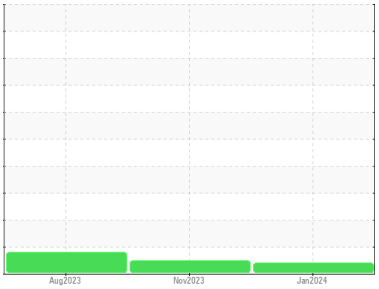
OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY

Machine Id
413153
Component
Diesel Engine
Fluid
PETRO CANADA DURON UHP E6 10W40 (--- LTR)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Fuel content negligible. Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Fluid Condition

Viscosity of sample indicates oil is within SAE 30 range, advise investigate. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**GFL0102658**	GFL0097619	GFL0090609
Sample Date		Client Info		**21 Jan 2024**	10 Nov 2023	24 Aug 2023
Machine Age	hrs	Client Info		**0**	1674	1115
Oil Age	hrs	Client Info		**0**	559	0
Oil Changed		Client Info		**N/A**	Changed	N/A
Sample Status				**ABNORMAL**	NORMAL	ABNORMAL

CONTAMINATION		method	limit/base	current	history1	history2
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)	>120	**20**	18	24
Chromium	ppm	ASTM D5185(m)	>20	**<1**	<1	<1
Nickel	ppm	ASTM D5185(m)	>5	**2**	<1	1
Titanium	ppm	ASTM D5185(m)	>2	**0**	0	0
Silver	ppm	ASTM D5185(m)	>2	**<1**	<1	2
Aluminum	ppm	ASTM D5185(m)	>20	**4**	3	5
Lead	ppm	ASTM D5185(m)	>40	**<1**	4	14
Copper	ppm	ASTM D5185(m)	>330	**36**	178	▲ 508
Tin	ppm	ASTM D5185(m)	>15	**<1**	<1	1
Antimony	ppm	ASTM D5185(m)		**0**	0	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)	0	**4**	4	14
Barium	ppm	ASTM D5185(m)	0	**0**	<1	0
Molybdenum	ppm	ASTM D5185(m)	0	**59**	62	66
Manganese	ppm	ASTM D5185(m)	0	**0**	<1	2
Magnesium	ppm	ASTM D5185(m)	80	**946**	991	938
Calcium	ppm	ASTM D5185(m)	2400	**1071**	1095	1082
Phosphorus	ppm	ASTM D5185(m)	750	**986**	977	1004
Zinc	ppm	ASTM D5185(m)	840	**1165**	1201	1109
Sulfur	ppm	ASTM D5185(m)	2130	**2553**	2775	2199
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	**6**	5	14
Sodium	ppm	ASTM D5185(m)		**<1**	2	2
Potassium	ppm	ASTM D5185(m)	>20	**8**	4	12
Fuel	%	ASTM D7593*	>3.0	**0.7**	<1.0	<1.0

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>4	**0.4**	0.3	0.3
Nitration	Abs/cm	ASTM D7624*	>20	**8.3**	8.2	8.9
Sulfation	Abs/.1mm	ASTM D7415*	>30	**20.0**	20.3	21.7

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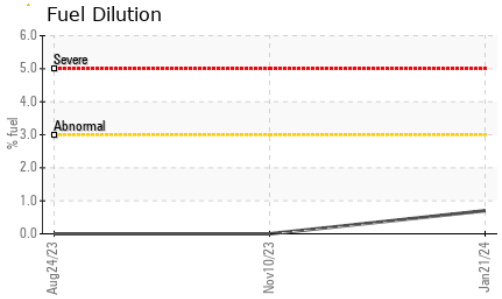
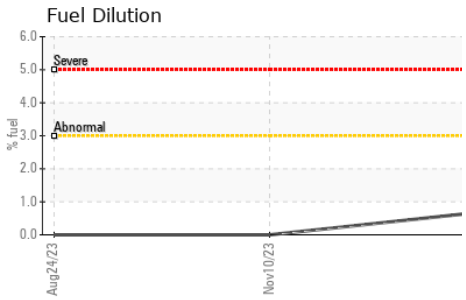


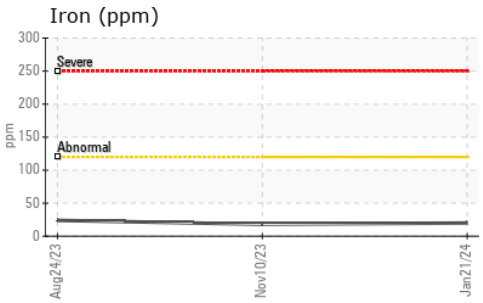


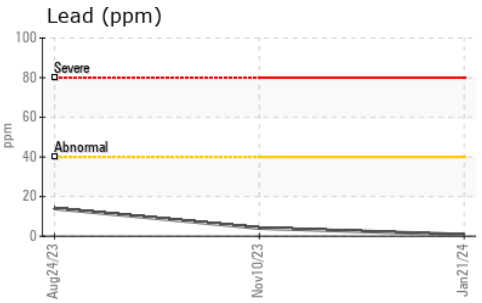
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	**15.4**	16.0	17.0

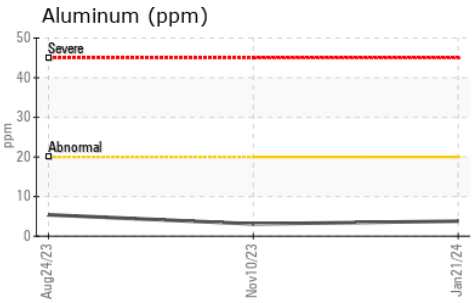
VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	**NEG**	NEG	NEG
Free Water	scalar	Visual*		**NEG**	NEG	NEG

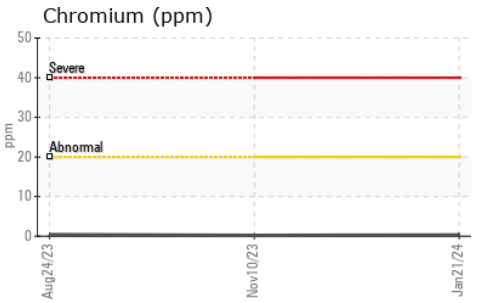
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	14.2	▲ **11.0**	11.1	11.0

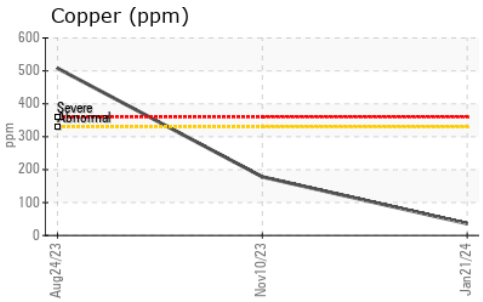
GRAPHS

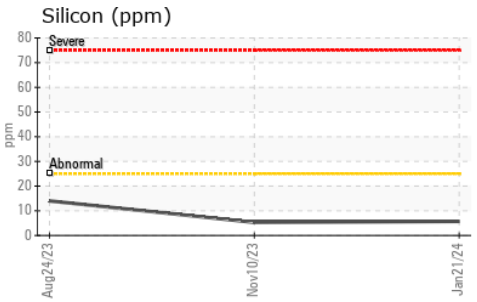


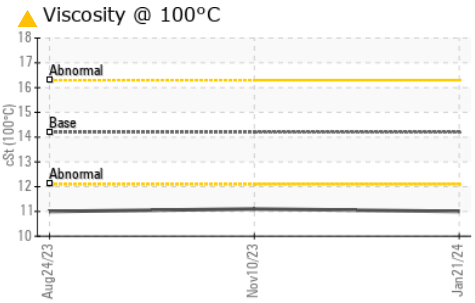


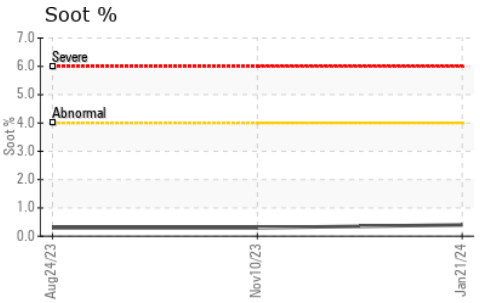












ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **GFL Environmental - 554 - Edmonton SW**
Sample No. : GFL0102658 **Recieved** : 22 Jan 2024
Lab Number : 02610176 **Diagnosed** : 23 Jan 2024
Unique Number : 5711262 **Diagnostician** : Kevin Marson
Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel)

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Edmonton, AB
CA T6P 0B8
Contact: Tim Greig
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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.