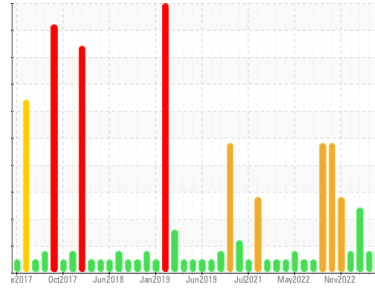




OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Machine Id
8136
 Component
Diesel Engine
 Fluid
PETRO CANADA 10W30 (--- LTR)

DIAGNOSIS

Recommendation

We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel 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	GFL0102650	GFL0093881	GFL0097640
Sample Date	Client Info	25 Jan 2024	22 Oct 2023	15 Oct 2023
Machine Age	hrs	16852	0	16366
Oil Age	hrs	0	0	0
Oil Changed	Client Info	N/A	N/A	N/A
Sample Status		ABNORMAL	ABNORMAL	SEVERE

CONTAMINATION

method	limit/base	current	history1	history2
Water	WC Method >0.2	NEG	NEG	NEG
Glycol	WC Method	NEG	NEG	0.0

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185(m) >80	52	11	45
Chromium	ppm ASTM D5185(m) >5	2	<1	2
Nickel	ppm ASTM D5185(m) >2	<1	0	<1
Titanium	ppm ASTM D5185(m)	0	0	0
Silver	ppm ASTM D5185(m) >3	0	<1	<1
Aluminum	ppm ASTM D5185(m) >30	2	1	2
Lead	ppm ASTM D5185(m) >30	<1	<1	<1
Copper	ppm ASTM D5185(m) >150	2	<1	2
Tin	ppm ASTM D5185(m) >5	<1	0	<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)	2	2	2
Barium	ppm ASTM D5185(m)	0	<1	<1
Molybdenum	ppm ASTM D5185(m)	57	55	50
Manganese	ppm ASTM D5185(m)	0	0	0
Magnesium	ppm ASTM D5185(m)	889	879	772
Calcium	ppm ASTM D5185(m)	1002	951	836
Phosphorus	ppm ASTM D5185(m)	935	933	811
Zinc	ppm ASTM D5185(m)	1106	1070	953
Sulfur	ppm ASTM D5185(m)	2355	2368	1984
Lithium	ppm ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

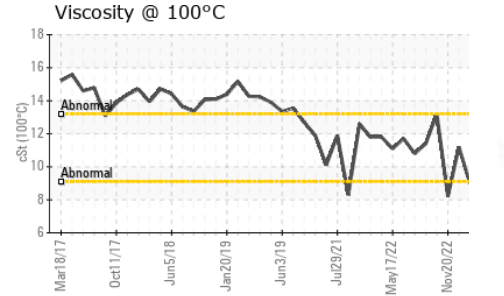
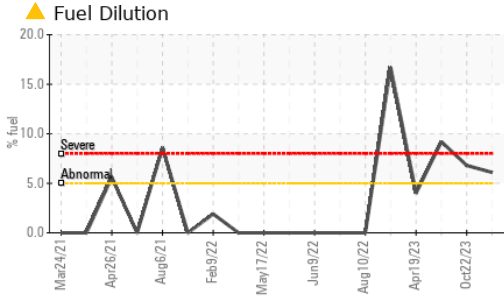
method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >20	7	3	5
Sodium	ppm ASTM D5185(m)	37	11	40
Potassium	ppm ASTM D5185(m) >20	4	<1	4
Fuel	% ASTM D7593* >5	▲ 6.1	▲ 6.8	■ 9.2

INFRA-RED

method	limit/base	current	history1	history2
Soot %	% ASTM D7844* >3	1.3	0.2	1.1
Nitration	Abs/cm ASTM D7624* >20	12.1	6.5	11.9
Sulfation	Abs.1mm ASTM D7415* >30	25.1	19.4	28.0



