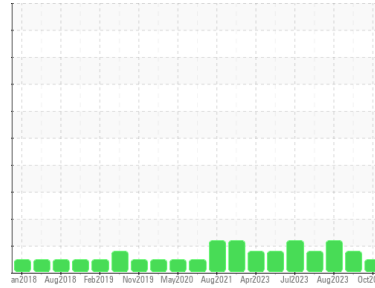




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**801027**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 15W40 (22 LTR)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

There is no indication of any contamination 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>GFL0094195</b>	GFL0094200	GFL0086509
Sample Date	Client Info	<b>18 Oct 2023</b>	12 Oct 2023	23 Aug 2023
Machine Age	hrs	<b>139415</b>	139415	139415
Oil Age	hrs	<b>0</b>	0	0
Oil Changed	Client Info	<b>Not Changed</b>	Changed	Not Changed
Sample Status		<b>NORMAL</b>	MARGINAL	ABNORMAL

## CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >5	<b>&lt;1.0</b>	▲ 2.6	▲ 5.3
Glycol	WC Method	<b>NEG</b>	NEG	NEG

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185(m) >80	<b>7</b>	24	12
Chromium	ppm ASTM D5185(m) >5	<b>0</b>	<1	<1
Nickel	ppm ASTM D5185(m) >2	<b>0</b>	<1	0
Titanium	ppm ASTM D5185(m)	<b>0</b>	0	0
Silver	ppm ASTM D5185(m) >3	<b>&lt;1</b>	<1	0
Aluminum	ppm ASTM D5185(m) >30	<b>1</b>	2	2
Lead	ppm ASTM D5185(m) >30	<b>0</b>	<1	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	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>76</b>	6	6
Barium	ppm ASTM D5185(m) 0	<b>&lt;1</b>	<1	0
Molybdenum	ppm ASTM D5185(m) 60	<b>63</b>	60	57
Manganese	ppm ASTM D5185(m) 0	<b>0</b>	0	<1
Magnesium	ppm ASTM D5185(m) 1010	<b>828</b>	953	912
Calcium	ppm ASTM D5185(m) 1070	<b>1101</b>	1067	1013
Phosphorus	ppm ASTM D5185(m) 1150	<b>993</b>	995	1015
Zinc	ppm ASTM D5185(m) 1270	<b>1160</b>	1194	1131
Sulfur	ppm ASTM D5185(m) 2060	<b>2555</b>	2385	2425
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>	6	5
Sodium	ppm ASTM D5185(m)	<b>5</b>	14	9
Potassium	ppm ASTM D5185(m) >20	<b>&lt;1</b>	<1	<1

## INFRA-RED

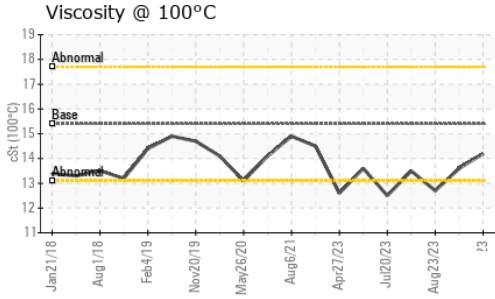
method	limit/base	current	history1	history2
Soot %	% ASTM D7844* >3	<b>0</b>	0.4	0.2
Nitration	Abs/cm ASTM D7624* >20	<b>6.0</b>	11.0	8.9
Sulfation	Abs/.1mm ASTM D7415* >30	<b>19.2</b>	22.5	20.5

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm ASTM D7414* >25	<b>14.3</b>	19.7	16.4



