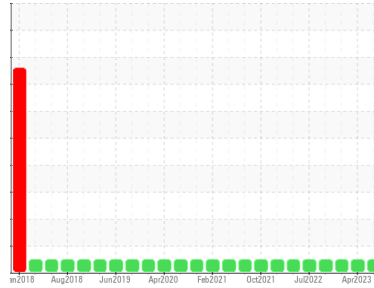




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**401018**  
 Component  
**Front Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**

## 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>GFL0077307</b>	GFL0070434	GFL0059860	
Sample Date	Client Info	<b>13 Jul 2023</b>	18 Apr 2023	13 Jan 2023	
Machine Age	hrs	Client Info	<b>1589</b>	1589	0
Oil Age	hrs	Client Info	<b>1589</b>	1589	0
Oil Changed	Client Info	<b>Changed</b>	Changed	Changed	
Sample Status		<b>NORMAL</b>	NORMAL	NORMAL	

## CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >3.0	<b>&lt;1.0</b>	<1.0	<1.0
Glycol	WC Method	<b>NEG</b>	NEG	NEG

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185(m) >120	<b>8</b>	8	6
Chromium	ppm ASTM D5185(m) >20	<b>&lt;1</b>	0	0
Nickel	ppm ASTM D5185(m) >5	<b>0</b>	<1	<1
Titanium	ppm ASTM D5185(m) >2	<b>0</b>	0	0
Silver	ppm ASTM D5185(m) >2	<b>&lt;1</b>	0	0
Aluminum	ppm ASTM D5185(m) >20	<b>&lt;1</b>	1	2
Lead	ppm ASTM D5185(m) >40	<b>&lt;1</b>	<1	<1
Copper	ppm ASTM D5185(m) >330	<b>2</b>	2	2
Tin	ppm ASTM D5185(m) >15	<b>&lt;1</b>	<1	<1
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>2</b>	2	2
Barium	ppm ASTM D5185(m) 0	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185(m) 60	<b>57</b>	58	57
Manganese	ppm ASTM D5185(m) 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm ASTM D5185(m) 1010	<b>957</b>	940	948
Calcium	ppm ASTM D5185(m) 1070	<b>1032</b>	1111	1083
Phosphorus	ppm ASTM D5185(m) 1150	<b>1032</b>	1065	1056
Zinc	ppm ASTM D5185(m) 1270	<b>1174</b>	1193	1161
Sulfur	ppm ASTM D5185(m) 2060	<b>2479</b>	2643	2626
Lithium	ppm ASTM D5185(m)	<b>&lt;1</b>	<1	<1

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >25	<b>3</b>	2	2
Sodium	ppm ASTM D5185(m)	<b>3</b>	3	2
Potassium	ppm ASTM D5185(m) >20	<b>1</b>	1	<1

## INFRA-RED

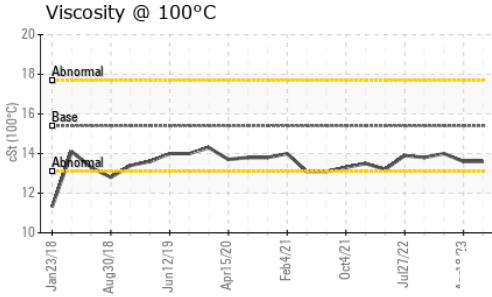
method	limit/base	current	history1	history2
Soot %	% ASTM D7844* >4	<b>0.2</b>	0.2	0
Nitration	Abs/cm ASTM D7624* >20	<b>7.4</b>	7.0	6.4
Sulfation	Abs/.1mm ASTM D7415* >30	<b>19.5</b>	18.7	19.7

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm ASTM D7414* >25	<b>14.9</b>	14.4	14.5



