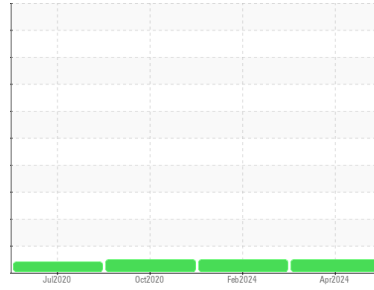




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id

501021

Component

Diesel Engine

Fluid

PETRO CANADA DURON SHP 10W30 (--- 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 condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		GFL0108216	GFL0108235	GFL0011121
Sample Date	Client Info		16 Apr 2024	02 Feb 2024	20 Oct 2020
Machine Age	hrs	Client Info	22890	22412	15358
Oil Age	hrs	Client Info	478	600	600
Oil Changed	Client Info		N/A	Changed	Changed
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>2.0	<1.0	<1.0	<1.0
Water	WC Method	>0.2	NEG	NEG	NEG
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>100	20	19	12
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	0
Silver	ppm	ASTM D5185(m)	>3	0	0	<1
Aluminum	ppm	ASTM D5185(m)	>20	2	2	1
Lead	ppm	ASTM D5185(m)	>40	1	3	2
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	<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)	2	1	1	2
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	50	62	61	59
Manganese	ppm	ASTM D5185(m)	0	<1	0	<1
Magnesium	ppm	ASTM D5185(m)	950	1028	999	979
Calcium	ppm	ASTM D5185(m)	1050	1111	1106	1047
Phosphorus	ppm	ASTM D5185(m)	995	1035	1039	1012
Zinc	ppm	ASTM D5185(m)	1180	1239	1231	1269
Sulfur	ppm	ASTM D5185(m)	2600	2530	2657	2639
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

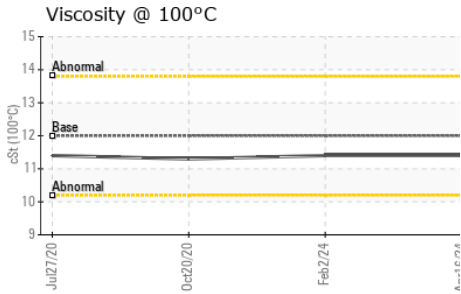
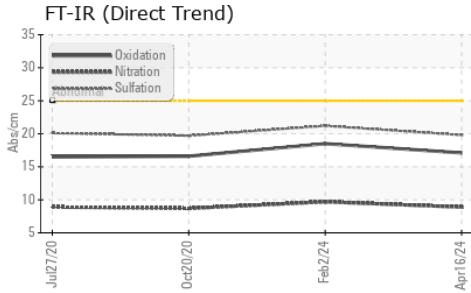
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>25	9	6	5
Sodium	ppm	ASTM D5185(m)		2	2	3
Potassium	ppm	ASTM D5185(m)	>20	<1	1	<1

INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>3	0.2	0.3	0.4
Nitration	Abs/cm	ASTM D7624*	>20	8.9	9.7	8.7
Sulfation	Abs.1mm	ASTM D7415*	>30	19.8	21.2	19.7



OIL ANALYSIS REPORT



FLUID DEGRADATION

Method	Limit/Base	Current	History1	History2	
Oxidation	Abs.:1mm ASTM D7414*	>25	17.1	18.5	16.6

