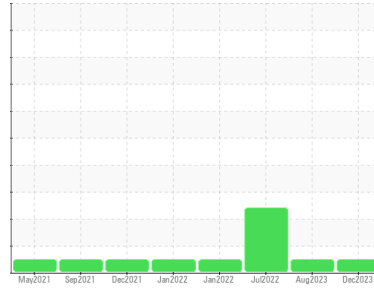




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
779M
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

DIAGNOSIS

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			GFL0105749	GFL0086664	GFL0055157
Sample Date	Client Info			18 Dec 2023	07 Aug 2023	06 Jul 2022
Machine Age	hrs	Client Info		15095	14878	18000
Oil Age	hrs	Client Info		18000	18000	13586
Oil Changed	Client Info			Not Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	ABNORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>3.0		<1.0	<1.0	<1.0
Water	WC Method	>0.2		NEG	NEG	NEG
Glycol	WC Method			NEG	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>90	<1	48	44
Chromium	ppm	ASTM D5185m	>20	0	2	1
Nickel	ppm	ASTM D5185m	>2	0	<1	<1
Titanium	ppm	ASTM D5185m	>2	0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	1	19	6
Lead	ppm	ASTM D5185m	>40	0	0	<1
Copper	ppm	ASTM D5185m	>330	13	1	1
Tin	ppm	ASTM D5185m	>15	<1	<1	<1
Antimony	ppm	ASTM D5185m		---	---	---
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	18	3	6
Barium	ppm	ASTM D5185m	0	0	0	<1
Molybdenum	ppm	ASTM D5185m	60	61	57	60
Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	1010	891	937	930
Calcium	ppm	ASTM D5185m	1070	983	1044	1090
Phosphorus	ppm	ASTM D5185m	1150	985	1036	1009
Zinc	ppm	ASTM D5185m	1270	1198	1271	1309
Sulfur	ppm	ASTM D5185m	2060	3036	3427	3623

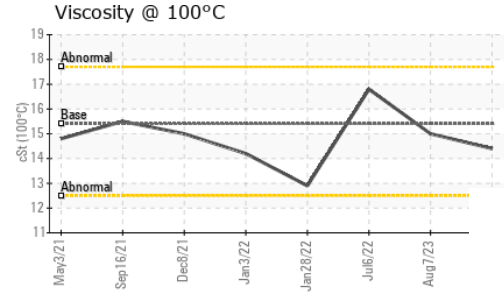
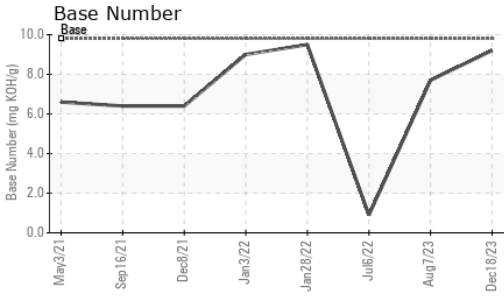
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	9	5	8
Sodium	ppm	ASTM D5185m		<1	3	5
Potassium	ppm	ASTM D5185m	>20	1	32	6

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>6	0.1	2.1	▲ 5
Nitration	Abs/cm	*ASTM D7624	>20	4.4	12.3	15.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	17.7	24.3	31.0

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	13.1	20.6	19.8
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	9.2	7.7	▲ 0.9



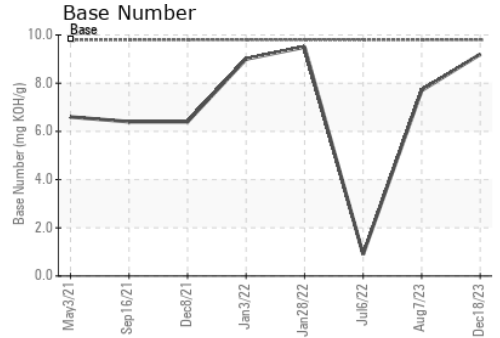
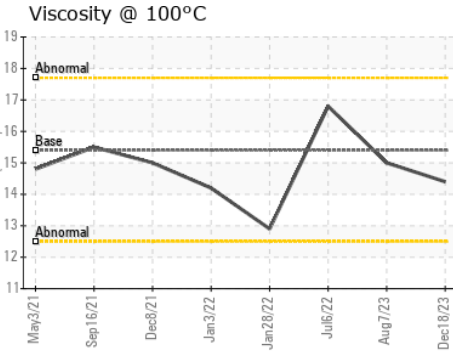
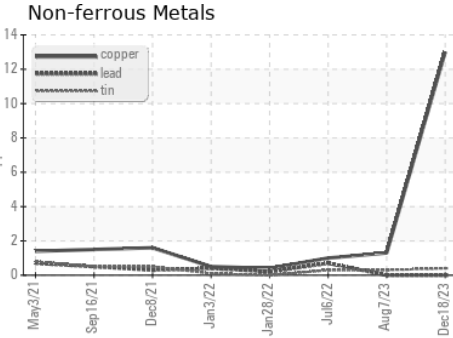
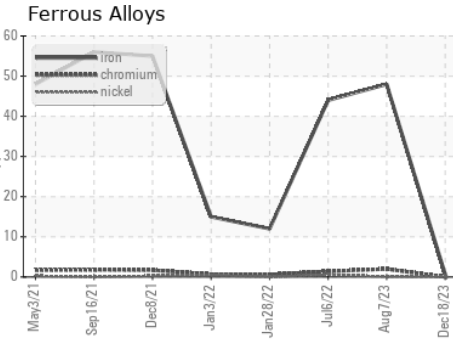
OIL ANALYSIS REPORT



VISUAL	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	15.4	14.4	15.0 ▲ 16.8

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0105749 **Received** : 20 Dec 2023
Lab Number : **06040453** **Diagnosed** : 21 Dec 2023
Unique Number : 10795682 **Diagnostician** : Don Baldrige
Test Package : FLEET (Additional Tests: FT-IR(Diff))

GFL Environmental - 415 - Michigan East
 6200 Elmridge
 Sterling Heights, MI
 US 48313
 Contact: Frank Wolak
 fwolak@gflenv.com
 T: (586)825-9514
 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)