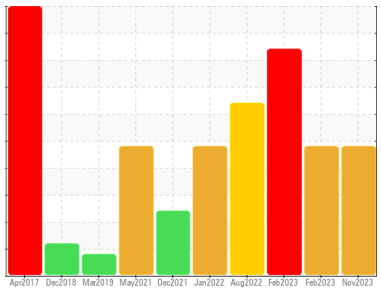
OIL ANALYSIS REPORT

Sample Rating Trend



GLYCOL

Machine Id
8406
Component
Natural Gas Engine
Fluid
PETRO CANADA DURON GEO LD 15W40 (--- GAL)

DIAGNOSIS

Recommendation
We advise that you check for the source of the coolant leak. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Wear
All component wear rates are normal.

Contamination
Test for glycol is positive. There is a light concentration of glycol present in the oil.

Fluid Condition
The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**GFL0097607**	GFL0072864	GFL0064064
Sample Date		Client Info		**02 Nov 2023**	22 Feb 2023	16 Feb 2023
Machine Age	hrs	Client Info		**259149**	11834	11510
Oil Age	hrs	Client Info		**25750**	625	0
Oil Changed		Client Info		**Changed**	Not Changd	N/A
Sample Status				**ABNORMAL**	ABNORMAL	SEVERE

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.1	**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>50	**29**	26	27
Chromium	ppm	ASTM D5185(m)	>4	**1**	1	1
Nickel	ppm	ASTM D5185(m)	>2	**<1**	1	1
Titanium	ppm	ASTM D5185(m)		**0**	<1	<1
Silver	ppm	ASTM D5185(m)	>3	**0**	0	0
Aluminum	ppm	ASTM D5185(m)	>9	**2**	3	3
Lead	ppm	ASTM D5185(m)	>30	**2**	<1	2
Copper	ppm	ASTM D5185(m)	>35	**1**	1	2
Tin	ppm	ASTM D5185(m)	>4	**<1**	<1	<1
Antimony	ppm	ASTM D5185(m)		**0**	<1	0
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)	50	**2**	5	5
Barium	ppm	ASTM D5185(m)	5	**<1**	0	0
Molybdenum	ppm	ASTM D5185(m)	50	**67**	59	62
Manganese	ppm	ASTM D5185(m)	0	**<1**	<1	<1
Magnesium	ppm	ASTM D5185(m)	560	**485**	556	540
Calcium	ppm	ASTM D5185(m)	1510	**1452**	1616	1514
Phosphorus	ppm	ASTM D5185(m)	780	**578**	814	779
Zinc	ppm	ASTM D5185(m)	870	**793**	882	855
Sulfur	ppm	ASTM D5185(m)	2040	**1856**	2075	1983
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>+100	**6**	7	10
Sodium	ppm	ASTM D5185(m)		▲ **501**	▲ 251	▲ 353
Potassium	ppm	ASTM D5185(m)	>20	▲ **46**	▲ 14	▲ 25
Glycol	%	ASTM D7922*		▲ **0.029**	▲ 0.087	⬢ 0.117

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*		**0**	0	0
Nitration	Abs/cm	ASTM D7624*	>20	**11.8**	9.9	7.1
Sulfation	Abs/.1mm	ASTM D7415*	>30	**23.5**	20.6	17.7

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	**19.3**	14.3	10.2

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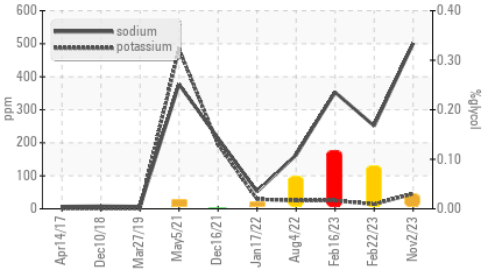
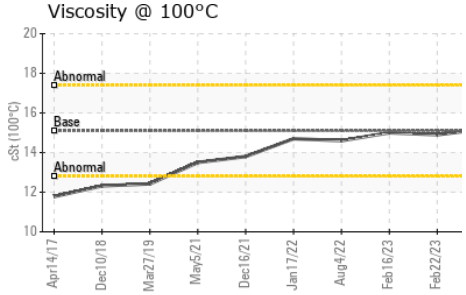
Glycol Contamination



Viscosity @ 100°C

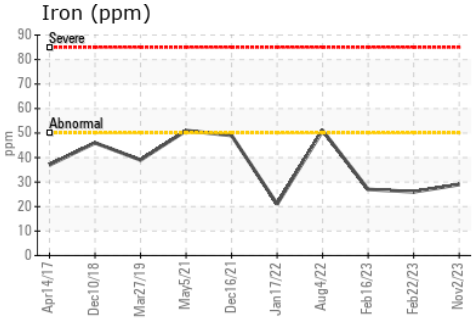


VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.1	**NEG**	NEG	NEG
Free Water	scalar	Visual*		**NEG**	NEG	NEG

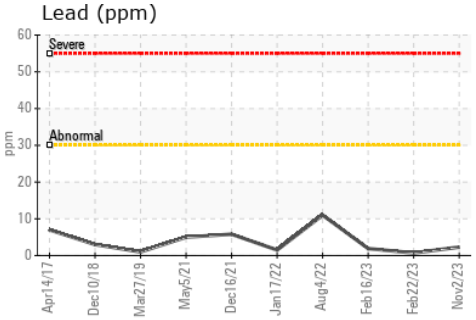
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15.1	**15.2**	14.9	15.0

GRAPHS

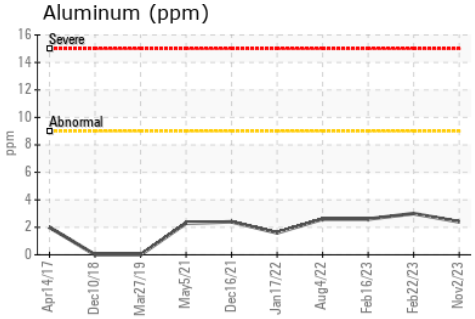
Iron (ppm)



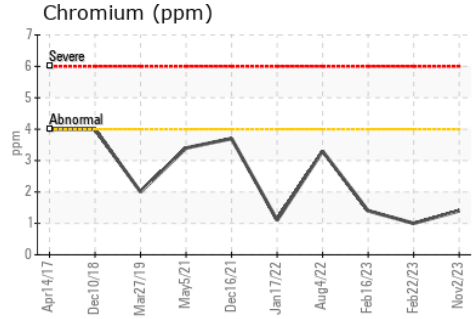
Lead (ppm)



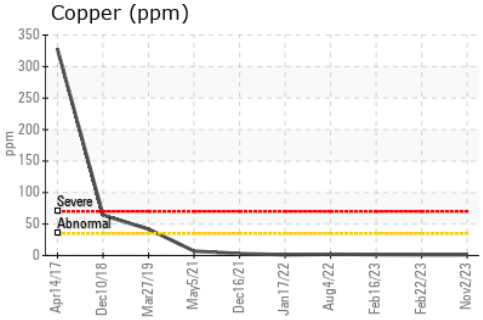
Aluminum (ppm)



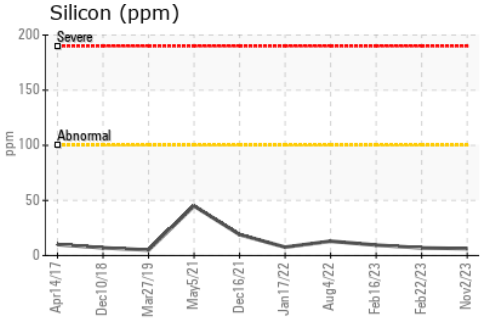
Chromium (ppm)



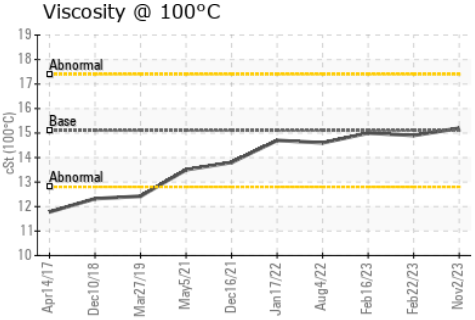
Copper (ppm)



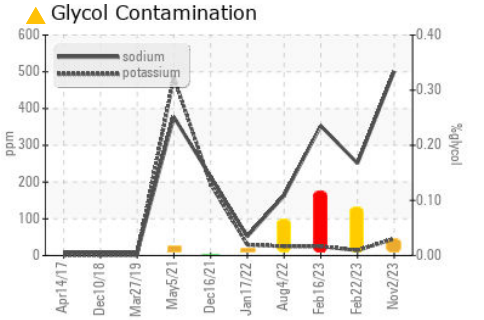
Silicon (ppm)



Viscosity @ 100°C



Glycol Contamination



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **GFL Environmental - 554 - Edmonton SW**
Sample No. : GFL0097607 **Received** : 20 Nov 2023
Lab Number : 02597436 **Diagnosed** : 21 Nov 2023
Unique Number : 5682516 **Diagnostician** : Kevin Marson
Test Package : MOB 1

8409 -15th Street NW
Edmonton, AB
CA T6P 0B8
Contact: Tim Greig
tgreig@gflenv.com
T: (780)231-0521
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.