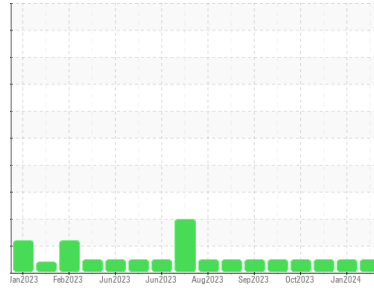




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Area
(62A0X15) ALEXANDER CITY
Machine Id
725028-254503
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- LTR)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Insufficient sample was received to conduct all the routine laboratory tests. There is no indication of any contamination in the oil.

Fluid Condition

The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	GFL0080717	GFL0080725	GFL0089918
Sample Date	Client Info	12 Feb 2024	03 Jan 2024	09 Nov 2023
Machine Age	hrs	19961	19648	19300
Oil Age	hrs	0	1906	1558
Oil Changed	Client Info	N/A	N/A	N/A
Sample Status		NORMAL	NORMAL	NORMAL

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 >120	9	4	3
Chromium	ppm ASTM D5185m >20	0	0	0
Nickel	ppm ASTM D5185m >5	<1	0	0
Titanium	ppm ASTM D5185m >2	0	0	0
Silver	ppm ASTM D5185m >2	0	0	0
Aluminum	ppm ASTM D5185m >20	3	2	2
Lead	ppm ASTM D5185m >40	1	<1	0
Copper	ppm ASTM D5185m >330	3	0	<1
Tin	ppm ASTM D5185m >15	1	<1	<1
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	13	12	9
Barium	ppm ASTM D5185m 0	0	0	0
Molybdenum	ppm ASTM D5185m 60	71	59	57
Manganese	ppm ASTM D5185m 0	<1	0	<1
Magnesium	ppm ASTM D5185m 1010	1052	913	865
Calcium	ppm ASTM D5185m 1070	1194	1042	1015
Phosphorus	ppm ASTM D5185m 1150	1055	1012	956
Zinc	ppm ASTM D5185m 1270	1448	1210	1144
Sulfur	ppm ASTM D5185m 2060	3477	3092	2777

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	6	4	3
Sodium	ppm ASTM D5185m	4	2	4
Potassium	ppm ASTM D5185m >20	<1	2	<1

INFRA-RED

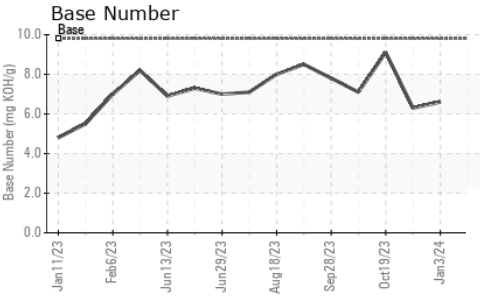
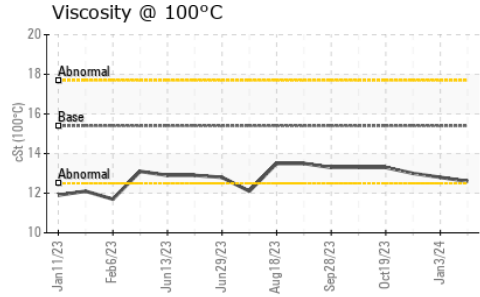
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >4	---	0.1	0.1
Nitration	Abs/cm *ASTM D7624 >20	---	8.3	8.8
Sulfation	Abs/.1mm *ASTM D7415 >30	---	17.8	18.7

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	---	15.1	15.9
Base Number (BN)	mg KOH/g ASTM D2896 9.8	---	6.6	6.3



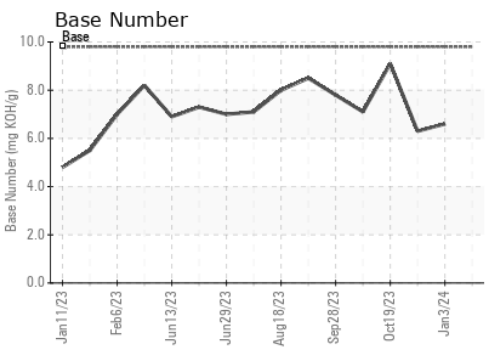
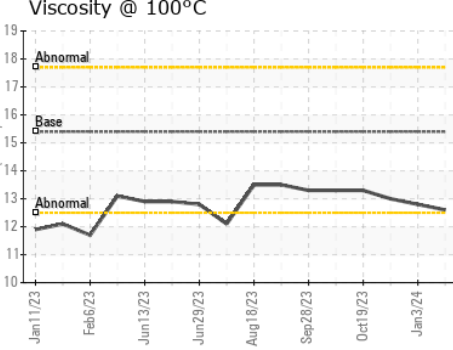
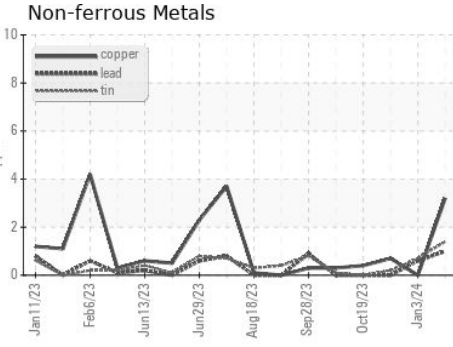
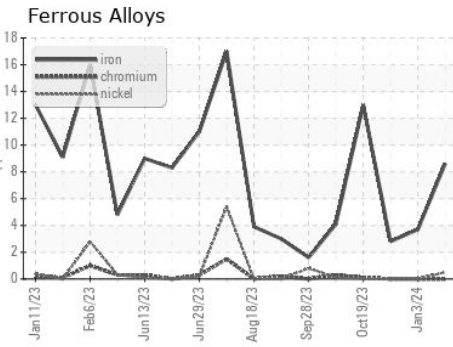
OIL ANALYSIS REPORT



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	12.6	12.8	13.0

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0080717 **Received** : 01 Mar 2024
Lab Number : **06106596** **Tested** : 07 Mar 2024
Unique Number : 10910093 **Diagnosed** : 07 Mar 2024 - Jonathan Hester
Test Package : FLEET

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

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)

T:
F: