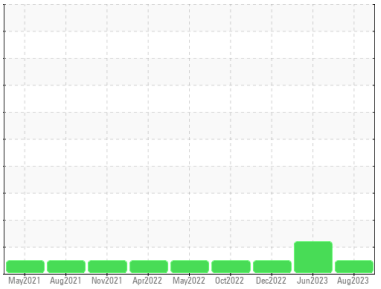
OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL

Machine Id
401107
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- 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		**GFL0084111**	GFL0084041	GFL0063559
Sample Date		Client Info		**02 Aug 2023**	12 Jun 2023	15 Dec 2022
Machine Age	hrs	Client Info		**34002**	20416	33372
Oil Age	hrs	Client Info		**0**	0	600
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**NORMAL**	ABNORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel		WC Method	>5	**<1.0**	▲ 2.5	<1.0
Glycol		WC Method		**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>100	**14**	42	23
Chromium	ppm	ASTM D5185(m)	>20	**<1**	4	1
Nickel	ppm	ASTM D5185(m)	>4	**0**	0	0
Titanium	ppm	ASTM D5185(m)		**0**	<1	<1
Silver	ppm	ASTM D5185(m)	>3	**0**	0	0
Aluminum	ppm	ASTM D5185(m)	>20	**1**	4	1
Lead	ppm	ASTM D5185(m)	>40	**<1**	<1	2
Copper	ppm	ASTM D5185(m)	>330	**<1**	1	2
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)	0	**5**	5	2
Barium	ppm	ASTM D5185(m)	0	**0**	0	0
Molybdenum	ppm	ASTM D5185(m)	60	**59**	62	59
Manganese	ppm	ASTM D5185(m)	0	**<1**	<1	<1
Magnesium	ppm	ASTM D5185(m)	1010	**967**	991	964
Calcium	ppm	ASTM D5185(m)	1070	**1027**	1075	1094
Phosphorus	ppm	ASTM D5185(m)	1150	**1046**	1100	1075
Zinc	ppm	ASTM D5185(m)	1270	**1173**	1209	1193
Sulfur	ppm	ASTM D5185(m)	2060	**2564**	2634	2577
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

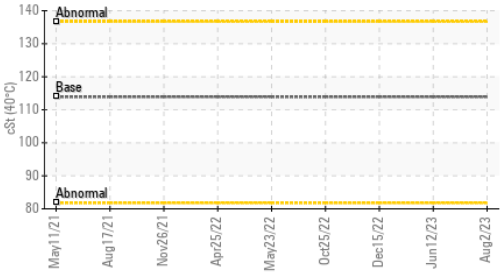
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	**4**	12	4
Sodium	ppm	ASTM D5185(m)		**4**	4	5
Potassium	ppm	ASTM D5185(m)	>20	**<1**	2	<1

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	**0.4**	1.6	0.8
Nitration	Abs/cm	ASTM D7624*	>20	**6.9**	9.5	8.4
Sulfation	Abs/.1mm	ASTM D7415*	>30	**20.2**	21.7	21.9

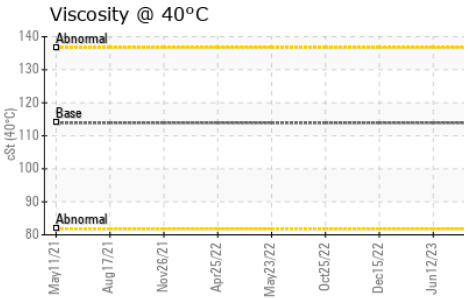
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	**14.5**	15.6	15.9

OIL ANALYSIS REPORT

Viscosity @ 40°C



Viscosity @ 40°C

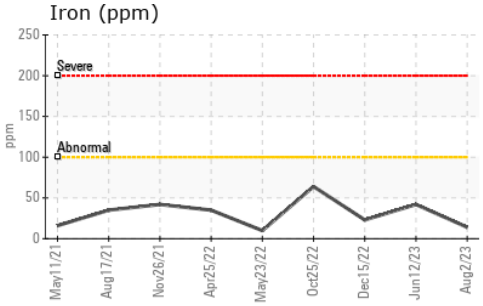


VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	**NEG**	NEG	NEG
Free Water	scalar	Visual*		**NEG**	NEG	NEG

