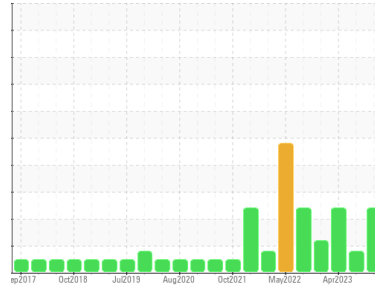




OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Area
[1149444]
 Machine Id
800029

Component
Diesel Engine
 Fluid

PETRO CANADA DURON SHP 15W40 (20 GAL)

DIAGNOSIS

Recommendation

We advise that you check the fuel injection system. 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 high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Fluid Condition

Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		GFL0089025	GFL0082953	GFL0077825
Sample Date	Client Info		22 Sep 2023	02 Jul 2023	10 Apr 2023
Machine Age	hrs	Client Info	15133	14651	14012
Oil Age	hrs	Client Info	0	0	0
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			SEVERE	ABNORMAL	SEVERE

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >75	31	39	31
Chromium	ppm	ASTM D5185(m) >5	<1	1	<1
Nickel	ppm	ASTM D5185(m) >4	<1	0	<1
Titanium	ppm	ASTM D5185(m) >2	0	0	<1
Silver	ppm	ASTM D5185(m) >2	<1	0	0
Aluminum	ppm	ASTM D5185(m) >15	3	3	2
Lead	ppm	ASTM D5185(m) >25	<1	<1	<1
Copper	ppm	ASTM D5185(m) >100	<1	<1	<1
Tin	ppm	ASTM D5185(m) >4	0	0	<1
Antimony	ppm	ASTM D5185(m)	0	0	<1
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	2	4	6
Barium	ppm	ASTM D5185(m) 0	0	0	0
Molybdenum	ppm	ASTM D5185(m) 60	55	55	54
Manganese	ppm	ASTM D5185(m) 0	0	<1	<1
Magnesium	ppm	ASTM D5185(m) 1010	860	868	845
Calcium	ppm	ASTM D5185(m) 1070	946	927	980
Phosphorus	ppm	ASTM D5185(m) 1150	857	950	950
Zinc	ppm	ASTM D5185(m) 1270	1056	1068	1035
Sulfur	ppm	ASTM D5185(m) 2060	2173	2168	2252
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >25	8	13	12
Sodium	ppm	ASTM D5185(m)	12	12	14
Potassium	ppm	ASTM D5185(m) >20	6	4	2
Fuel	%	ASTM D7593* >3.0	7.9	7.1	9.7
Glycol	%	ASTM D7922*	0.0	NEG	NEG

INFRA-RED

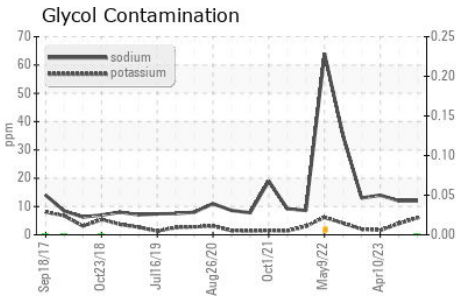
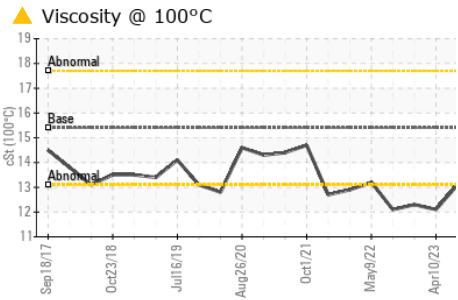
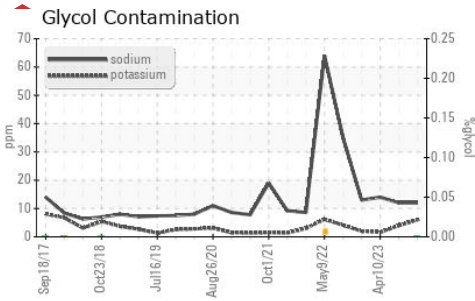
	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844* >6	0.7	0.8	0.4
Nitration	Abs/cm	ASTM D7624* >20	13.1	14.2	12.6
Sulfation	Abs/.1mm	ASTM D7415* >30	27.6	28.6	26.2