OIL ANALYSIS REPORT

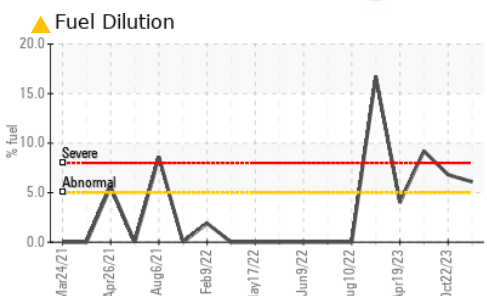
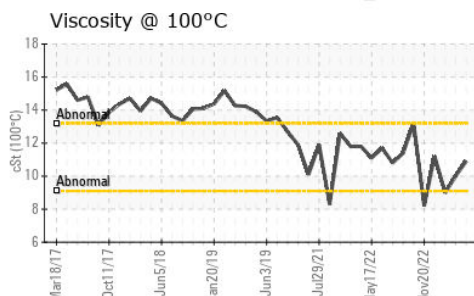
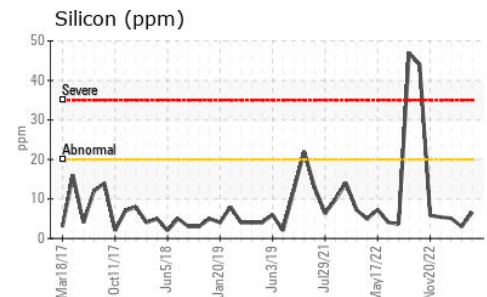
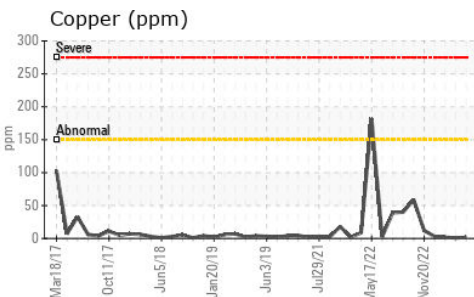
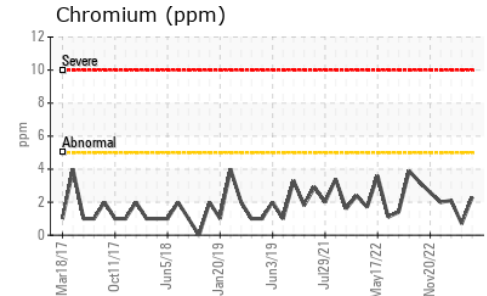
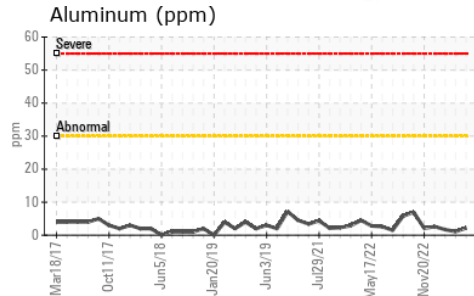
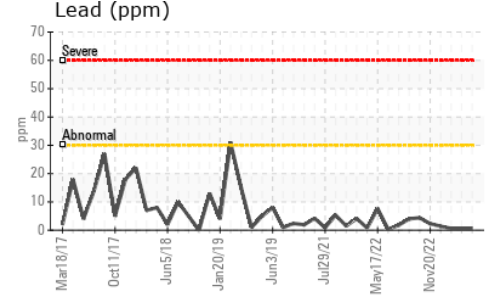
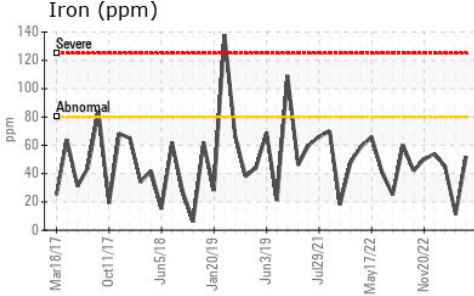


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs.:1mm	ASTM D7414*	>25	24.1	15.8	32.0

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)		10.9	10.0	▲ 9

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 554 - Edmonton SW
Sample No. : GFL0102650 **Received** : 26 Jan 2024
Lab Number : 02611370 **Diagnosed** : 29 Jan 2024
Unique Number : 5720465 **Diagnostician** : Wes Davis
Test Package : MOB 1 (Additional Tests: PercentFuel)
 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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