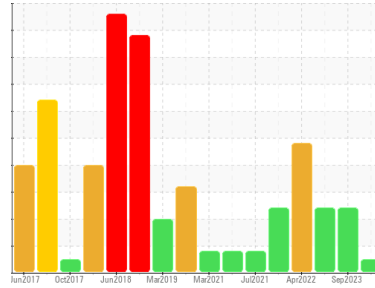




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
4785

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 10W30 (--- GAL)

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	GFL0097647	GFL0093897	GFL0053102
Sample Date	Client Info	12 Oct 2023	29 Sep 2023	16 May 2022
Machine Age	hrs	24572	24551	0
Oil Age	hrs	0	0	0
Oil Changed	Client Info	N/A	N/A	Changed
Sample Status		NORMAL	ABNORMAL	ABNORMAL

CONTAMINATION

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

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185(m) >100	10	48	65
Chromium	ppm ASTM D5185(m) >20	<1	3	2
Nickel	ppm ASTM D5185(m) >4	<1	<1	<1
Titanium	ppm ASTM D5185(m)	0	0	0
Silver	ppm ASTM D5185(m) >3	<1	<1	<1
Aluminum	ppm ASTM D5185(m) >20	1	3	2
Lead	ppm ASTM D5185(m) >40	9	▲ 45	1
Copper	ppm ASTM D5185(m) >330	52	238	18
Tin	ppm ASTM D5185(m) >15	<1	2	<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) 2	5	15	2
Barium	ppm ASTM D5185(m) 0	<1	1	0
Molybdenum	ppm ASTM D5185(m) 50	59	63	73
Manganese	ppm ASTM D5185(m) 0	<1	5	<1
Magnesium	ppm ASTM D5185(m) 950	903	594	951
Calcium	ppm ASTM D5185(m) 1050	1093	1395	994
Phosphorus	ppm ASTM D5185(m) 995	959	792	918
Zinc	ppm ASTM D5185(m) 1180	1122	924	1138
Sulfur	ppm ASTM D5185(m) 2600	2495	1928	2234
Lithium	ppm ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >25	7	▲ 26	9
Sodium	ppm ASTM D5185(m)	7	28	▲ 309
Potassium	ppm ASTM D5185(m) >20	<1	<1	▲ 108

INFRA-RED

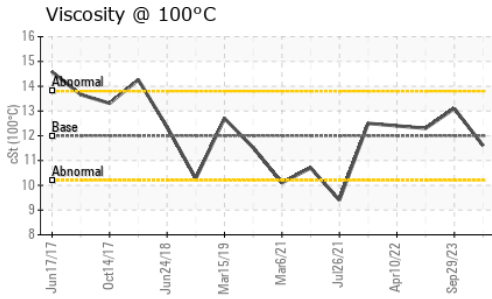
method	limit/base	current	history1	history2
Soot %	% ASTM D7844* >3	0.1	0.7	1.5
Nitration	Abs/cm ASTM D7624* >20	5.4	9.6	13.2
Sulfation	Abs/.1mm ASTM D7415* >30	18.5	21.2	26.5

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm ASTM D7414* >25	13.8	18.4	20.8