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414* >25	31.5	32.6	24.0



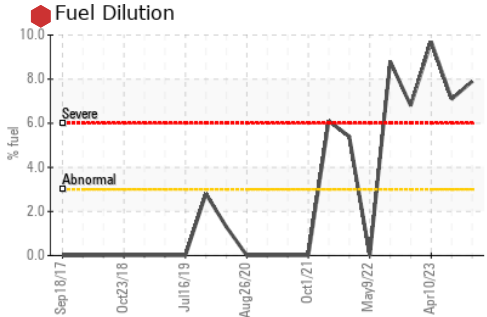
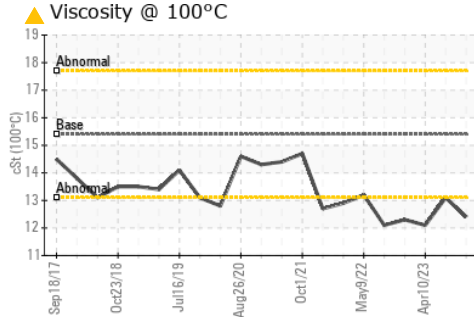
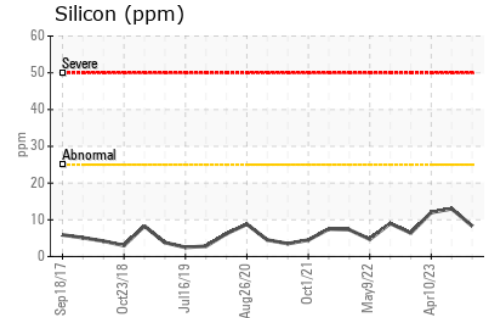
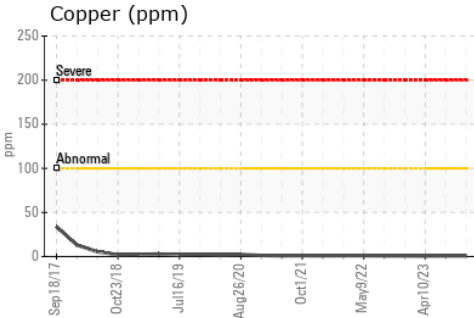
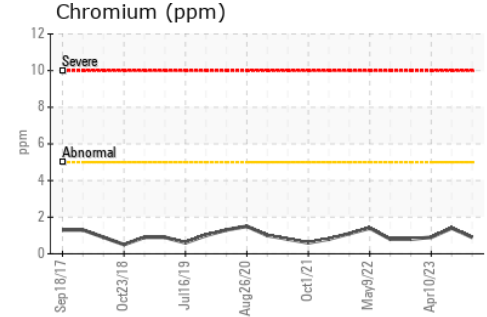
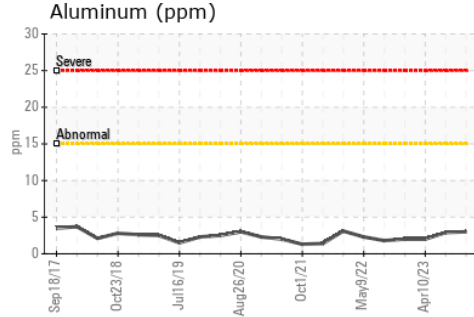
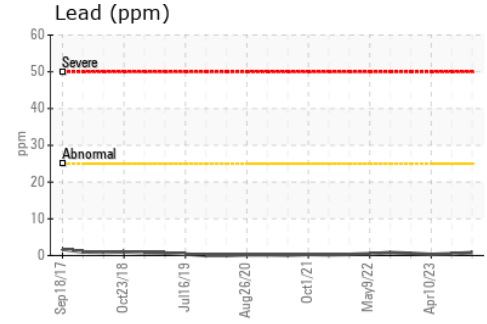
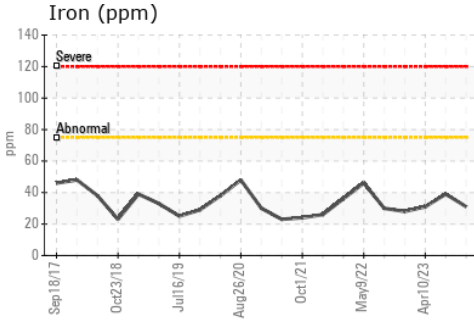
OIL ANALYSIS REPORT



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	13.1	12.1

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **GFL Environmental - 207 - Pickering SW**
Sample No. : GFL0089025 **Received** : 25 Sep 2023 **1034 TOY AVENUE, PICKERING YARD**
Lab Number : 02584864 **Diagnosed** : 10 Oct 2023 **PICKERING, ON**
Unique Number : 5645929 **Diagnostician** : Kevin Marson **CA L1W 3P1**
Test Package : MOB 1 (Additional Tests: Glycol, PercentFuel) **Contact: Ian Patton**
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. **ipatton@gflenv.com**
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