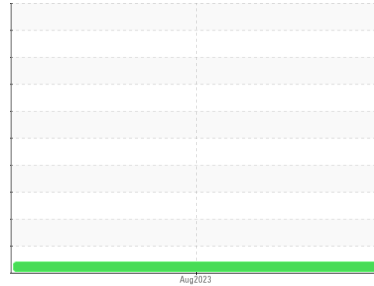




OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY



Machine Id
527099

Component
Front Diesel Engine

Fluid
PETRO CANADA DURON SHP 15W40 (40 LTR)

DIAGNOSIS

Recommendation

The oil change at the time of sampling has been noted. Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. No other corrective action is recommended at this time. The fluid was specified as PETRO CANADA DURON SHP 15W40, however, a fluid match indicates that this fluid is SAE 30 Diesel Engine Oil. Please confirm the oil type and grade on your next sample. Please specify the component make and model with your next sample.

Wear

All component wear rates are normal.

Contamination

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

Fluid Condition

Viscosity of sample indicates oil is within SAE 30 range, advise investigate. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	GFL0087355	---	---
Sample Date	Client Info	03 Aug 2023	---	---
Machine Age	hrs Client Info	0	---	---
Oil Age	hrs Client Info	0	---	---
Oil Changed	Client Info	Changed	---	---
Sample Status		ABNORMAL	---	---

CONTAMINATION

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

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185(m) >100	57	---	---
Chromium	ppm ASTM D5185(m) >20	4	---	---
Nickel	ppm ASTM D5185(m) >4	<1	---	---
Titanium	ppm ASTM D5185(m)	90	---	---
Silver	ppm ASTM D5185(m) >3	0	---	---
Aluminum	ppm ASTM D5185(m) >20	9	---	---
Lead	ppm ASTM D5185(m) >40	1	---	---
Copper	ppm ASTM D5185(m) >330	6	---	---
Tin	ppm ASTM D5185(m) >15	<1	---	---
Antimony	ppm ASTM D5185(m)	0	---	---
Vanadium	ppm ASTM D5185(m)	<1	---	---
Beryllium	ppm ASTM D5185(m)	0	---	---
Cadmium	ppm ASTM D5185(m)	0	---	---

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185(m) 0	89	---	---
Barium	ppm ASTM D5185(m) 0	0	---	---
Molybdenum	ppm ASTM D5185(m) 60	4	---	---
Manganese	ppm ASTM D5185(m) 0	<1	---	---
Magnesium	ppm ASTM D5185(m) 1010	378	---	---
Calcium	ppm ASTM D5185(m) 1070	2032	---	---
Phosphorus	ppm ASTM D5185(m) 1150	1034	---	---
Zinc	ppm ASTM D5185(m) 1270	1175	---	---
Sulfur	ppm ASTM D5185(m) 2060	2859	---	---
Lithium	ppm ASTM D5185(m)	<1	---	---

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >25	15	---	---
Sodium	ppm ASTM D5185(m)	6	---	---
Potassium	ppm ASTM D5185(m) >20	4	---	---
Fuel	% ASTM D7593* >5	1.4	---	---

INFRA-RED

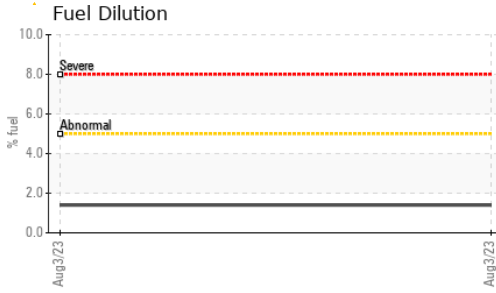
method	limit/base	current	history1	history2
Soot %	% ASTM D7844* >3	2.1	---	---
Nitration	Abs/cm ASTM D7624* >20	10.0	---	---
Sulfation	Abs/.1mm ASTM D7415* >30	25.1	---	---

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm ASTM D7414* >25	15.4	---	---



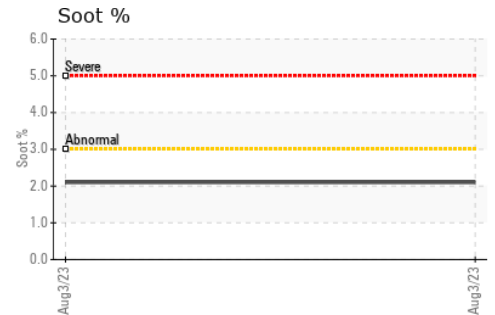
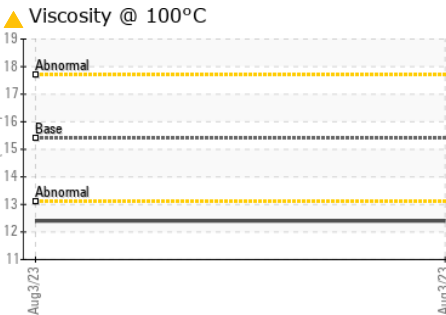
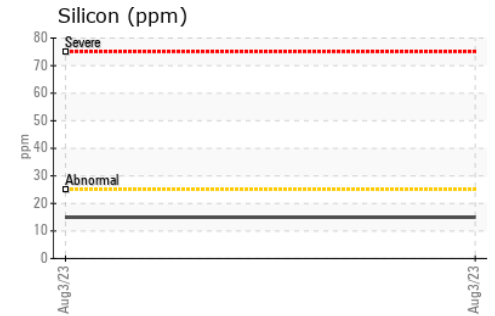
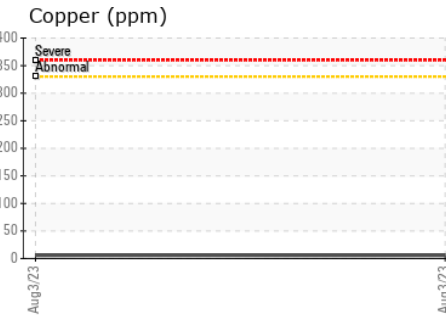
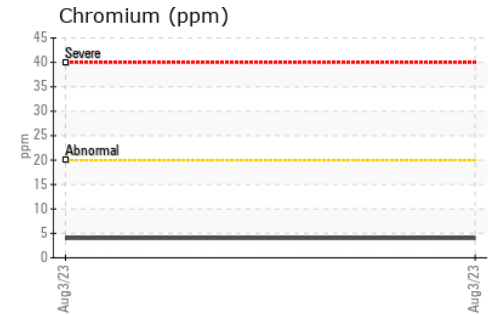
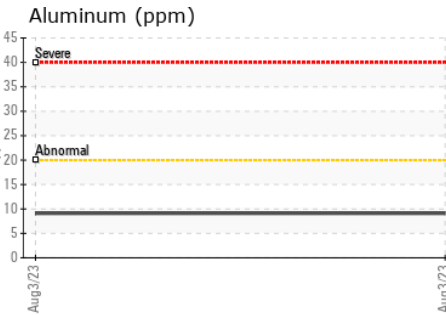
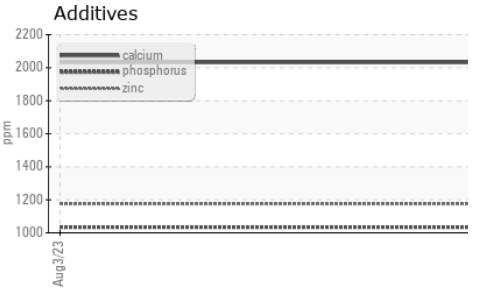
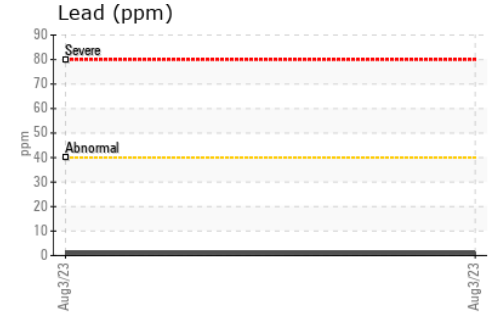
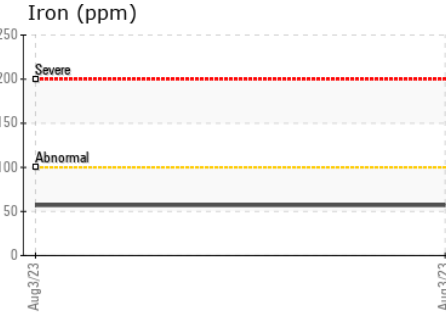
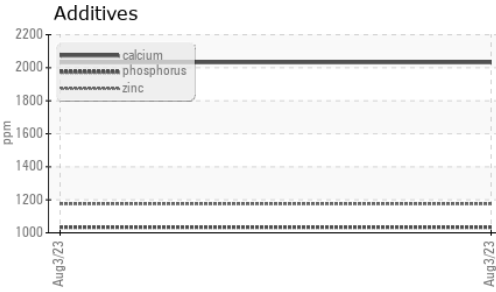
OIL ANALYSIS REPORT



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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	▲ 12.4	---

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 720 - Lafleche - Landfill
Sample No. : GFL0087355 **Received** : 11 Aug 2023 17125 Lafleche Road,
Lab Number : 02575349 **Diagnosed** : 14 Aug 2023 Moose Creek, ON
Unique Number : 5620400 **Diagnostician** : Kevin Marson CA K0C 1W0
Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel) Contact: Charles Bergeron
 cbergeron@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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