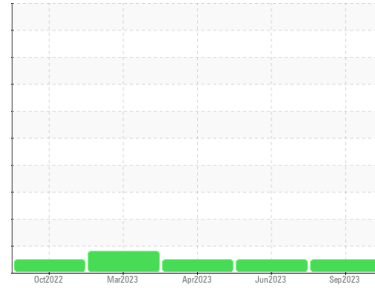




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
910038

Component
Diesel Engine

Fluid
PETRO CANADA DIESELTONIC 15W40 (--- GAL)

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		GFL0094223	GFL0086504	GFL0077228
Sample Date	Client Info		07 Sep 2023	07 Jun 2023	20 Apr 2023
Machine Age	hrs	Client Info	6764	6764	5277
Oil Age	hrs	Client Info	0	0	5277
Oil Changed	Client Info		Changed	Not Changd	N/A
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

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

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>100	12	3	6
Chromium	ppm	ASTM D5185(m)	>20	<1	0	<1
Nickel	ppm	ASTM D5185(m)	>4	4	<1	2
Titanium	ppm	ASTM D5185(m)		0	<1	<1
Silver	ppm	ASTM D5185(m)	>3	<1	0	0
Aluminum	ppm	ASTM D5185(m)	>20	2	<1	2
Lead	ppm	ASTM D5185(m)	>40	2	0	<1
Copper	ppm	ASTM D5185(m)	>330	11	<1	1
Tin	ppm	ASTM D5185(m)	>15	<1	0	<1
Antimony	ppm	ASTM D5185(m)		0	<1	<1
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)	222	3	4	7
Barium	ppm	ASTM D5185(m)		0	0	0
Molybdenum	ppm	ASTM D5185(m)	0	61	57	59
Manganese	ppm	ASTM D5185(m)		<1	<1	<1
Magnesium	ppm	ASTM D5185(m)	9.0	998	935	952
Calcium	ppm	ASTM D5185(m)	1256	1084	1080	1119
Phosphorus	ppm	ASTM D5185(m)	642	1015	1086	1077
Zinc	ppm	ASTM D5185(m)	666	1212	1153	1200
Sulfur	ppm	ASTM D5185(m)		2227	2667	2651
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>25	4	5	4
Sodium	ppm	ASTM D5185(m)		5	1	3
Potassium	ppm	ASTM D5185(m)	>20	2	<1	0

INFRA-RED

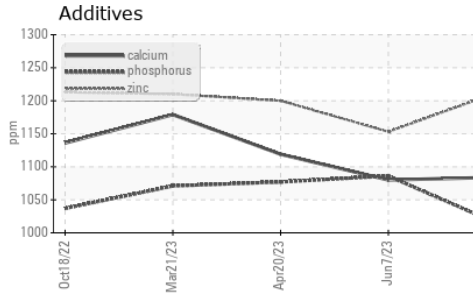
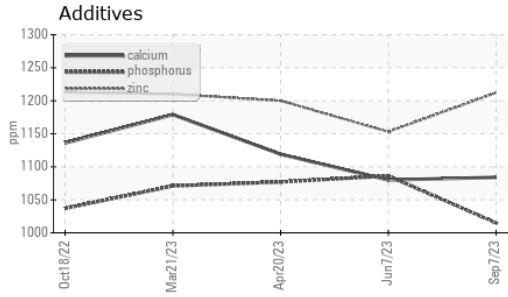
	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>3	0.4	0	0.1
Nitration	Abs/cm	ASTM D7624*	>20	8.3	4.7	6.0
Sulfation	Abs/.1mm	ASTM D7415*	>30	19.9	18.0	18.7

FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	ASTM D7414*	>25	16.0	13.2	14.1



