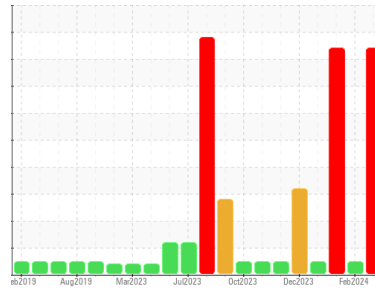




# PROBLEM SUMMARY

Sample Rating Trend



GLYCOL



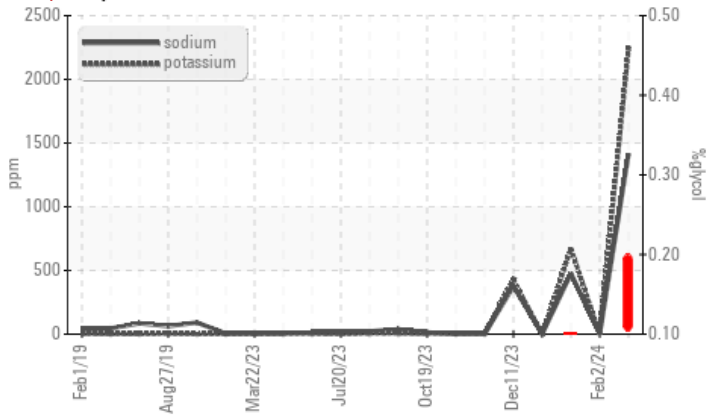
Machine Id  
**721024-361461**

Component  
**Diesel Engine**

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

## COMPONENT CONDITION SUMMARY

### Glycol Contamination



## RECOMMENDATION

We advise that you check for the source of the coolant leak. Check for low coolant level. We recommend that you drain the oil and perform a filter service on this component if not already done. We recommend an early resample to monitor this condition.

## PROBLEMATIC TEST RESULTS

Sample Status			SEVERE	NORMAL	SEVERE
Sodium	ppm	ASTM D5185m	▲ 1413	1	▲ 476
Potassium	ppm	ASTM D5185m >20	▲ 2233	3	▲ 672
Glycol	%	*ASTM D2982	● 0.20	NEG	● 0.10

Customer Id: GFL821  
 Sample No.: GFL0105273  
 Lab Number: 06091482  
 Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Don Baldrige +1  
[don.b505@comcast.net](mailto:don.b505@comcast.net)

To change component or sample information:  
 Customer Service +1 1-800-237-1369  
[customerservice@wearcheck.com](mailto:customerservice@wearcheck.com)

## RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Fluid	---	---	?	We recommend that you drain the oil and perform a filter service on this component if not already done.
Change Filter	---	---	?	We recommend that you drain the oil and perform a filter service on this component if not already done.
Resample	---	---	?	We recommend an early resample to monitor this condition.
Check Glycol Access	---	---	?	We advise that you check for the source of the coolant leak.

## HISTORICAL DIAGNOSIS

02 Feb 2024 Diag: Sean Felton

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report



11 Jan 2024 Diag: Jonathan Hester

GLYCOL



We advise that you check for the source of the coolant leak. Check for low coolant level. We recommend that you drain the oil and perform a filter service on this component if not already done. We recommend an early resample to monitor this condition. All component wear rates are normal. Sodium and/or potassium levels are high. Test for glycol is positive. The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.

view report



02 Jan 2024 Diag: Wes Davis

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

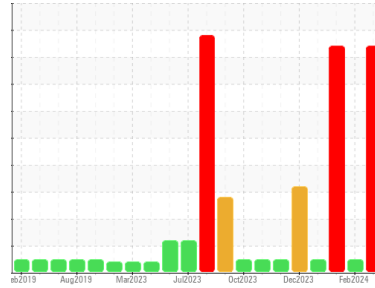
view report





# OIL ANALYSIS REPORT

Sample Rating Trend



GLYCOL



Machine Id  
**721024-361461**

Component  
**Diesel Engine**

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

## DIAGNOSIS

### Recommendation

We advise that you check for the source of the coolant leak. Check for low coolant level. We recommend that you drain the oil and perform a filter service on this component if not already done. 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 positive. There is a high concentration of glycol present in the oil.

### Fluid Condition

The oil is no longer serviceable due to the presence of contaminants.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>GFL0105273</b>	GFL0105220	GFL0105167
Sample Date	Client Info		<b>14 Feb 2024</b>	02 Feb 2024	11 Jan 2024
Machine Age	hrs	Client Info	<b>7573</b>	7439	7312
Oil Age	hrs	Client Info	<b>300</b>	150	150
Oil Changed	Client Info		<b>Not Changed</b>	Not Changed	Not Changed
Sample Status			<b>SEVERE</b>	NORMAL	SEVERE

## 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

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	<b>68</b>	<1	32
Chromium	ppm	ASTM D5185m >20	<b>4</b>	0	2
Nickel	ppm	ASTM D5185m >4	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m >3	<b>0</b>	0	2
Aluminum	ppm	ASTM D5185m >20	<b>8</b>	<1	3
Lead	ppm	ASTM D5185m >40	<b>5</b>	<1	2
Copper	ppm	ASTM D5185m >330	<b>7</b>	<1	<1
Tin	ppm	ASTM D5185m >15	<b>2</b>	0	<1
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	<1	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	<1

