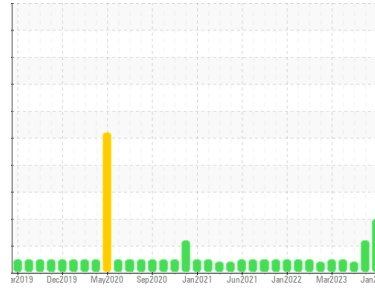




# OIL ANALYSIS REPORT

Sample Rating Trend



DIRT



Area  
**(EP1959)**  
Machine Id  
**AUTOCAR 3812**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON SHP 15W40 (11 GAL)**

## DIAGNOSIS

### Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

Fuel content negligible. Elemental level of silicon (Si) above normal indicating ingress of seal material.

### Fluid Condition

The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2	
Sample Number	Client Info	<b>GFL0109111</b>	GFL0086180	GFL0092467	
Sample Date	Client Info	<b>25 Jan 2024</b>	30 Nov 2023	06 Sep 2023	
Machine Age	hrs	Client Info	<b>13760</b>	0	13292
Oil Age	hrs	Client Info	<b>13760</b>	13516	598
Oil Changed	Client Info	<b>N/A</b>	N/A	Changed	
Sample Status		<b>ABNORMAL</b>	ABNORMAL	ATTENTION	

## 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 D5185m	>165	<b>12</b>	11	18
Chromium	ppm	ASTM D5185m	>5	<b>&lt;1</b>	0	<1
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>3</b>	1	<1
Lead	ppm	ASTM D5185m	>150	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m	>90	<b>5</b>	0	1
Tin	ppm	ASTM D5185m	>5	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2		
Boron	ppm	ASTM D5185m	0	<b>24</b>	32	3
Barium	ppm	ASTM D5185m	0	<b>0</b>	1	0
Molybdenum	ppm	ASTM D5185m	60	<b>59</b>	55	51
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185m	1010	<b>669</b>	699	809
Calcium	ppm	ASTM D5185m	1070	<b>1080</b>	1115	929
Phosphorus	ppm	ASTM D5185m	1150	<b>929</b>	929	879
Zinc	ppm	ASTM D5185m	1270	<b>1060</b>	1176	1091
Sulfur	ppm	ASTM D5185m	2060	<b>2716</b>	3041	2900

## CONTAMINANTS

method	limit/base	current	history1	history2		
Silicon	ppm	ASTM D5185m	>35	<b>▲ 35</b>	7	6
Sodium	ppm	ASTM D5185m		<b>3</b>	1	5
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	2	<1
Fuel	%	ASTM D3524	>3.0	<b>0.4</b>	▲ 4.9	0.3

## INFRA-RED

method	limit/base	current	history1	history2		
Soot %	%	*ASTM D7844	>7.5	<b>0.5</b>	0.1	0.6
Nitration	Abs/cm	*ASTM D7624	>20	<b>6.4</b>	4.3	8.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>17.8</b>	15.6	20.1

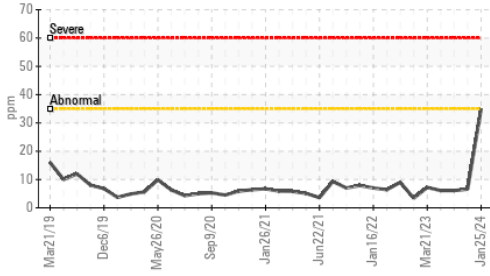
## FLUID DEGRADATION

method	limit/base	current	history1	history2		
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>11.7</b>	10.5	15.0
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>6.8</b>	7.9	6.2

