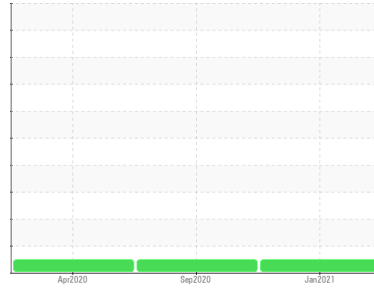




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
926017-9022

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 15W40 (--- 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 BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	GFL0014091	GFL0010475	GFL0005269
Sample Date	Client Info	07 Jan 2021	09 Sep 2020	28 Apr 2020
Machine Age	hrs	14444	256801	80112
Oil Age	hrs	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 D5185m >110	34	17	24
Chromium	ppm ASTM D5185m >4	2	1	1
Nickel	ppm ASTM D5185m >2	0	<1	0
Titanium	ppm ASTM D5185m	6	14	80
Silver	ppm ASTM D5185m >2	<1	0	0
Aluminum	ppm ASTM D5185m >25	7	4	3
Lead	ppm ASTM D5185m >45	5	3	10
Copper	ppm ASTM D5185m >85	1	2	2
Tin	ppm ASTM D5185m >4	0	0	<1
Antimony	ppm ASTM D5185m	7	0	0
Vanadium	ppm ASTM D5185m	0	0	0
Cadmium	ppm ASTM D5185m	<1	0	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m	15	10	34
Barium	ppm ASTM D5185m	0	0	0
Molybdenum	ppm ASTM D5185m	54	49	7
Manganese	ppm ASTM D5185m	<1	<1	<1
Magnesium	ppm ASTM D5185m	933	968	476
Calcium	ppm ASTM D5185m	1162	1294	1728
Phosphorus	ppm ASTM D5185m	1033	982	953
Zinc	ppm ASTM D5185m	1177	1233	1076
Sulfur	ppm ASTM D5185m	2438	2519	3843

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >30	14	7	10
Sodium	ppm ASTM D5185m	6	7	7
Potassium	ppm ASTM D5185m >20	4	12	5

INFRA-RED

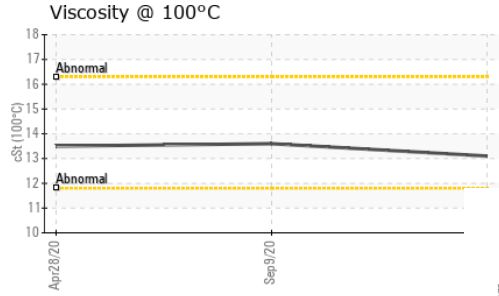
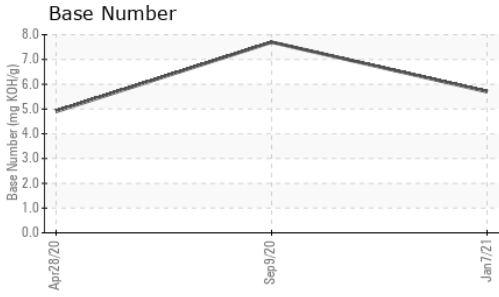
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	1.2	0.5	0.3
Nitration	Abs/cm *ASTM D7624 >20	10.7	10	11
Sulfation	Abs/.1mm *ASTM D7415 >30	30.9	22.5	23.2

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	27.8	17.9	18.7
Base Number (BN)	mg KOH/g ASTM D2896	5.7	7.7	4.9



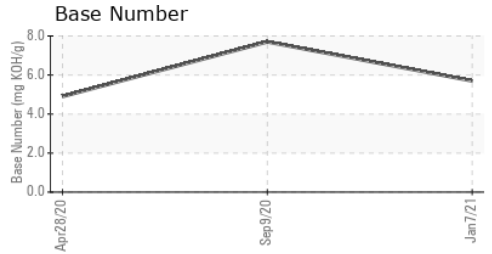
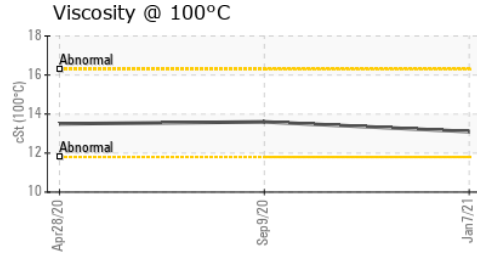
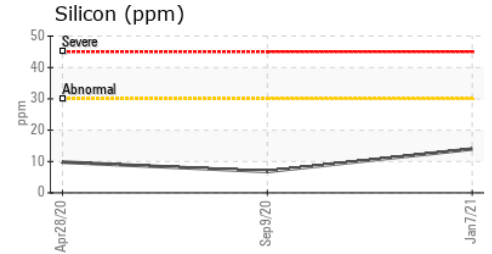
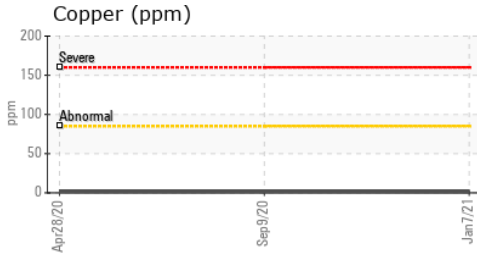
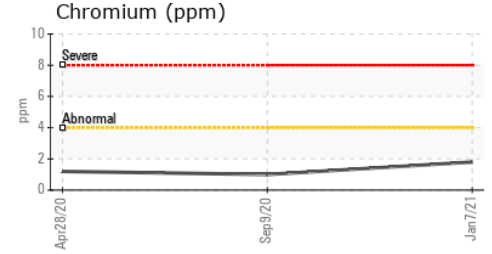
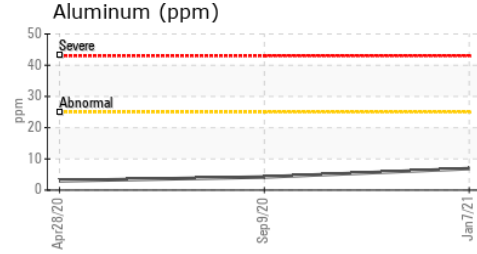
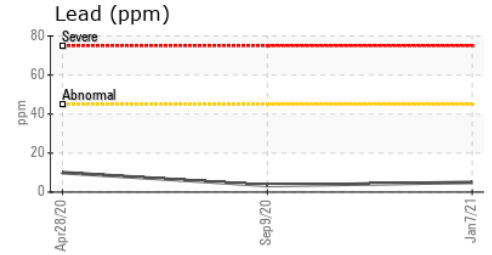
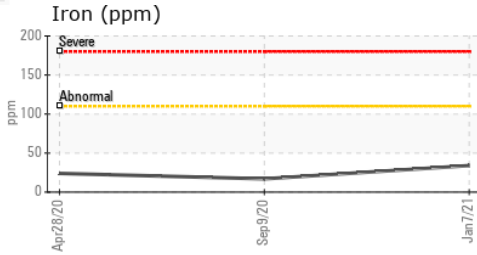
OIL ANALYSIS REPORT



PARAMETER	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	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 D445	13.1	13.6	13.5

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0014091 **Received** : 18 Jan 2021
Lab Number : 05160561 **Diagnosed** : 19 Jan 2021
Unique Number : 9325842 **Diagnostician** : Don Baldrige
Test Package : MOB 2

GFL Environmental - 663 - Lake Ariel (Scranton Hauling)
 17 Industrial Park Rd
 Lake Ariel, PA
 US 18436
 Contact: Eric Merone
 emerone@countyclecycling.net
 T:
 F:

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)