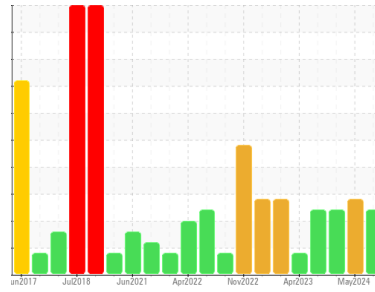




OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Machine Id

4783

Component

Diesel Engine

Fluid

PETRO CANADA DURON SHP 10W30 (--- LTR)

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	GFL0119035	GFL0118965	GFL0085928
Sample Date	Client Info	28 Jun 2024	30 May 2024	14 Aug 2023
Machine Age	hrs	4971	4851	4281
Oil Age	hrs	0	0	0
Oil Changed	Client Info	Changed	Changed	Changed
Sample Status		SEVERE	SEVERE	SEVERE

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) >100	16	69	10
Chromium	ppm ASTM D5185(m) >20	2	11	<1
Nickel	ppm ASTM D5185(m) >4	<1	<1	<1
Titanium	ppm ASTM D5185(m)	0	0	0
Silver	ppm ASTM D5185(m) >3	0	0	<1
Aluminum	ppm ASTM D5185(m) >20	<1	2	<1
Lead	ppm ASTM D5185(m) >40	<1	5	<1
Copper	ppm ASTM D5185(m) >330	<1	2	<1
Tin	ppm ASTM D5185(m) >15	0	<1	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) 2	1	2	2
Barium	ppm ASTM D5185(m) 0	0	0	0
Molybdenum	ppm ASTM D5185(m) 50	45	47	51
Manganese	ppm ASTM D5185(m) 0	<1	<1	<1
Magnesium	ppm ASTM D5185(m) 950	746	709	830
Calcium	ppm ASTM D5185(m) 1050	830	780	894
Phosphorus	ppm ASTM D5185(m) 995	808	755	920
Zinc	ppm ASTM D5185(m) 1180	947	869	1016
Sulfur	ppm ASTM D5185(m) 2600	2038	1747	2253
Lithium	ppm ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

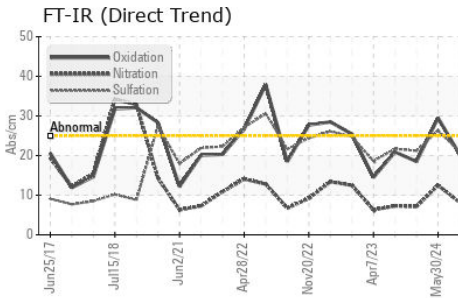
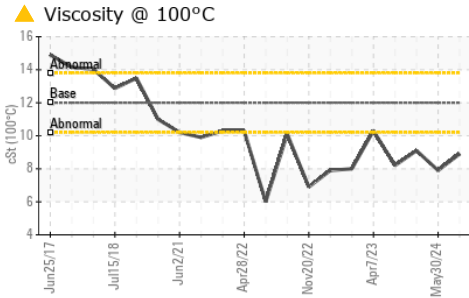
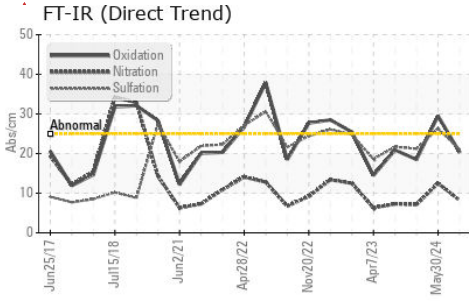
method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >25	3	8	5
Sodium	ppm ASTM D5185(m)	10	50	23
Potassium	ppm ASTM D5185(m) >20	1	4	1
Fuel	% ASTM D7593* >5	▲ 12.2	▲ 20.6	▲ 9.8

INFRA-RED

method	limit/base	current	history1	history2
Soot %	% ASTM D7844* >3	0.3	1.2	0.2
Nitration	Abs/cm ASTM D7624* >20	8.2	12.5	7.1
Sulfation	Abs/.1mm ASTM D7415* >30	21.0	26.3	21.2



OIL ANALYSIS REPORT

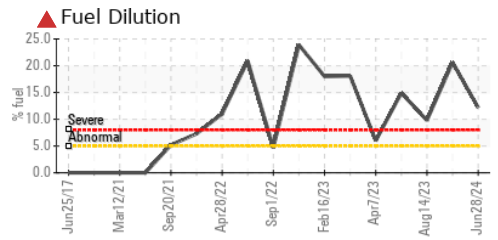
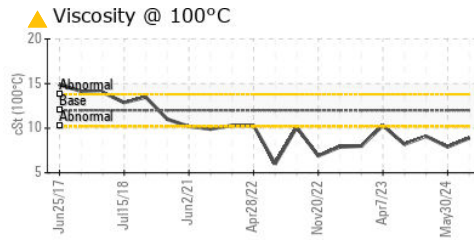
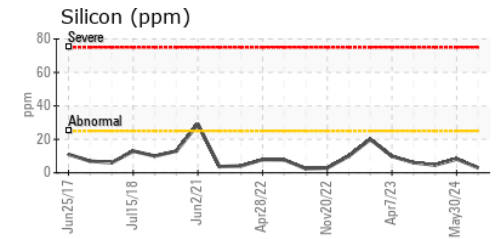
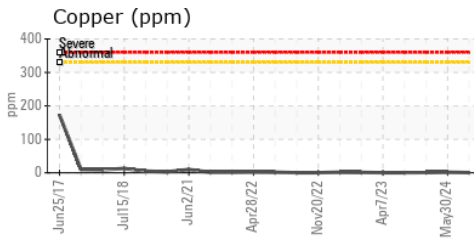
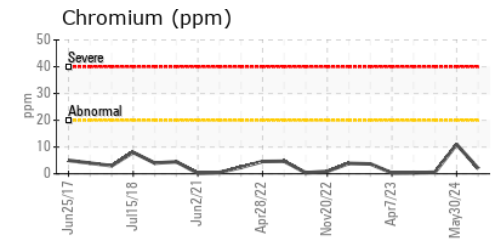
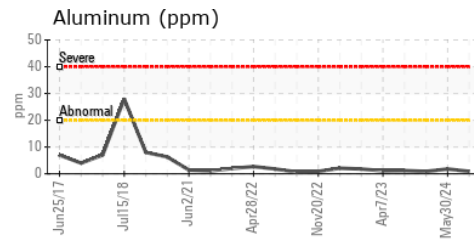
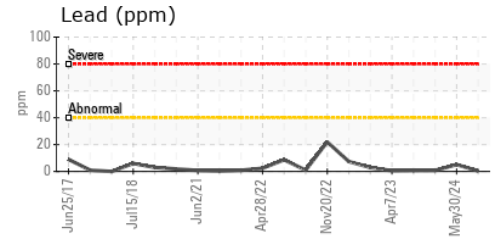
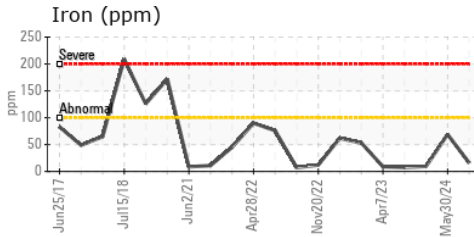


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	20.3	29.5	18.5

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE	---
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	---
Precipitate	scalar	Visual*	NONE	NONE	NONE	---
Silt	scalar	Visual*	NONE	NONE	VLITE	---
Debris	scalar	Visual*	NONE	NONE	NONE	---
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	---
Appearance	scalar	Visual*	NORML	NORML	NORML	---
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
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)	12.00	▲ 8.9	▲ 7.9	▲ 9.1

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **GFL Environmental - 554 - Edmonton SW**
Sample No. : GFL0119035 **Received** : 09 Jul 2024 **8409 -15th Street NW**
Lab Number : **02646627** **Tested** : 10 Jul 2024 **Edmonton, AB**
Unique Number : 5812179 **Diagnosed** : 10 Jul 2024 - Wes Davis **CA T6P 0B8**
Test Package : MOB 1 (Additional Tests: PercentFuel, Visual) **Contact: Tim Greig**
tgreg@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.