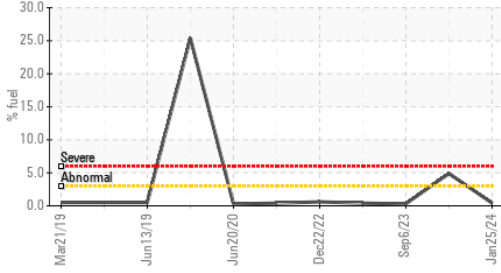


# OIL ANALYSIS REPORT

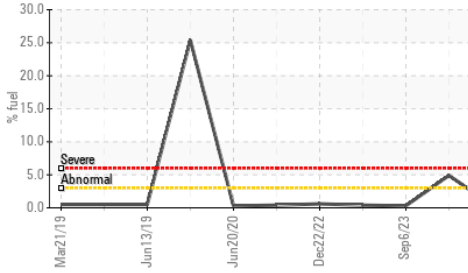
### ▲ Silicon (ppm)



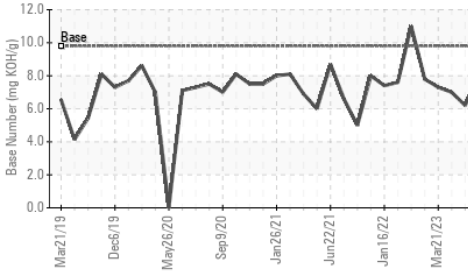
### Fuel Dilution



### Fuel Dilution



### Base Number



## VISUAL

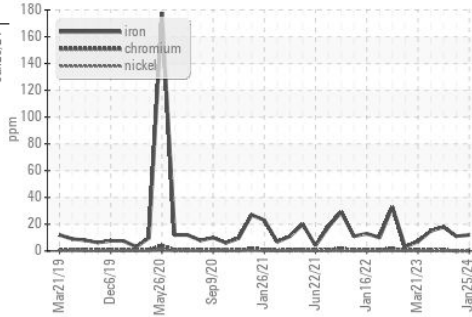
	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

## FLUID PROPERTIES

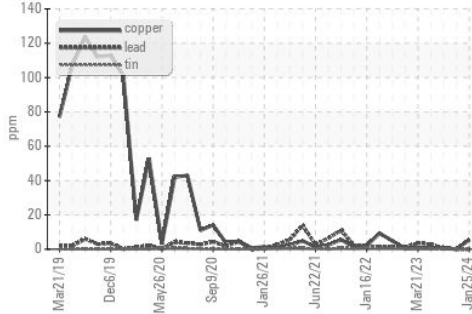
	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4 ▲ 11.7	11.1	11.7

## GRAPHS

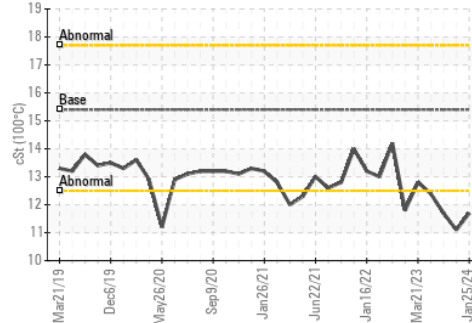
### Ferrous Alloys



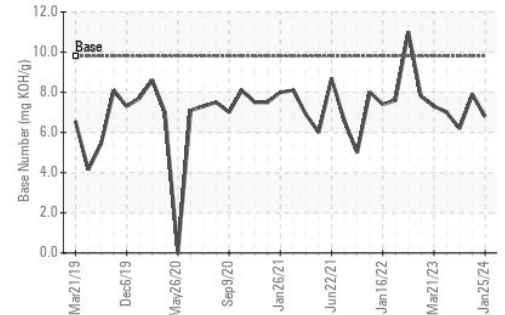
### Non-ferrous Metals



### ▲ Viscosity @ 100°C



### Base Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0109111 **Received** : 29 Jan 2024  
**Lab Number** : 06072490 **Diagnosed** : 31 Jan 2024  
**Unique Number** : 10849167 **Diagnostician** : Sean Felton  
**Test Package** : FLEET ( Additional Tests: PercentFuel )

**GFL Environmental - 009 - Fairburn**  
 6905 Roosevelt Hwy  
 Fairburn, GA  
 US 30213  
 Contact: Eric Jones  
 erjones@gflenv.com  
 T: (678)630-9927  
 F:

To discuss this sample report, contact Customer Service at 1-800-237-1369.

\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)