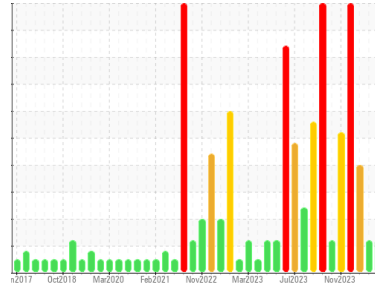




# OIL ANALYSIS REPORT

Sample Rating Trend



GLYCOL



Area  
**(DUW950)**

Machine Id  
**10630**

Component  
**Diesel Engine**

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

## DIAGNOSIS

### ▲ Recommendation

Check for low coolant level. We recommend an early resample to monitor this condition.

### 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 acceptable for the time in service.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>GFL0107236</b>	GFL0107209	GFL0101269
Sample Date	Client Info		<b>12 Jan 2024</b>	18 Dec 2023	05 Dec 2023
Machine Age	hrs	Client Info	<b>6666</b>	6511	6435
Oil Age	hrs	Client Info	<b>155</b>	584	508
Oil Changed	Client Info		<b>Not Changed</b>	Changed	Not Changed
Sample Status			<b>ATTENTION</b>	ATTENTION	ABNORMAL

## 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>16</b>	3	41
Chromium	ppm	ASTM D5185m >5	<b>&lt;1</b>	<1	2
Nickel	ppm	ASTM D5185m >4	<b>0</b>	0	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 >15	<b>2</b>	<1	5
Lead	ppm	ASTM D5185m >25	<b>0</b>	0	2
Copper	ppm	ASTM D5185m >100	<b>&lt;1</b>	<1	2
Tin	ppm	ASTM D5185m >4	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185m	<b>0</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>6</b>	13	31
Barium	ppm	ASTM D5185m 0	<b>3</b>	0	3
Molybdenum	ppm	ASTM D5185m 60	<b>70</b>	60	114
Manganese	ppm	ASTM D5185m 0	<b>0</b>	<1	0
Magnesium	ppm	ASTM D5185m 1010	<b>896</b>	875	748
Calcium	ppm	ASTM D5185m 1070	<b>1007</b>	980	1021
Phosphorus	ppm	ASTM D5185m 1150	<b>948</b>	972	777
Zinc	ppm	ASTM D5185m 1270	<b>1154</b>	1160	1046
Sulfur	ppm	ASTM D5185m 2060	<b>3266</b>	3024	2893

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>13</b>	6	▲ 32
Sodium	ppm	ASTM D5185m	▲ <b>392</b>	▲ 83	▲ 1360
Potassium	ppm	ASTM D5185m >20	<b>23</b>	4	▲ 62
Glycol	%	*ASTM D2982	<b>0.0</b>	NEG	NEG

## INFRA-RED

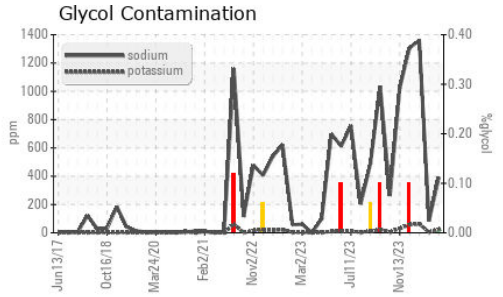
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >6	<b>0.6</b>	0.1	1.5
Nitration	Abs/cm	*ASTM D7624 >20	<b>7.0</b>	4.5	12.1
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>18.7</b>	16.8	21.3

## FLUID DEGRADATION

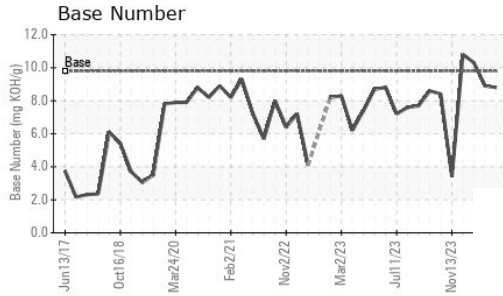
	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>12.8</b>	11.7	14.3
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>8.8</b>	8.9	10.3



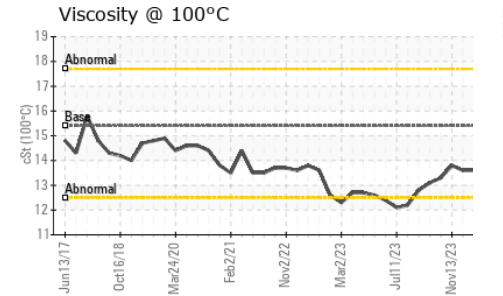
# OIL ANALYSIS REPORT



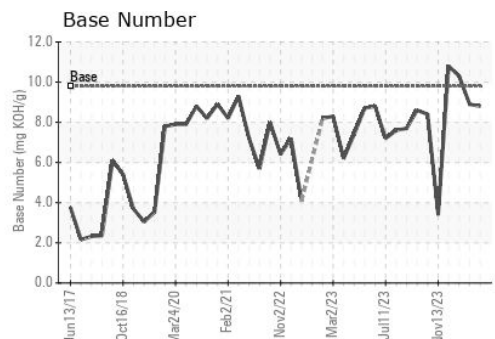
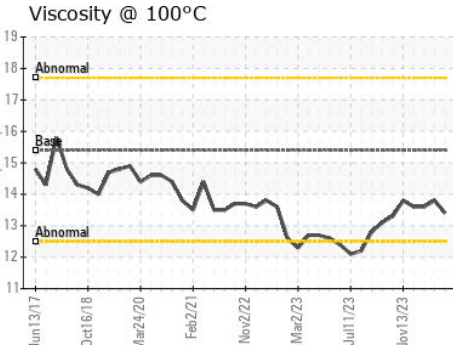
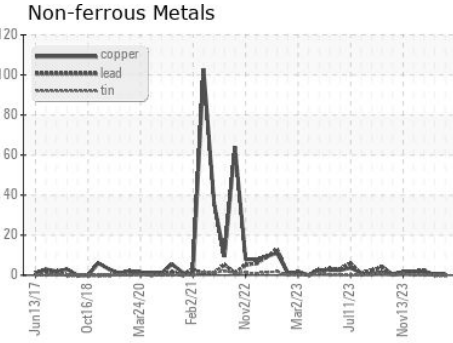
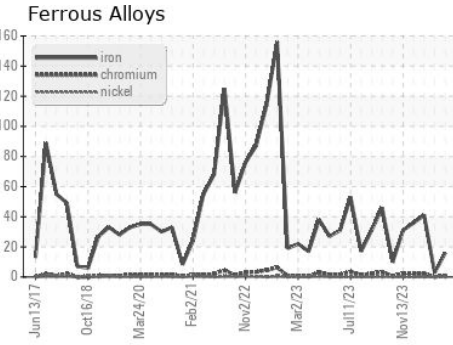
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	13.4	13.8



## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0107236 **Recieved** : 18 Jan 2024  
**Lab Number** : 06064078 **Diagnosed** : 22 Jan 2024  
**Unique Number** : 10835460 **Diagnostician** : Doug Bogart  
**Test Package** : FLEET ( Additional Tests: Glycol )

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

Certificate L2367  
 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)