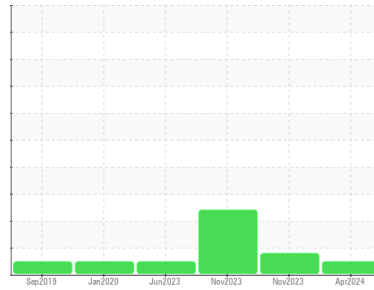




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**7116**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (19 LTR)**

## DIAGNOSIS

### Recommendation

Confirm the source of the lubricant being utilized for top-up/fill. 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

Additive levels indicate the addition of a different brand, or type of oil. The condition of the oil is acceptable for the time in service.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>GFL0117889</b>	WC0875068	WC0875066
Sample Date	Client Info		<b>25 Apr 2024</b>	16 Nov 2023	10 Nov 2023
Machine Age	hrs	Client Info	<b>15359</b>	14419	216538
Oil Age	hrs	Client Info	<b>600</b>	25	0
Oil Changed	Client Info		<b>Changed</b>	Not Changd	Changed
Sample Status			<b>NORMAL</b>	MARGINAL	SEVERE

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>3.0	<b>&lt;1.0</b>	▲ 1.8	▲ 9.2
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 D5185(m)	>75	<b>30</b>	5	25
Chromium	ppm	ASTM D5185(m)	>5	<b>&lt;1</b>	0	1
Nickel	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185(m)	>2	<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>2	<b>0</b>	<1	<1
Aluminum	ppm	ASTM D5185(m)	>15	<b>6</b>	3	8
Lead	ppm	ASTM D5185(m)	>25	<b>&lt;1</b>	0	<1
Copper	ppm	ASTM D5185(m)	>100	<b>1</b>	<1	1
Tin	ppm	ASTM D5185(m)	>4	<b>0</b>	0	0
Antimony	ppm	ASTM D5185(m)		<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Beryllium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185(m)		<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)	0	<b>110</b>	367	5
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	<1	<1
Molybdenum	ppm	ASTM D5185(m)	60	<b>83</b>	81	59
Manganese	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	0	0
Magnesium	ppm	ASTM D5185(m)	1010	<b>571</b>	415	916
Calcium	ppm	ASTM D5185(m)	1070	<b>1362</b>	1280	993
Phosphorus	ppm	ASTM D5185(m)	1150	<b>1058</b>	994	986
Zinc	ppm	ASTM D5185(m)	1270	<b>1278</b>	1164	1151
Sulfur	ppm	ASTM D5185(m)	2060	<b>2497</b>	2653	2327
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1

## CONTAMINANTS

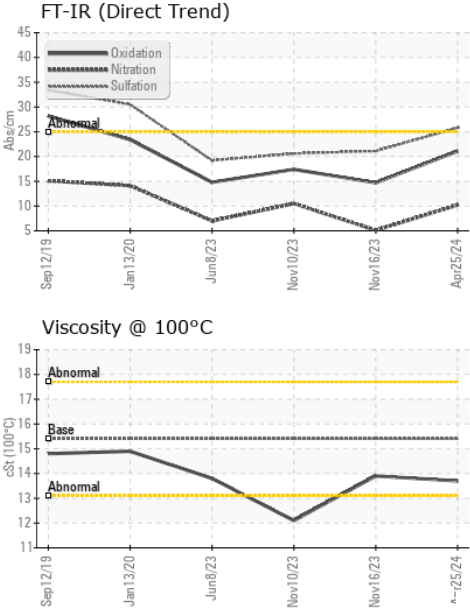
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>25	<b>6</b>	6	5
Sodium	ppm	ASTM D5185(m)		<b>16</b>	5	19
Potassium	ppm	ASTM D5185(m)	>20	<b>4</b>	<1	4

## INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>6	<b>0.7</b>	0	0.7
Nitration	Abs/cm	ASTM D7624*	>20	<b>10.2</b>	5.1	10.5
Sulfation	Abs./1mm	ASTM D7415*	>30	<b>25.8</b>	21.1	20.6



# OIL ANALYSIS REPORT

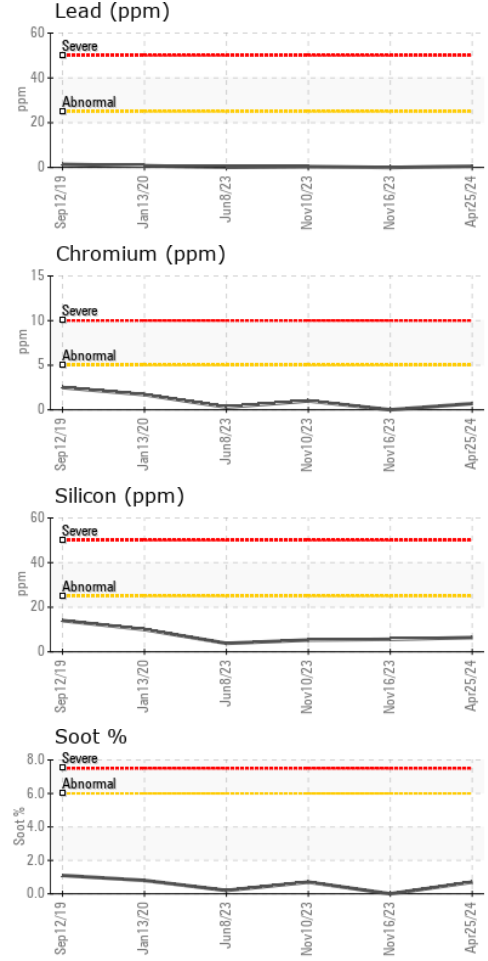
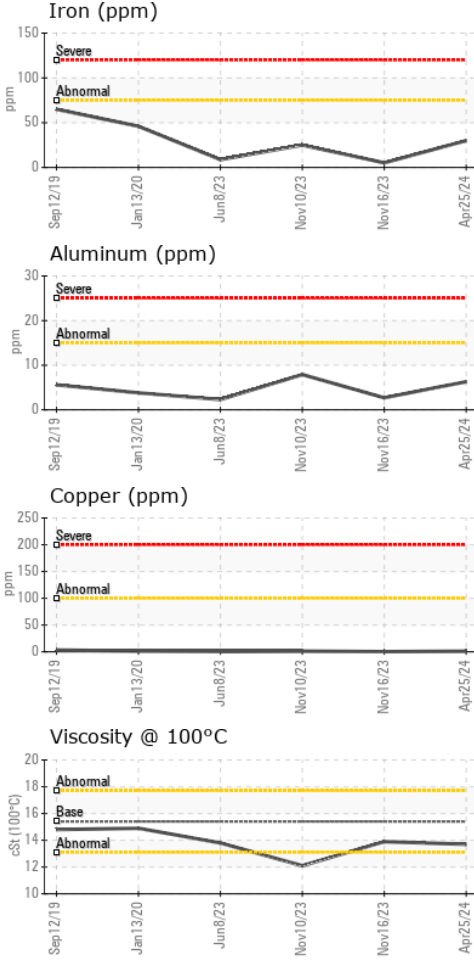


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	<b>21.1</b>	14.7	17.4

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Precipitate	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Silt	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Debris	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Appearance	scalar	Visual*	NORML	<b>NORML</b>	NORML	---
Odor	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	NEG
Free Water	scalar	Visual*		<b>NEG</b>	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	<b>13.7</b>	13.9	▲ 12.1

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0117889      **Received** : 30 Apr 2024  
**Lab Number** : **02632215**      **Tested** : 30 Apr 2024  
**Unique Number** : 5773368      **Diagnosed** : 30 Apr 2024 - Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: Visual )

**GFL Environmental - 217 - Aurora**  
 14131 BAYVIEW AVE, AURORA YARD  
 AURORA, ON  
 CA L4G 0K6  
 Contact: Mike Havens  
 MHavens@gflenv.com

To discuss this sample report, contact Customer Service at 1-800-268-2131.  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.  
 Validity of results and interpretation are based on the sample and information as supplied.

T:  
 F: (905)713-2445