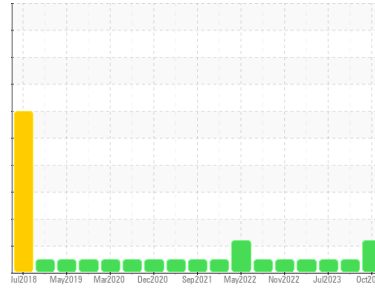




OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Machine Id
801063

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

DIAGNOSIS

Recommendation

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear

Metal levels are typical for a new component breaking in.

Contamination

Light fuel dilution occurring.

Fluid Condition

Fuel is present in the oil and is lowering the viscosity. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	GFL0085666	GFL0085670	GFL0077302
Sample Date	Client Info	25 Oct 2023	26 Sep 2023	20 Jul 2023
Machine Age	hrs	516	516	516
Oil Age	hrs	516	516	516
Oil Changed	Client Info	Changed	Changed	Changed
Sample Status		ABNORMAL	NORMAL	NORMAL

CONTAMINATION

method	limit/base	current	history1	history2
Glycol	WC Method	NEG	NEG	NEG

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m) >100	9	17	11
Chromium	ppm	ASTM D5185(m) >20	<1	<1	<1
Nickel	ppm	ASTM D5185(m) >4	0	0	<1
Titanium	ppm	ASTM D5185(m)	0	0	0
Silver	ppm	ASTM D5185(m) >3	<1	<1	0
Aluminum	ppm	ASTM D5185(m) >20	<1	2	1
Lead	ppm	ASTM D5185(m) >40	<1	<1	0
Copper	ppm	ASTM D5185(m) >330	1	2	1
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	2	2	2
Barium	ppm	ASTM D5185(m) 0	<1	<1	0
Molybdenum	ppm	ASTM D5185(m) 60	56	60	57
Manganese	ppm	ASTM D5185(m) 0	0	0	<1
Magnesium	ppm	ASTM D5185(m) 1010	894	951	948
Calcium	ppm	ASTM D5185(m) 1070	982	1025	1016
Phosphorus	ppm	ASTM D5185(m) 1150	921	987	1023
Zinc	ppm	ASTM D5185(m) 1270	1119	1185	1165
Sulfur	ppm	ASTM D5185(m) 2060	2326	2422	2405
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m) >25	3	4	3
Sodium	ppm	ASTM D5185(m)	2	2	1
Potassium	ppm	ASTM D5185(m) >20	<1	<1	<1
Fuel	%	ASTM D7593* >5	▲ 3.4	<1.0	<1.0

INFRA-RED

method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844* >3	0.2	0.4	0.3
Nitration	Abs/cm	ASTM D7624* >20	8.8	9.3	8.6
Sulfation	Abs/.1mm	ASTM D7415* >30	19.8	19.8	19.3

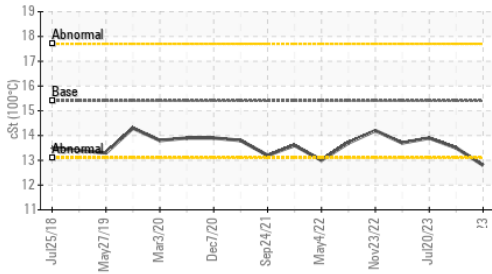
FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	ASTM D7414* >25	16.6	16.1	15.0

