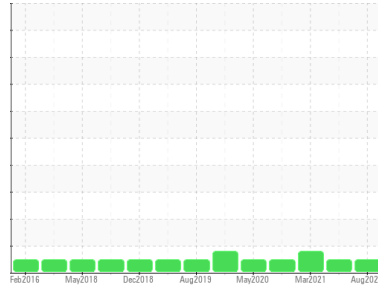




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
7980
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (19 LTR)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination 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	GFL0091046	GFL0077209	GFL0019514	
Sample Date	Client Info	24 Aug 2023	20 Apr 2023	09 Mar 2021	
Machine Age	hrs	Client Info	143821	0	8427
Oil Age	hrs	Client Info	0	0	0
Oil Changed	Client Info	Changed	N/A	Changed	
Sample Status		NORMAL	NORMAL	MARGINAL	

CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >5	<1.0	0.0	▲ 2
Glycol	WC Method	NEG	NEG	0.0

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185(m) >80	50	31	32
Chromium	ppm ASTM D5185(m) >5	2	2	1
Nickel	ppm ASTM D5185(m) >2	<1	<1	<1
Titanium	ppm ASTM D5185(m)	0	<1	0
Silver	ppm ASTM D5185(m) >3	0	0	<1
Aluminum	ppm ASTM D5185(m) >30	7	4	6
Lead	ppm ASTM D5185(m) >30	<1	<1	<1
Copper	ppm ASTM D5185(m) >150	2	1	3
Tin	ppm ASTM D5185(m) >5	0	<1	<1
Antimony	ppm ASTM D5185(m)	0	<1	<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	6	8	5
Barium	ppm ASTM D5185(m) 0	0	0	0
Molybdenum	ppm ASTM D5185(m) 60	57	56	54
Manganese	ppm ASTM D5185(m) 0	<1	<1	<1
Magnesium	ppm ASTM D5185(m) 1010	901	869	873
Calcium	ppm ASTM D5185(m) 1070	989	1056	1104
Phosphorus	ppm ASTM D5185(m) 1150	982	997	889
Zinc	ppm ASTM D5185(m) 1270	1130	1110	1200
Sulfur	ppm ASTM D5185(m) 2060	2329	2439	2493
Lithium	ppm ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >20	7	4	4
Sodium	ppm ASTM D5185(m)	6	5	8
Potassium	ppm ASTM D5185(m) >20	2	1	10

INFRA-RED

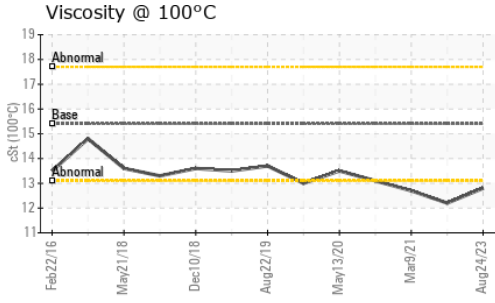
method	limit/base	current	history1	history2
Soot %	% ASTM D7844* >3	0.5	0.4	0.6
Nitration	Abs/cm ASTM D7624* >20	11.7	10.5	11.5
Sulfation	Abs/.1mm ASTM D7415* >30	22.5	20.9	22.5

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm ASTM D7414* >25	18.5	18.6	19.6



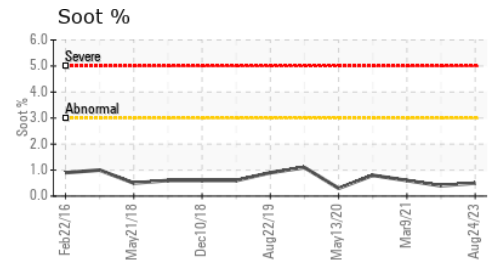
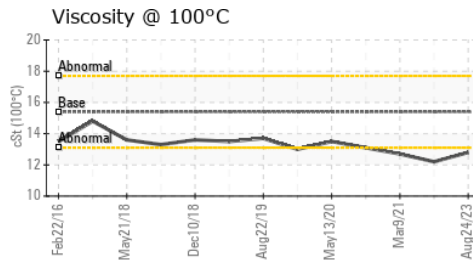
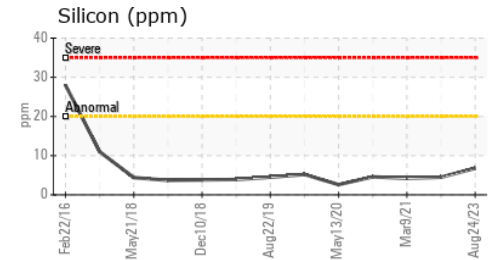
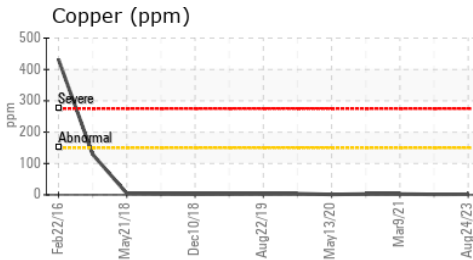
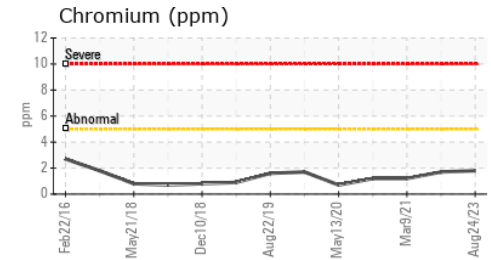
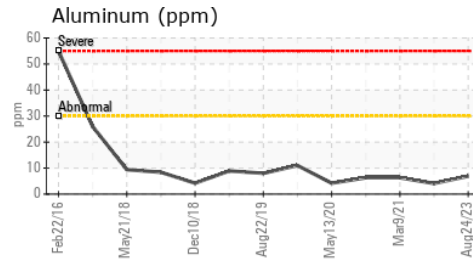
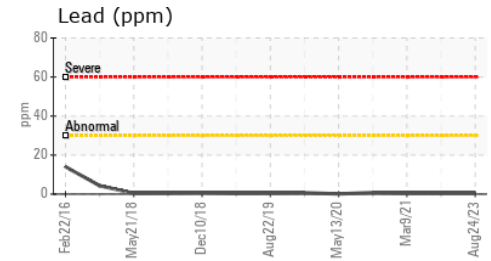
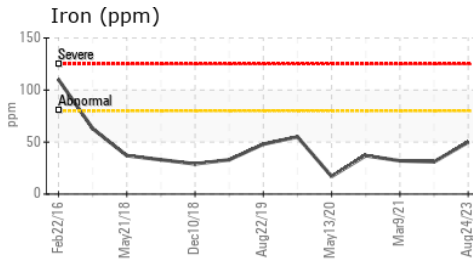
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	VLITE	---
Yellow Metal	scalar	Visual*	NONE	NONE	---
Precipitate	scalar	Visual*	NONE	NONE	---
Silt	scalar	Visual*	NONE	NONE	---
Debris	scalar	Visual*	NONE	NONE	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---
Appearance	scalar	Visual*	NORML	NORML	---
Odor	scalar	Visual*	NORML	NORML	---
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	12.8	12.2	12.7

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0091046
Lab Number : 02580571
Unique Number : 5633631
Test Package : MOB 1 (Additional Tests: Visual)

GFL Environmental - 217 - Aurora
 14131 BAYVIEW AVE, AURORA YARD
 AURORA, ON
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 MHavens@gflenv.com
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 F: (905)713-2445

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.