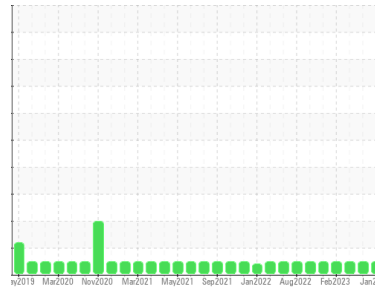




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**3879**

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>GFL0098521</b>	GFL0087788	GFL0082245
Sample Date	Client Info		<b>10 Jan 2024</b>	04 Aug 2023	17 May 2023
Machine Age	hrs	Client Info	<b>14481</b>	11714	11409
Oil Age	hrs	Client Info	<b>600</b>	600	300
Oil Changed	Client Info		<b>Changed</b>	Changed	Not 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 >120	<b>20</b>	16	18
Chromium	ppm	ASTM D5185m >20	<b>1</b>	<1	<1
Nickel	ppm	ASTM D5185m >5	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185m >2	<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m >2	<b>0</b>	<1	<1
Aluminum	ppm	ASTM D5185m >20	<b>19</b>	4	7
Lead	ppm	ASTM D5185m >40	<b>1</b>	1	<1
Copper	ppm	ASTM D5185m >330	<b>2</b>	5	3
Tin	ppm	ASTM D5185m >15	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m	<b>0</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>1</b>	4	10
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 60	<b>59</b>	63	62
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m 1010	<b>921</b>	799	832
Calcium	ppm	ASTM D5185m 1070	<b>1043</b>	1200	1268
Phosphorus	ppm	ASTM D5185m 1150	<b>974</b>	962	977
Zinc	ppm	ASTM D5185m 1270	<b>1210</b>	1182	1223
Sulfur	ppm	ASTM D5185m 2060	<b>2754</b>	2718	3340

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>6</b>	4	10
Sodium	ppm	ASTM D5185m	<b>4</b>	0	4
Potassium	ppm	ASTM D5185m >20	<b>22</b>	4	2

## INFRA-RED

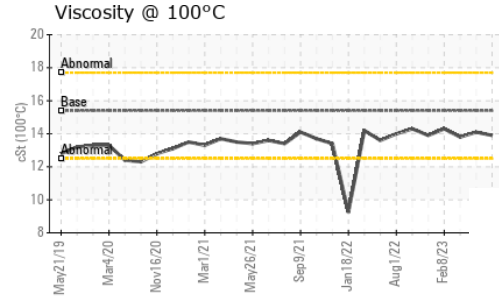
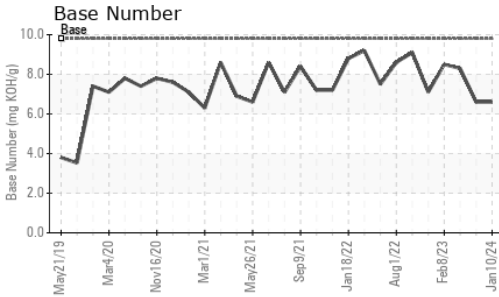
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >4	<b>0.7</b>	0.4	0.3
Nitration	Abs/cm	*ASTM D7624 >20	<b>9.3</b>	8.1	7.8
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>20.5</b>	19.3	19.3

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>16.5</b>	14.9	15.2
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>6.6</b>	6.6	8.3



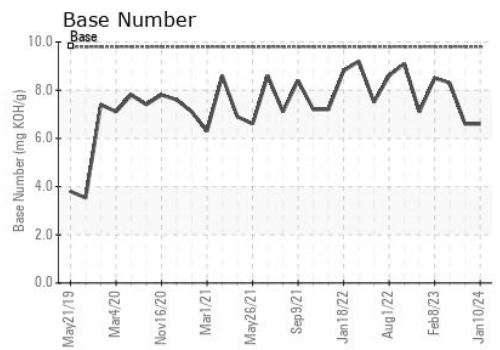
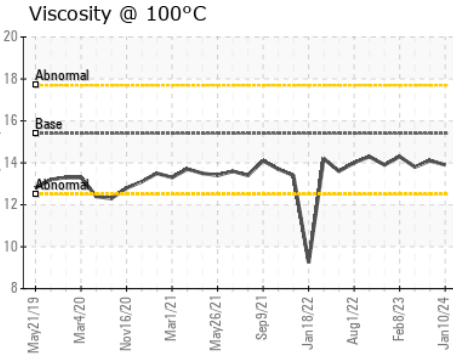
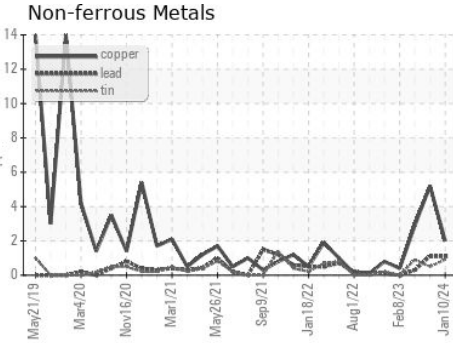
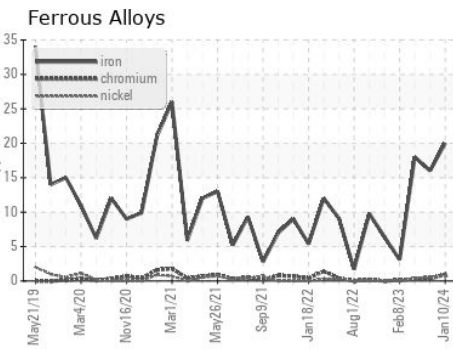
# OIL ANALYSIS REPORT



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	<b>13.9</b>	14.1	13.8

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0098521 **Recieved** : 11 Jan 2024  
**Lab Number** : **06058699** **Diagnosed** : 12 Jan 2024  
**Unique Number** : 10830081 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 006 - Wilmington**  
 3618 US Highway 421 N  
 Wilmington, NC  
 US 28401  
 Contact: Eric Wood  
 eric.wood@gflenv.com  
 T: (717)723-1956  
 F: (910)762-6880

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)