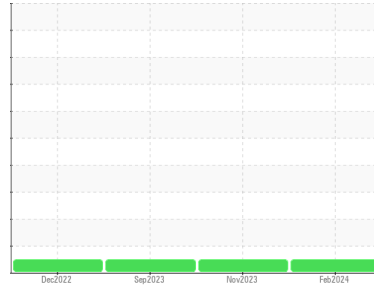




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**412046**  
 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>GFL0098080</b>	GFL0086732	GFL0071292
Sample Date	Client Info		<b>12 Feb 2024</b>	25 Nov 2023	05 Sep 2023
Machine Age	hrs	Client Info	<b>4732</b>	4217	3604
Oil Age	hrs	Client Info	<b>515</b>	613	3604
Oil Changed	Client Info		<b>Changed</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 >120	<b>6</b>	14	13
Chromium	ppm	ASTM D5185m >20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m >5	<b>1</b>	5	2
Titanium	ppm	ASTM D5185m >2	<b>0</b>	<1	0
Silver	ppm	ASTM D5185m >2	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m >20	<b>2</b>	2	0
Lead	ppm	ASTM D5185m >40	<b>1</b>	<1	<1
Copper	ppm	ASTM D5185m >330	<b>2</b>	3	2
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>	<1	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>3</b>	<1	0
Barium	ppm	ASTM D5185m 0	<b>0</b>	8	<1
Molybdenum	ppm	ASTM D5185m 60	<b>56</b>	64	60
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m 1010	<b>903</b>	1002	897
Calcium	ppm	ASTM D5185m 1070	<b>968</b>	1133	1036
Phosphorus	ppm	ASTM D5185m 1150	<b>955</b>	954	949
Zinc	ppm	ASTM D5185m 1270	<b>1202</b>	1261	1183
Sulfur	ppm	ASTM D5185m 2060	<b>2729</b>	2844	2663

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>3</b>	5	3
Sodium	ppm	ASTM D5185m	<b>3</b>	0	0
Potassium	ppm	ASTM D5185m >20	<b>2</b>	6	6

## INFRA-RED

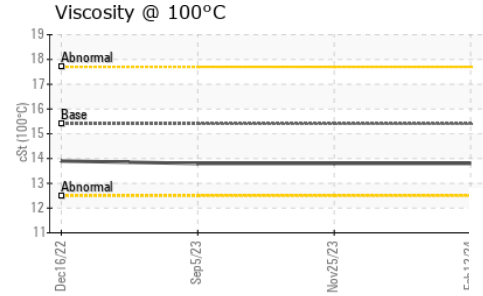
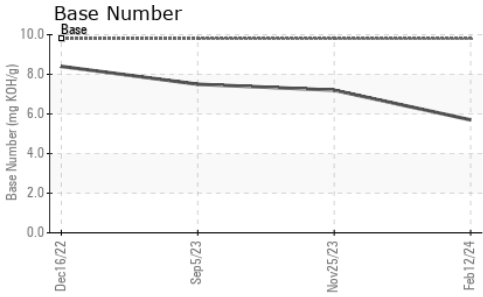
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >4	<b>0.5</b>	0.6	0.6
Nitration	Abs/cm	*ASTM D7624 >20	<b>7.2</b>	8.6	8.2
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>18.2</b>	20.1	19.6

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>14.6</b>	16.8	15.9
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>5.7</b>	7.2	7.5



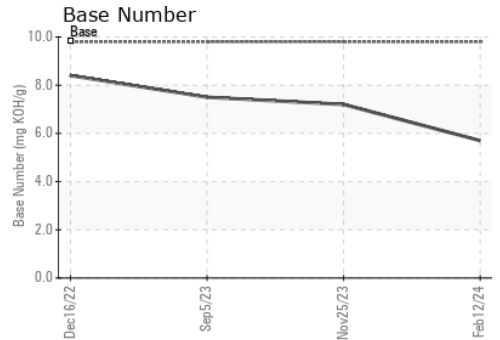
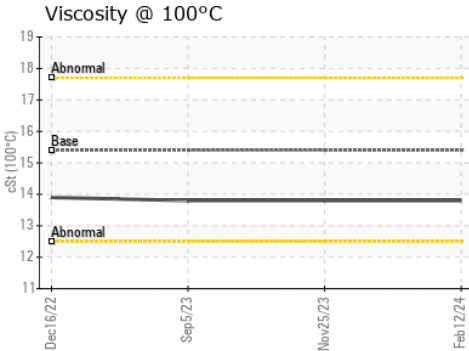
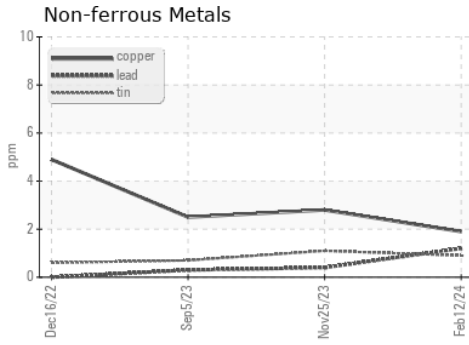
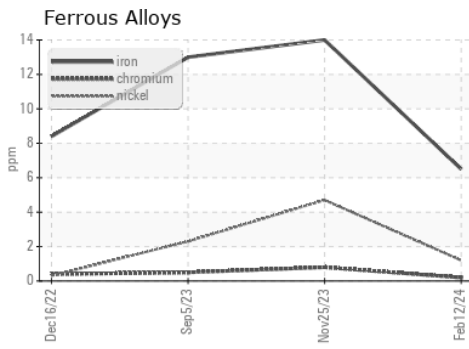
# OIL ANALYSIS REPORT



PARAMETER	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>13.8</b>	13.8

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0098080  
**Lab Number** : 06091455  
**Unique Number** : 10884308  
**Test Package** : FLEET

**Received** : 16 Feb 2024  
**Tested** : 16 Feb 2024  
**Diagnosed** : 16 Feb 2024 - Wes Davis

**GFL Environmental - 932 - Muskego HC**  
 W144 S6400 College Ct.  
 Muskego, WI  
 US 53150

Contact: Brian Schlomann  
 brian.schlomann@gflenv.com  
 T: (262)510-4586

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)

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