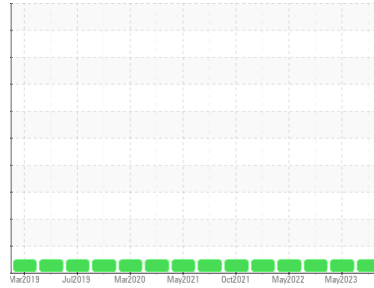




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**401174**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (--- 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>GFL0071502</b>	GFL0071491	GFL0054519	
Sample Date	Client Info	<b>13 Jul 2023</b>	10 May 2023	16 Aug 2022	
Machine Age	kms	Client Info	<b>209164</b>	200357	9978
Oil Age	kms	Client Info	<b>0</b>	0	579
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>9</b>	26	8
Chromium	ppm	ASTM D5185(m) >20	<b>&lt;1</b>	<1	0
Nickel	ppm	ASTM D5185(m) >5	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185(m) >2	<b>0</b>	<1	0
Silver	ppm	ASTM D5185(m) >2	<b>&lt;1</b>	0	<1
Aluminum	ppm	ASTM D5185(m) >20	<b>1</b>	4	2
Lead	ppm	ASTM D5185(m) >40	<b>2</b>	5	1
Copper	ppm	ASTM D5185(m) >330	<b>5</b>	4	1
Tin	ppm	ASTM D5185(m) >15	<b>&lt;1</b>	1	<1
Antimony	ppm	ASTM D5185(m)	<b>0</b>	<1	<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>3</b>	3	2
Barium	ppm	ASTM D5185(m) 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m) 60	<b>58</b>	62	59
Manganese	ppm	ASTM D5185(m) 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185(m) 1010	<b>977</b>	952	990
Calcium	ppm	ASTM D5185(m) 1070	<b>1053</b>	1173	1105
Phosphorus	ppm	ASTM D5185(m) 1150	<b>1024</b>	1030	987
Zinc	ppm	ASTM D5185(m) 1270	<b>1189</b>	1239	1202
Sulfur	ppm	ASTM D5185(m) 2060	<b>2424</b>	2284	2535
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>	6	2
Sodium	ppm	ASTM D5185(m)	<b>6</b>	5	4
Potassium	ppm	ASTM D5185(m) >20	<b>2</b>	7	3

## INFRA-RED

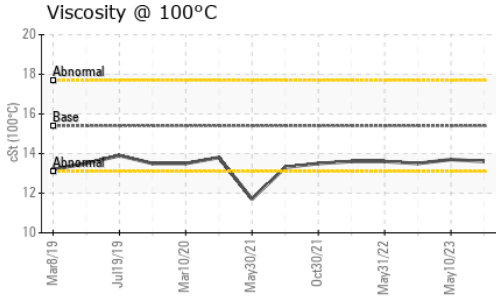
method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844* >4	<b>0.2</b>	0.5	0.1
Nitration	Abs/cm	ASTM D7624* >20	<b>7.4</b>	10.2	7.4
Sulfation	Abs/.1mm	ASTM D7415* >30	<b>19.7</b>	22.9	20.0

## FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	ASTM D7414* >25	<b>15.5</b>	18.4	15.4



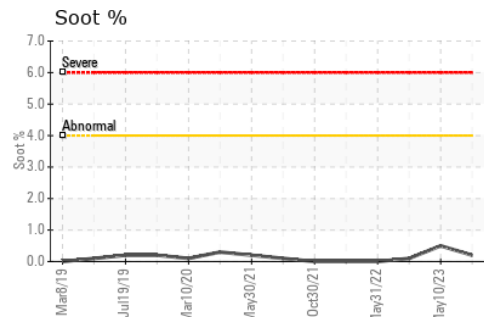
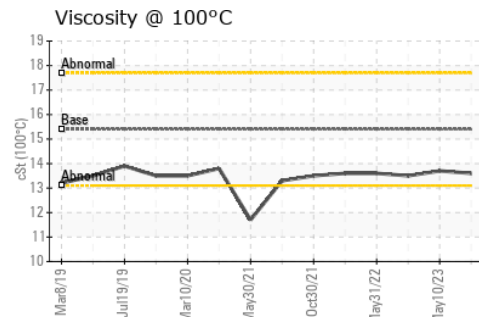
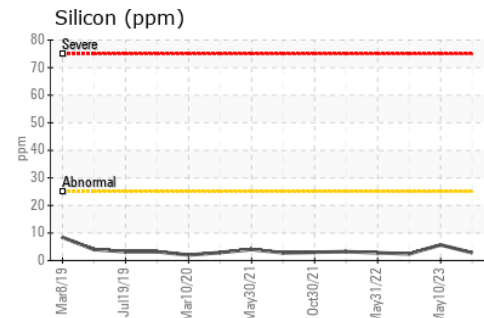
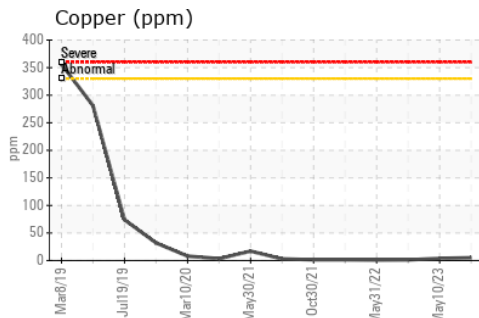
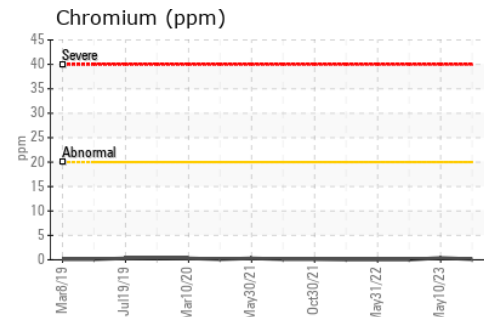
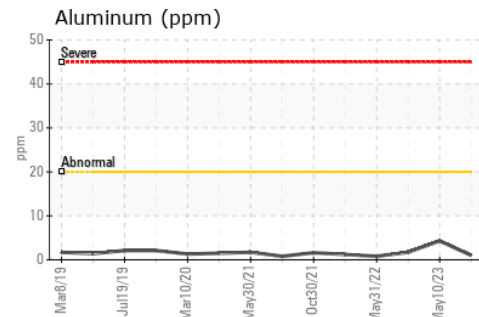
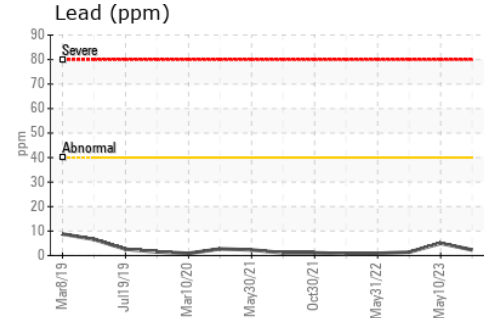
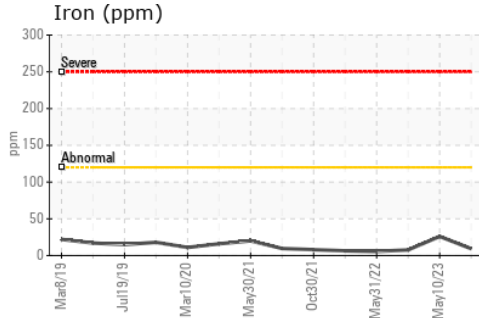
# OIL ANALYSIS REPORT



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>13.6</b>	13.7	13.5

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0071502 **Received** : 17 Jul 2023  
**Lab Number** : **02570336** **Diagnosed** : 17 Jul 2023  
**Unique Number** : 5607382 **Diagnostician** : Wes Davis  
**Test Package** : MOB 1

**GFL Environmental - 216M**  
 2475 Beryl Drive  
 Oakville, ON  
 CA L6J 7X4  
 Contact: Matthew Gunness  
 mgunness@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.