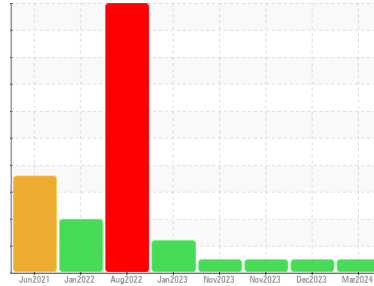




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**(BA93043)**  
Machine Id  
**777M**  
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>GFL0117656</b>	GFL0105818	GFL0101494
Sample Date	Client Info		<b>28 Mar 2024</b>	27 Dec 2023	17 Nov 2023
Machine Age	hrs	Client Info	<b>9887</b>	9496	9371
Oil Age	hrs	Client Info	<b>9496</b>	9326	8506
Oil Changed	Client Info		<b>Not Chngd</b>	Changed	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
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>5</b>	46	31
Chromium	ppm	ASTM D5185m >5	<b>&lt;1</b>	1	1
Nickel	ppm	ASTM D5185m >4	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185m >2	<b>0</b>	<1	<1
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >15	<b>&lt;1</b>	8	4
Lead	ppm	ASTM D5185m >25	<b>0</b>	2	1
Copper	ppm	ASTM D5185m >100	<b>&lt;1</b>	2	3
Tin	ppm	ASTM D5185m >4	<b>&lt;1</b>	1	<1
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	<1

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>2</b>	1	2
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	9
Molybdenum	ppm	ASTM D5185m 60	<b>56</b>	68	68
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m 1010	<b>919</b>	1148	973
Calcium	ppm	ASTM D5185m 1070	<b>1027</b>	1256	1156
Phosphorus	ppm	ASTM D5185m 1150	<b>994</b>	1194	1061
Zinc	ppm	ASTM D5185m 1270	<b>1187</b>	1437	1294
Sulfur	ppm	ASTM D5185m 2060	<b>3357</b>	3131	2667

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>3</b>	6	7
Sodium	ppm	ASTM D5185m	<b>2</b>	25	20
Potassium	ppm	ASTM D5185m >20	<b>&lt;1</b>	3	5

## INFRA-RED

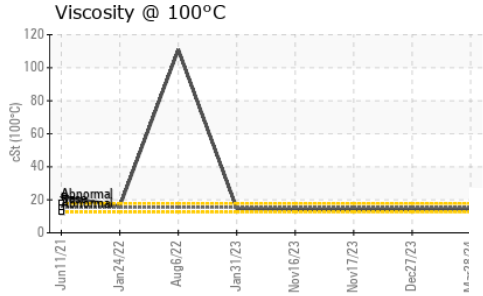
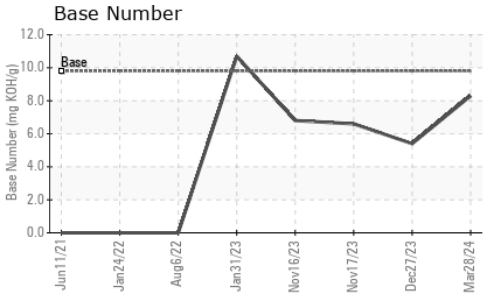
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >6	<b>0.3</b>	1.1	0.8
Nitration	Abs/cm	*ASTM D7624 >20	<b>6.4</b>	12.0	11.0
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>18.5</b>	24.7	22.7

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>14.4</b>	22.5	19.8
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>8.3</b>	5.4	6.6



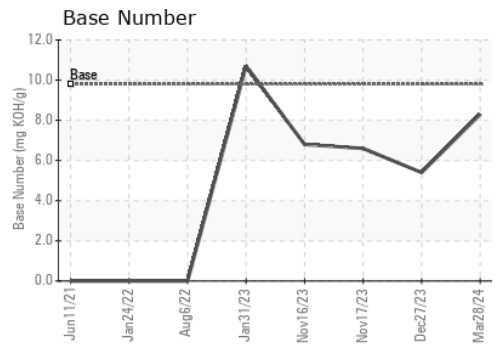
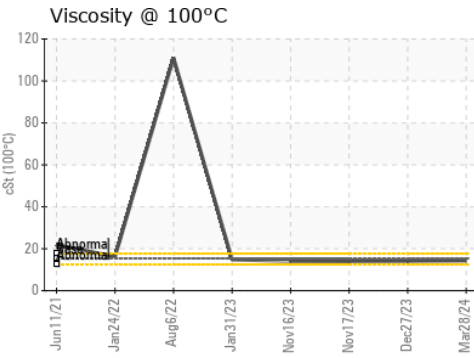
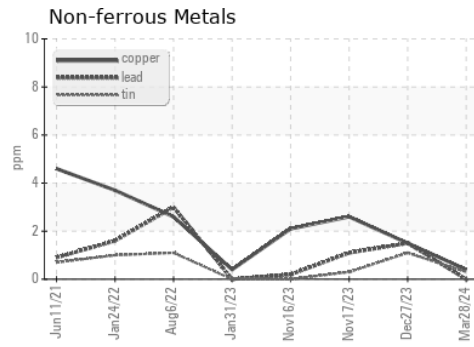
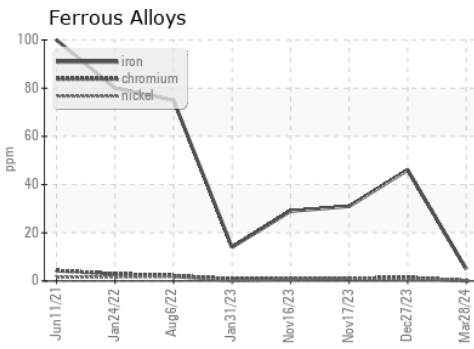
# OIL ANALYSIS REPORT



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>14.3</b>	14.1	14.0

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0117656 **Received** : 01 Apr 2024  
**Lab Number** : **06134439** **Tested** : 02 Apr 2024  
**Unique Number** : 10953904 **Diagnosed** : 02 Apr 2024 - Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 415 - Michigan East**  
 6200 Elmridge  
 Sterling Heights, MI  
 US 48313  
 Contact: Frank Wolak  
 fwolak@gflenv.com  
 T: (586)825-9514  
 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)