



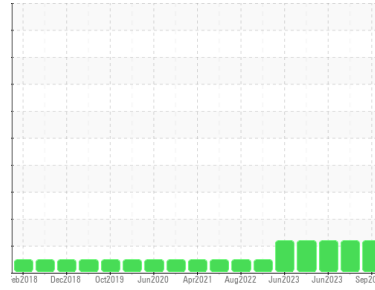
OIL ANALYSIS REPORT

Sample Rating Trend

FUEL



Machine Id
801032
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (22 LTR)



DIAGNOSIS

Recommendation

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

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		GFL0094216	GFL0086491	GFL0086495
Sample Date	Client Info		07 Sep 2023	17 Jul 2023	23 Jun 2023
Machine Age	hrs	Client Info	120889	11269	11142
Oil Age	hrs	Client Info	0	0	0
Oil Changed	Client Info		Changed	Changed	Not Changed
Sample Status			ABNORMAL	ABNORMAL	ABNORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >80	15	10	6
Chromium	ppm	ASTM D5185(m) >5	<1	<1	<1
Nickel	ppm	ASTM D5185(m) >2	0	0	0
Titanium	ppm	ASTM D5185(m)	0	0	0
Silver	ppm	ASTM D5185(m) >3	0	0	0
Aluminum	ppm	ASTM D5185(m) >30	2	2	2
Lead	ppm	ASTM D5185(m) >30	0	<1	0
Copper	ppm	ASTM D5185(m) >150	1	<1	<1
Tin	ppm	ASTM D5185(m) >5	0	0	0
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	10	20	26
Barium	ppm	ASTM D5185(m) 0	0	0	0
Molybdenum	ppm	ASTM D5185(m) 60	56	56	58
Manganese	ppm	ASTM D5185(m) 0	<1	<1	<1
Magnesium	ppm	ASTM D5185(m) 1010	846	839	880
Calcium	ppm	ASTM D5185(m) 1070	958	978	993
Phosphorus	ppm	ASTM D5185(m) 1150	949	972	1033
Zinc	ppm	ASTM D5185(m) 1270	1096	1106	1151
Sulfur	ppm	ASTM D5185(m) 2060	2268	2366	2481
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >20	5	6	4
Sodium	ppm	ASTM D5185(m)	6	6	4
Potassium	ppm	ASTM D5185(m) >20	2	2	1
Fuel	%	ASTM D7593* >5	▲ 7	▲ 7.1	▲ 5.1

INFRA-RED

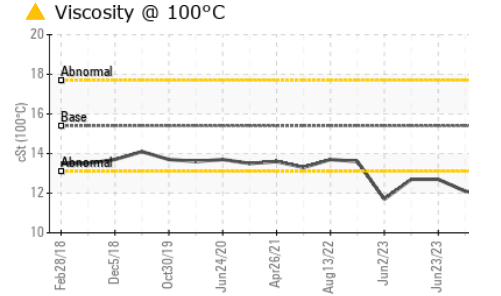
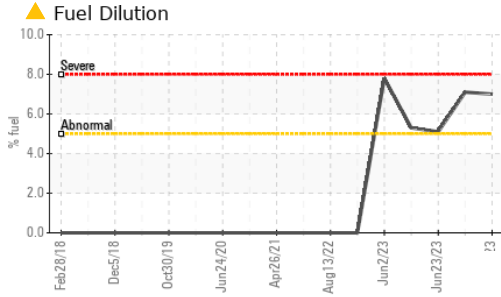
	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844* >3	0.2	0.1	0
Nitration	Abs/cm	ASTM D7624* >20	9.3	8.2	6.8
Sulfation	Abs/.1mm	ASTM D7415* >30	19.5	19.7	18.9

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414* >25	15.8	15.5	14.3



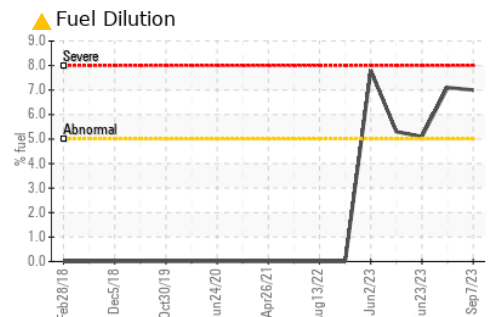
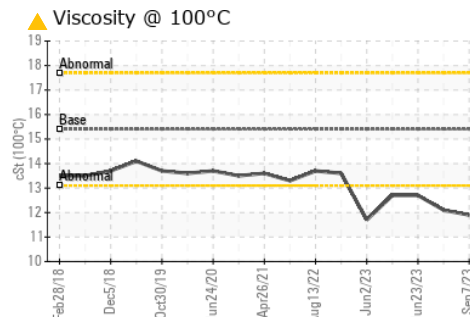
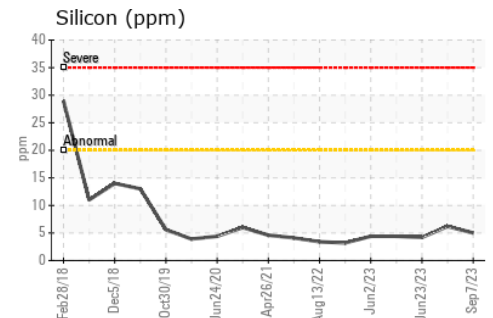
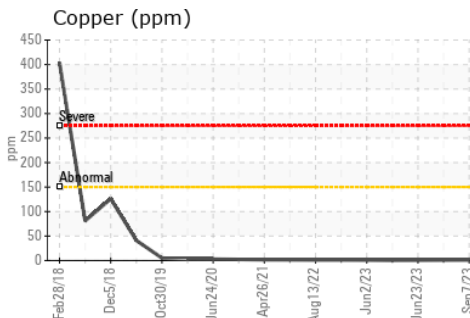
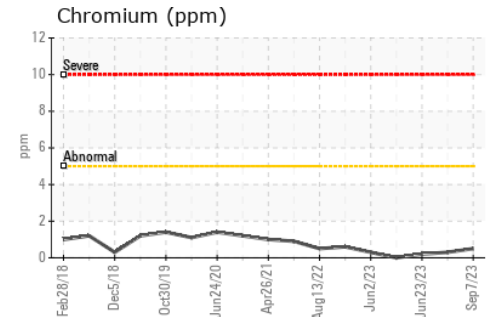
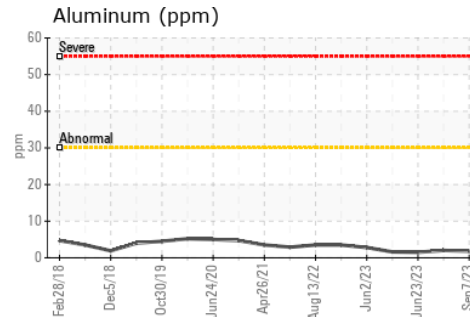
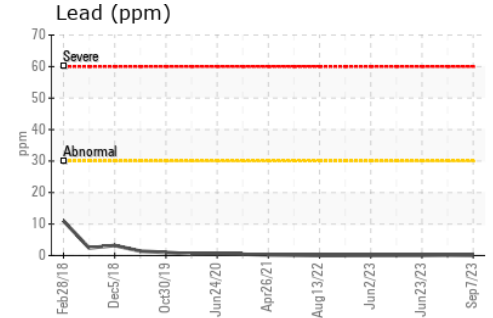
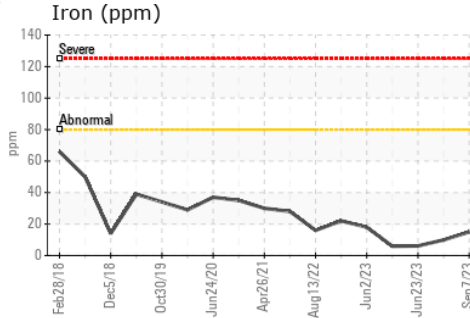
OIL ANALYSIS REPORT



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)	15.4	▲ 11.9	▲ 12.1

GRAPHS



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0094216
Lab Number : 02581668
Unique Number : 5642733
Test Package : MOB 1 (Additional Tests: PercentFuel)

GFL Environmental - 217 - Aurora
 14131 BAYVIEW AVE, AURORA YARD
 AURORA, ON
 CA L4G 0K6
 Contact: Mike Havens
 MHavens@gflenv.com

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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