



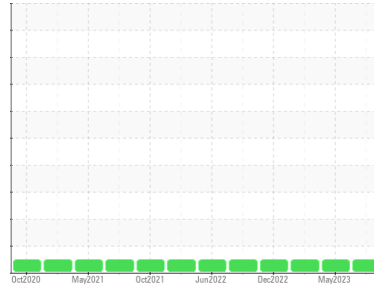
OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
429008
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 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		GFL0053571	GFL0082544	GFL0078519
Sample Date	Client Info		27 Sep 2023	19 May 2023	25 Apr 2023
Machine Age	hrs	Client Info	0	118345	6469
Oil Age	hrs	Client Info	7167	0	5906
Oil Changed		Client Info	N/A	N/A	N/A
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>3.0	<1.0	<1.0	<1.0

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >120	6	2	6
Chromium	ppm	ASTM D5185(m) >20	0	0	0
Nickel	ppm	ASTM D5185(m) >5	0	0	<1
Titanium	ppm	ASTM D5185(m) >2	0	<1	<1
Silver	ppm	ASTM D5185(m) >2	<1	<1	0
Aluminum	ppm	ASTM D5185(m) >20	1	1	2
Lead	ppm	ASTM D5185(m) >40	<1	0	<1
Copper	ppm	ASTM D5185(m) >330	2	<1	3
Tin	ppm	ASTM D5185(m) >15	0	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) 0	107	5	5
Barium	ppm	ASTM D5185(m) 0	<1	0	0
Molybdenum	ppm	ASTM D5185(m) 60	9	57	58
Manganese	ppm	ASTM D5185(m) 0	0	<1	<1
Magnesium	ppm	ASTM D5185(m) 1010	127	920	944
Calcium	ppm	ASTM D5185(m) 1070	1995	1079	1109
Phosphorus	ppm	ASTM D5185(m) 1150	921	1058	1081
Zinc	ppm	ASTM D5185(m) 1270	1135	1145	1182
Sulfur	ppm	ASTM D5185(m) 2060	2727	2658	2656
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >25	2	2	2
Sodium	ppm	ASTM D5185(m)	5	2	2
Potassium	ppm	ASTM D5185(m) >20	6	1	3
Glycol	%	ASTM D7922*	0.0	NEG	NEG

INFRA-RED

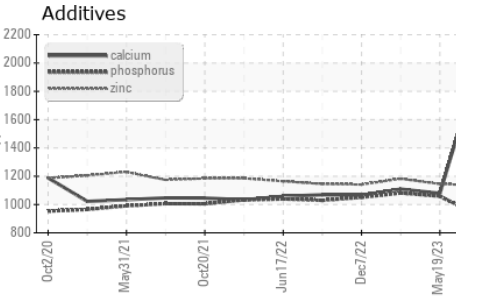
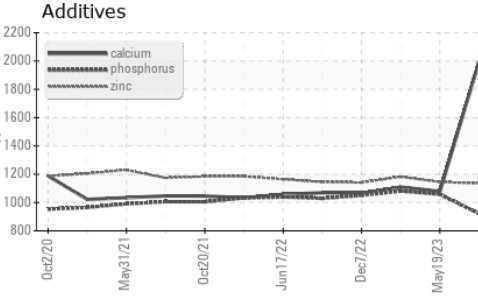
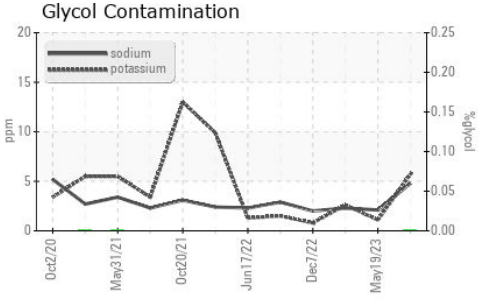
	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844* >4	0.1	0	0.1
Nitration	Abs/cm	ASTM D7624* >20	7.7	5.0	7.0
Sulfation	Abs/.1mm	ASTM D7415* >30	20.7	17.8	18.1