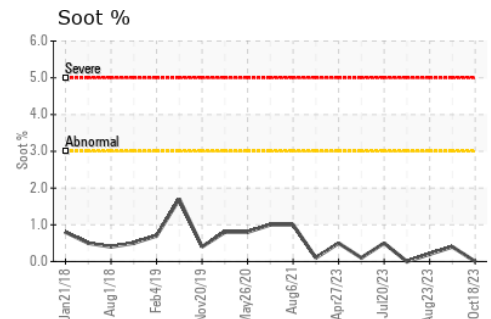
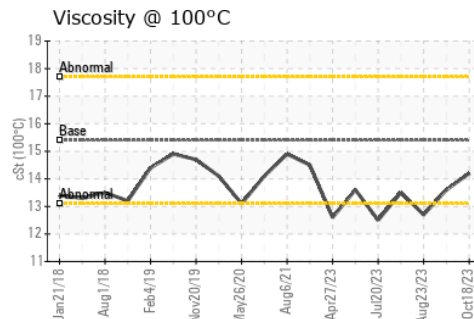
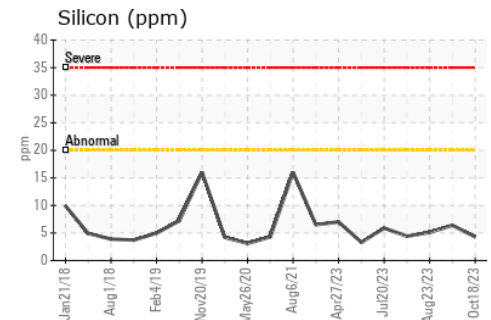
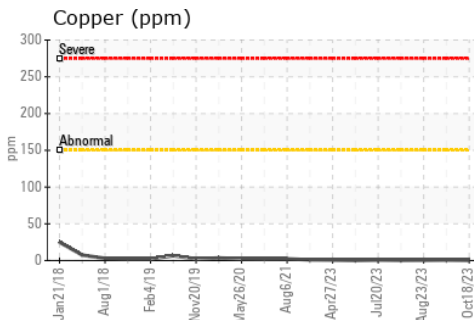
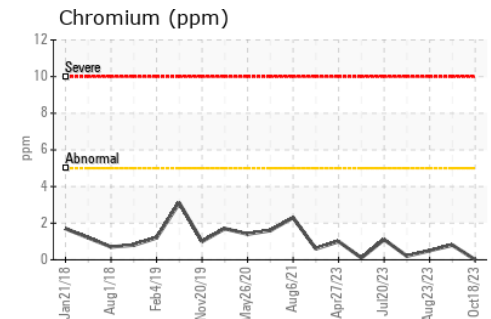
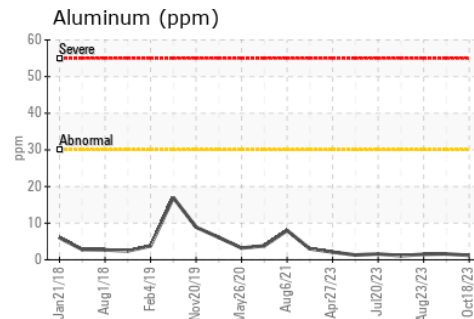
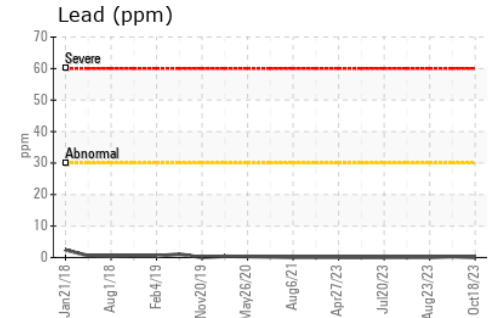
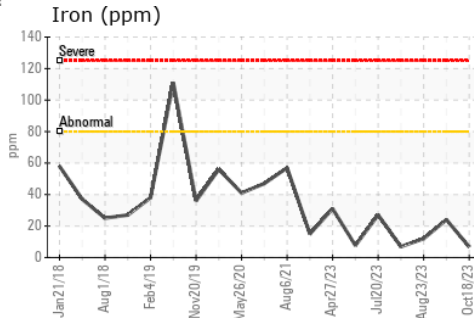
# OIL ANALYSIS REPORT



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)	15.4	<b>14.2</b>	13.6 ▲ 12.7

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0094195  
**Lab Number** : 02590570  
**Unique Number** : 5659636  
**Test Package** : MOB 1

**GFL Environmental - 217 - Aurora**  
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 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.