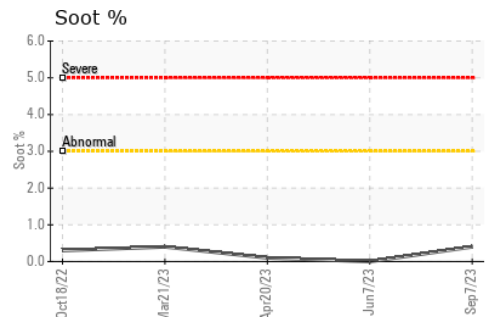
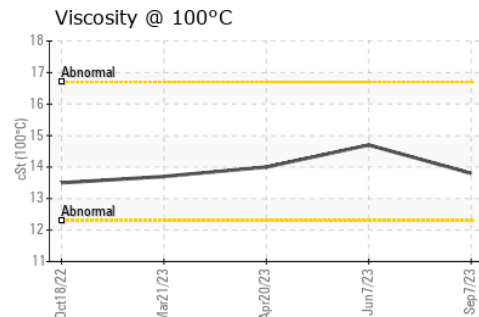
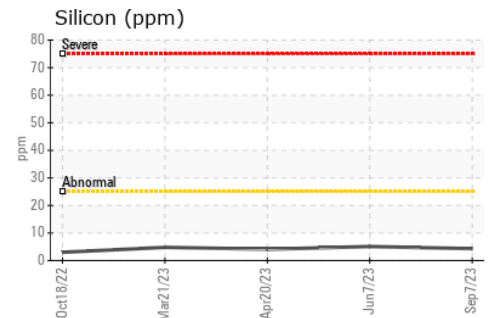
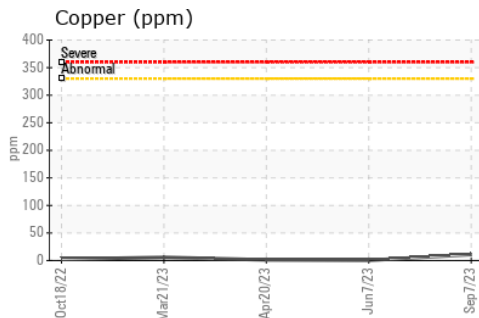
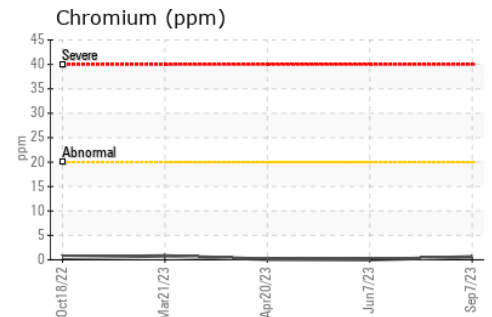
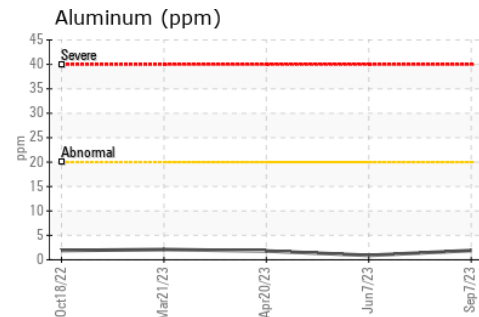
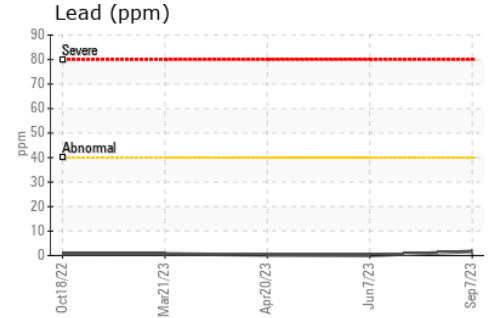
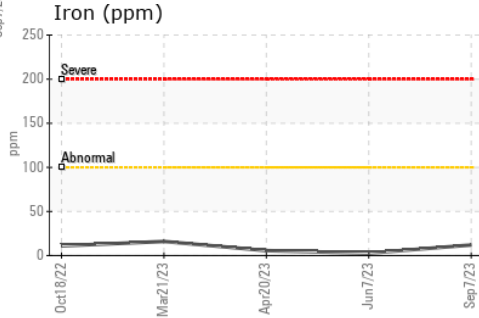
OIL ANALYSIS REPORT



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)	13.8	14.7	14.0

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0094223
Lab Number : 02581667
Unique Number : 5642732
Test Package : MOB 1

GFL Environmental - 217 - Aurora
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 AURORA, ON
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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.