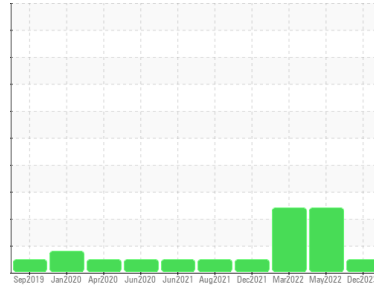




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**AUTOCAR 929094-260367**

Component  
**Diesel Engine**

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

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

Metal levels are typical for a new component breaking in.

### Contamination

There is no indication of any contamination in the oil.

### Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>GFL0099162</b>	GFL0052956	GFL0028595
Sample Date	Client Info	<b>13 Dec 2023</b>	16 May 2022	08 Mar 2022
Machine Age	hrs	<b>450</b>	450	0
Oil Age	hrs	<b>450</b>	450	450
Oil Changed	Client Info	<b>N/A</b>	Changed	Changed
Sample Status		<b>NORMAL</b>	ABNORMAL	ABNORMAL

## CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >5	<b>&lt;1.0</b>	<1.0	<1.0
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 >100	<b>6</b>	24	38
Chromium	ppm ASTM D5185m >20	<b>&lt;1</b>	1	3
Nickel	ppm ASTM D5185m >4	<b>0</b>	0	0
Titanium	ppm ASTM D5185m	<b>0</b>	0	<1
Silver	ppm ASTM D5185m >3	<b>0</b>	<1	0
Aluminum	ppm ASTM D5185m >20	<b>2</b>	4	6
Lead	ppm ASTM D5185m >40	<b>&lt;1</b>	0	0
Copper	ppm ASTM D5185m >330	<b>1</b>	1	1
Tin	ppm ASTM D5185m >15	<b>0</b>	<1	<1
Antimony	ppm ASTM D5185m	<b>---</b>	---	---
Vanadium	ppm ASTM D5185m	<b>&lt;1</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>&lt;1</b>	12	11
Barium	ppm ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m 60	<b>57</b>	69	76
Manganese	ppm ASTM D5185m 0	<b>0</b>	<1	<1
Magnesium	ppm ASTM D5185m 1010	<b>879</b>	832	909
Calcium	ppm ASTM D5185m 1070	<b>1038</b>	1258	1326
Phosphorus	ppm ASTM D5185m 1150	<b>959</b>	979	1072
Zinc	ppm ASTM D5185m 1270	<b>1166</b>	1134	1309
Sulfur	ppm ASTM D5185m 2060	<b>2986</b>	2599	2777

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>4</b>	13	15
Sodium	ppm ASTM D5185m	<b>1</b>	▲ 510	▲ 601
Potassium	ppm ASTM D5185m >20	<b>1</b>	▲ 36	▲ 50

## INFRA-RED

method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>0.2</b>	1.1	0.9
Nitration	Abs/cm *ASTM D7624 >20	<b>7.0</b>	11.1	11.5
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>19.7</b>	23.5	23.0

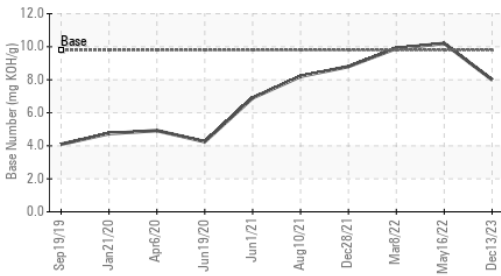
## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>15.9</b>	17.1	17.9
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>8.0</b>	10.2	9.9

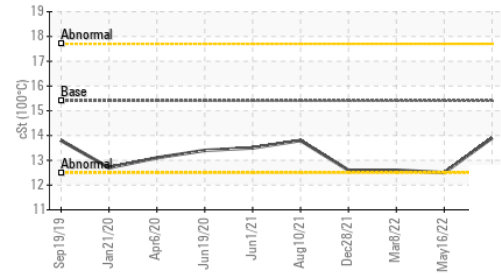


# OIL ANALYSIS REPORT

Base Number



Viscosity @ 100°C

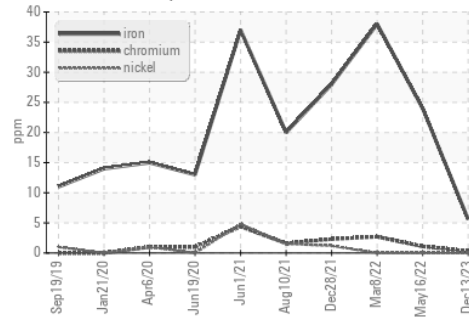


PARAMETER	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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

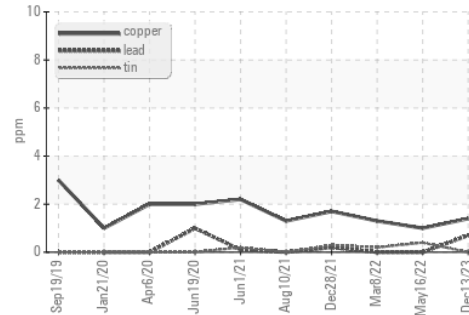
FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.9</b>	12.5	12.6

## GRAPHS

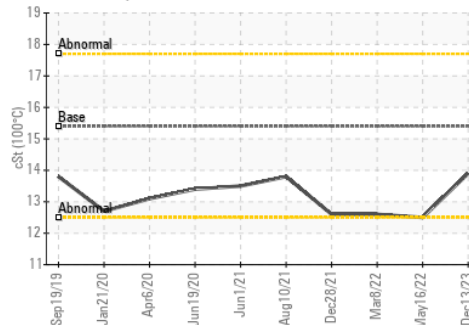
Ferrous Alloys



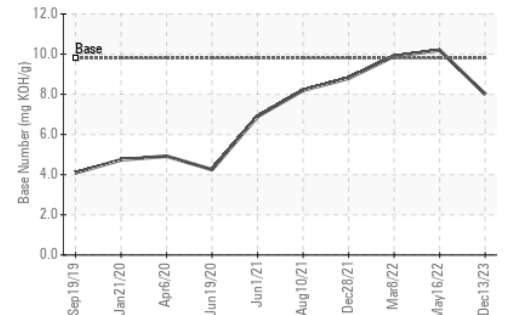
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : GFL0099162  
 Lab Number : 06035173  
 Unique Number : 10790402  
 Test Package : FLEET

GFL Environmental - 842 - Lewisport Hauling  
 4995 US Highway 60 West  
 Lewisport, KY  
 US 42351  
 Contact: Robert Thibault  
 robert.thibault@gflenv.com  
 T: (193)123-7604  
 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)