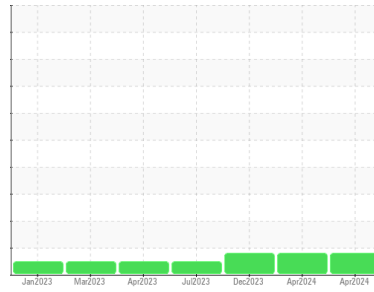




OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Area
(62A1N79) TALLASSEE

Machine Id
226022-266013

Component
Diesel Engine

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

DIAGNOSIS

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			GFL0089939	GFL0092433	GFL0092353
Sample Date	Client Info			11 Apr 2024	03 Apr 2024	08 Dec 2023
Machine Age	hrs	Client Info		3672	2784	2287
Oil Age	hrs	Client Info		2245	1357	860
Oil Changed	Client Info			N/A	Not Changd	N/A
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>5		<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	>100	▲ 118	▲ 130	▲ 143
Chromium	ppm	ASTM D5185m	>20	4	4	5
Nickel	ppm	ASTM D5185m	>4	3	2	3
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	12	11	12
Lead	ppm	ASTM D5185m	>40	8	8	5
Copper	ppm	ASTM D5185m	>330	11	11	12
Tin	ppm	ASTM D5185m	>15	1	0	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		0	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	17	16	26
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	70	73	68
Manganese	ppm	ASTM D5185m	0	3	2	4
Magnesium	ppm	ASTM D5185m	1010	968	1116	928
Calcium	ppm	ASTM D5185m	1070	1326	1448	1251
Phosphorus	ppm	ASTM D5185m	1150	1059	1171	1022
Zinc	ppm	ASTM D5185m	1270	1304	1478	1306
Sulfur	ppm	ASTM D5185m	2060	3330	3909	3020

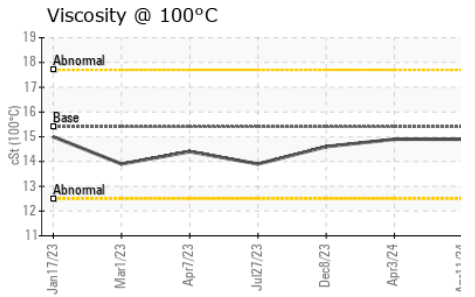
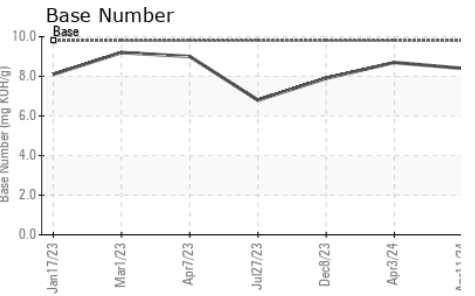
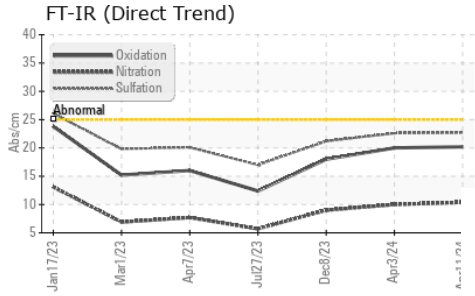
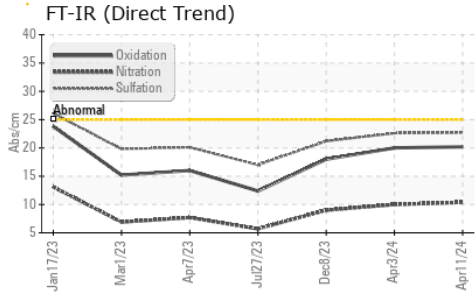
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	12	11	14
Sodium	ppm	ASTM D5185m		6	3	3
Potassium	ppm	ASTM D5185m	>20	21	2	3

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.8	0.8	0.6
Nitration	Abs/cm	*ASTM D7624	>20	10.4	10.0	9.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.7	22.6	21.2

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	20.2	20.0	18.0
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	8.4	8.7	7.9



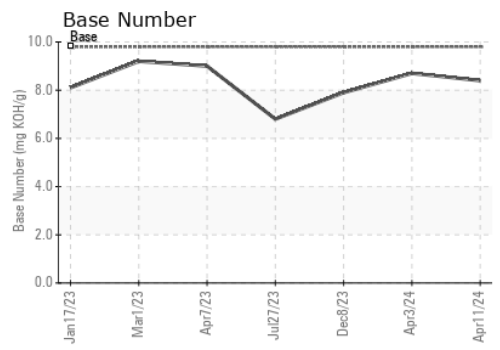
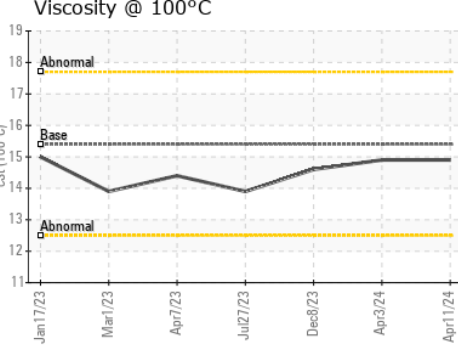
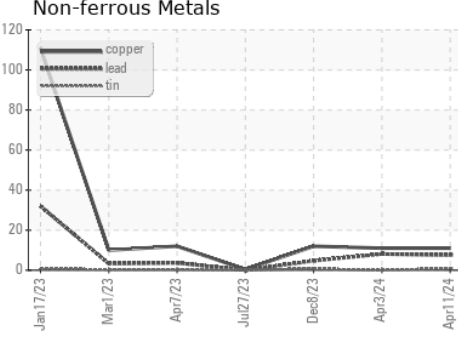
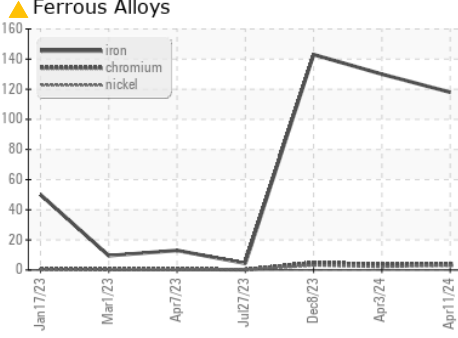
OIL ANALYSIS REPORT



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	14.9	14.6

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0089939 **Received** : 16 Apr 2024
Lab Number : 06150908 **Tested** : 17 Apr 2024
Unique Number : 10980986 **Diagnosed** : 18 Apr 2024 - Sean Felton
Test Package : FLEET

GFL Environmental - 172 - Montgomery-Alexander City-Tallahassee
 Multiple Sites
 Montgomery, AL
 US 36108
 Contact: BRANDON HURST
 brandonhurst@gflenv.com
 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)