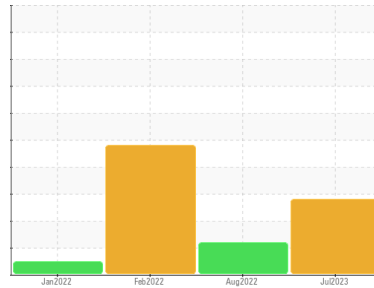




OIL ANALYSIS REPORT

Sample Rating Trend



DIRT



Machine Id
901102

Component
Diesel Engine

Fluid
PETRO CANADA DURON GEO LD 15W40 (--- GAL)

DIAGNOSIS

Recommendation

Check for low coolant level. We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. We recommend that you drain the oil from the component if this has not already been done. We recommend you service the filters on this component. We recommend an early resample to monitor this condition. Please specify the component make and model with your next sample.

Wear

All component wear rates are normal.

Contamination

Water treatment chemicals present, indicating slow coolant leak. There is a moderate concentration of dirt present in the oil. Test for glycol is negative.

Fluid Condition

The condition of the oil is acceptable for the time in service (see recommendation). The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	GFL0084163	GFL0050456	GFL0039153
Sample Date	Client Info	18 Jul 2023	16 Aug 2022	22 Feb 2022
Machine Age	kms Client Info	399028	1195	6590
Oil Age	kms Client Info	0	1200	1200
Oil Changed	Client Info	N/A	Changed	Changed
Sample Status		ABNORMAL	ABNORMAL	ABNORMAL

CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >5	<1.0	<1.0	<1.0

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185(m) >100	11	12	14
Chromium	ppm ASTM D5185(m) >20	2	2	2
Nickel	ppm ASTM D5185(m) >4	0	<1	<1
Titanium	ppm ASTM D5185(m)	<1	<1	2
Silver	ppm ASTM D5185(m) >3	0	0	0
Aluminum	ppm ASTM D5185(m) >20	2	2	3
Lead	ppm ASTM D5185(m) >40	6	34	2
Copper	ppm ASTM D5185(m) >330	6	27	18
Tin	ppm ASTM D5185(m) >15	<1	2	1
Antimony	ppm ASTM D5185(m)	<1	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) 50	11	8	15
Barium	ppm ASTM D5185(m) 5	0	0	<1
Molybdenum	ppm ASTM D5185(m) 50	68	60	140
Manganese	ppm ASTM D5185(m) 0	<1	1	2
Magnesium	ppm ASTM D5185(m) 560	522	552	532
Calcium	ppm ASTM D5185(m) 1510	1493	1584	1365
Phosphorus	ppm ASTM D5185(m) 780	646	675	799
Zinc	ppm ASTM D5185(m) 870	852	888	808
Sulfur	ppm ASTM D5185(m) 2040	1928	1966	1999
Lithium	ppm ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >25	▲ 47	24	121
Sodium	ppm ASTM D5185(m)	▲ 472	127	▲ 686
Potassium	ppm ASTM D5185(m) >20	25	▲ 212	▲ 1416
Glycol	% ASTM D7922*	0.0	0.0	▲ 0.013

INFRA-RED

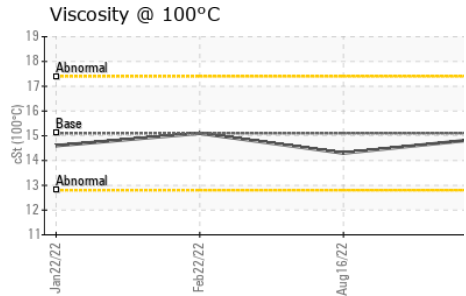
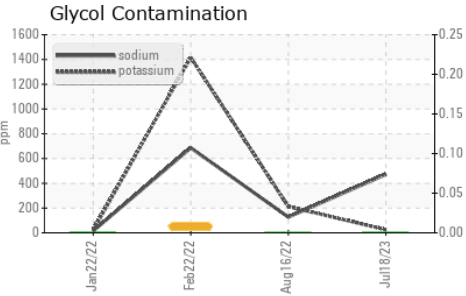
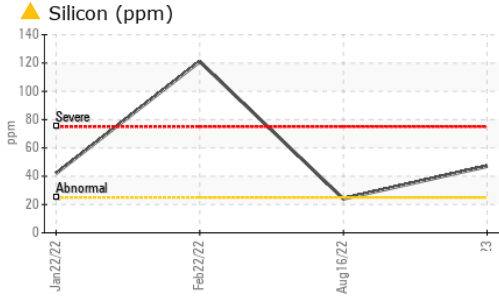
method	limit/base	current	history1	history2
Soot %	% ASTM D7844* >3	0	0	0
Nitration	Abs/cm ASTM D7624* >20	10.7	12.6	4.3
Sulfation	Abs/.1mm ASTM D7415* >30	21.7	26.8	14.4

