

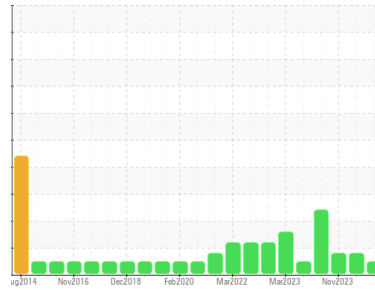


OIL ANALYSIS REPORT



Machine Id
4474
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (38 LTR)

Sample Rating Trend



NORMAL



DIAGNOSIS

Recommendation

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. No other corrective action is recommended at this time.

Wear

All component wear rates are normal.

Contamination

Light fuel dilution occurring. No other contaminants were detected in the oil.

Fluid Condition

The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		GFL0117137	GFL0110214	GFL0097790
Sample Date	Client Info		07 May 2024	12 Feb 2024	09 Nov 2023
Machine Age	hrs	Client Info	33500	32646	5241
Oil Age	hrs	Client Info	1200	600	600
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			NORMAL	ABNORMAL	ABNORMAL

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)	>120	8	6	5
Chromium	ppm	ASTM D5185(m)	>20	0	0	0
Nickel	ppm	ASTM D5185(m)	>5	0	<1	0
Titanium	ppm	ASTM D5185(m)	>2	0	0	0
Silver	ppm	ASTM D5185(m)	>2	0	0	0
Aluminum	ppm	ASTM D5185(m)	>20	<1	1	<1
Lead	ppm	ASTM D5185(m)	>40	0	<1	<1
Copper	ppm	ASTM D5185(m)	>330	2	2	2
Tin	ppm	ASTM D5185(m)	>15	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	3	2	3
Barium	ppm	ASTM D5185(m)	0	0	0	<1
Molybdenum	ppm	ASTM D5185(m)	60	57	56	55
Manganese	ppm	ASTM D5185(m)	0	0	0	0
Magnesium	ppm	ASTM D5185(m)	1010	928	905	898
Calcium	ppm	ASTM D5185(m)	1070	1053	1006	975
Phosphorus	ppm	ASTM D5185(m)	1150	951	968	937
Zinc	ppm	ASTM D5185(m)	1270	1129	1106	1105
Sulfur	ppm	ASTM D5185(m)	2060	2448	2619	2394
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

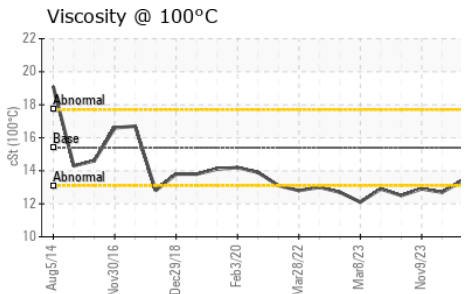
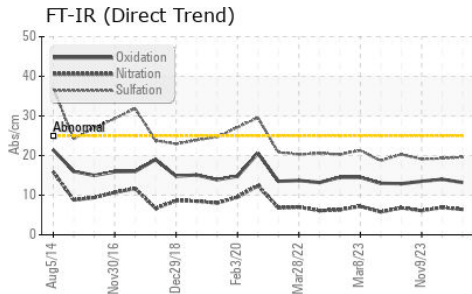
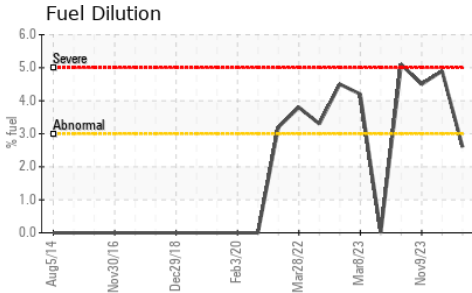
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>25	<1	2	2
Sodium	ppm	ASTM D5185(m)		1	<1	2
Potassium	ppm	ASTM D5185(m)	>20	0	<1	0
Fuel	%	ASTM D7593*	>3.0	2.6	▲ 4.9	▲ 4.5

INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>5	1	0.4	0.5
Nitration	Abs/cm	ASTM D7624*	>20	6.4	6.9	6.1
Sulfation	Abs./1mm	ASTM D7415*	>30	19.6	19.3	19.1



OIL ANALYSIS REPORT

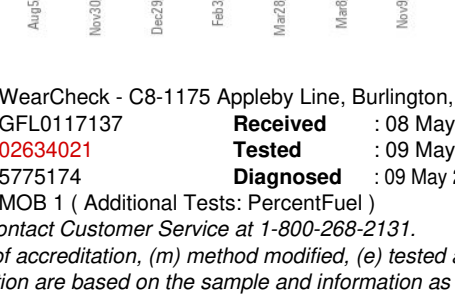
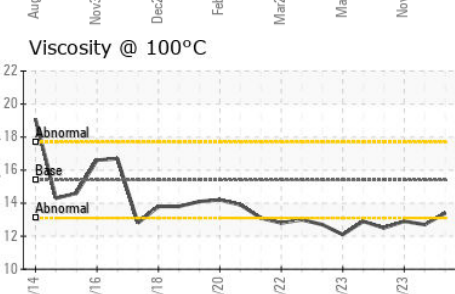
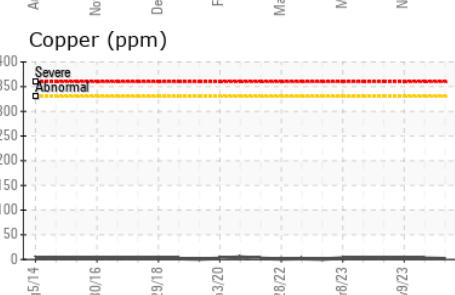
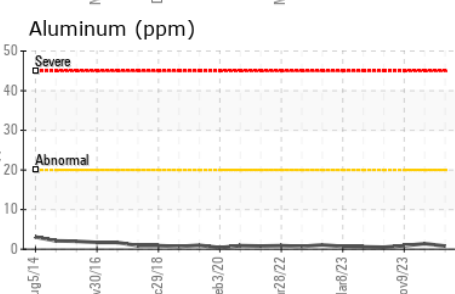
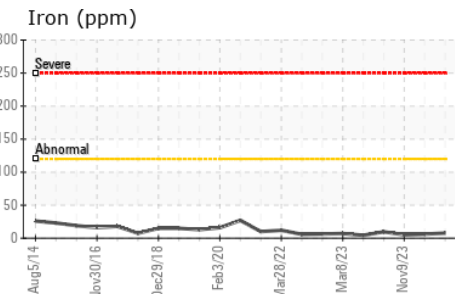


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	13.2	14.0	13.5

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)	15.4	13.4	12.7	12.9

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0117137
Lab Number : 02634021
Unique Number : 5775174
Test Package : MOB 1 (Additional Tests: PercentFuel)

GFL Environmental - 209 - Hamilton
 560 Seaman Street
 Stoney Creek, ON
 CA L8E 3X7
 Contact: Fred Carleton
 fred.carleton@gflenv.com
 T: (289)925-6693
 F: (905)664-9008

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.