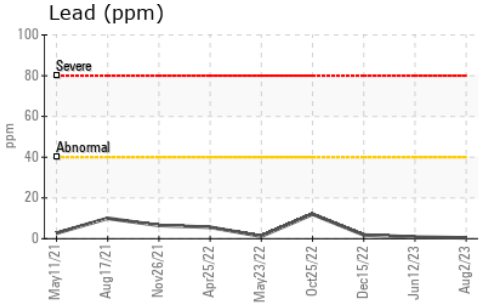
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	113.9	**101**	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	**14.2**	▲ 12.9	14.3
Viscosity Index (VI)	Scale	ASTM D2270*	142	**143**	---	---

GRAPHS

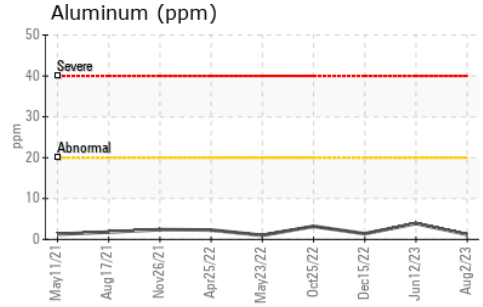
Iron (ppm)



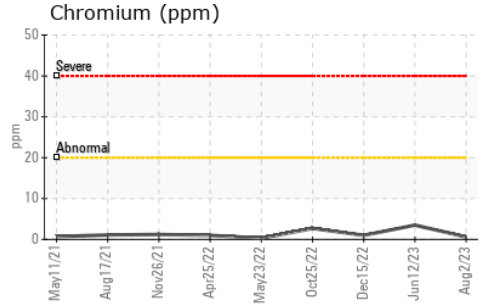
Lead (ppm)



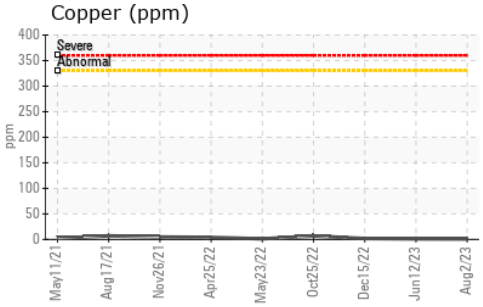
Aluminum (ppm)



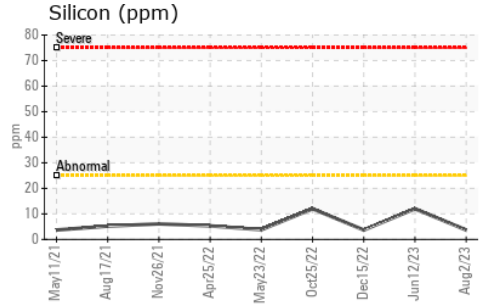
Chromium (ppm)



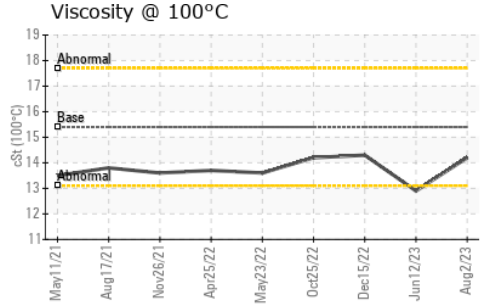
Copper (ppm)



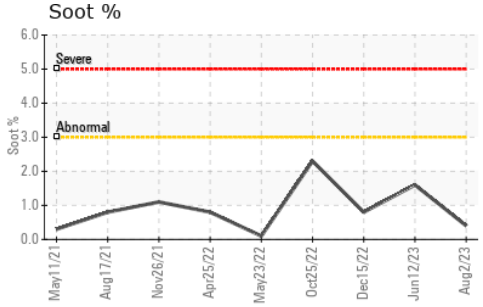
Silicon (ppm)



Viscosity @ 100°C



Soot %



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **GFL Environmental - 573 - Vancouver Hauling**
Sample No. : GFL0084111 **Received** : 08 Sep 2023
Lab Number : 02581093 **Diagnosed** : 08 Sep 2023
Unique Number : 5642158 **Diagnostician** : Wes Davis
Test Package : MOB 1 (Additional Tests: KV40, VI)

70 Golden Drive,
Coquitlam, BC
CA V3K 6B5
Contact: Catia Klagenberg Alves
cklagenbergalves@gflenv.com
T:
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.