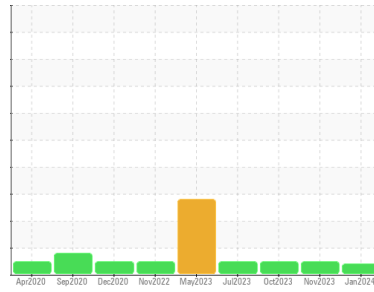




# OIL ANALYSIS REPORT

Sample Rating Trend



## VISCOSITY



Machine Id  
**920093-260372**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON UHP 5W30 (--- 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 oil viscosity is higher than normal. The BN result indicates that there is suitable alkalinity remaining in the oil.

### SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>GFL0102442</b>	GFL0102554	GFL0093693
Sample Date	Client Info		<b>04 Jan 2024</b>	30 Nov 2023	17 Oct 2023
Machine Age	hrs	Client Info	<b>8935</b>	8793	8534
Oil Age	hrs	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>Not Chngd</b>	N/A	Changed
Sample Status			<b>ATTENTION</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>8</b>	6	8
Chromium	ppm	ASTM D5185m >20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m >4	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m >3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >20	<b>2</b>	3	2
Lead	ppm	ASTM D5185m >40	<b>0</b>	0	0
Copper	ppm	ASTM D5185m >330	<b>&lt;1</b>	0	3
Tin	ppm	ASTM D5185m >15	<b>&lt;1</b>	0	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>1</b>	<1	2
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 64	<b>55</b>	68	61
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185m 1160	<b>888</b>	1086	990
Calcium	ppm	ASTM D5185m 820	<b>987</b>	1149	1104
Phosphorus	ppm	ASTM D5185m 1160	<b>1007</b>	1112	1041
Zinc	ppm	ASTM D5185m 1260	<b>1143</b>	1382	1298
Sulfur	ppm	ASTM D5185m 3000	<b>3153</b>	3380	3085

### CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>3</b>	5	3
Sodium	ppm	ASTM D5185m	<b>2</b>	5	6
Potassium	ppm	ASTM D5185m >20	<b>4</b>	3	3

### INFRA-RED

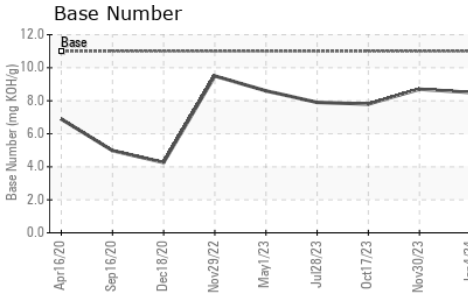
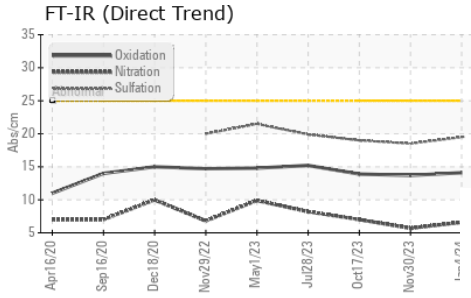
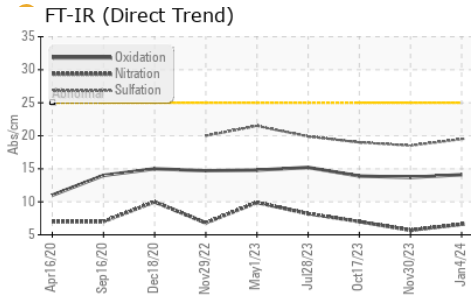
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.7</b>	0.5	0.7
Nitration	Abs/cm	*ASTM D7624 >20	<b>6.6</b>	5.7	7.0
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>19.5</b>	18.5	19.0

### FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>14.1</b>	13.7	13.9
Base Number (BN)	mg KOH/g	ASTM D2896 11.0	<b>8.5</b>	8.7	7.8



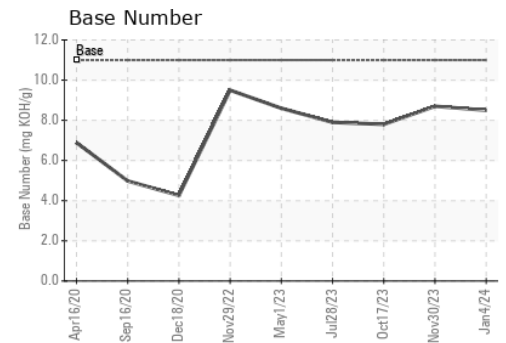
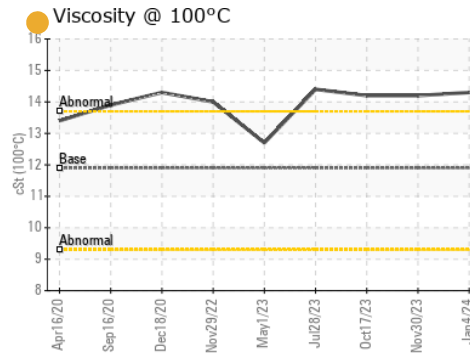
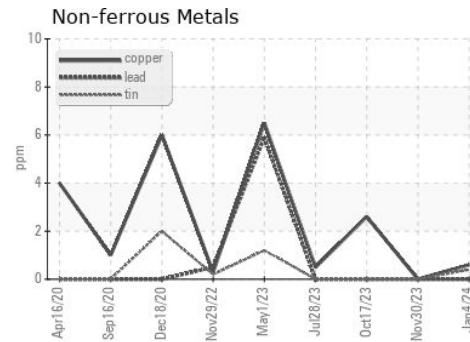
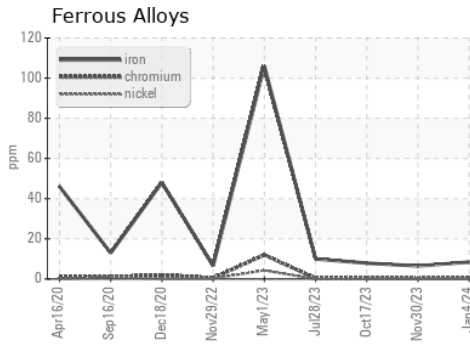
# OIL ANALYSIS REPORT



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	11.9	14.3	14.2

## GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : GFL0102442  
 Lab Number : 06058638  
 Unique Number : 10830020  
 Test Package : FLEET

Received : 11 Jan 2024  
 Tested : 12 Jan 2024  
 Diagnosed : 14 Jan 2024 - Don Baldrige

GFL Environmental - 837 - Harrison TS  
 22820 S State Route 291  
 Harrisonville, MO  
 US 64701  
 Contact: SARA PATRICK  
 spatrack@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)