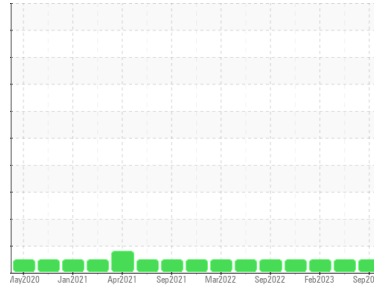




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
727009
 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		GFL0090859	GFL0078501	GFL0071296
Sample Date	Client Info		18 Sep 2023	12 Jul 2023	08 Feb 2023
Machine Age	hrs	Client Info	0	0	15182
Oil Age	hrs	Client Info	16598	252250	553
Oil Changed		Client Info	N/A	N/A	Changed
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>3.0	<1.0	<1.0	1.7

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >120	4	7	6
Chromium	ppm	ASTM D5185(m) >20	0	0	0
Nickel	ppm	ASTM D5185(m) >5	<1	<1	1
Titanium	ppm	ASTM D5185(m) >2	0	<1	<1
Silver	ppm	ASTM D5185(m) >2	0	0	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	2
Tin	ppm	ASTM D5185(m) >15	0	<1	<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) 0	86	58	3
Barium	ppm	ASTM D5185(m) 0	0	0	0
Molybdenum	ppm	ASTM D5185(m) 60	2	11	58
Manganese	ppm	ASTM D5185(m) 0	0	<1	<1
Magnesium	ppm	ASTM D5185(m) 1010	29	96	938
Calcium	ppm	ASTM D5185(m) 1070	2096	2032	1129
Phosphorus	ppm	ASTM D5185(m) 1150	966	957	1029
Zinc	ppm	ASTM D5185(m) 1270	1110	1179	1199
Sulfur	ppm	ASTM D5185(m) 2060	2683	2558	2461
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >25	3	4	3
Sodium	ppm	ASTM D5185(m)	4	9	4
Potassium	ppm	ASTM D5185(m) >20	6	5	0
Glycol	%	ASTM D7922*	0.0	NEG	NEG

INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844* >4	0.1	0.3	0.1
Nitration	Abs/cm	ASTM D7624* >20	8.1	8.6	8.2
Sulfation	Abs/.1mm	ASTM D7415* >30	21.6	24.6	20.3

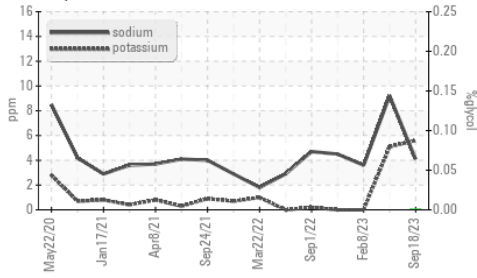
FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414* >25	17.1	19.9	15.4