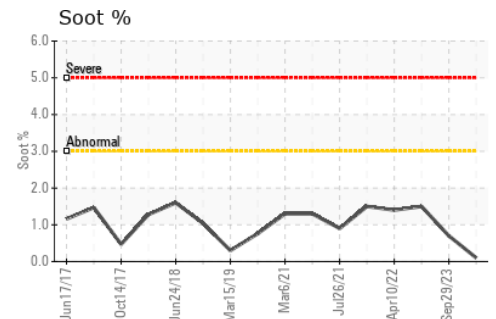
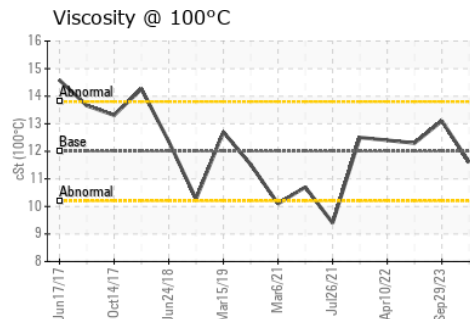
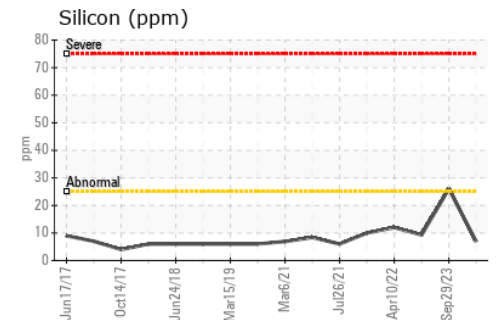
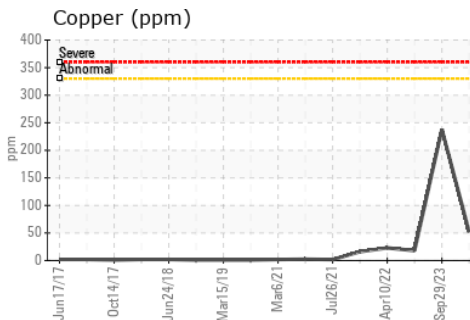
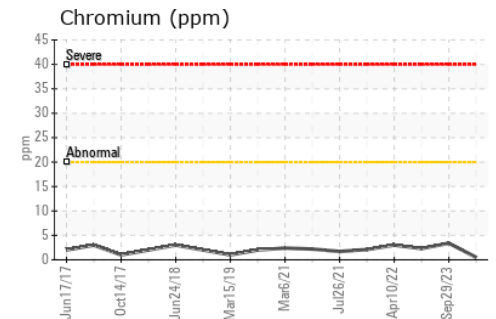
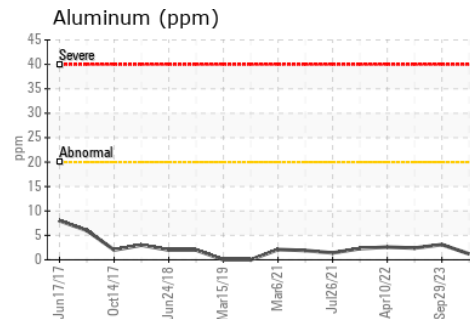
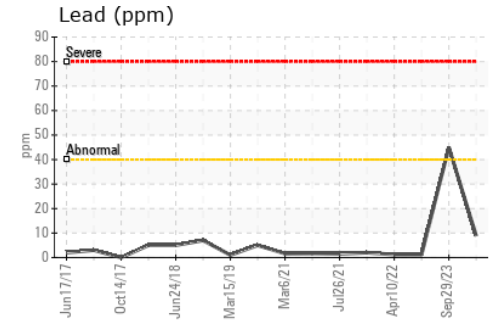
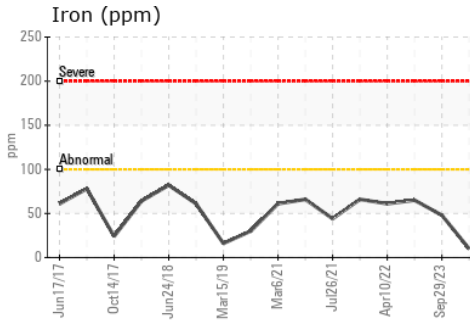
OIL ANALYSIS REPORT



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)	12.00	11.6	13.1

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 554 - Edmonton SW
Sample No. : GFL0097647 **Received** : 17 Oct 2023
Lab Number : 02589507 **Diagnosed** : 17 Oct 2023
Unique Number : 5658573 **Diagnostician** : Wes Davis
Test Package : MOB 1

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.

8409 -15th Street NW
 Edmonton, AB
 CA T6P 0B8
 Contact: Antonio De Rosa
 aderosa@gflenv.com
 T: (780)509-2640
 F: (780)444-8851