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>27</b>	0	6
Barium	ppm	ASTM D5185m 0	<b>2</b>	0	0
Molybdenum	ppm	ASTM D5185m 60	<b>426</b>	56	173
Manganese	ppm	ASTM D5185m 0	<b>2</b>	<1	1
Magnesium	ppm	ASTM D5185m 1010	<b>797</b>	933	972
Calcium	ppm	ASTM D5185m 1070	<b>878</b>	999	1020
Phosphorus	ppm	ASTM D5185m 1150	<b>901</b>	1024	1158
Zinc	ppm	ASTM D5185m 1270	<b>1095</b>	1218	1297
Sulfur	ppm	ASTM D5185m 2060	<b>2826</b>	3165	3352

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>13</b>	4	6
Sodium	ppm	ASTM D5185m	<b>▲ 1413</b>	1	<b>▲ 476</b>
Potassium	ppm	ASTM D5185m >20	<b>▲ 2233</b>	3	<b>▲ 672</b>
Glycol	%	*ASTM D2982	<b>◆ 0.20</b>	NEG	<b>◆ 0.10</b>

## INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>2</b>	0	1.2
Nitration	Abs/cm	*ASTM D7624 >20	<b>20.0</b>	4.0	10.3
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>24.3</b>	17.2	20.5

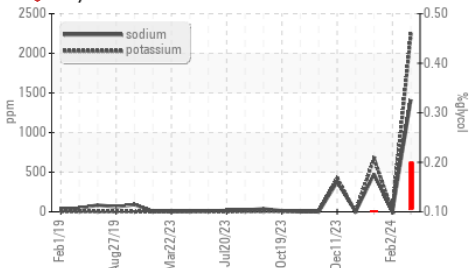
## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>17.3</b>	12.7	15.1
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>18.5</b>	9.0	11.0

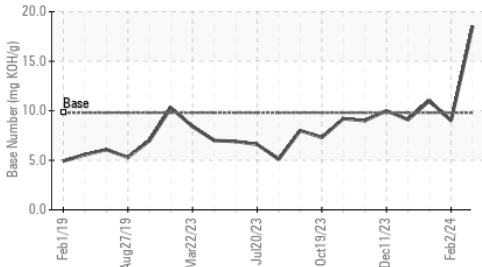


# OIL ANALYSIS REPORT

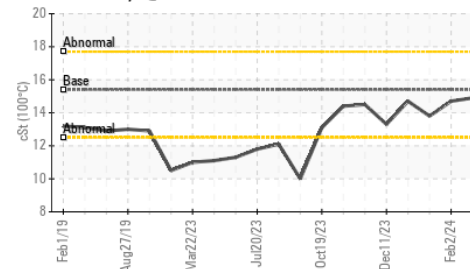
## Glycol Contamination



## Base Number



## Viscosity @ 100°C



## VISUAL

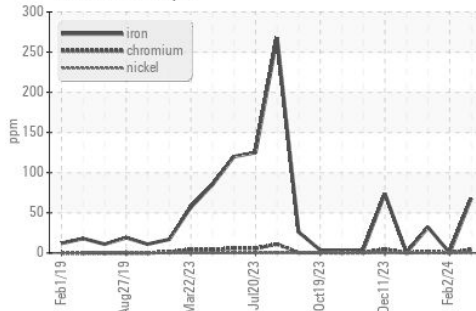
	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar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

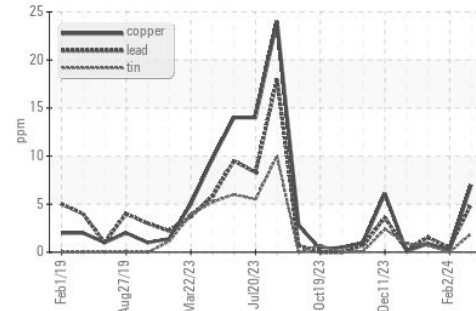
	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	14.9	13.8

## GRAPHS

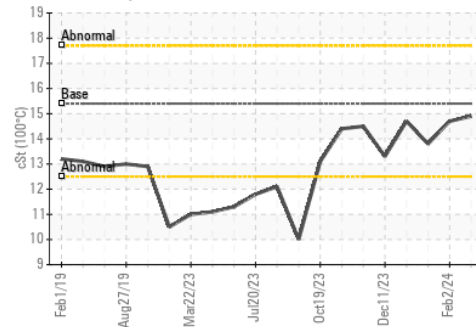
### Ferrous Alloys



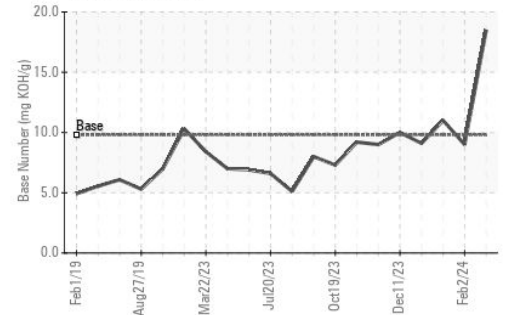
### Non-ferrous Metals



### Viscosity @ 100°C



### Base Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0105273 **Received** : 16 Feb 2024  
**Lab Number** : 06091482 **Tested** : 19 Feb 2024  
**Unique Number** : 10884335 **Diagnosed** : 19 Feb 2024 - Don Baldrige  
**Test Package** : FLEET ( Additional Tests: Glycol )

**GFL Environmental - 821 - Ozarks Hauling**  
 33924 Olath Drive  
 Lebanon, MO  
 US 65536  
 Contact: Landen Johnson  
 landen.johnson@gflenv.com  
 T: (417)664-0010  
 F:

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)