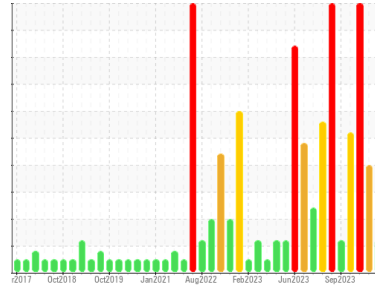




# OIL ANALYSIS REPORT

Sample Rating Trend



GLYCOL



Machine Id  
**10630**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 15W40 (7 GAL)**

## DIAGNOSIS

### ▲ Recommendation

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

Sodium and/or potassium levels remain elevated. 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 acceptable for the time in service.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>GFL0107209</b>	GFL0101269	GFL0101266
Sample Date	Client Info		<b>18 Dec 2023</b>	05 Dec 2023	29 Nov 2023
Machine Age	hrs	Client Info	<b>6511</b>	6435	6390
Oil Age	hrs	Client Info	<b>584</b>	508	463
Oil Changed	Client Info		<b>Changed</b>	Not Changd	Not Changd
Sample Status			<b>ATTENTION</b>	ABNORMAL	SEVERE

## 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 >75	<b>3</b>	41	36
Chromium	ppm	ASTM D5185m >5	<b>&lt;1</b>	2	2
Nickel	ppm	ASTM D5185m >4	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m >2	<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >15	<b>&lt;1</b>	5	5
Lead	ppm	ASTM D5185m >25	<b>0</b>	2	2
Copper	ppm	ASTM D5185m >100	<b>&lt;1</b>	2	2
Tin	ppm	ASTM D5185m >4	<b>0</b>	0	<1
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	0	<1
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>13</b>	31	31
Barium	ppm	ASTM D5185m 0	<b>0</b>	3	0
Molybdenum	ppm	ASTM D5185m 60	<b>60</b>	114	104
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185m 1010	<b>875</b>	748	780
Calcium	ppm	ASTM D5185m 1070	<b>980</b>	1021	1039
Phosphorus	ppm	ASTM D5185m 1150	<b>972</b>	777	908
Zinc	ppm	ASTM D5185m 1270	<b>1160</b>	1046	1097
Sulfur	ppm	ASTM D5185m 2060	<b>3024</b>	2893	2605

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>6</b>	▲ 32	▲ 31
Sodium	ppm	ASTM D5185m	▲ <b>83</b>	▲ 1360	▲ 1306
Potassium	ppm	ASTM D5185m >20	<b>4</b>	▲ 62	▲ 57
Glycol	%	*ASTM D2982	<b>NEG</b>	NEG	🔴 0.10

## INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >6	<b>0.1</b>	1.5	1.5
Nitration	Abs/cm	*ASTM D7624 >20	<b>4.5</b>	12.1	12.2
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>16.8</b>	21.3	21.2

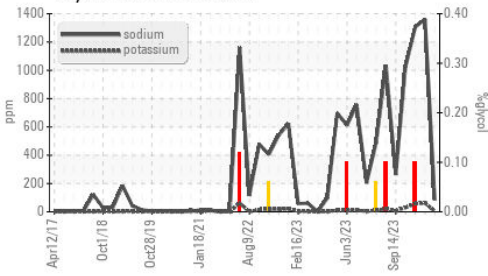
## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>11.7</b>	14.3	14.1
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>8.9</b>	10.3	10.8

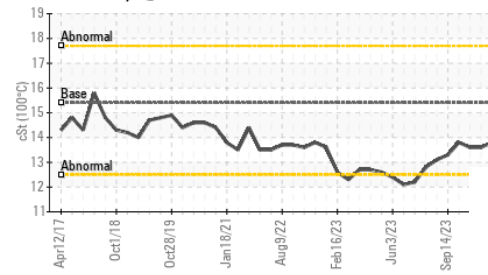


# OIL ANALYSIS REPORT

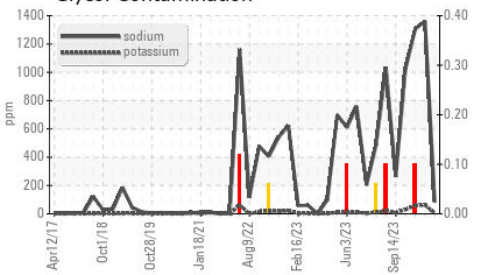
### Glycol Contamination



### Viscosity @ 100°C



### Glycol Contamination

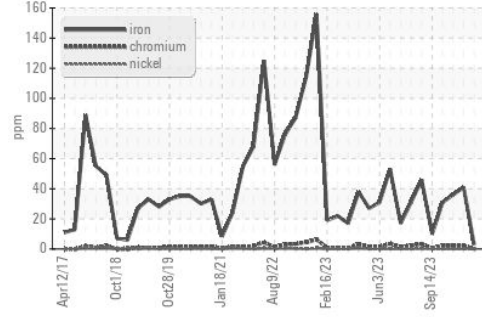


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

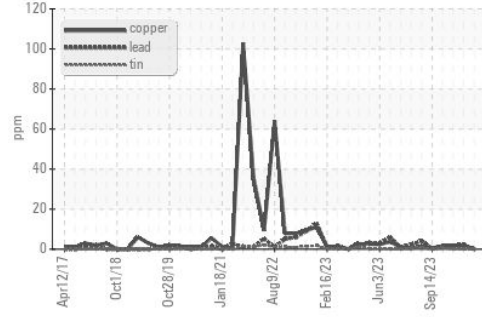
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	13.8	13.6

### GRAPHS

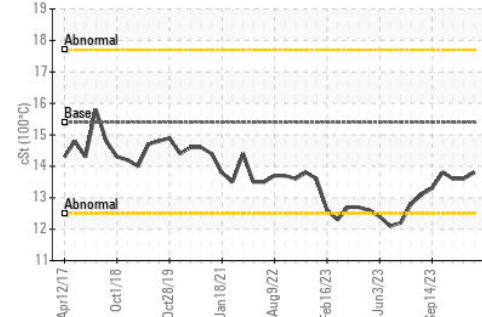
### Ferrous Alloys



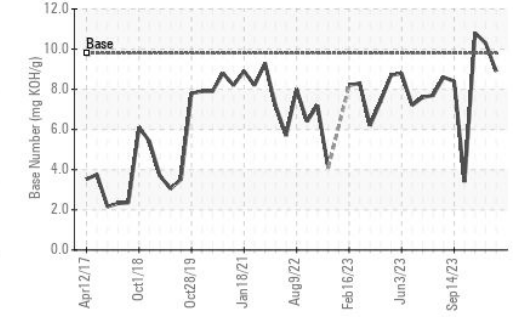
### Non-ferrous Metals



### Viscosity @ 100°C



### Base Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0107209 **Received** : 20 Dec 2023  
**Lab Number** : 06041258 **Diagnosed** : 22 Dec 2023  
**Unique Number** : 10796487 **Diagnostician** : Jonathan Hester  
**Test Package** : FLEET ( Additional Tests: Glycol )

**GFL Environmental - 010 - Stockbridge**  
 1280 Rum Creek Parkway  
 Stockbridge, GA  
 US 30281  
 Contact: JOSHUA TINKER  
 joshuatinker@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)