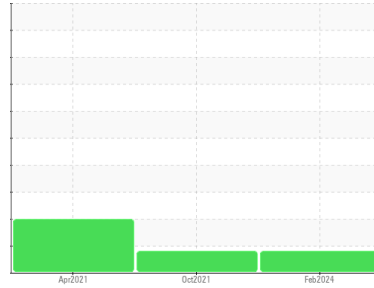




# OIL ANALYSIS REPORT

Sample Rating Trend



**SOOT**



Machine Id  
**8242**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**

## DIAGNOSIS

### ▲ Recommendation

The oil change at the time of sampling has been noted. No other corrective action is recommended at this time.

### Wear

All component wear rates are normal.

### ▲ Contamination

Light fuel dilution occurring. Light concentration of carbon/soot present in the oil. No other contaminants were detected 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>GFL0102659</b>	GFL0028676	GFL0020209
Sample Date	Client Info		<b>21 Feb 2024</b>	21 Oct 2021	22 Apr 2021
Machine Age	hrs	Client Info	<b>16886</b>	466	143
Oil Age	hrs	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>Changed</b>	Changed	Changed
Sample Status			<b>ABNORMAL</b>	ABNORMAL	SEVERE

## CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol	WC Method		<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >100	<b>61</b>	52	104
Chromium	ppm	ASTM D5185(m) >20	<b>4</b>	4	6
Nickel	ppm	ASTM D5185(m) >4	<b>&lt;1</b>	1	2
Titanium	ppm	ASTM D5185(m)	<b>0</b>	0	<1
Silver	ppm	ASTM D5185(m) >3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m) >20	<b>3</b>	3	4
Lead	ppm	ASTM D5185(m) >40	<b>2</b>	3	6
Copper	ppm	ASTM D5185(m) >330	<b>2</b>	7	30
Tin	ppm	ASTM D5185(m) >15	<b>&lt;1</b>	<1	1
Antimony	ppm	ASTM D5185(m)	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185(m)	<b>0</b>	0	<1
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	4
Barium	ppm	ASTM D5185(m) 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m) 60	<b>60</b>	60	61
Manganese	ppm	ASTM D5185(m) 0	<b>&lt;1</b>	<1	2
Magnesium	ppm	ASTM D5185(m) 1010	<b>958</b>	1002	1009
Calcium	ppm	ASTM D5185(m) 1070	<b>1069</b>	1088	1152
Phosphorus	ppm	ASTM D5185(m) 1150	<b>975</b>	1023	987
Zinc	ppm	ASTM D5185(m) 1270	<b>1162</b>	1247	1312
Sulfur	ppm	ASTM D5185(m) 2060	<b>2442</b>	2354	2230
Lithium	ppm	ASTM D5185(m)	<b>&lt;1</b>	<1	<1

## CONTAMINANTS

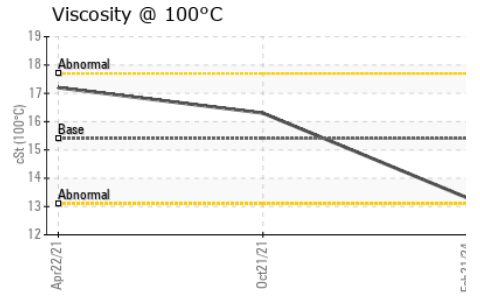
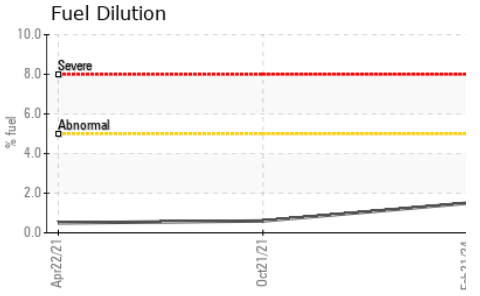
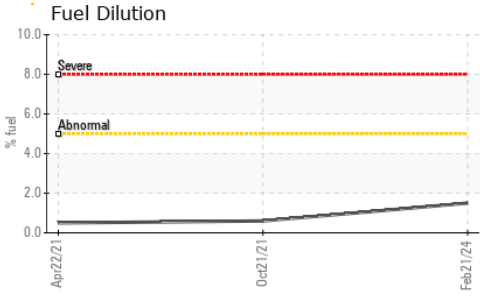
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >25	<b>6</b>	5	10
Sodium	ppm	ASTM D5185(m)	<b>5</b>	6	7
Potassium	ppm	ASTM D5185(m) >20	<b>&lt;1</b>	<1	<1
Fuel	%	ASTM D7593* >5	<b>1.5</b>	0.6	0.5

## INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844* >3	<b>▲ 4.5</b>	▲ 3.4	● 5.2
Nitration	Abs/cm	ASTM D7624* >20	<b>15.6</b>	15.0	17.5
Sulfation	Abs/.1mm	ASTM D7415* >30	<b>31.8</b>	30.5	36.3