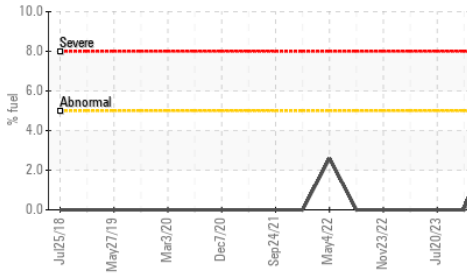


OIL ANALYSIS REPORT

▲ Viscosity @ 100°C



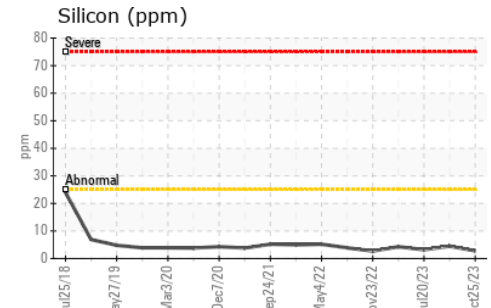
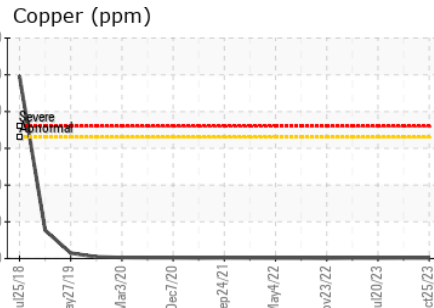
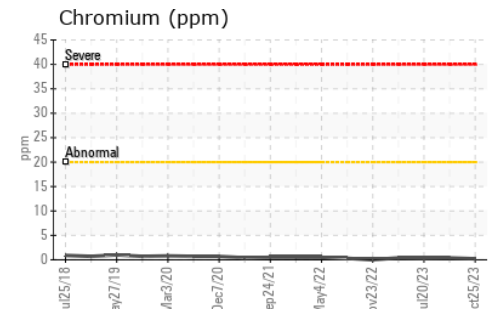
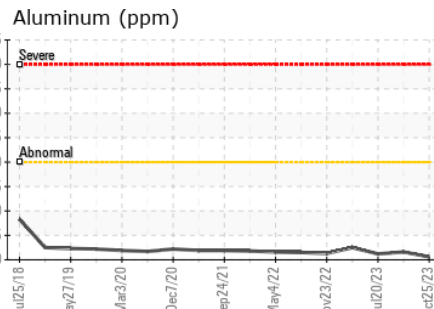
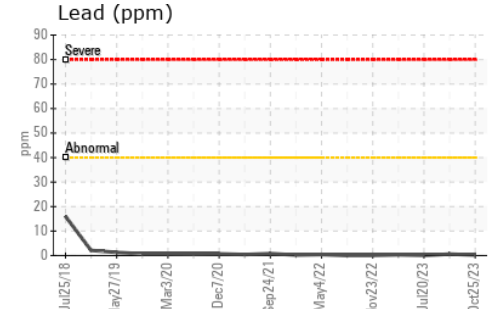
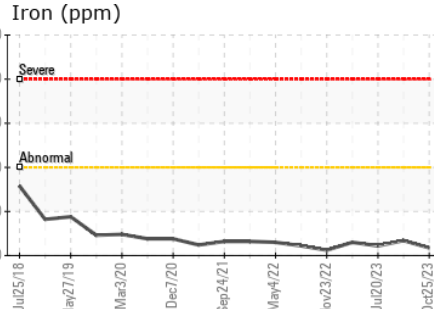
▲ Fuel Dilution



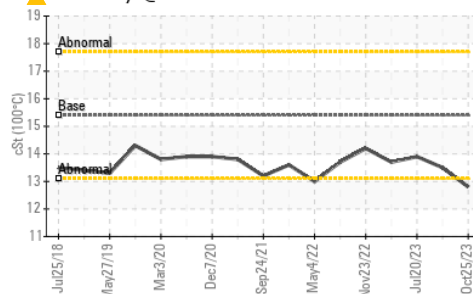
VISUAL	method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15.4 ▲ 12.8	13.5	13.9

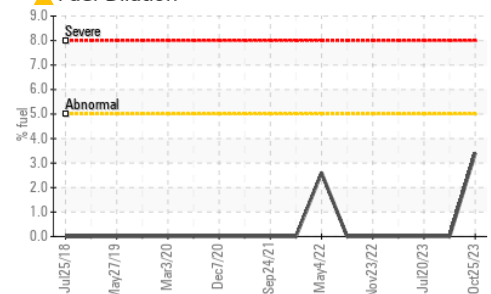
GRAPHS



▲ Viscosity @ 100°C



▲ Fuel Dilution



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **GFL Environmental - 221 - Windsor**
Sample No. : GFL0085666 **Received** : 27 Oct 2023
Lab Number : 02592350 **Diagnosed** : 30 Oct 2023
Unique Number : 5669429 **Diagnostician** : Wes Davis
Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel)

905 Tecumseh Road W
 Windsor, ON
 CA N8W 4J5
 Contact: Rhys Marotte
 rmarotte@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.

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