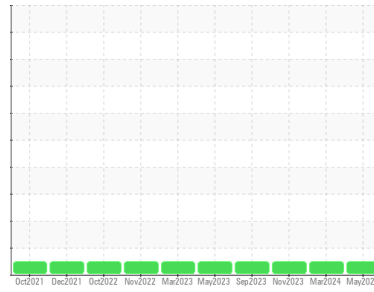




# OIL ANALYSIS REPORT

## Sample Rating Trend



**NORMAL**



Area  
**(BC43996)**  
 Machine Id  
**410012-1375**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor. ( Customer Sample Comment: Services completed )

### 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>GFL0116249</b>	GFL0101655	GFL0094850	
Sample Date	Client Info	<b>17 May 2024</b>	13 Mar 2024	06 Nov 2023	
Machine Age	hrs	Client Info	<b>5819</b>	5541	5246
Oil Age	hrs	Client Info	<b>547</b>	269	182
Oil Changed	Client Info	<b>Changed</b>	Not Changd	Not Changd	
Sample Status		<b>NORMAL</b>	NORMAL	NORMAL	

## CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >5	<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 >100	<b>12</b>	9	12
Chromium	ppm ASTM D5185m >20	<b>&lt;1</b>	1	1
Nickel	ppm ASTM D5185m >4	<b>0</b>	<1	0
Titanium	ppm ASTM D5185m	<b>0</b>	<1	0
Silver	ppm ASTM D5185m >3	<b>0</b>	0	0
Aluminum	ppm ASTM D5185m >20	<b>6</b>	6	7
Lead	ppm ASTM D5185m >40	<b>&lt;1</b>	<1	0
Copper	ppm ASTM D5185m >330	<b>3</b>	2	3
Tin	ppm ASTM D5185m >15	<b>&lt;1</b>	<1	0
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>5</b>	5	<1
Barium	ppm ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m 60	<b>64</b>	62	60
Manganese	ppm ASTM D5185m 0	<b>&lt;1</b>	<1	0
Magnesium	ppm ASTM D5185m 1010	<b>953</b>	959	902
Calcium	ppm ASTM D5185m 1070	<b>1084</b>	1124	1025
Phosphorus	ppm ASTM D5185m 1150	<b>1067</b>	1081	898
Zinc	ppm ASTM D5185m 1270	<b>1248</b>	1250	1184
Sulfur	ppm ASTM D5185m 2060	<b>3351</b>	3358	2997

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>4</b>	4	3
Sodium	ppm ASTM D5185m	<b>&lt;1</b>	2	0
Potassium	ppm ASTM D5185m >20	<b>3</b>	3	10

## INFRA-RED

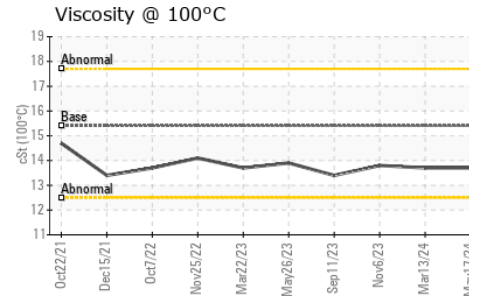
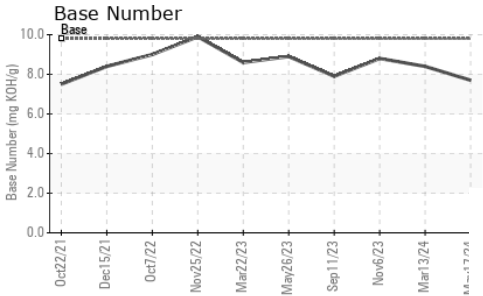
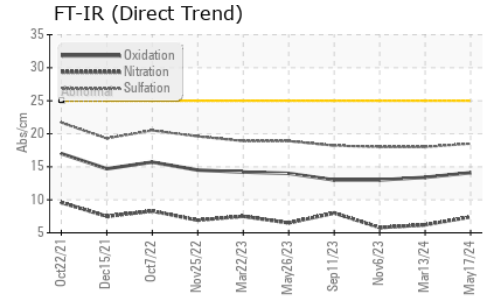
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>0.5</b>	0.4	0.3
Nitration	Abs/cm *ASTM D7624 >20	<b>7.4</b>	6.2	5.8
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>18.5</b>	18.0	18.0

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>14.1</b>	13.4	13.0
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>7.7</b>	8.4	8.8



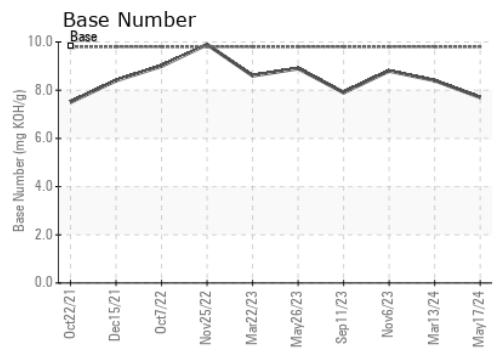
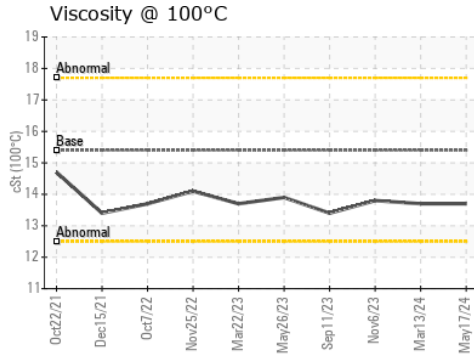
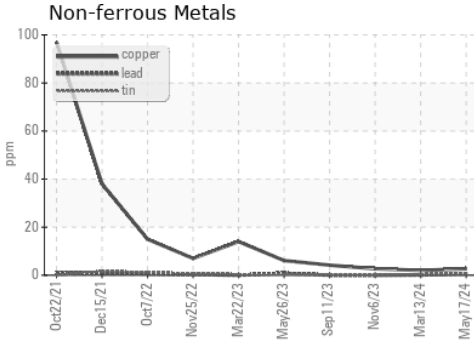
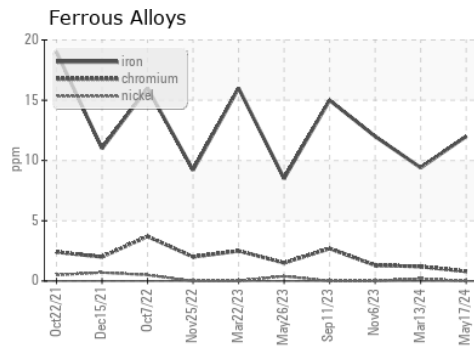
# OIL ANALYSIS REPORT



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	13.7	13.8

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0116249      **Received** : 21 May 2024  
**Lab Number** : 06187145      **Tested** : 23 May 2024  
**Unique Number** : 11043897      **Diagnosed** : 23 May 2024 - Sean Felton  
**Test Package** : FLEET

**GFL Environmental - 625 - Harrison Hauling**  
 2480 S Clare Ave  
 Clare, MI 48617  
 Contact: Glenda Standen  
 gstanden@gflenv.com

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)