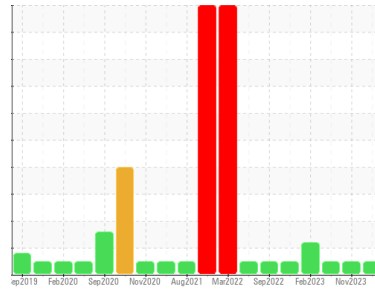




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**GFL035**  
 Machine Id  
**12065**

Component  
**Diesel Engine**  
 Fluid

**PETRO CANADA DURON SHP 15W40 (32 QTS)**

## 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>GFL0102361</b>	GFL0085154	GFL0071557
Sample Date	Client Info	<b>07 Feb 2024</b>	09 Nov 2023	29 Jun 2023
Machine Age	hrs	Client Info	<b>1854</b>	1854
Oil Age	hrs	Client Info	<b>600</b>	600
Oil Changed	Client Info	<b>Not Chngd</b>	Changed	Changed
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
Water	WC Method >0.2	<b>NEG</b>	NEG	NEG
Glycol	WC Method	<b>NEG</b>	NEG	NEG

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >75	<b>18</b>	32	10
Chromium	ppm ASTM D5185m >5	<b>&lt;1</b>	1	<1
Nickel	ppm ASTM D5185m >4	<b>0</b>	1	<1
Titanium	ppm ASTM D5185m >2	<b>&lt;1</b>	<1	0
Silver	ppm ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm ASTM D5185m >15	<b>2</b>	3	2
Lead	ppm ASTM D5185m >25	<b>0</b>	3	<1
Copper	ppm ASTM D5185m >100	<b>1</b>	1	2
Tin	ppm ASTM D5185m >4	<b>&lt;1</b>	<1	<1
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>4</b>	13	5
Barium	ppm ASTM D5185m 0	<b>0</b>	0	2
Molybdenum	ppm ASTM D5185m 60	<b>63</b>	64	64
Manganese	ppm ASTM D5185m 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm ASTM D5185m 1010	<b>1026</b>	903	847
Calcium	ppm ASTM D5185m 1070	<b>1200</b>	1563	1135
Phosphorus	ppm ASTM D5185m 1150	<b>1102</b>	1127	1058
Zinc	ppm ASTM D5185m 1270	<b>1372</b>	1336	1160
Sulfur	ppm ASTM D5185m 2060	<b>3229</b>	2863	3036

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>7</b>	13	7
Sodium	ppm ASTM D5185m	<b>4</b>	4	66
Potassium	ppm ASTM D5185m >20	<b>3</b>	2	2

## INFRA-RED

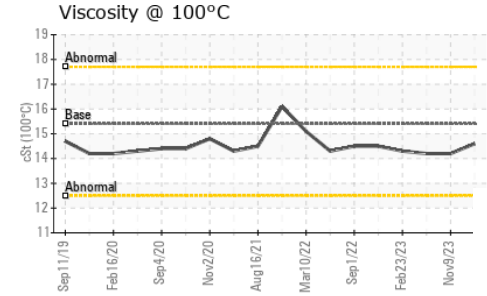
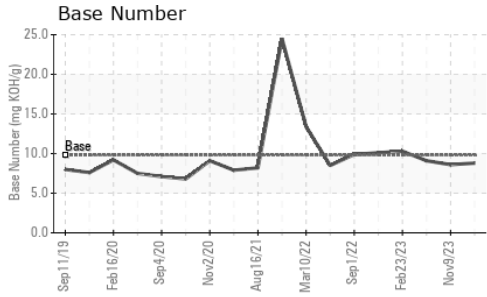
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >6	<b>0.2</b>	0.6	0.2
Nitration	Abs/cm *ASTM D7624 >20	<b>8.2</b>	11.1	6.9
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>20.1</b>	22.6	20.1

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>17.0</b>	21.6	16.5
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>8.8</b>	8.6	9.1



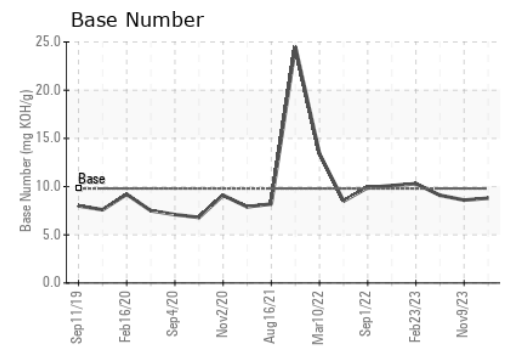
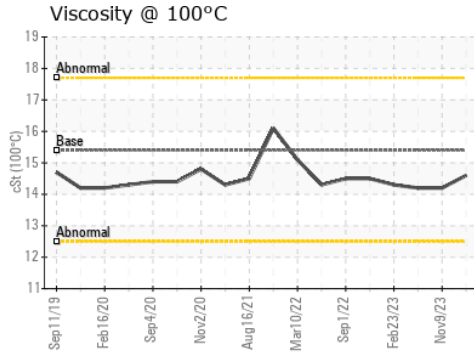
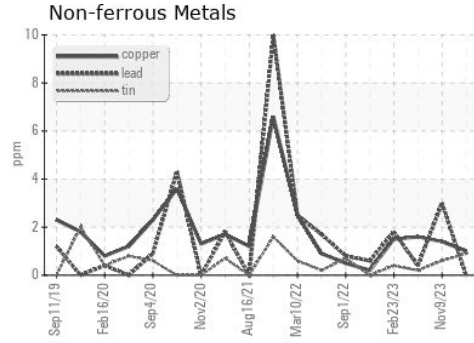
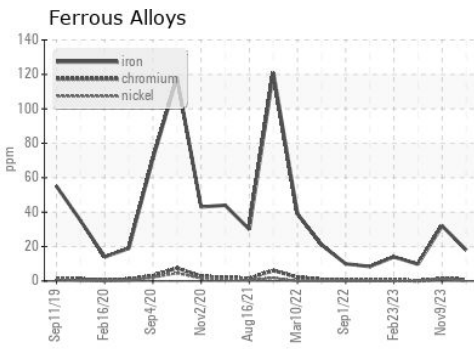
# OIL ANALYSIS REPORT



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>14.6</b>	14.2	14.2

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0102361      **Received** : 08 Feb 2024  
**Lab Number** : 06084280      **Tested** : 09 Feb 2024  
**Unique Number** : 10871725      **Diagnosed** : 09 Feb 2024 - Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 035 - Greensboro**  
 1236 Elon Place  
 High Point, NC  
 US 27263  
 Contact: JORGE COSTA  
 jorge.costa@gflenv.com  
 T: (336)668-3712  
 F:

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)