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414* >25	16.1	13.5	14.1



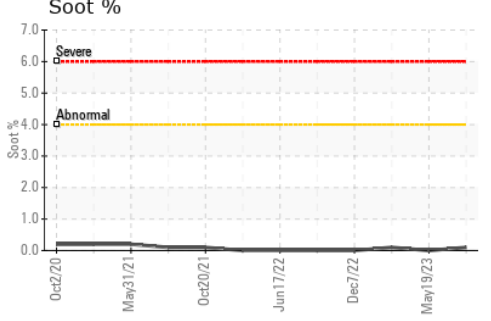
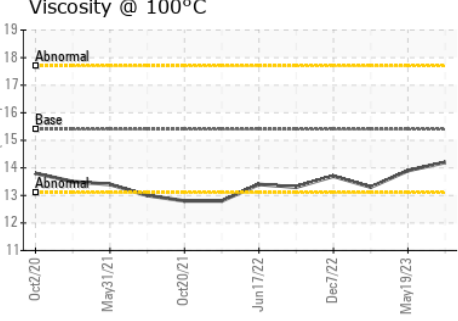
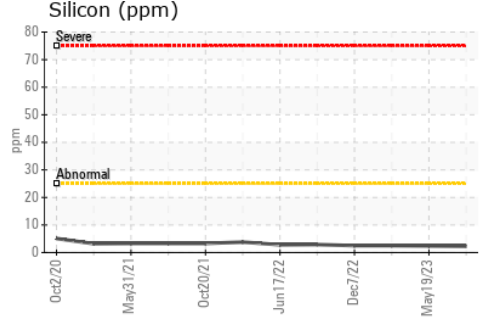
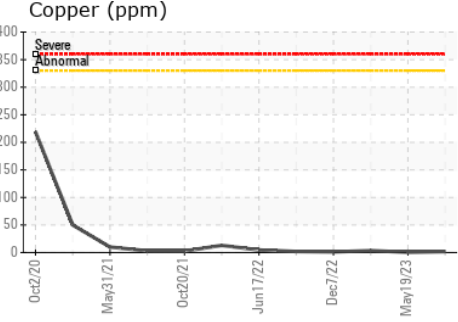
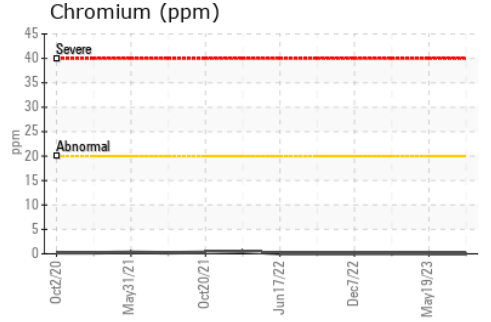
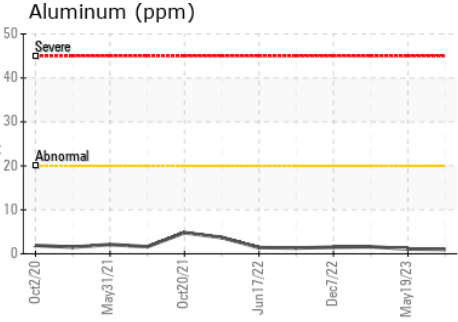
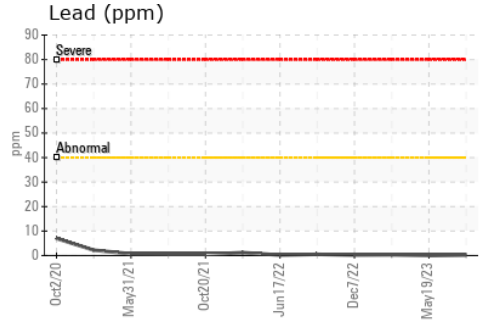
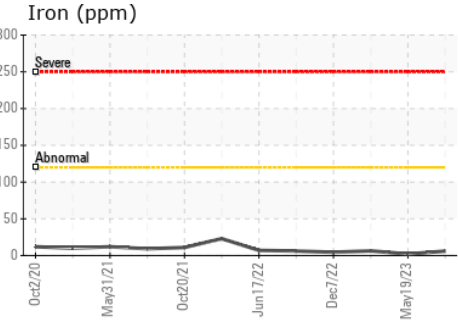
OIL ANALYSIS REPORT



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)	15.4	14.2	13.9

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0053571
Lab Number : 02585729
Unique Number : 5646794
Test Package : MOB 1 (Additional Tests: Glycol)
Received : 28 Sep 2023
Diagnosed : 28 Sep 2023
Diagnostician : Kevin Marson
 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.

GFL Environmental - 246 - Windsor
 2700 Deziel Dr
 Windsor, ON
 CA N8W 5H8
 Contact: Dave Varga
 dvarga@gflenv.com
 T: (519)944-8009
 F: