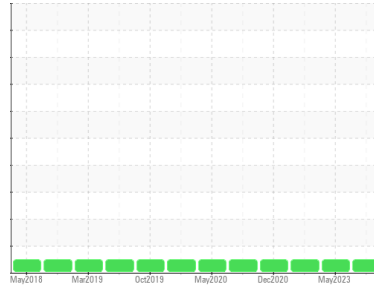




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
801038
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (23 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	GFL0094199	GFL0082008	GFL0034426	
Sample Date	Client Info	13 Oct 2023	03 May 2023	13 Sep 2021	
Machine Age	hrs	Client Info	12224	731003	7551
Oil Age	hrs	Client Info	0	0	0
Oil Changed	Client Info	Changed	Changed	Changed	
Sample Status		NORMAL	NORMAL	NORMAL	

CONTAMINATION

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

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185(m) >80	32	27	30
Chromium	ppm ASTM D5185(m) >5	<1	<1	<1
Nickel	ppm ASTM D5185(m) >2	<1	<1	<1
Titanium	ppm ASTM D5185(m)	0	<1	0
Silver	ppm ASTM D5185(m) >3	<1	0	<1
Aluminum	ppm ASTM D5185(m) >30	4	3	6
Lead	ppm ASTM D5185(m) >30	<1	0	<1
Copper	ppm ASTM D5185(m) >150	2	1	2
Tin	ppm ASTM D5185(m) >5	0	0	<1
Antimony	ppm ASTM D5185(m)	0	<1	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	5	5	4
Barium	ppm ASTM D5185(m) 0	<1	0	0
Molybdenum	ppm ASTM D5185(m) 60	64	62	61
Manganese	ppm ASTM D5185(m) 0	0	<1	<1
Magnesium	ppm ASTM D5185(m) 1010	993	969	1007
Calcium	ppm ASTM D5185(m) 1070	1108	1127	1064
Phosphorus	ppm ASTM D5185(m) 1150	985	1068	1048
Zinc	ppm ASTM D5185(m) 1270	1232	1192	1224
Sulfur	ppm ASTM D5185(m) 2060	2339	2471	2399
Lithium	ppm ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >20	9	5	4
Sodium	ppm ASTM D5185(m)	10	9	9
Potassium	ppm ASTM D5185(m) >20	3	2	4

INFRA-RED

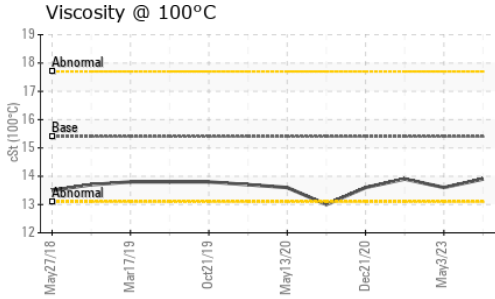
method	limit/base	current	history1	history2
Soot %	% ASTM D7844* >3	0.7	0.6	0.4
Nitration	Abs/cm ASTM D7624* >20	10.2	9.9	9.7
Sulfation	Abs/.1mm ASTM D7415* >30	21.7	21.2	21.1

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm ASTM D7414* >25	17.5	17.3	17.2



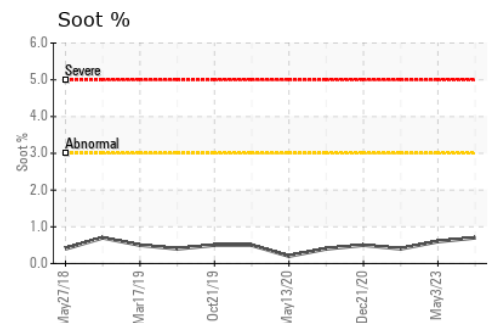
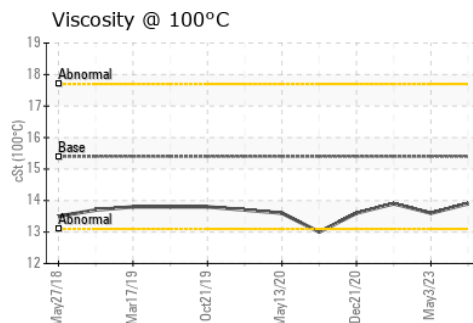
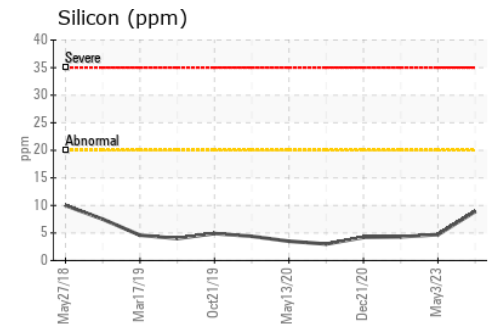
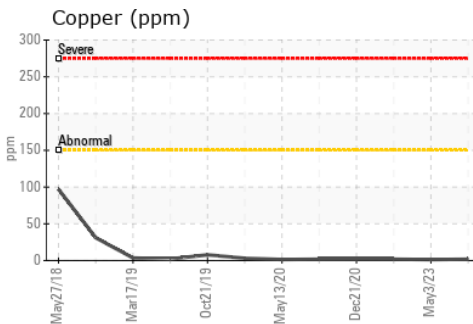
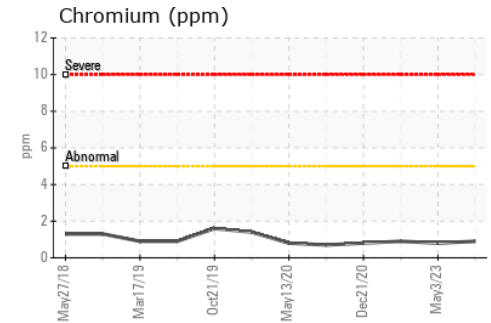
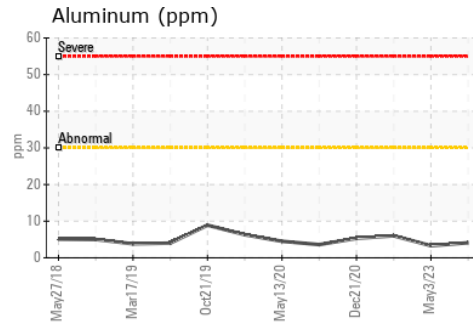
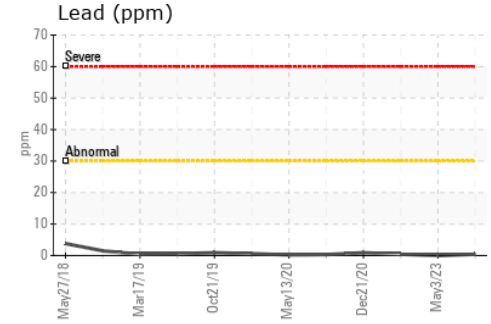
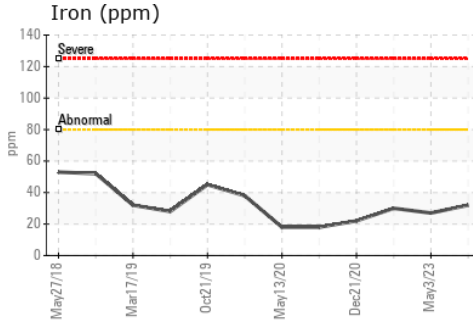
OIL ANALYSIS REPORT



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	13.9	13.6

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0094199
Lab Number : 02589534
Unique Number : 5658600
Test Package : MOB 1

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.

T:
 F: (905)713-2445