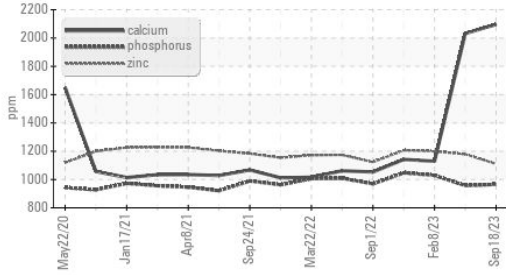


OIL ANALYSIS REPORT

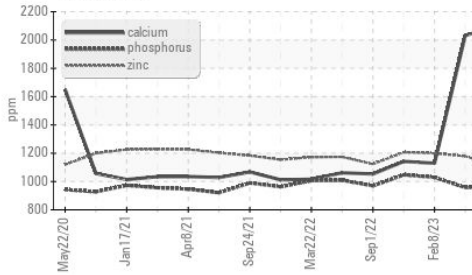
Glycol Contamination



Additives



Additives

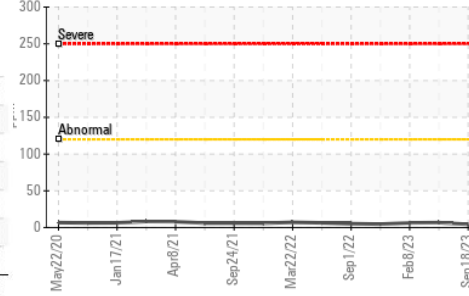


VISUAL	method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG

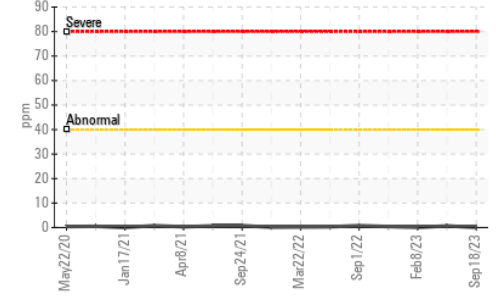
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	13.9	13.6

GRAPHS

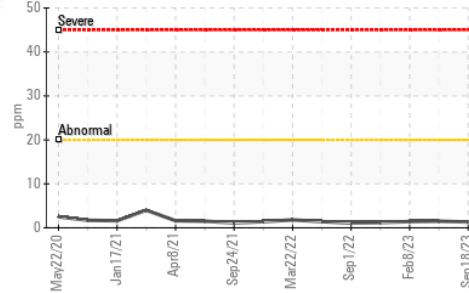
Iron (ppm)



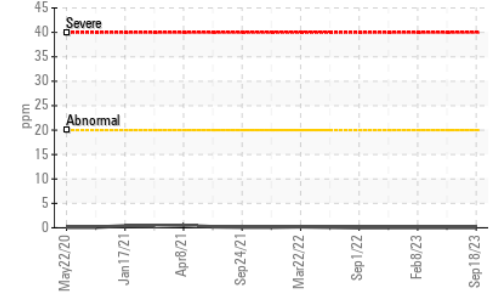
Lead (ppm)



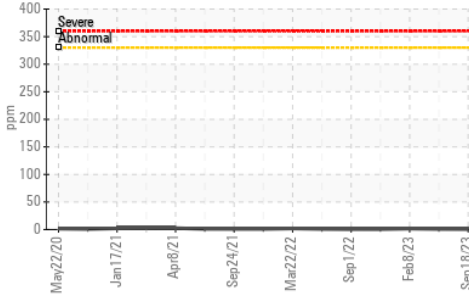
Aluminum (ppm)



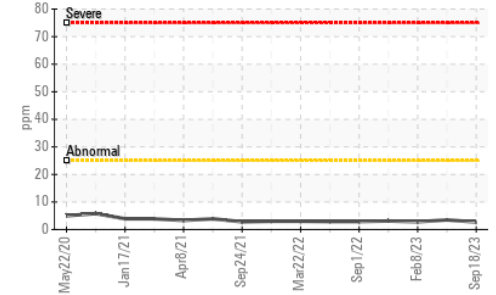
Chromium (ppm)



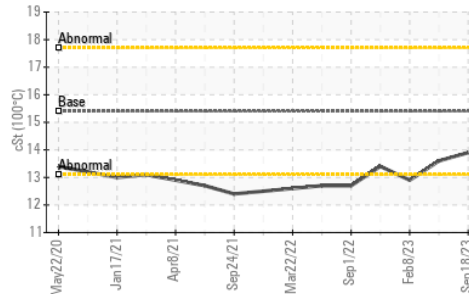
Copper (ppm)



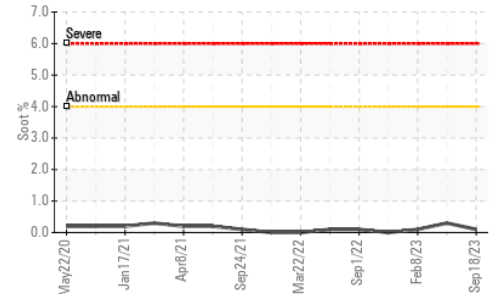
Silicon (ppm)



Viscosity @ 100°C



Soot %



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **GFL Environmental - 246 - Windsor**
Sample No. : GFL0090859 **Received** : 19 Sep 2023
Lab Number : 02583517 **Diagnosed** : 19 Sep 2023
Unique Number : 5644582 **Diagnostician** : Wes Davis
Test Package : MOB 1 (Additional Tests: Glycol)

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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