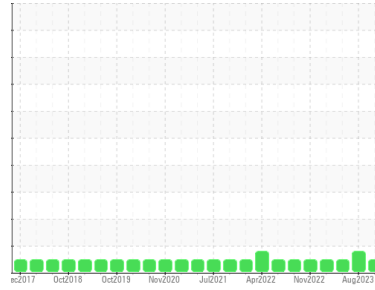




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
701039

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

Metal levels are typical for a new component breaking in.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		GFL0097458	GFL0085691	GFL0077309
Sample Date	Client Info		13 Nov 2023	17 Aug 2023	19 May 2023
Machine Age	hrs	Client Info	416	0	416
Oil Age	hrs	Client Info	416	0	416
Oil Changed	Client Info		Changed	N/A	Changed
Sample Status			NORMAL	MARGINAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<1.0	▲ 4	<1.0
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>100	12	15	9
Chromium	ppm	ASTM D5185(m)	>20	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>4	0	<1	<1
Titanium	ppm	ASTM D5185(m)		0	0	<1
Silver	ppm	ASTM D5185(m)	>3	<1	<1	0
Aluminum	ppm	ASTM D5185(m)	>20	1	2	1
Lead	ppm	ASTM D5185(m)	>40	0	<1	0
Copper	ppm	ASTM D5185(m)	>330	1	1	<1
Tin	ppm	ASTM D5185(m)	>15	0	0	<1
Antimony	ppm	ASTM D5185(m)		0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
Beryllium	ppm	ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(m)		0	0	0

ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)	0	2	3	2
Barium	ppm	ASTM D5185(m)	0	<1	0	0
Molybdenum	ppm	ASTM D5185(m)	60	57	57	56
Manganese	ppm	ASTM D5185(m)	0	0	<1	<1
Magnesium	ppm	ASTM D5185(m)	1010	928	916	926
Calcium	ppm	ASTM D5185(m)	1070	1020	1015	1049
Phosphorus	ppm	ASTM D5185(m)	1150	953	1002	1034
Zinc	ppm	ASTM D5185(m)	1270	1174	1152	1142
Sulfur	ppm	ASTM D5185(m)	2060	2350	2368	2478
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>25	5	4	3
Sodium	ppm	ASTM D5185(m)		2	1	1
Potassium	ppm	ASTM D5185(m)	>20	<1	1	<1

INFRA-RED

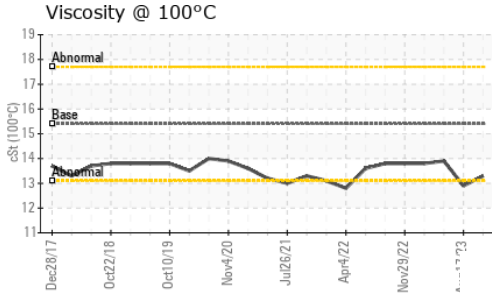
	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>3	0.3	0.3	0.2
Nitration	Abs/cm	ASTM D7624*	>20	9.9	9.5	8.9
Sulfation	Abs/.1mm	ASTM D7415*	>30	21.2	20.9	19.4

FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	ASTM D7414*	>25	17.7	16.2	16.1



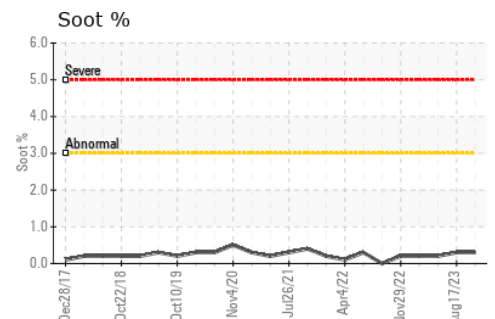
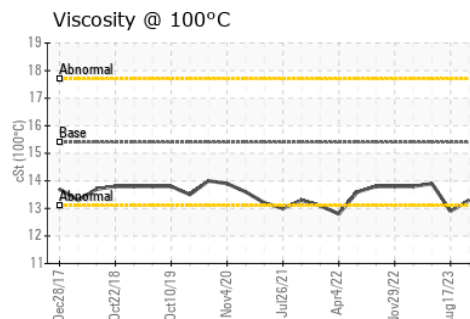
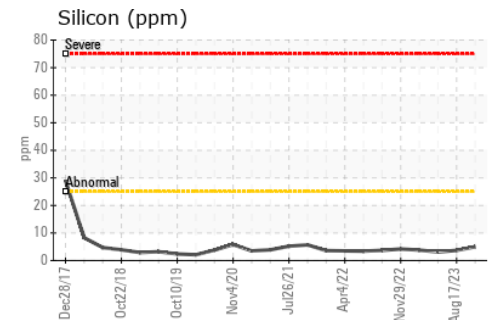
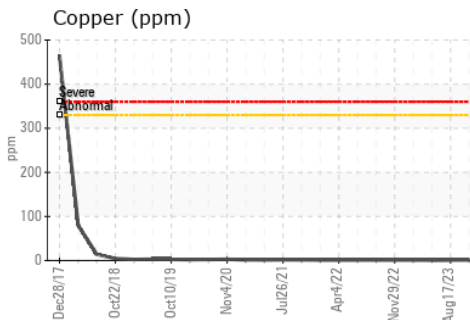
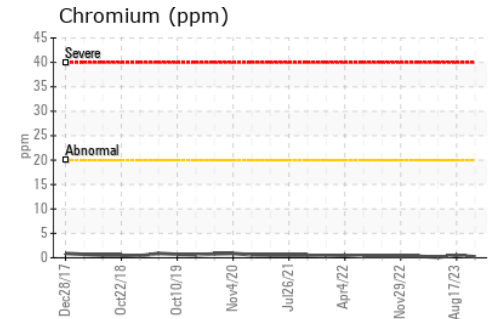
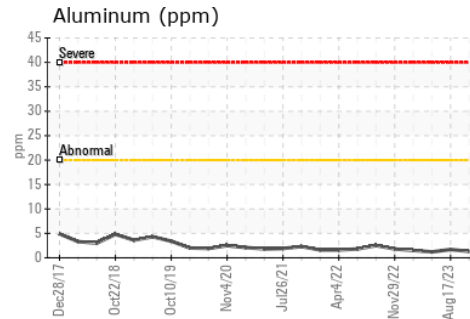
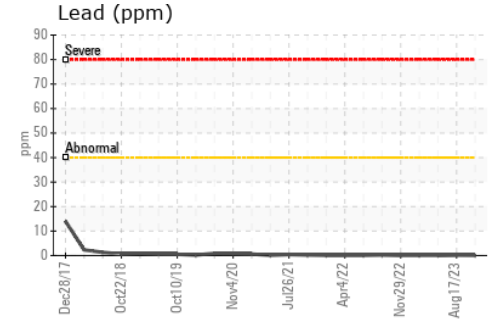
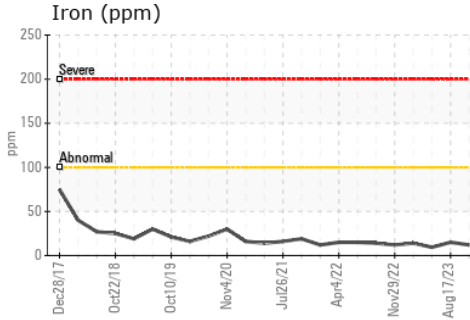
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
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 D7279(m)	15.4	13.3	12.9

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **GFL Environmental - 221 - Windsor**
Sample No. : GFL0097458 **Received** : 16 Nov 2023 905 Tecumseh Road W
Lab Number : 02596730 **Diagnosed** : 16 Nov 2023 Windsor, ON
Unique Number : 5681810 **Diagnostician** : Wes Davis CA N8W 4J5
Test Package : MOB 1 **Contact:** Rhys Marotte
 rmarotte@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.

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F: