



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
(MC12191)
Machine Id
827039
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (10 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0110778	GFL0085616	GFL0076889
Sample Date		Client Info		12 Jun 2024	03 Jul 2023	22 Jun 2023
Machine Age	mls	Client Info		174417	162207	161659
Oil Age	mls	Client Info		173869	548	7876
Filter Age	mls	Client Info		0	548	7876
Oil Changed		Client Info		Changed	Not Changd	Changed
Filter Changed		Client Info		Changed	Not Changd	Changed
Sample Status				NORMAL	NORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	58	10	56
Chromium	ppm	ASTM D5185m	>20	4	<1	1
Nickel	ppm	ASTM D5185m	>4	<1	0	0
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	8	3	13
Lead	ppm	ASTM D5185m	>40	<1	<1	0
Copper	ppm	ASTM D5185m	>330	2	<1	3
Tin	ppm	ASTM D5185m	>15	0	<1	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

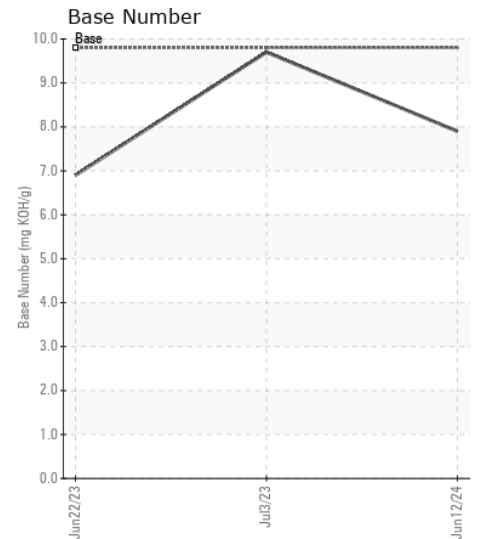
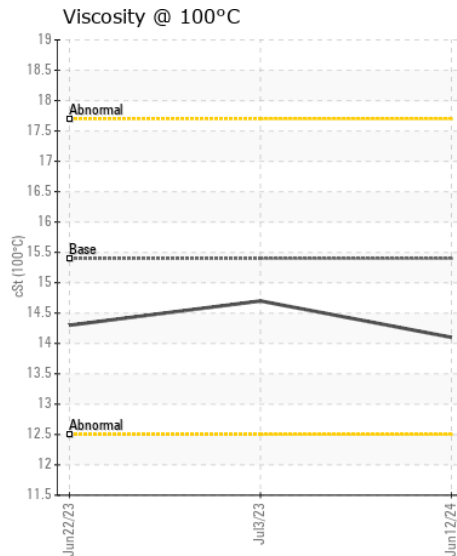
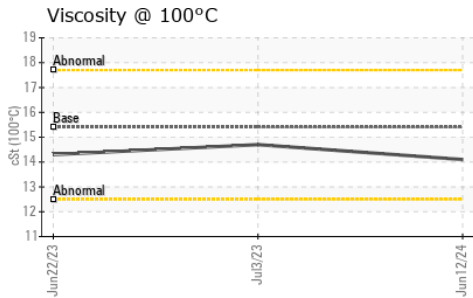
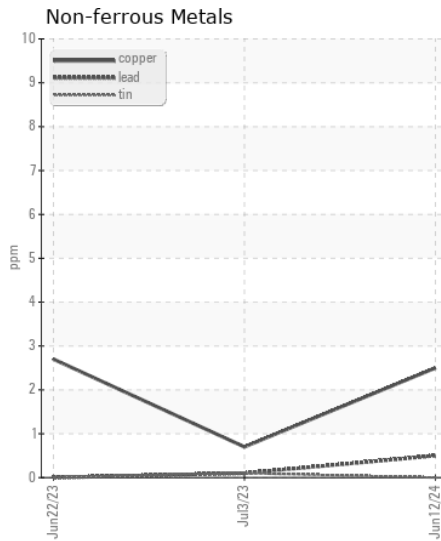
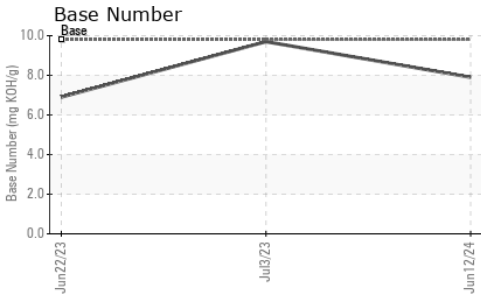
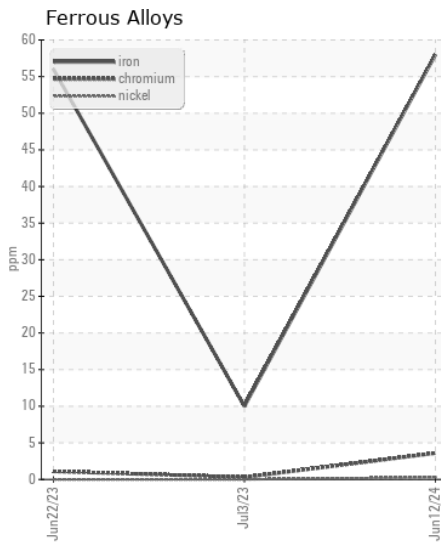
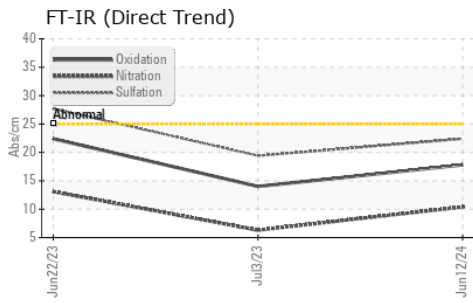
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	6	4	7
Potassium	ppm	ASTM D5185m	>20	2	2	2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	1.7	0.7	▲ 3.1
Nitration	Abs/cm	*ASTM D7624	>20	10.4	6.3	13.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.4	19.4	27.7
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG

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.

Sodium	ppm	ASTM D5185m		11	0	5
Boron	ppm	ASTM D5185m	0	11	10	7
Barium	ppm	ASTM D5185m	0	0	0	4
Molybdenum	ppm	ASTM D5185m	60	55	59	51
Manganese	ppm	ASTM D5185m	0	1	<1	<1
Magnesium	ppm	ASTM D5185m	1010	907	875	709
Calcium	ppm	ASTM D5185m	1070	1067	1096	900
Phosphorus	ppm	ASTM D5185m	1150	1030	1010	779
Zinc	ppm	ASTM D5185m	1270	1202	1162	993
Sulfur	ppm	ASTM D5185m	2060	3310	3144	2746
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.8	14.0	22.4
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	7.9	9.7	6.9
Visc @ 100°C	cSt	ASTM D445	15.4	14.1	14.7	14.3



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0110778
Lab Number : 06212873
Unique Number : 11085737
Test Package : FLEET

Received : 17 Jun 2024
Tested : 19 Jun 2024
Diagnosed : 19 Jun 2024 - Wes Davis

GFL Environmental - 411 - Kingsford HC
 1001 E Blvd
 Kingsford, MI
 US 49802
 Contact: Service Manager

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: