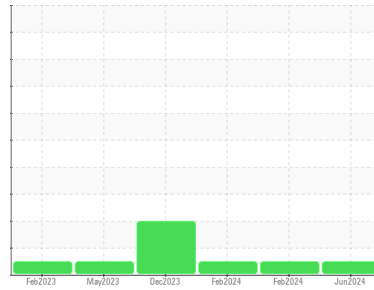




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**(34739UA)**  
 Machine Id  
**812091**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (--- 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>GFL0110412</b>	GFL0108280	GFL0108259
Sample Date	Client Info		<b>19 Jun 2024</b>	20 Feb 2024	01 Feb 2024
Machine Age	hrs	Client Info	<b>5821</b>	5102	4970
Oil Age	hrs	Client Info	<b>5821</b>	132	192
Oil Changed	Client Info		<b>Changed</b>	Not Changd	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>17</b>	2	6
Chromium	ppm	ASTM D5185m >20	<b>&lt;1</b>	0	<1
Nickel	ppm	ASTM D5185m >5	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185m >2	<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m >2	<b>&lt;1</b>	<1	<1
Aluminum	ppm	ASTM D5185m >20	<b>1</b>	1	1
Lead	ppm	ASTM D5185m >40	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185m >330	<b>3</b>	0	4
Tin	ppm	ASTM D5185m >15	<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>5</b>	14	9
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 60	<b>58</b>	49	51
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m 1010	<b>1017</b>	821	845
Calcium	ppm	ASTM D5185m 1070	<b>1300</b>	982	1055
Phosphorus	ppm	ASTM D5185m 1150	<b>1099</b>	923	980
Zinc	ppm	ASTM D5185m 1270	<b>1411</b>	1138	1199
Sulfur	ppm	ASTM D5185m 2060	<b>3417</b>	2836	2913

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>5</b>	2	7
Sodium	ppm	ASTM D5185m	<b>2</b>	<1	<1
Potassium	ppm	ASTM D5185m >20	<b>3</b>	1	<1

## INFRA-RED

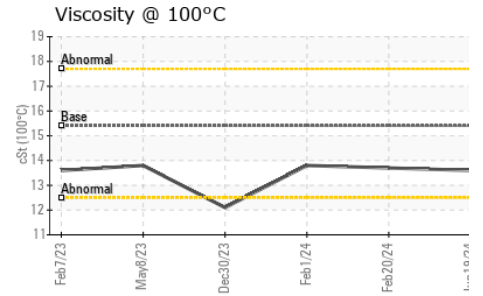
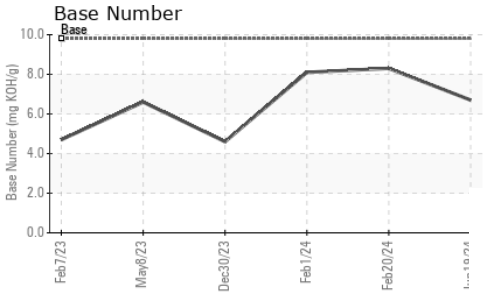
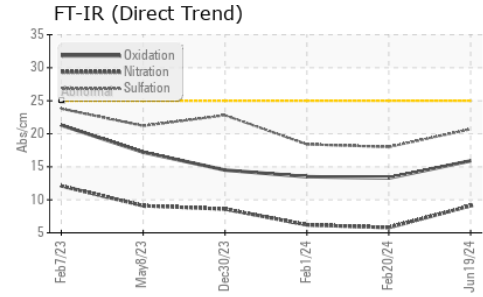
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >4	<b>0.6</b>	0.2	0.2
Nitration	Abs/cm	*ASTM D7624 >20	<b>9.1</b>	5.8	6.2
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>20.7</b>	18.0	18.4

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>15.9</b>	13.3	13.5
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>6.7</b>	8.3	8.1



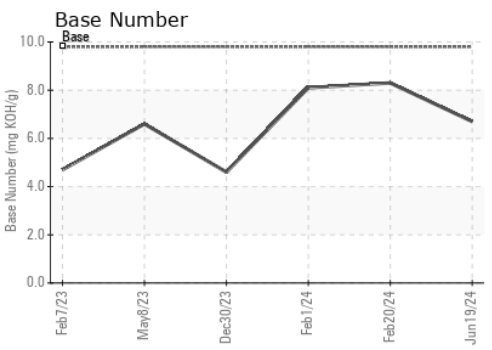
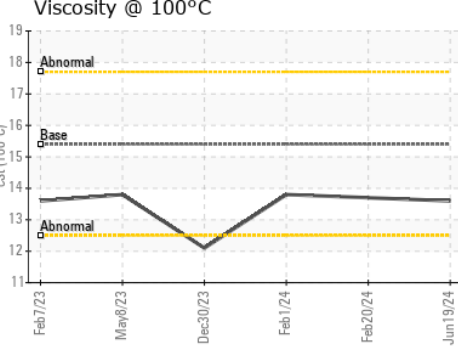
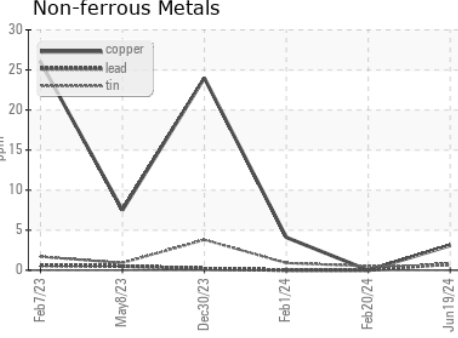
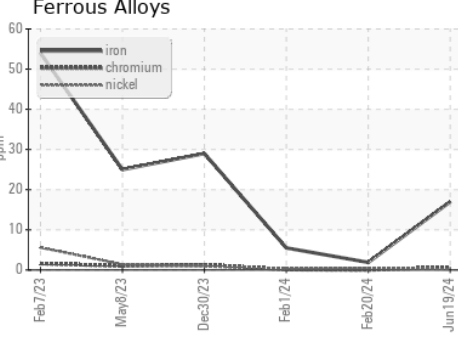
# OIL ANALYSIS REPORT



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	13.6	13.7

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0110412      **Received** : 20 Jun 2024  
**Lab Number** : 06215665      **Tested** : 21 Jun 2024  
**Unique Number** : 11088529      **Diagnosed** : 21 Jun 2024 - Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 044 - Elizabeth City**  
 657 Old US 17  
 Elizabeth City, NC  
 US 27909  
 Contact: TOM BAIRD  
 tom.baird@gflenv.com  
 T: (252)562-2645  
 F: (252)264-4411

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)