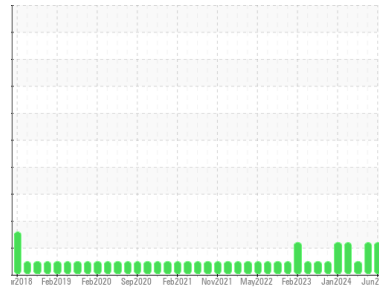




# OIL ANALYSIS REPORT

Sample Rating Trend



GLYCOL



Machine Id

**3782**

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

Sodium and/or potassium levels are high. Test for glycol is negative.

### 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>GFL0072167</b>	GFL0072172	GFL0072138
Sample Date	Client Info		<b>26 Jun 2024</b>	11 Jun 2024	24 Apr 2024
Machine Age	hrs	Client Info	<b>18544</b>	18402	18009
Oil Age	hrs	Client Info	<b>535</b>	405	607
Oil Changed	Client Info		<b>Not Chngd</b>	Not Chngd	Changed
Sample Status			<b>ATTENTION</b>	ATTENTION	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

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >165	<b>26</b>	29	16
Chromium	ppm	ASTM D5185m >5	<b>1</b>	4	<1
Nickel	ppm	ASTM D5185m >4	<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185m >2	<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m >2	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m >20	<b>3</b>	2	<1
Lead	ppm	ASTM D5185m >150	<b>5</b>	<1	<1
Copper	ppm	ASTM D5185m >90	<b>1</b>	18	<1
Tin	ppm	ASTM D5185m >5	<b>&lt;1</b>	<1	0
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	0	<1
Cadmium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>5</b>	4	2
Barium	ppm	ASTM D5185m 0	<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185m 60	<b>75</b>	70	63
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m 1010	<b>951</b>	910	968
Calcium	ppm	ASTM D5185m 1070	<b>1155</b>	1082	1175
Phosphorus	ppm	ASTM D5185m 1150	<b>1043</b>	1009	1074
Zinc	ppm	ASTM D5185m 1270	<b>1251</b>	1217	1277
Sulfur	ppm	ASTM D5185m 2060	<b>2719</b>	3121	3623

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >35	<b>11</b>	11	7
Sodium	ppm	ASTM D5185m	<b>102</b>	284	20
Potassium	ppm	ASTM D5185m >20	<b>4</b>	4	0
Glycol	%	*ASTM D2982	<b>NEG</b>	NEG	NEG

## INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >7.5	<b>0.6</b>	0.6	0.4
Nitration	Abs/cm	*ASTM D7624 >20	<b>9.9</b>	9.1	7.9
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>21.7</b>	20.5	19.6

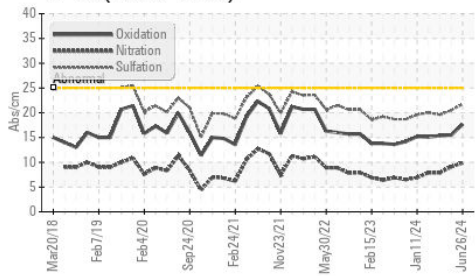
## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>17.7</b>	15.5	15.4
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>7.6</b>	8.0	7.8

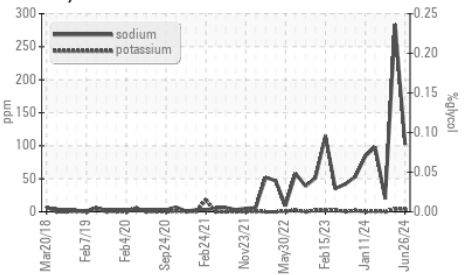


# OIL ANALYSIS REPORT

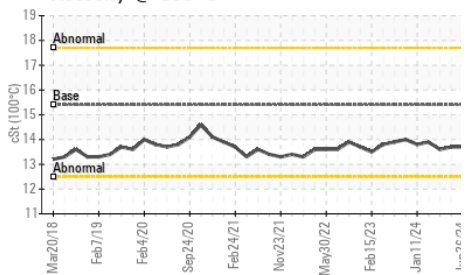
FT-IR (Direct Trend)



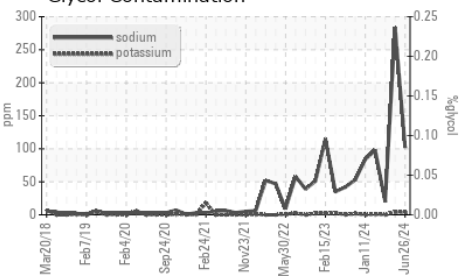
Glycol Contamination



Viscosity @ 100°C



Glycol Contamination

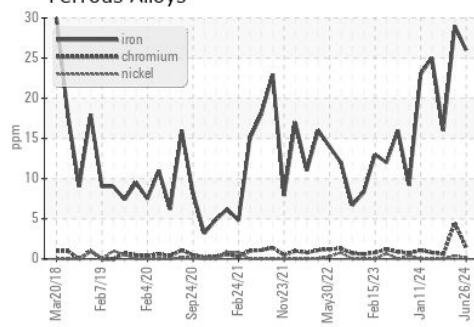


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

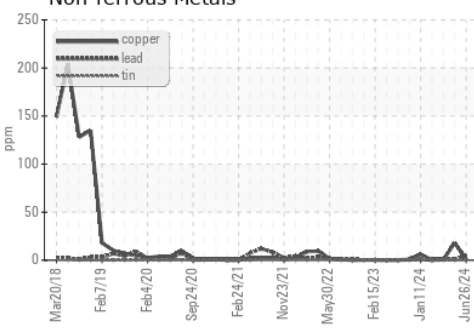
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	13.7	13.7

### GRAPHS

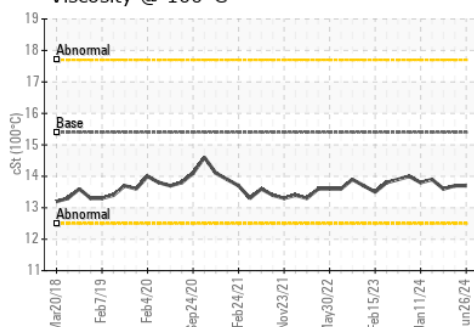
Ferrous Alloys



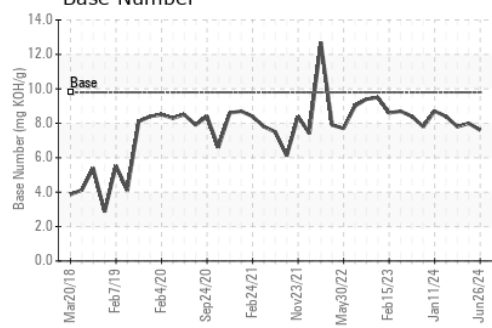
Non-ferrous Metals



Viscosity @ 100°C



Base Number



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0072167 **Received** : 02 Jul 2024  
**Lab Number** : 06226012 **Tested** : 05 Jul 2024  
**Unique Number** : 11109505 **Diagnosed** : 05 Jul 2024 - Jonathan Hester  
**Test Package** : FLEET ( Additional Tests: Glycol )

**GFL Environmental - 094 - Cedartown**  
 2097 Buchanan Highway  
 Cedartown, GA  
 US 30125

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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