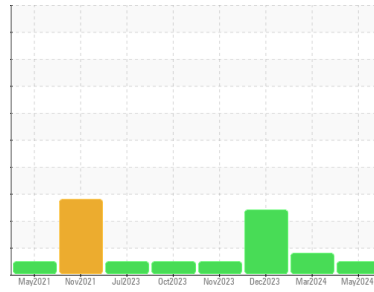




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**4709M**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (5 GAL)**

## DIAGNOSIS

### Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

Fuel content negligible. 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>GFL0115135</b>	GFL0115017	GFL0101484
Sample Date	Client Info		<b>16 May 2024</b>	03 Mar 2024	04 Dec 2023
Machine Age	hrs	Client Info	<b>13404</b>	12809	12084
Oil Age	hrs	Client Info	<b>595</b>	725	11918
Oil Changed	Client Info		<b>Changed</b>	Changed	Not Chngd
Sample Status			<b>NORMAL</b>	ABNORMAL	SEVERE

## CONTAMINATION

	method	limit/base	current	history1	history2
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>12</b>	15	15
Chromium	ppm	ASTM D5185m >5	<b>0</b>	<1	<1
Nickel	ppm	ASTM D5185m >4	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m >2	<b>0</b>	<1	0
Silver	ppm	ASTM D5185m >2	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m >15	<b>3</b>	3	2
Lead	ppm	ASTM D5185m >25	<b>&lt;1</b>	<1	1
Copper	ppm	ASTM D5185m >100	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185m >4	<b>&lt;1</b>	0	0
Vanadium	ppm	ASTM D5185m	<b>0</b>	<1	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>2</b>	1	7
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	2
Molybdenum	ppm	ASTM D5185m 60	<b>58</b>	59	57
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	0	0
Magnesium	ppm	ASTM D5185m 1010	<b>982</b>	974	861
Calcium	ppm	ASTM D5185m 1070	<b>1041</b>	1075	1032
Phosphorus	ppm	ASTM D5185m 1150	<b>987</b>	1003	901
Zinc	ppm	ASTM D5185m 1270	<b>1312</b>	1266	1133
Sulfur	ppm	ASTM D5185m 2060	<b>3354</b>	3065	2918

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>6</b>	5	4
Sodium	ppm	ASTM D5185m	<b>6</b>	4	18
Potassium	ppm	ASTM D5185m >20	<b>1</b>	3	4
Fuel	%	ASTM D3524 >3.0	<b>0.5</b>	▲ 4.1	▲ 9.6

## INFRA-RED

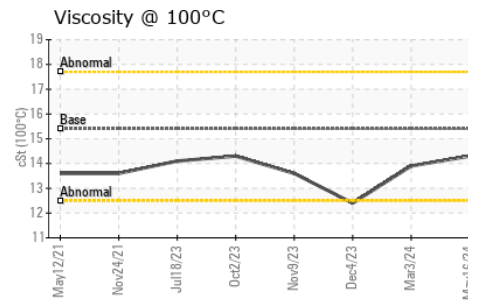
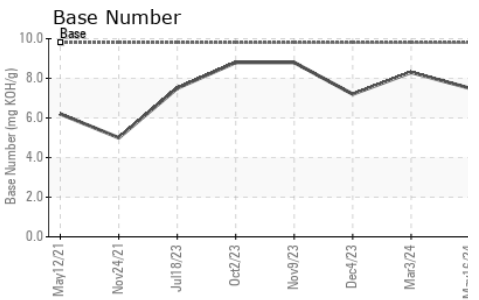
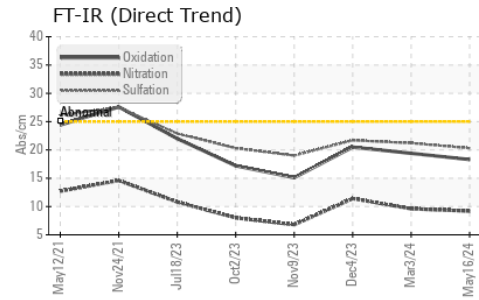
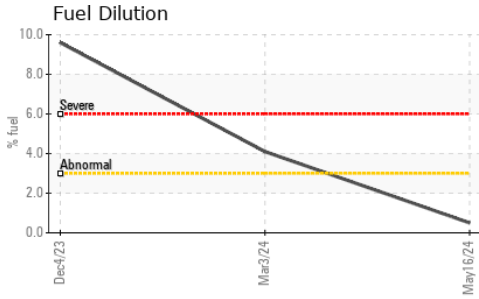
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >6	<b>0.4</b>	0.2	0.3
Nitration	Abs/cm	*ASTM D7624 >20	<b>9.2</b>	9.6	11.4
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>20.3</b>	21.2	21.7

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>18.3</b>	19.4	20.5
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>7.5</b>	8.3	7.2



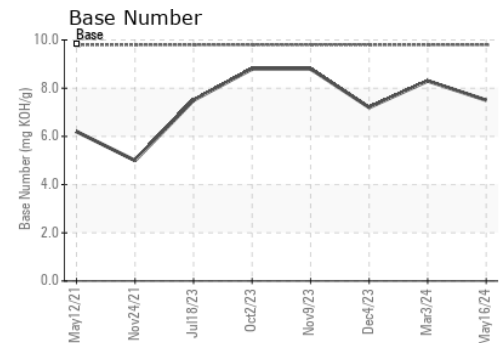
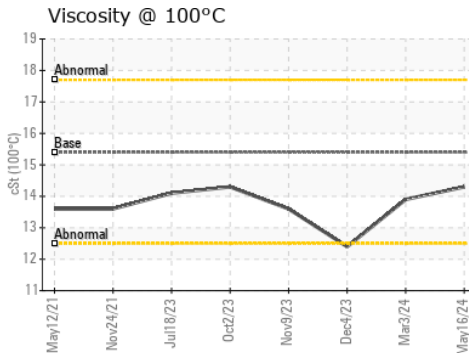
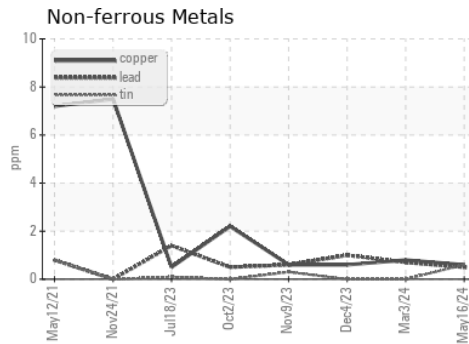
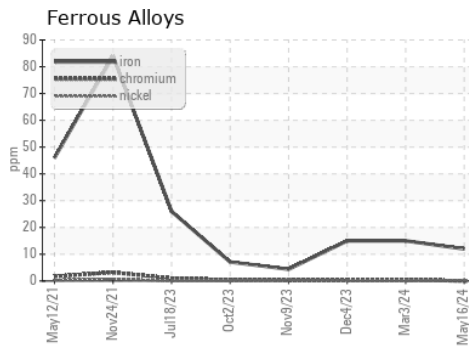
# OIL ANALYSIS REPORT



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>	13.9 ▲ 12.4

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0115135      **Received** : 24 May 2024  
**Lab Number** : 06190219      **Tested** : 30 May 2024  
**Unique Number** : 11046971      **Diagnosed** : 30 May 2024 - Wes Davis  
**Test Package** : FLEET ( Additional Tests: PercentFuel )

**GFL Environmental - 405 - Arbor Hills**  
 7811 Chubb Rd  
 NORTHVILLE, MI  
 US 48168

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)

Contact: Anthony Hopkins  
ahopkins@gflenv.com

T:  
F: