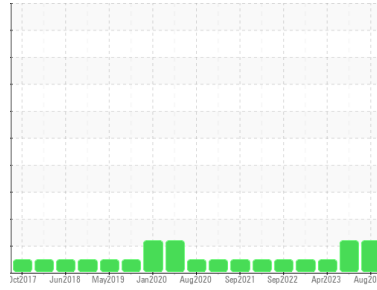




# OIL ANALYSIS REPORT

Sample Rating Trend



## FUEL



Machine Id  
**701027**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON SHP 15W40 (22 LTR)**

### DIAGNOSIS

- Recommendation**  
We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.
- Wear**  
All component wear rates are normal.
- Contamination**  
There is a moderate 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>GFL0091068</b>	GFL0086492	GFL0077205
Sample Date	Client Info		<b>23 Aug 2023</b>	14 Jul 2023	24 Apr 2023
Machine Age	kms	Client Info	<b>186902</b>	10267	86448
Oil Age	kms	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>Not Chngd</b>	Changed	Changed
Sample Status			<b>ABNORMAL</b>	ABNORMAL	NORMAL

### CONTAMINATION

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

### WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >80	<b>12</b>	19	13
Chromium	ppm	ASTM D5185(m) >5	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185(m) >2	<b>0</b>	0	0
Titanium	ppm	ASTM D5185(m)	<b>0</b>	0	<1
Silver	ppm	ASTM D5185(m) >3	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185(m) >30	<b>2</b>	3	2
Lead	ppm	ASTM D5185(m) >30	<b>0</b>	0	0
Copper	ppm	ASTM D5185(m) >150	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185(m) >5	<b>0</b>	0	0
Antimony	ppm	ASTM D5185(m)	<b>0</b>	0	<1
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>7</b>	10	7
Barium	ppm	ASTM D5185(m) 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m) 60	<b>56</b>	58	61
Manganese	ppm	ASTM D5185(m) 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185(m) 1010	<b>897</b>	899	960
Calcium	ppm	ASTM D5185(m) 1070	<b>996</b>	1005	1128
Phosphorus	ppm	ASTM D5185(m) 1150	<b>998</b>	993	1103
Zinc	ppm	ASTM D5185(m) 1270	<b>1119</b>	1153	1209
Sulfur	ppm	ASTM D5185(m) 2060	<b>2411</b>	2307	2646
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>	7	3
Sodium	ppm	ASTM D5185(m)	<b>11</b>	21	8
Potassium	ppm	ASTM D5185(m) >20	<b>4</b>	7	<1
Fuel	%	ASTM D7593* >5	<b>▲ 5.5</b>	▲ 6.5	<1.0

### INFRA-RED

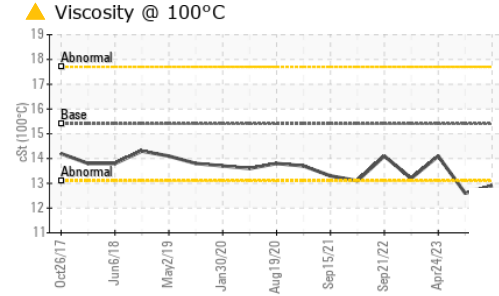
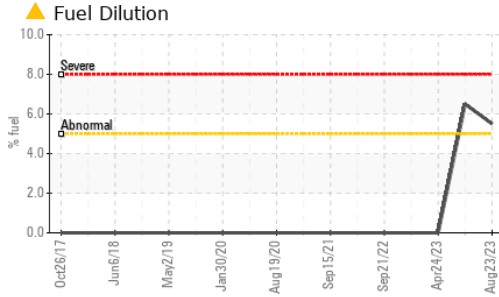
	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844* >3	<b>0.2</b>	0.3	0.1
Nitration	Abs/cm	ASTM D7624* >20	<b>10.3</b>	10.9	7.6
Sulfation	Abs/.1mm	ASTM D7415* >30	<b>21.5</b>	22.0	19.4

### FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414* >25	<b>18.6</b>	20.6	15.8



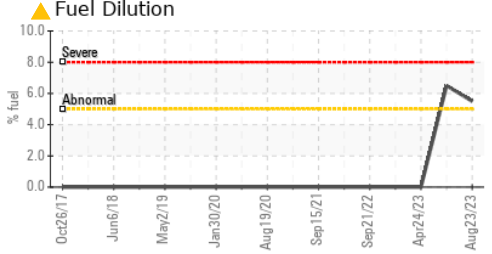
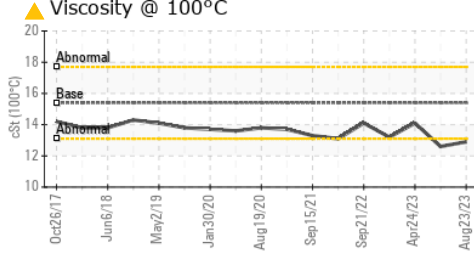
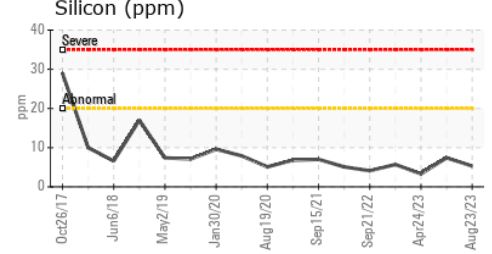
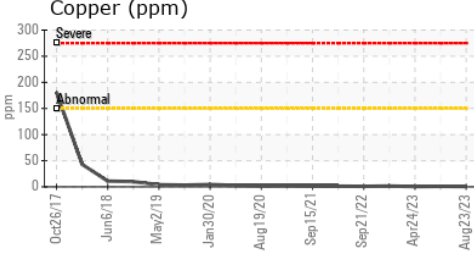
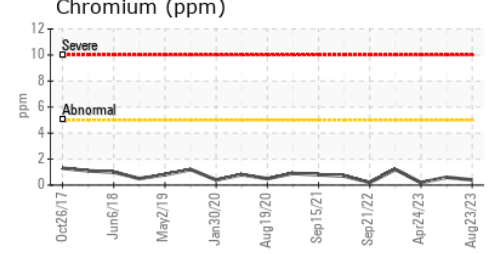
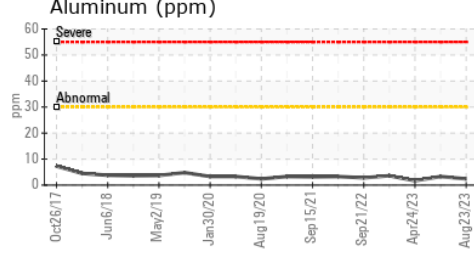
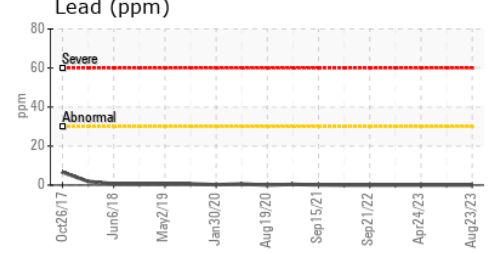
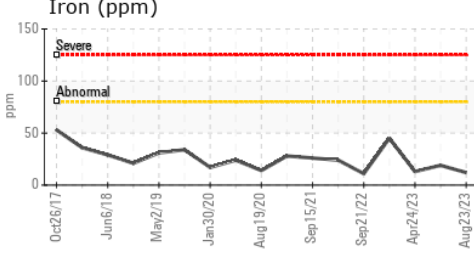
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	---
Yellow Metal	scalar	Visual*	NONE	NONE	---
Precipitate	scalar	Visual*	NONE	NONE	---
Silt	scalar	Visual*	NONE	VLITE	---
Debris	scalar	Visual*	NONE	VLITE	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---
Appearance	scalar	Visual*	NORML	NORML	---
Odor	scalar	Visual*	NORML	NORML	NORML
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)	15.4	▲ 12.9	▲ 12.6

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0091068 **Received** : 24 Aug 2023  
**Lab Number** : 02578069 **Diagnosed** : 25 Aug 2023  
**Unique Number** : 5631129 **Diagnostician** : Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: PercentFuel, Visual )

**GFL Environmental - 217 - Aurora**  
 14131 BAYVIEW AVE, AURORA YARD  
 AURORA, ON  
 CA L4G 0K6  
 Contact: Mike Havens  
 MHavens@gflenv.com  
 T:  
 F: (905)713-2445

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.