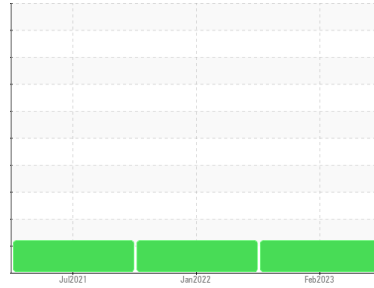




# OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Machine Id  
**201019**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 10W30 (--- GAL)**

## DIAGNOSIS

### Recommendation

The oil change at the time of sampling has been noted. 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>GFL0047690</b>	GFL0024242	GFL0024260
Sample Date	Client Info	<b>15 Feb 2023</b>	13 Jan 2022	15 Jul 2021
Machine Age	hrs	<b>0</b>	11076	10564
Oil Age	hrs	<b>350</b>	0	470
Oil Changed	Client Info	<b>Changed</b>	Changed	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) >100	<b>6</b>	14	32
Chromium	ppm	ASTM D5185(m) >20	<b>0</b>	<1	<1
Nickel	ppm	ASTM D5185(m) >4	<b>0</b>	<1	<1
Titanium	ppm	ASTM D5185(m)	<b>0</b>	0	0
Silver	ppm	ASTM D5185(m) >3	<b>&lt;1</b>	0	<1
Aluminum	ppm	ASTM D5185(m) >20	<b>1</b>	3	6
Lead	ppm	ASTM D5185(m) >40	<b>&lt;1</b>	1	<1
Copper	ppm	ASTM D5185(m) >330	<b>&lt;1</b>	<1	2
Tin	ppm	ASTM D5185(m) >15	<b>0</b>	<1	<1
Antimony	ppm	ASTM D5185(m)	<b>0</b>	0	<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) 2	<b>2</b>	12	2
Barium	ppm	ASTM D5185(m) 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m) 50	<b>60</b>	54	58
Manganese	ppm	ASTM D5185(m) 0	<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185(m) 950	<b>987</b>	969	975
Calcium	ppm	ASTM D5185(m) 1050	<b>1066</b>	1040	1087
Phosphorus	ppm	ASTM D5185(m) 995	<b>1032</b>	1015	1099
Zinc	ppm	ASTM D5185(m) 1180	<b>1208</b>	1130	1233
Sulfur	ppm	ASTM D5185(m) 2600	<b>2649</b>	2575	2699
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>	4	5
Sodium	ppm	ASTM D5185(m)	<b>1</b>	<1	1
Potassium	ppm	ASTM D5185(m) >20	<b>0</b>	<1	<1
Fuel	%	ASTM D7593* >2.0	<b>▲ 2.7</b>	▲ 2.7	▲ 2.6

## INFRA-RED

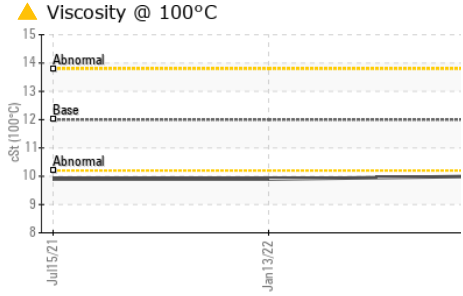
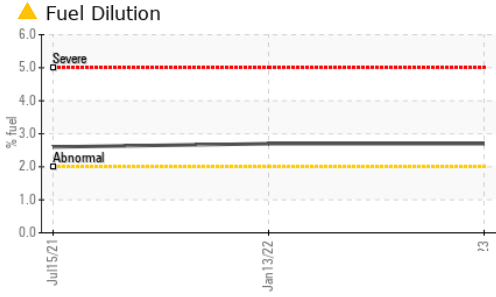
method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844* >3	<b>0</b>	0	0.3
Nitration	Abs/cm	ASTM D7624* >20	<b>6.9</b>	8.3	9.4
Sulfation	Abs/.1mm	ASTM D7415* >30	<b>18.7</b>	19.4	19.7

## FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	ASTM D7414* >25	<b>15.4</b>	15.6	16.6



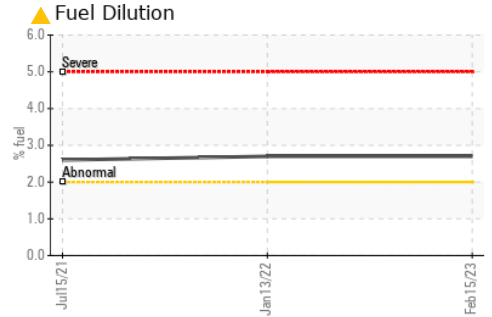
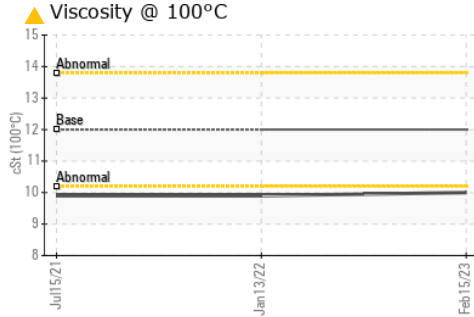
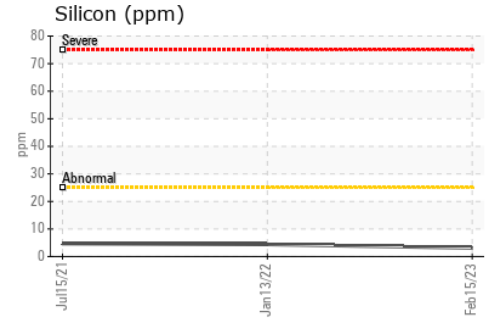
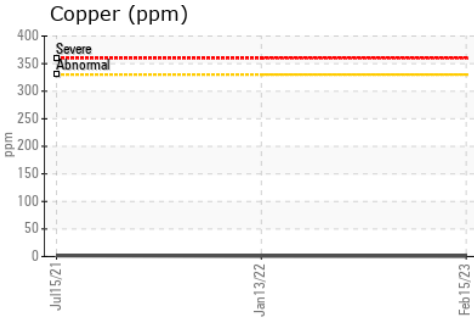
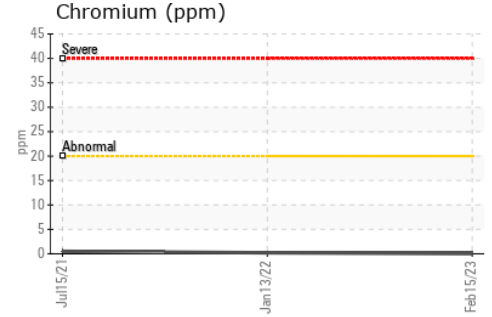
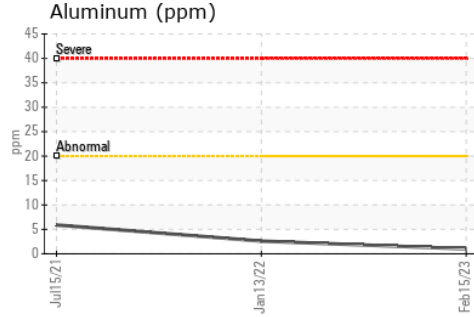
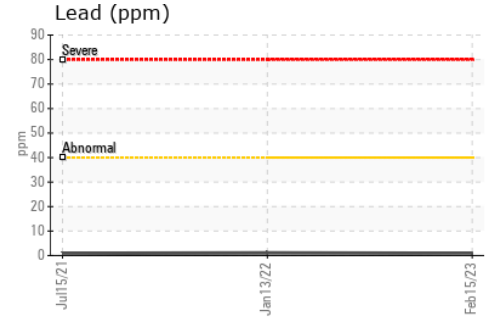
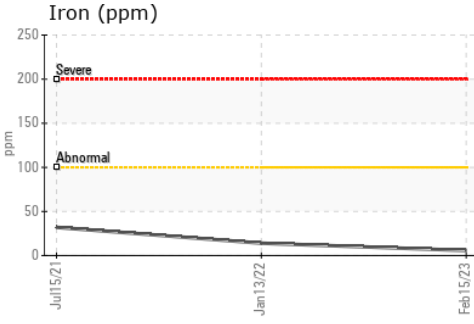
# OIL ANALYSIS REPORT



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)	▲ 10.0	▲ 9.9	▲ 9.9

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **GFL Environmental - 355 - Saskatoon**  
**Sample No.** : GFL0047690 **Received** : 17 Nov 2023 100 Cory Road  
**Lab Number** : 02597045 **Diagnosed** : 20 Nov 2023 Saskatoon, SK  
**Unique Number** : 5682125 **Diagnostician** : Wes Davis CA S7K 3J7  
**Test Package** : MOB 1 ( Additional Tests: PercentFuel ) Contact: Ryan Polichuk  
rpolichuk@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.