



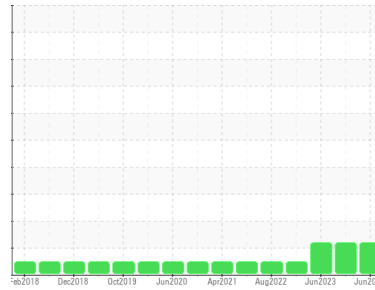
# OIL ANALYSIS REPORT

Sample Rating Trend

FUEL



Machine Id  
**801032**  
 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

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>GFL0086495</b>	GFL0086475	GFL0081977
Sample Date	Client Info		<b>23 Jun 2023</b>	12 Jun 2023	02 Jun 2023
Machine Age	hrs	Client Info	<b>11142</b>	11104	120889
Oil Age	hrs	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>Not Chngd</b>	Not Chngd	Changed
Sample Status			<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

## 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>6</b>	6	18
Chromium	ppm	ASTM D5185(m) >5	<b>&lt;1</b>	0	<1
Nickel	ppm	ASTM D5185(m) >2	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185(m)	<b>0</b>	<1	<1
Silver	ppm	ASTM D5185(m) >3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m) >30	<b>2</b>	2	3
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>	<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) 0	<b>26</b>	28	156
Barium	ppm	ASTM D5185(m) 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m) 60	<b>58</b>	56	70
Manganese	ppm	ASTM D5185(m) 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185(m) 1010	<b>880</b>	834	503
Calcium	ppm	ASTM D5185(m) 1070	<b>993</b>	1065	1189
Phosphorus	ppm	ASTM D5185(m) 1150	<b>1033</b>	1028	974
Zinc	ppm	ASTM D5185(m) 1270	<b>1151</b>	1142	1079
Sulfur	ppm	ASTM D5185(m) 2060	<b>2481</b>	2581	2354
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>4</b>	4	4
Sodium	ppm	ASTM D5185(m)	<b>4</b>	4	6
Potassium	ppm	ASTM D5185(m) >20	<b>1</b>	<1	<1
Fuel	%	ASTM D7593* >5	<b>▲ 5.1</b>	▲ 5.3	▲ 7.8

## INFRA-RED

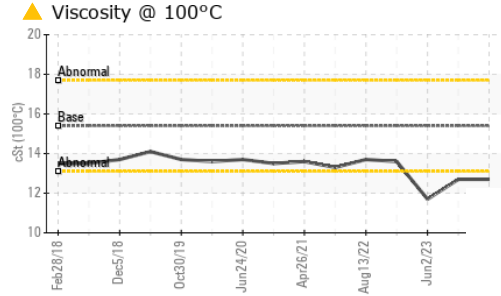
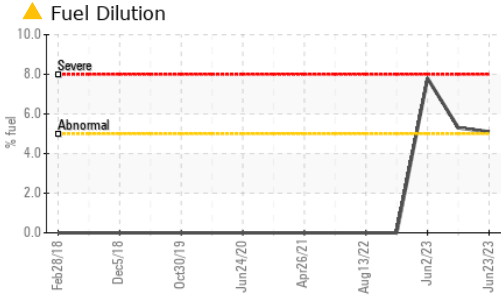
	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844* >3	<b>0</b>	0	0.2
Nitration	Abs/cm	ASTM D7624* >20	<b>6.8</b>	6.1	8.7
Sulfation	Abs/.1mm	ASTM D7415* >30	<b>18.9</b>	18.4	21.8

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414* >25	<b>14.3</b>	14.0	17.4



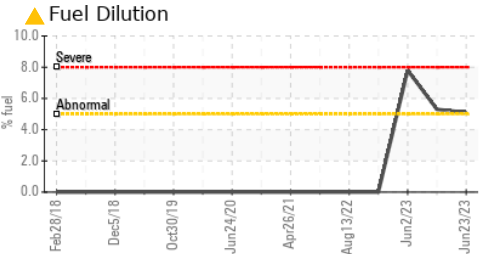
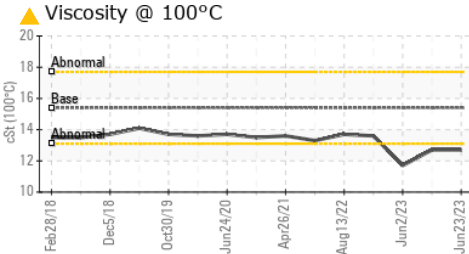
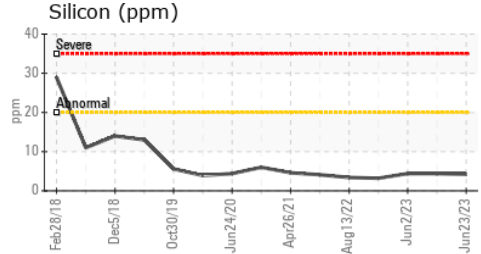
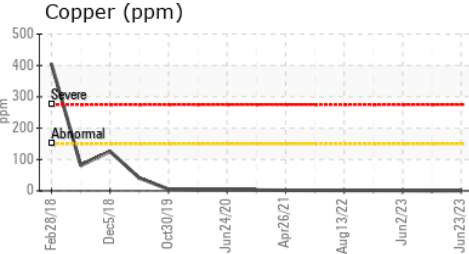
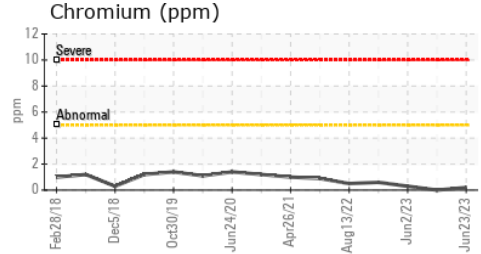
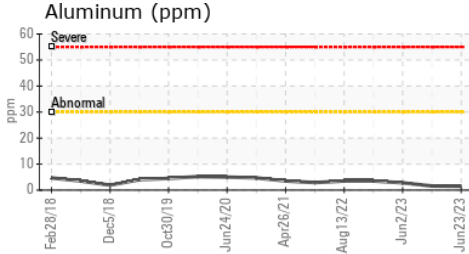
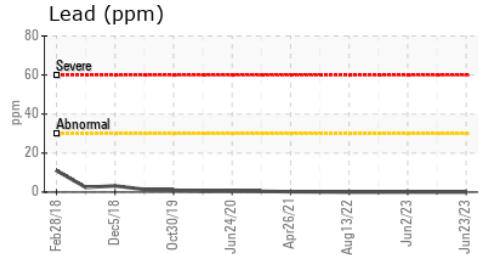
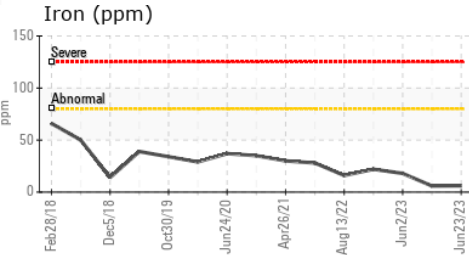
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	VLITE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	VLITE
Appearance	scalar	Visual*	NORML	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 ▲ 12.7	▲ 12.7	▲ 11.7

## GRAPHS



ISO 17025:2017  
Accredited  
Laboratory

**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0086495  
**Lab Number** : 02569668  
**Unique Number** : 5606714  
**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

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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