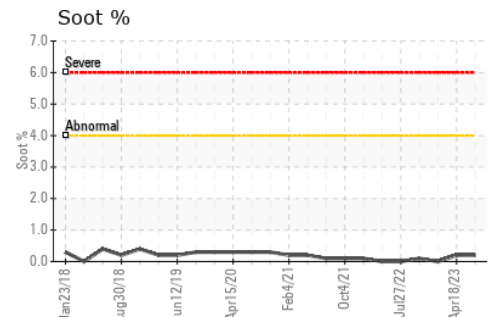
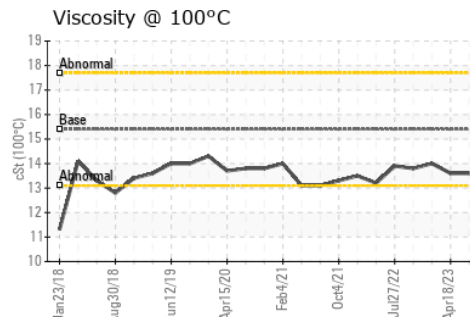
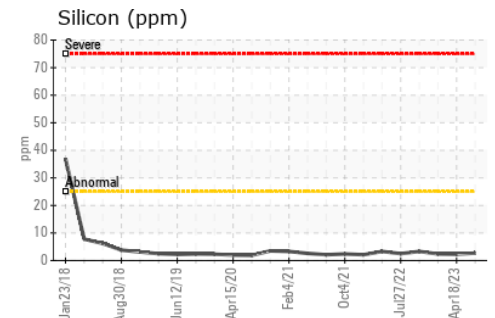
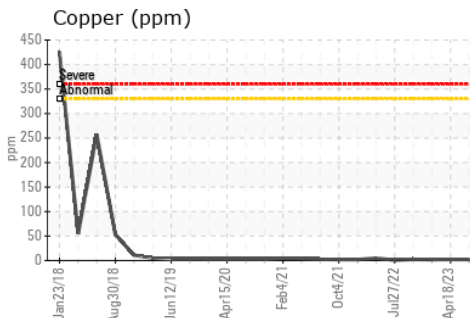
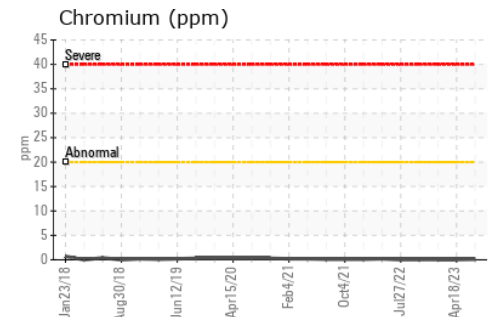
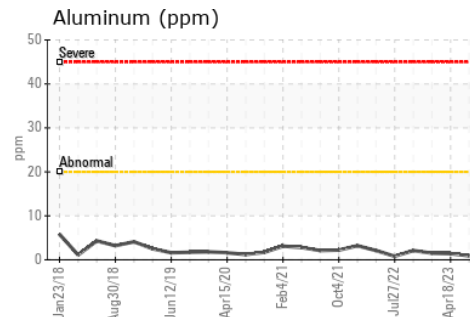
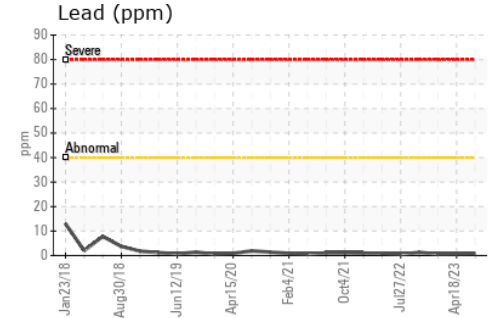
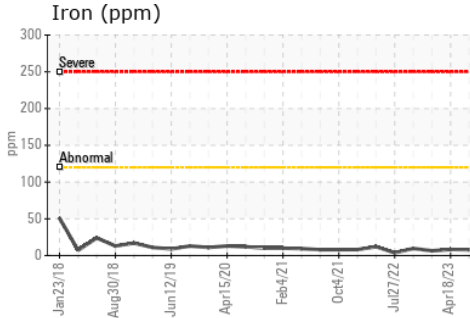
# OIL ANALYSIS REPORT



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	13.6	14.0

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **GFL Environmental - 221 - Windsor**  
**Sample No.** : GFL0077307 **Received** : 19 Jul 2023 905 Tecumseh Road W  
**Lab Number** : 02570852 **Diagnosed** : 19 Jul 2023 Windsor, ON  
**Unique Number** : 5615903 **Diagnostician** : Wes Davis CA N8W 4J5  
**Test Package** : MOB 1 **Contact:** Rhys Marotte  
 rmarotte@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.