# OIL ANALYSIS REPORT

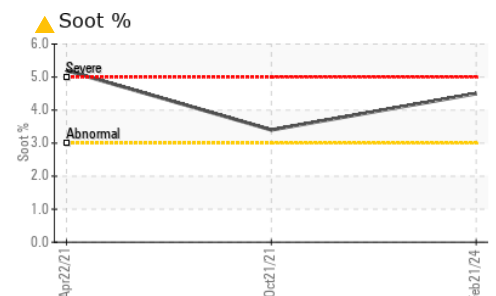
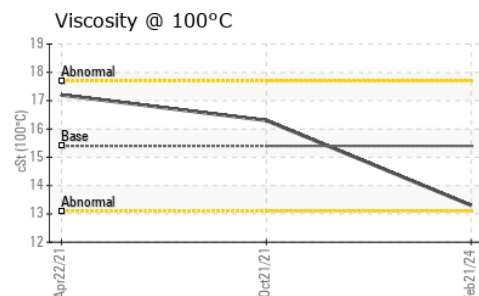
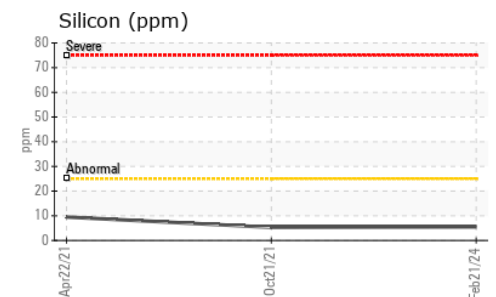
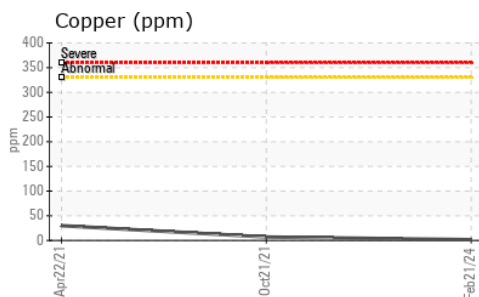
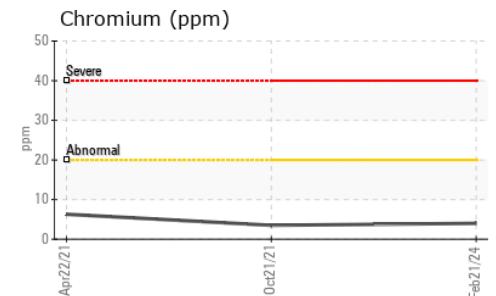
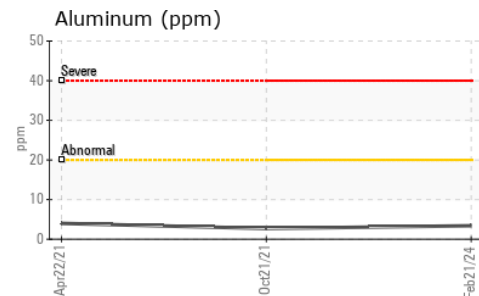
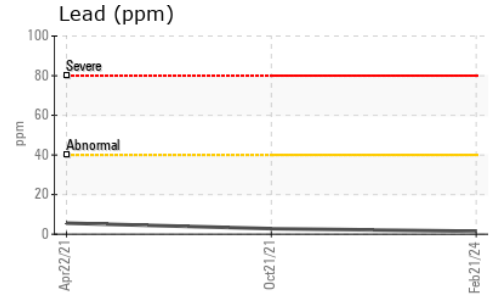
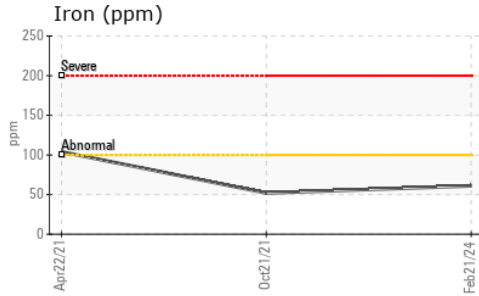


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	<b>24.3</b>	26.1	28.3

VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	NEG
Free Water	scalar	Visual*		<b>NEG</b>	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	<b>13.3</b>	16.3	17.2

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0102659  
**Lab Number** : **02617615**  
**Unique Number** : 5734725  
**Test Package** : MOB 1 ( Additional Tests: FuelDilution, PercentFuel )

**GFL Environmental - 554 - Edmonton SW**  
 8409 -15th Street NW  
 Edmonton, AB  
 CA T6P 0B8  
 Contact: Tim Greig  
 tgreig@gflenv.com  
 T: (780)231-0521  
 F:

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.