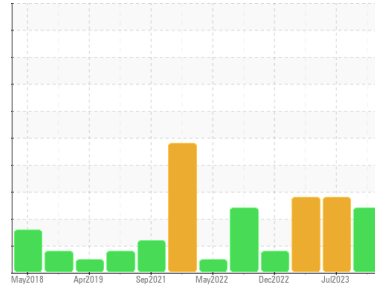




# OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Machine Id  
**8138**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON SHP 10W30 (--- GAL)**

## DIAGNOSIS

### Recommendation

We advise that you check the fuel injection system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

### Wear

All component wear rates are normal.

### Contamination

There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

### Fluid Condition

Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>GFL0097643</b>	GFL0085931	GFL0085910
Sample Date	Client Info	<b>12 Oct 2023</b>	06 Jul 2023	03 Jul 2023
Machine Age	hrs	<b>16893</b>	16324	16256
Oil Age	hrs	<b>0</b>	0	0
Oil Changed	Client Info	<b>Changed</b>	N/A	Not Changd
Sample Status		<b>SEVERE</b>	SEVERE	SEVERE

## CONTAMINATION

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

## WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m) >80	<b>42</b>	39	32
Chromium	ppm	ASTM D5185(m) >5	<b>2</b>	2	2
Nickel	ppm	ASTM D5185(m) >2	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185(m)	<b>0</b>	0	0
Silver	ppm	ASTM D5185(m) >3	<b>&lt;1</b>	<1	<1
Aluminum	ppm	ASTM D5185(m) >30	<b>1</b>	1	1
Lead	ppm	ASTM D5185(m) >30	<b>15</b>	9	8
Copper	ppm	ASTM D5185(m) >150	<b>2</b>	1	1
Tin	ppm	ASTM D5185(m) >5	<b>&lt;1</b>	1	<1
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>45</b>	43	46
Manganese	ppm	ASTM D5185(m) 0	<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185(m) 950	<b>711</b>	699	743
Calcium	ppm	ASTM D5185(m) 1050	<b>774</b>	742	790
Phosphorus	ppm	ASTM D5185(m) 995	<b>736</b>	759	816
Zinc	ppm	ASTM D5185(m) 1180	<b>884</b>	869	896
Sulfur	ppm	ASTM D5185(m) 2600	<b>1834</b>	1786	1921
Lithium	ppm	ASTM D5185(m)	<b>&lt;1</b>	<1	<1

## CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m) >20	<b>5</b>	5	4
Sodium	ppm	ASTM D5185(m)	<b>9</b>	7	6
Potassium	ppm	ASTM D5185(m) >20	<b>&lt;1</b>	1	<1
Fuel	%	ASTM D7593* >5	<b>13</b>	18.9	15.2

## INFRA-RED

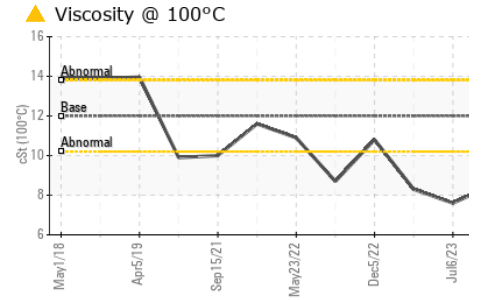
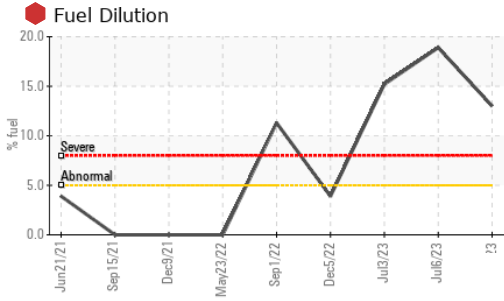
method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844* >3	<b>0.9</b>	0.9	0.8
Nitration	Abs/cm	ASTM D7624* >20	<b>12.0</b>	11.3	10.4
Sulfation	Abs/.1mm	ASTM D7415* >30	<b>29.0</b>	27.6	25.6

## FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	ASTM D7414* >25	<b>36.2</b>	33.3	29.1



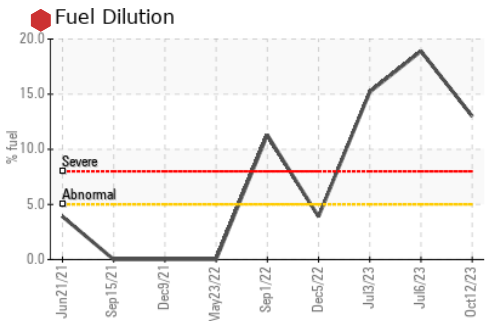
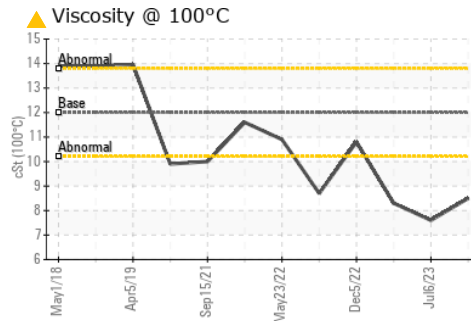
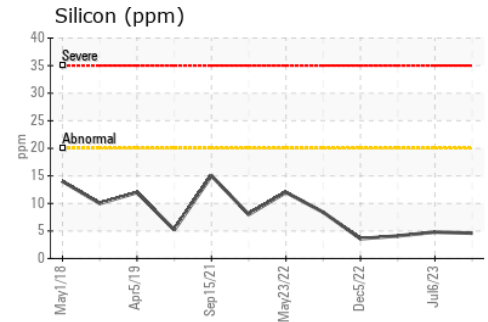
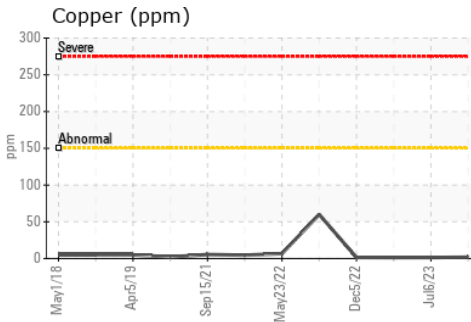
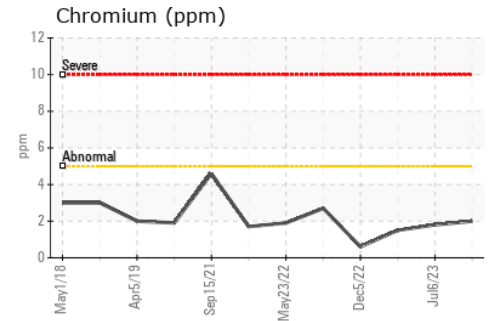
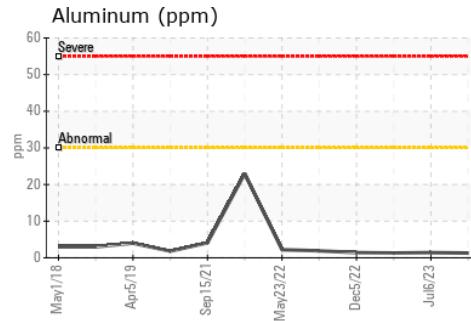
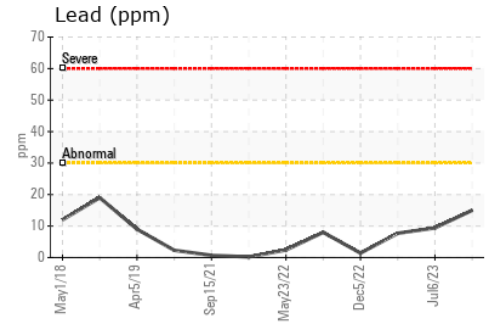
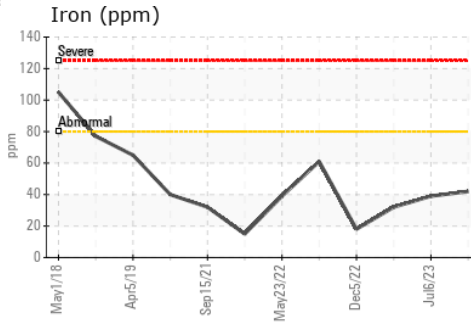
# OIL ANALYSIS REPORT



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	▲ 8.5	◆ 7.6	◆ 8.3

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 554 - Edmonton SW  
**Sample No.** : GFL0097643 **Received** : 17 Oct 2023  
**Lab Number** : 02589504 **Diagnosed** : 18 Oct 2023  
**Unique Number** : 5658570 **Diagnostician** : Kevin Marson  
**Test Package** : MOB 1 ( Additional Tests: 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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