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm ASTM D7414* >25	17.8	24.7	7.1



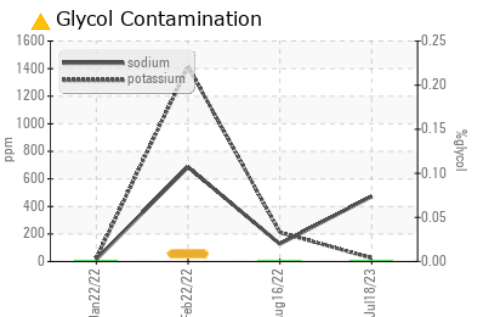
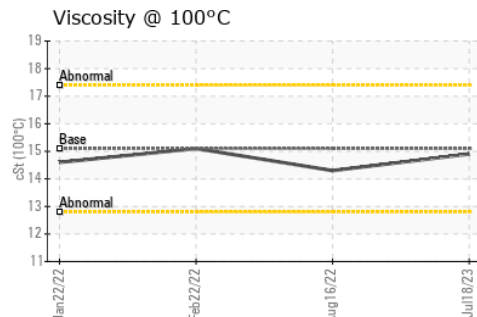
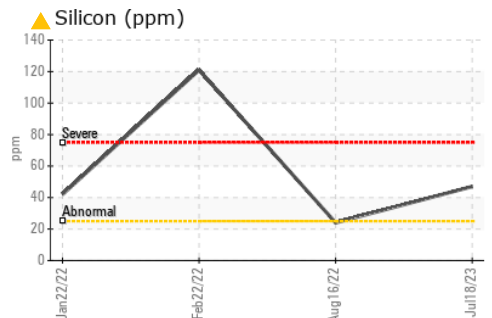
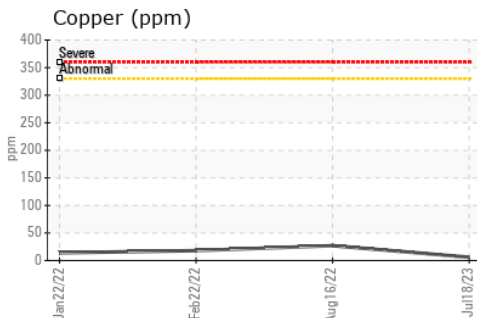
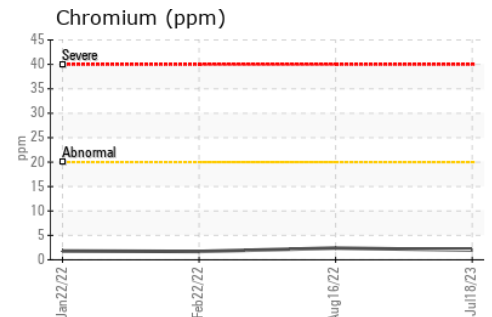
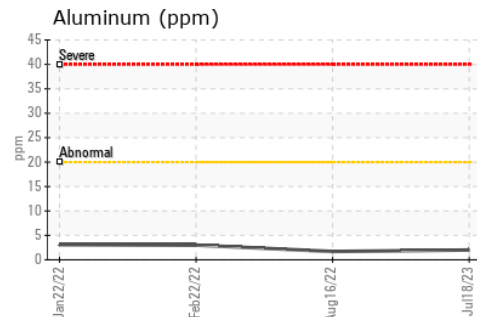
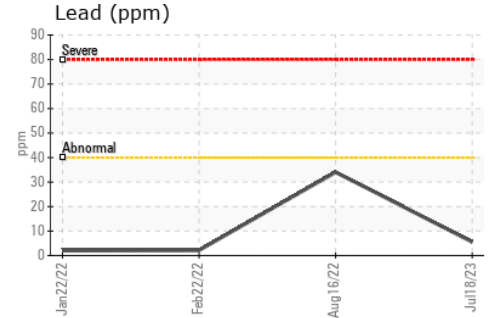
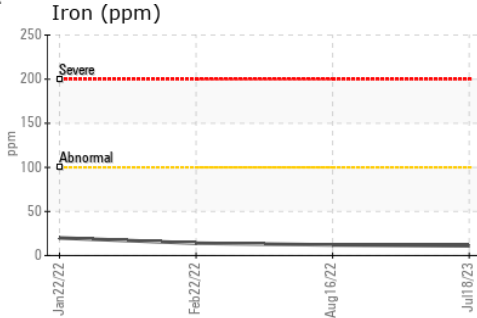
OIL ANALYSIS REPORT



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)	15.1	14.3	15.1

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 574 - Vancouver Fleet
Sample No. : GFL0084163 **Received** : 02 Aug 2023
Lab Number : 02573629 **Diagnosed** : 03 Aug 2023
Unique Number : 5618680 **Diagnostician** : Kevin Marson
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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