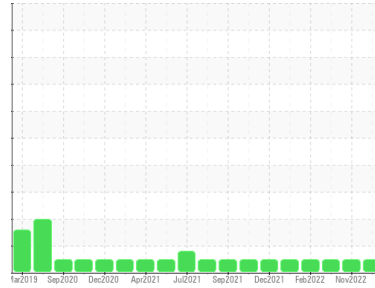




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**10958**

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>GFL0072236</b>	GFL0058996	GFL0046006
Sample Date	Client Info	<b>08 Aug 2023</b>	07 Nov 2022	23 Mar 2022
Machine Age	hrs	<b>5690</b>	5690	5690
Oil Age	hrs	<b>10301</b>	646	646
Oil Changed	Client Info	<b>Changed</b>	N/A	N/A
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
Glycol	WC Method	<b>NEG</b>	NEG	NEG

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >90	<b>21</b>	18	8
Chromium	ppm ASTM D5185m >20	<b>2</b>	2	<1
Nickel	ppm ASTM D5185m >2	<b>&lt;1</b>	0	0
Titanium	ppm ASTM D5185m >2	<b>0</b>	0	<1
Silver	ppm ASTM D5185m >2	<b>0</b>	0	<1
Aluminum	ppm ASTM D5185m >20	<b>3</b>	<1	<1
Lead	ppm ASTM D5185m >40	<b>4</b>	10	1
Copper	ppm ASTM D5185m >330	<b>4</b>	10	11
Tin	ppm ASTM D5185m >15	<b>&lt;1</b>	<1	<1
Antimony	ppm ASTM D5185m	<b>---</b>	---	---
Vanadium	ppm ASTM D5185m	<b>&lt;1</b>	0	0
Cadmium	ppm ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	<b>8</b>	4	8
Barium	ppm ASTM D5185m 0	<b>1</b>	0	0
Molybdenum	ppm ASTM D5185m 60	<b>64</b>	62	64
Manganese	ppm ASTM D5185m 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm ASTM D5185m 1010	<b>965</b>	970	968
Calcium	ppm ASTM D5185m 1070	<b>1112</b>	1162	1131
Phosphorus	ppm ASTM D5185m 1150	<b>992</b>	948	1056
Zinc	ppm ASTM D5185m 1270	<b>1245</b>	1288	1290
Sulfur	ppm ASTM D5185m 2060	<b>2849</b>	2803	2661

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>9</b>	6	4
Sodium	ppm ASTM D5185m	<b>6</b>	5	0
Potassium	ppm ASTM D5185m >20	<b>&lt;1</b>	0	2

## INFRA-RED

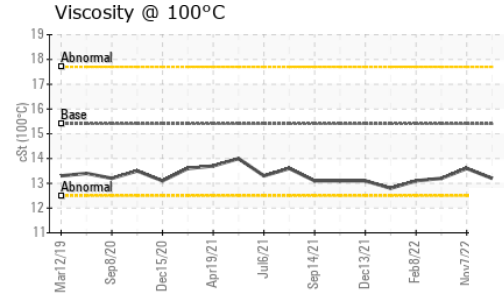
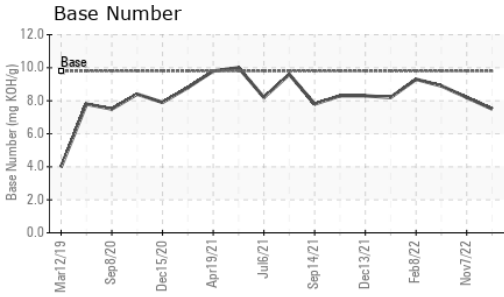
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >6	<b>0.4</b>	0.6	0.3
Nitration	Abs/cm *ASTM D7624 >20	<b>7.9</b>	10.8	8.0
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>19.3</b>	22.8	20.8

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>14.9</b>	18.7	15.8
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>7.5</b>	8.2	8.9



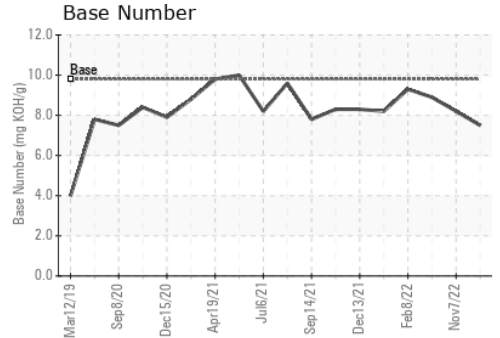
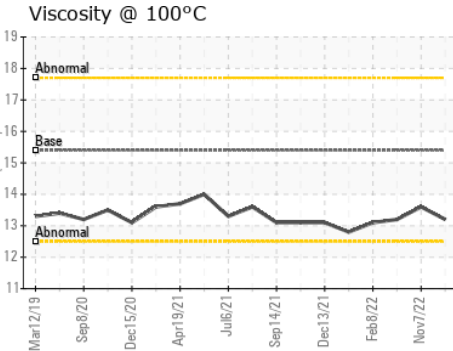
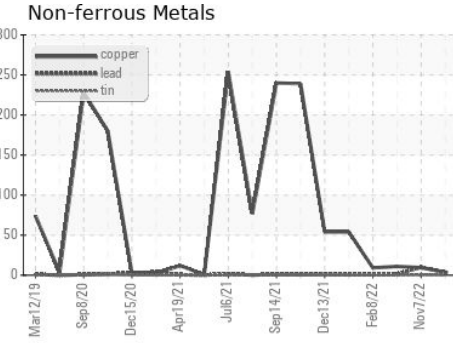
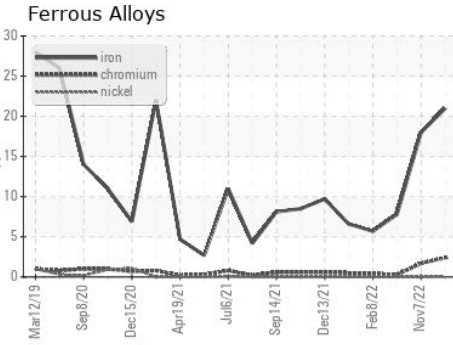
# OIL ANALYSIS REPORT



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	<b>13.2</b>	13.6	13.2

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0072236 **Received** : 09 Aug 2023  
**Lab Number** : **05920149** **Diagnosed** : 10 Aug 2023  
**Unique Number** : 10592063 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 004 - Newport - Central Coast**  
 427 Roberts Road  
 Newport, NC  
 US 28570  
 Contact: Marquis Williams  
 marquis.williams@gflenv.com  
 T:  
 F: (252)223-6010

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)