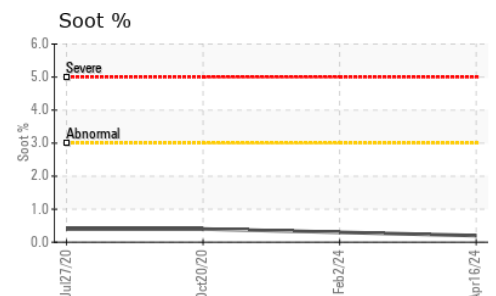
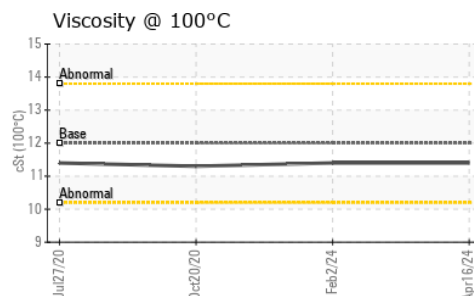
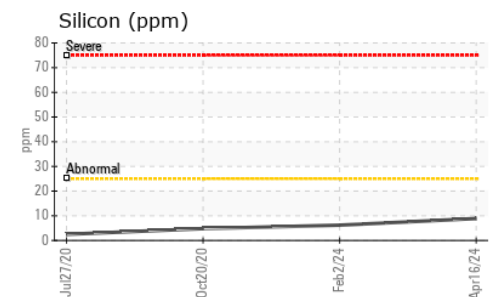
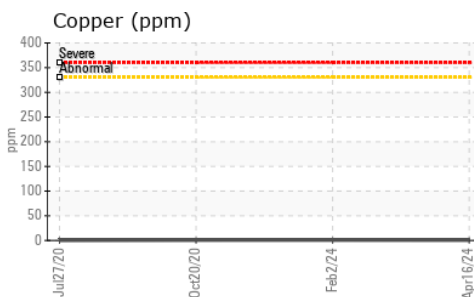
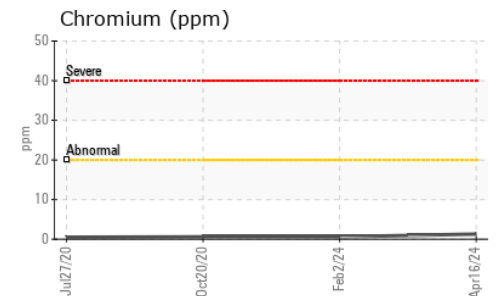
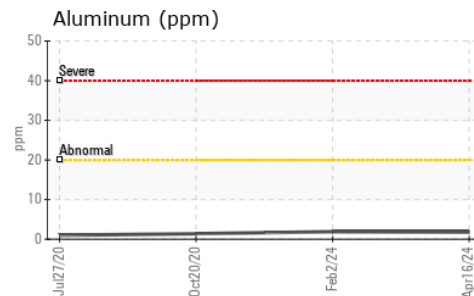
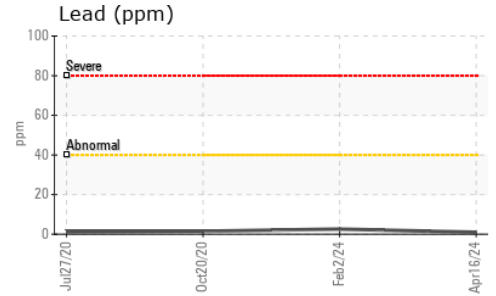
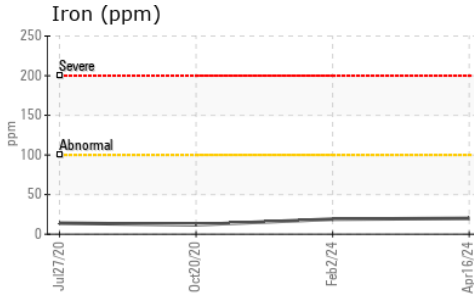
VISUAL

Method	Limit/Base	Current	History1	History2	
Emulsified Water	scalar Visual*	>0.2	NEG	NEG	NEG
Free Water	scalar Visual*		NEG	NEG	NEG

FLUID PROPERTIES

Method	Limit/Base	Current	History1	History2	
Visc @ 100°C	cSt ASTM D7279(m)	12.00	11.4	11.4	11.3

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0108216
Lab Number : 02631099
Unique Number : 5772252
Test Package : MOB 1
Received : 24 Apr 2024
Tested : 24 Apr 2024
Diagnosed : 24 Apr 2024 - Wes Davis

GFL Environmental - 355 - Saskatoon
 100 Cory Road
 Saskatoon, SK
 CA S7K 3J7
 Contact: Ryan Polichuk
 rpolichuk@gflenv.com
 T: (306)244-9500
 F:

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.