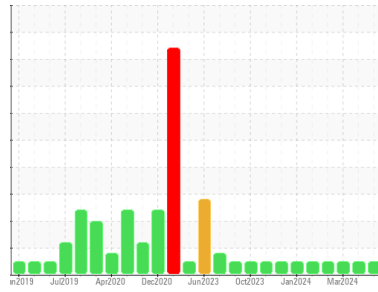




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**(01KJ9A)**  
 Machine Id  
**723023-361636**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**

## 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 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>GFL0120208</b>	GFL0120180	GFL0114045
Sample Date	Client Info	<b>05 Jun 2024</b>	16 May 2024	21 Mar 2024
Machine Age	hrs	<b>26055</b>	25914	25609
Oil Age	hrs	<b>600</b>	0	0
Oil Changed	Client Info	<b>Changed</b>	Not Changd	Not Changd
Sample Status		<b>NORMAL</b>	NORMAL	NORMAL

## 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>27</b>	23	<1
Chromium	ppm ASTM D5185m >20	<b>2</b>	2	0
Nickel	ppm ASTM D5185m >4	<b>0</b>	<1	0
Titanium	ppm ASTM D5185m	<b>0</b>	<1	0
Silver	ppm ASTM D5185m >3	<b>0</b>	<1	0
Aluminum	ppm ASTM D5185m >20	<b>3</b>	4	<1
Lead	ppm ASTM D5185m >40	<b>2</b>	1	0
Copper	ppm ASTM D5185m >330	<b>&lt;1</b>	<1	0
Tin	ppm ASTM D5185m >15	<b>0</b>	<1	0
Vanadium	ppm ASTM D5185m	<b>&lt;1</b>	<1	0
Cadmium	ppm ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	<b>1</b>	3	6
Barium	ppm ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m 60	<b>52</b>	57	58
Manganese	ppm ASTM D5185m 0	<b>&lt;1</b>	0	0
Magnesium	ppm ASTM D5185m 1010	<b>785</b>	802	968
Calcium	ppm ASTM D5185m 1070	<b>995</b>	1048	1162
Phosphorus	ppm ASTM D5185m 1150	<b>909</b>	966	1066
Zinc	ppm ASTM D5185m 1270	<b>1074</b>	1100	1262
Sulfur	ppm ASTM D5185m 2060	<b>2882</b>	2863	3786

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>5</b>	6	2
Sodium	ppm ASTM D5185m	<b>33</b>	30	<1
Potassium	ppm ASTM D5185m >20	<b>&lt;1</b>	3	0

## INFRA-RED

method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>2.6</b>	2.1	0.1
Nitration	Abs/cm *ASTM D7624 >20	<b>12.2</b>	10.6	4.7
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>24.9</b>	22.7	17.4

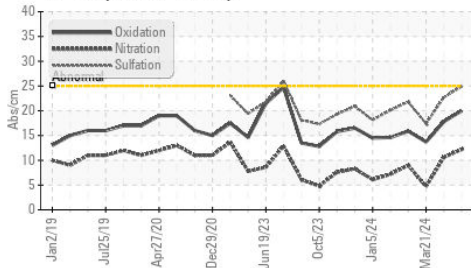
## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>20.0</b>	17.8	13.7
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>7.9</b>	8.6	8.7

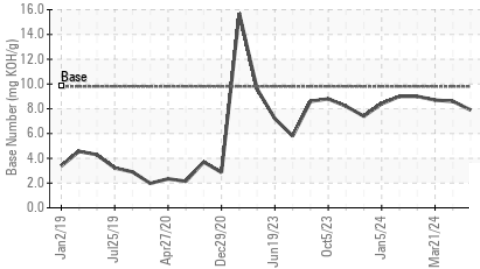


# OIL ANALYSIS REPORT

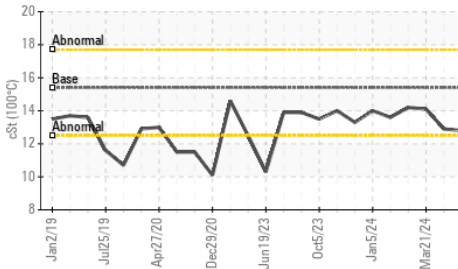
FT-IR (Direct Trend)



Base Number



Viscosity @ 100°C



## VISUAL

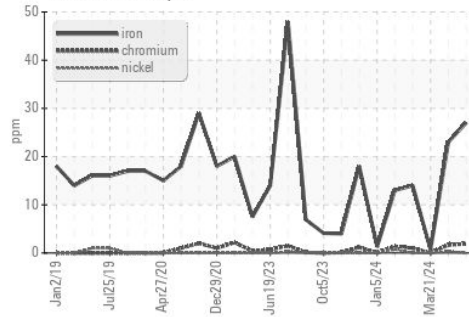
	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar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

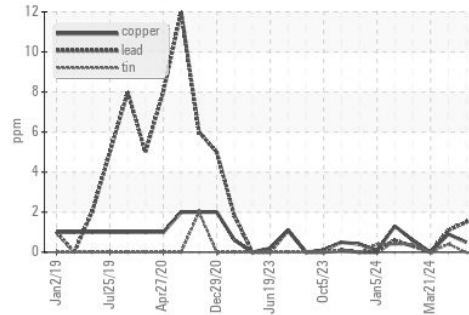
	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	12.8	12.9

## GRAPHS

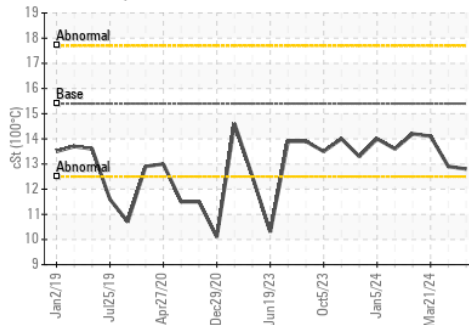
Ferrous Alloys



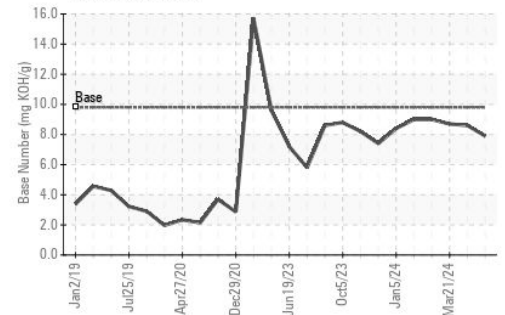
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : GFL0120208  
 Lab Number : 06202483  
 Unique Number : 11069944  
 Test Package : FLEET

Received : 07 Jun 2024  
 Tested : 11 Jun 2024  
 Diagnosed : 11 Jun 2024 - Wes Davis

GFL Environmental - 837 - Harrison TS  
 22820 S State Route 291  
 Harrisonville, MO  
 US 64701  
 Contact: SARA PATRICK  
 spatrack@gflenv.com

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)