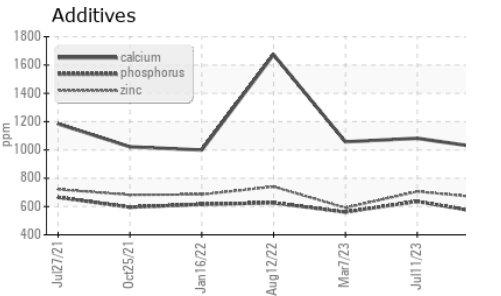
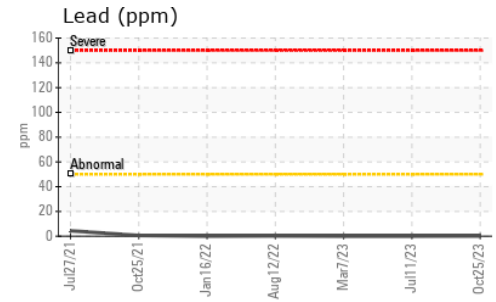
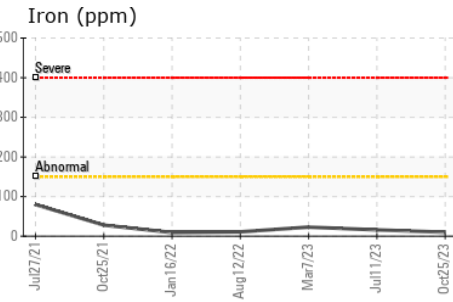
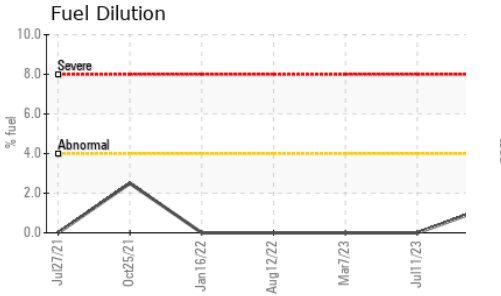


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	<b>21.1</b>	21.7	17.0

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)	12.00	<b>▲ 8.5</b>	8.6	7.6

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 574 - Vancouver Fleet  
**Sample No.** : GFL0096721 **Received** : 04 Dec 2023  
**Lab Number** : 02600386 **Diagnosed** : 05 Dec 2023  
**Unique Number** : 5685466 **Diagnostician** : Kevin Marson  
**Test Package** : MOB 1 ( Additional Tests: FuelDilution, PercentFuel )

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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