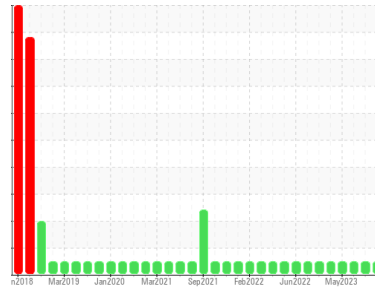




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**(YA144618)**

Machine Id

**2722**

Component

**Diesel Engine**

Fluid

**PETRO CANADA DURON SHP 15W40 (10 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>GFL0123374</b>	GFL0082484	GFL0082492
Sample Date	Client Info	<b>27 Jun 2024</b>	05 Jan 2024	09 Aug 2023
Machine Age	hrs	Client Info	<b>12782</b>	12782
Oil Age	hrs	Client Info	<b>12782</b>	626
Oil Changed	Client Info	<b>N/A</b>	Changed	Changed
Sample Status		<b>NORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >3.0	<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 >165	<b>20</b>	18	12
Chromium	ppm ASTM D5185m >5	<b>&lt;1</b>	1	<1
Nickel	ppm ASTM D5185m >4	<b>0</b>	<1	0
Titanium	ppm ASTM D5185m >2	<b>0</b>	<1	<1
Silver	ppm ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm ASTM D5185m >20	<b>2</b>	2	2
Lead	ppm ASTM D5185m >150	<b>8</b>	6	4
Copper	ppm ASTM D5185m >90	<b>&lt;1</b>	1	<1
Tin	ppm ASTM D5185m >5	<b>&lt;1</b>	1	<1
Vanadium	ppm ASTM D5185m	<b>0</b>	0	<1
Cadmium	ppm ASTM D5185m	<b>0</b>	<1	0

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	<b>11</b>	2	15
Barium	ppm ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m 60	<b>61</b>	63	59
Manganese	ppm ASTM D5185m 0	<b>0</b>	<1	<1
Magnesium	ppm ASTM D5185m 1010	<b>929</b>	1011	965
Calcium	ppm ASTM D5185m 1070	<b>1207</b>	1125	1182
Phosphorus	ppm ASTM D5185m 1150	<b>1079</b>	964	1067
Zinc	ppm ASTM D5185m 1270	<b>1309</b>	1278	1257
Sulfur	ppm ASTM D5185m 2060	<b>2773</b>	3249	4245

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >35	<b>6</b>	8	4
Sodium	ppm ASTM D5185m	<b>6</b>	3	5
Potassium	ppm ASTM D5185m >20	<b>13</b>	5	4

## INFRA-RED

method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >7.5	<b>0.6</b>	0.5	0.4
Nitration	Abs/cm *ASTM D7624 >20	<b>12.2</b>	12.3	10.7
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>25.5</b>	24.8	28.0

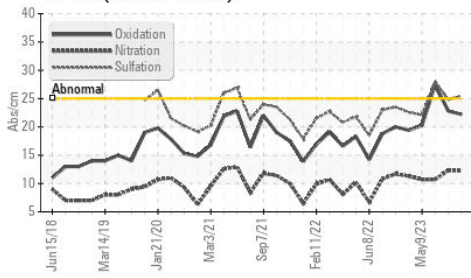
## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>22.2</b>	22.8	27.4
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>6.9</b>	6.4	6.8

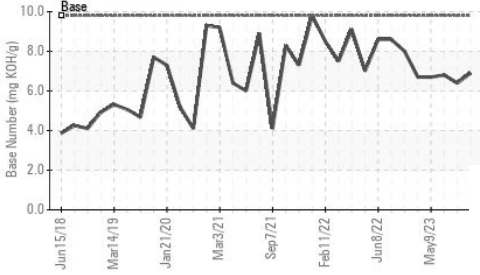


# OIL ANALYSIS REPORT

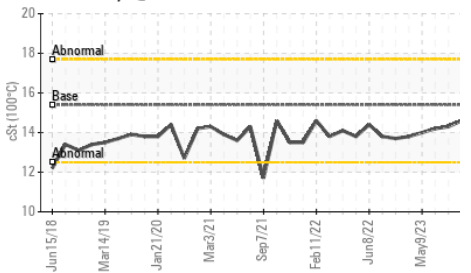
FT-IR (Direct Trend)



Base Number



Viscosity @ 100°C

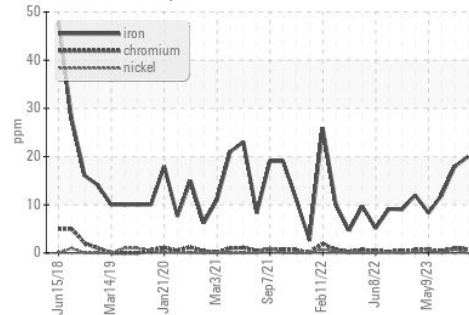


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

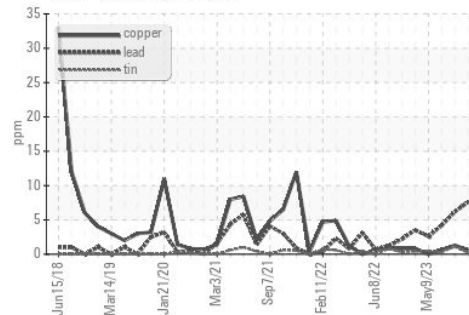
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	14.6	14.3

## GRAPHS

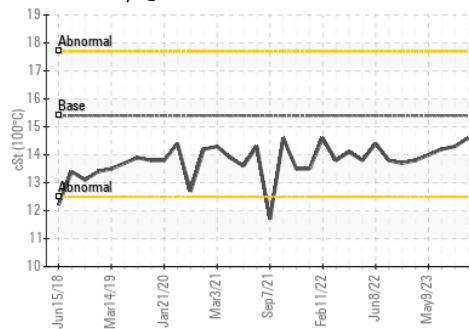
Ferrous Alloys



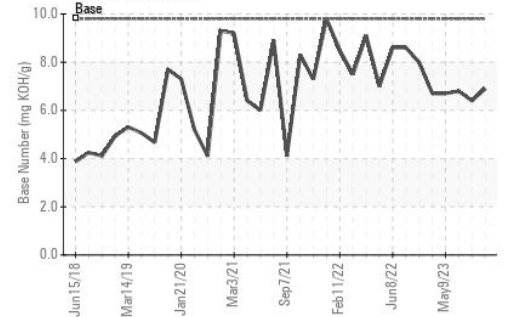
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : GFL0123374  
 Lab Number : 06227089  
 Unique Number : 11110582  
 Test Package : FLEET

Received : 03 Jul 2024  
 Tested : 05 Jul 2024  
 Diagnosed : 05 Jul 2024 - Wes Davis

GFL Environmental - 007 - Brunswick  
 2809 Galloway Road  
 Bolivia, NC  
 US 28422  
 Contact: DONALD CRAVEN  
 dcraven@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)

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