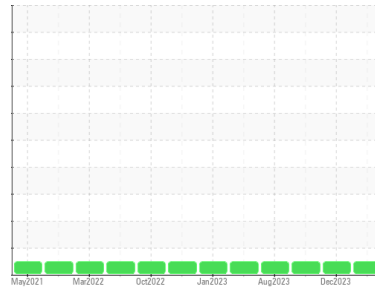




# OIL ANALYSIS REPORT

## Sample Rating Trend



**NORMAL**



Machine Id  
**428056-402385**

Component  
**Diesel Engine**

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

### 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>GFL0092593</b>	GFL0092561	GFL0092572
Sample Date	Client Info		<b>23 Apr 2024</b>	06 Dec 2023	28 Aug 2023
Machine Age	hrs	Client Info	<b>14620</b>	13739	13223
Oil Age	hrs	Client Info	<b>600</b>	600	600
Oil Changed	Client Info		<b>Changed</b>	Not Changd	Changed
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 >110	<b>&lt;1</b>	21	11
Chromium	ppm	ASTM D5185m >4	<b>0</b>	<1	0
Nickel	ppm	ASTM D5185m >2	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	<b>0</b>	<1	0
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >25	<b>&lt;1</b>	4	2
Lead	ppm	ASTM D5185m >45	<b>0</b>	3	2
Copper	ppm	ASTM D5185m >85	<b>0</b>	1	0
Tin	ppm	ASTM D5185m >4	<b>&lt;1</b>	<1	0
Vanadium	ppm	ASTM D5185m	<b>0</b>	<1	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	<1	0

### ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>2</b>	3	1
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 60	<b>55</b>	60	64
Manganese	ppm	ASTM D5185m 0	<b>0</b>	<1	0
Magnesium	ppm	ASTM D5185m 1010	<b>890</b>	926	1015
Calcium	ppm	ASTM D5185m 1070	<b>1089</b>	1109	1288
Phosphorus	ppm	ASTM D5185m 1150	<b>1054</b>	1049	1084
Zinc	ppm	ASTM D5185m 1270	<b>1239</b>	1273	1382
Sulfur	ppm	ASTM D5185m 2060	<b>3454</b>	2926	3963

### CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >30	<b>2</b>	5	4
Sodium	ppm	ASTM D5185m	<b>1</b>	5	4
Potassium	ppm	ASTM D5185m >20	<b>0</b>	9	7

### INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.2</b>	1.1	0.5
Nitration	Abs/cm	*ASTM D7624 >20	<b>5.8</b>	10.4	8.4
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>17.6</b>	23.4	19.9

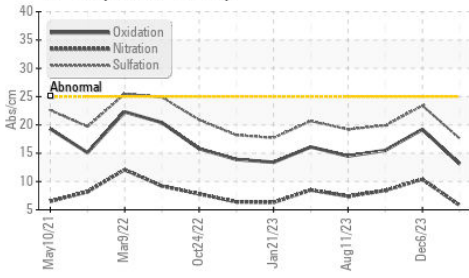
### FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>13.1</b>	19.2	15.5
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>8.1</b>	7.2	7.9

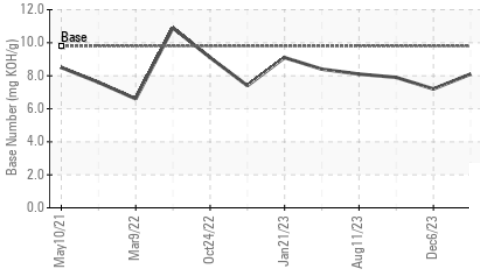


# OIL ANALYSIS REPORT

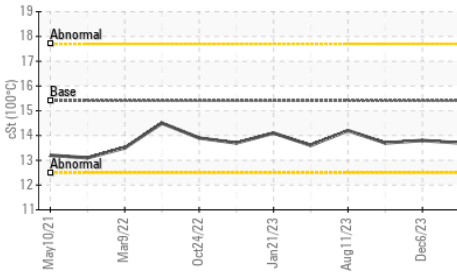
FT-IR (Direct Trend)



Base Number



Viscosity @ 100°C

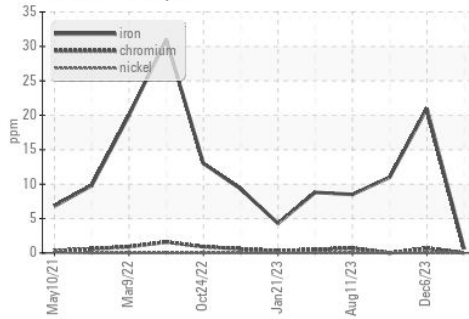


PARAMETER	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

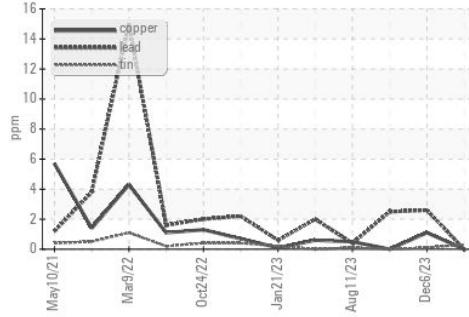
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	13.7	13.8

## GRAPHS

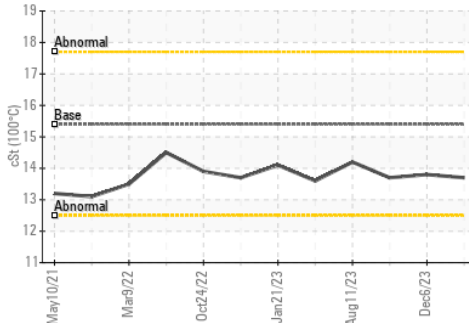
Ferrous Alloys



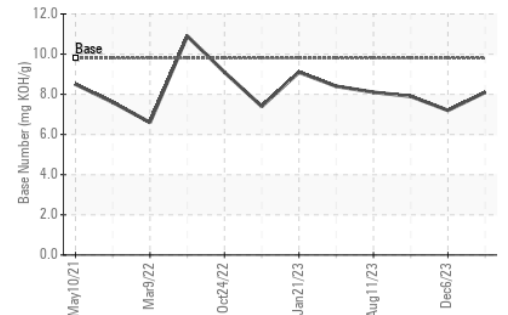
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : GFL0092593  
 Lab Number : 06160155  
 Unique Number : 10995578  
 Test Package : FLEET

Received : 25 Apr 2024  
 Tested : 26 Apr 2024  
 Diagnosed : 26 Apr 2024 - Wes Davis

GFL Environmental - 885 - Orlando  
 1263 W Landstreet Rd  
 Orlando, FL  
 US 32824  
 Contact: DAWN WALLACE

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)

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F: